

WEBVTT

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00:00:00.000 --> 00:00:01.130

We're 26.

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00:00:02.820 --> 00:00:25.190

Nate Quarderer (Earth Lab/ ESIIL): My name is Nate quarter. I am the Education director here at Earth Lab and at easel. I'm broadcasting to you. Live today from my home office in foggy Arvada, Colorado. I've got a sick puppy today, and so folks that were hoping to see me in Boulder, I'm sorry but I'll be here this morning and this afternoon wanna welcome everybody.

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00:00:25.370 --> 00:00:46.660

Nate Quarderer (Earth Lab/ ESIIL): just wanna thank you for being here. We're glad that you're here. We're glad that you're safe. We appreciate you taking time out of your busy schedule to be here with us. I think it really represents, like your level of interest and dedication to easel and to the message that we are trying to get out there. And so we just wanna reiterate how thankful that we are to have you here today.

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00:00:46.840 --> 00:00:59.719

Nate Quarderer (Earth Lab/ ESIIL): wanna remind folks, too, to kinda remember to keep your microphones muted unless you're talking and we'll just kinda remind folks to do that before we kick things off this morning. We're gonna take a couple of minutes to hear from our

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00:00:59.850 --> 00:01:20.000

Nate Quarderer (Earth Lab/ ESIIL): a team leader, Jennifer Balsh, director of Esal, and she's gonna give us some welcoming remarks and talk a little bit about what we're up to at easel. And why we're here and then, once Jennifer's done, we'll go through. I'll introduce our team quick, talk a little bit about what we hope to do here today, and then we'll get you started. So, Jennifer, I'm gonna pass the microphone to you.

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00:01:20.080 --> 00:01:21.430

Nate Quarderer (Earth Lab/ ESIIL): Go ahead.

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00:01:21.870 --> 00:01:40.880

Jennifer Balch | ESIIL Director (she/her): Great, thank you, Nate, and thanks to the easel team for pulling this all together. So easel for

those of you who haven't yet connected with easel, we are the environmental data, science, innovation and inclusion lab, which is the National Science Foundation's latest investment in data synthesis.

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00:01:40.880 --> 00:01:59.819

Jennifer Balch | ESIIL Director (she/her): And we're super excited about experimenting with new data and pulling different data constellations together. And this hackathon represents our overarching efforts to do that. And we're excited to give you some powerful compute behind it, and to help you learn some data skills along the way.

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00:01:59.820 --> 00:02:09.910

That will hopefully increase your confidence with using data and thinking through what are the opportunities to answer the questions in environmental sciences?

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00:02:09.979 --> 00:02:23.749

Jennifer Balch | ESIIL Director (she/her): yeah. So thank you for joining us, and thank you for supporting this effort, and most of all thank you for investing your time in this. We hope it will be fruitful for you, and we're excited to see where this goes.

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00:02:23.790 --> 00:02:24.849

Jennifer Balch | ESIIL Director (she/her): So thank you.

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00:02:27.880 --> 00:02:35.819

Nate Quarderer (Earth Lab/ ESIIL): Fantastic. Thank you so much, Jennifer, for your kind words and leadership, and we're happy to have you here with us this morning. Stick around for as long as you can.

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00:02:35.880 --> 00:02:57.640

Nate Quarderer (Earth Lab/ ESIIL): And you'll get a chance to see more of Jennifer, I think, throughout the pre-training and at the Hackathon and other easel events. Again. My name is Nathan Porter. I am the Education director here at easel and Earthlab. I'm going to share my screen really quickly, just to kind of walk you through

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00:02:57.660 --> 00:03:10.240

Nate Quarderer (Earth Lab/ ESIIL): a couple of things on the Pre hackathon training web page. I'm putting a link back in the chat to this. And so this is the the web page that we're working on for the preacton training.

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00:03:10.400 --> 00:03:14.999

Nate Quarderer (Earth Lab/ ESIIL): I'm gonna share my screen if I can find it here. The

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00:03:15.290 --> 00:03:29.869

Nate Quarderer (Earth Lab/ ESIIL): sorry for all of my tabs. And so again, like Jennifer mentioned, this is an effort between Easel and Earthlab to provide some training for the hackathon that will be taking place November fifteenth, through 17.

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00:03:30.350 --> 00:03:49.010

Nate Quarderer (Earth Lab/ ESIIL): Some information here at the top just about what easel is and what we're all about, and what you can expect to learn over the course of the next 3 weeks of training. We're gonna talk today specifically about how to collaborate in the cloud using cyvers, cyber infrastructure.

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00:03:49.010 --> 00:04:00.610

Nate Quarderer (Earth Lab/ ESIIL): We're gonna talk a little bit about get and Github essentials. And we're gonna talk a little bit about R and python, 2 very popular programming languages, and how you can use those 2 things together.

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00:04:00.610 --> 00:04:25.459

Nate Quarderer (Earth Lab/ ESIIL): There's some other information here. We've got some kind of supplementary links sprinkled throughout here. That you may find informative. If you'd like to do some additional reading about things like Github or the cyber discovery environment. We'll be using a tool called Jet Stream 2 to get folks up and running as well. And so you can read about that there and then in the second half of the morning today, we're gonna hear

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00:04:25.460 --> 00:04:37.050

Nate Quarderer (Earth Lab/ ESIIL): about how to use R and python to do earth and environmental data science. We've got some supplementary links here. For anybody that would like to read more about

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00:04:37.120 --> 00:04:41.029

Nate Quarderer (Earth Lab/ ESIIL): let me see if this is the most up to date version of this page.

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00:04:41.680 --> 00:04:53.390

Nate Quarderer (Earth Lab/ ESIIL): Here we go. So we've got some supplementary links here that takes you to our open earth and environmental data science textbook. If you'd like to read specifically about how to do different

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00:04:53.440 --> 00:04:58.700

Nate Quarderer (Earth Lab/ ESIIL): programming operations in our and python specific to Earth environmental data science.

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00:04:58.960 --> 00:05:24.970

Nate Quarderer (Earth Lab/ ESIIL): And then also, it's got some more specific instructions about how we're gonna do the second half of the morning here today which she'll talk more about later. We've also got some links in here to the Github Repository that we're gonna be maintaining for the hackathon and the pre hackathon training. So we encourage you to check that out. Link to the Cyrus user portal which Eric, you'll hear more about from Eric here in just a few minutes.

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00:05:24.970 --> 00:05:45.659

Nate Quarderer (Earth Lab/ ESIIL): You will send you regularly to look at our open Earth and environmental data science textbook. And then we've created a thing called the Easel Data Library for our innovation Summit last earlier this year, that you may find interesting in terms of additional data sets, although I know that we've got a larger data cube that folks will be working with as well.

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00:05:45.660 --> 00:06:10.130

Nate Quarderer (Earth Lab/ ESIIL): We have the code of conduct for Easel as well as one that we adopt from the carpentries for our online virtual data science training. We encourage folks to use welcoming and inclusive language, to be respectful of different viewpoints and experiences to gracefully accept constructive criticism when it's offered. Focus on on what is best for this community and show courtesy and respect toward others. And the community members

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00:06:10.260 --> 00:06:23.089

Nate Quarderer (Earth Lab/ ESIIL): really, briefly gonna introduce our team to you, and then I will ask that when our team members get up to speak and present that they introduce themselves as well. So I'm gonna go through this super quick. But we couldn't do any of this without our fearless

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00:06:23.190 --> 00:06:49.050

Nate Quarderer (Earth Lab/ ESIIL): easel hackathon coordinator, Virginia glacias. And so thank you, Virginia, for helping us get here today. And for all the hard work I'm not gonna put Virginia on the spot. But she did promise that when we get to the hackathon in a couple of weeks that she will have the speech ready, and so we'll look out for that. Thank you, Virginia. You're gonna hear a lot from my esteemed colleague and partnering Brian on the education team. Ultra she's gonna do a lot of the teaching here this morning.

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00:06:49.050 --> 00:07:03.229

Nate Quarderer (Earth Lab/ ESIIL): So Billy Emerald is not with us today. But you'll hear from her next week. She's our analytics. Hu, director. He's still on Earth lab, and she'll be talking to you next week about the data cube and how to do earth and environmental data science. Rachel Lieber is our

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00:07:03.540 --> 00:07:18.400

Nate Quarderer (Earth Lab/ ESIIL): go ahead and just make sure you're muted. Rachel Lieber is our community engagement specialist. She helped put this event on. So you've been hearing a lot from her in terms of communication and things. Thank you so much, Rachel, for all that you do to make this happen. I'm Nate Porter. I'm the education director.

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00:07:18.580 --> 00:07:34.269

Nate Quarderer (Earth Lab/ ESIIL): We've got Eric. Verily, our software developer who you'll hear from this morning talking about the Cybrus discovery environment, our very own friendly environment data scientist Ty Tuff is here today, and you'll hear from him more next week when we talk about our data. Cube

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00:07:34.270 --> 00:07:56.829

Nate Quarderer (Earth Lab/ ESIIL): I agree, is, gonna be here in a couple of weeks to talk about artificial intelligence in Earth and environmental data science. And I left him off of the list here, cause I didn't know he was gonna be here. But Tyson, sweat is our representative cybers at the University of Arizona. He's here as well. I'll make sure to add him to this list, and I think you'll hear from him a little bit later. When we talk about our in python. So that's our team

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00:07:56.830 --> 00:08:07.330

Nate Quarderer (Earth Lab/ ESIIL): again, we couldn't. This is not an individual effort. This is very much a group effort, and so want to thank everybody for all your hard work. I'm gonna stop sharing

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00:08:07.430 --> 00:08:13.190

Nate Quarderer (Earth Lab/ ESIIL): my screen. And I think at this point I'm gonna turn it over to

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00:08:13.290 --> 00:08:19.620

Nate Quarderer (Earth Lab/ ESIIL): also Caller, who is going to kick us off. I think this morning with a discussion about Git and Github.

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00:08:19.750 --> 00:08:39.770

Nate Quarderer (Earth Lab/ ESIIL): She's gonna go for about 20 min or so, I think, and then we're gonna hand it over to Eric to talk about the cyber discovery environment for 20 min or so. And then I think the last hour we're gonna spend on the R and python bilingualism piece is kind of the rough agenda that we had talked about last night on slack

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00:08:39.820 --> 00:08:57.560

Nate Quarderer (Earth Lab/ ESIIL): as with everything that is fluid. And so I'm gonna do my best to keep our team on time today and to keep the buses running on schedule and otherwise I'm probably not gonna do much. I'll keep my eye on the chat. If folks have questions or concerns when they come up, please drop your questions in the chat.

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00:08:57.590 --> 00:09:11.370

Nate Quarderer (Earth Lab/ ESIIL): Oh, yes. Jennifer mentioned that Jim Sonobia, our travel engagement out liaison is here as well. And so, Jim, really glad to have you here as well on our team today. If if you have questions or concerns. If you could put those in the chat

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00:09:11.380 --> 00:09:22.129

Nate Quarderer (Earth Lab/ ESIIL): myself, Virginia Ty, we'll be keeping our eye on the chat, and we'll do our best to answer questions. If we need to put someone in a breakout room to troubleshoot, we can. My suggestion would be that

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00:09:22.180 --> 00:09:46.770

Nate Quarderer (Earth Lab/ ESIIL): since this is being recorded that it might be best to, you know, if you're really stuck to just kind of sit back and watch and relax and we are always available to help you offline or in a separate troubleshooting session, and just so know that we're here to help you. And to support you. But as questions. Come up please feel free to put them in the chat, and we'll do our best to answer them as they come up. So

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00:09:46.970 --> 00:09:50.520

Nate Quarderer (Earth Lab/ ESIIL): with that, Elsa, how are you feeling? Are you ready to go?

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00:09:52.210 --> 00:10:00.539

Nate Quarderer (Earth Lab/ ESIIL): Yeah, okay, Elsa. I will mute myself. Hand it over to you. Let me know if you need anything. I don't think we have a break scheduled in here.

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00:10:00.590 --> 00:10:07.620

Nate Quarderer (Earth Lab/ ESIIL): If you need to get up and move around, please feel free to do that. If we have time. Maybe we could take a quick break at the hour. But I think.

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00:10:07.650 --> 00:10:12.989

Nate Quarderer (Earth Lab/ ESIIL): given the way that we operate, we tend to just go. So I'll set without further ado.

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00:10:13.440 --> 00:10:14.610

Nate Quarderer (Earth Lab/ ESIIL): Take over

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00:10:15.730 --> 00:10:19.779

Elsa Culler: alright. Good morning, everybody. Thank you for joining us today.

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00:10:20.200 --> 00:10:37.709

Elsa Culler: I'm going to be talking for about 15 or 20 min about Github. And about how we're suggesting that you collaborate throughout the hackathon in order to avoid problems with Github, but also to hopefully.

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00:10:37.840 --> 00:10:41.570

Elsa Culler: avoid problems with the collaboration.

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00:10:42.380 --> 00:10:50.050

Elsa Culler: So I just put a link into the chat. And then I'm gonna share my screen and walk through this document

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00:10:50.410 --> 00:10:53.380

Elsa Culler: that we have. We're talking about

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00:10:54.360 --> 00:10:56.910

Elsa Culler: collaboration and git and github

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00:10:57.720 --> 00:11:05.949

Elsa Culler: So we use Git and github because they're fantastic tools for collaboration. They let

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00:11:06.040 --> 00:11:14.349

Elsa Culler: you know multiple people edit their copies of a project and merge them together later. And this graphic here which

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00:11:14.420 --> 00:11:15.579

Elsa Culler: you probably can't

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00:11:16.070 --> 00:11:22.100

Elsa Culler: quite see. Here we go. Is from a an artist and scientist named Alison Horse

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00:11:22.140 --> 00:11:29.790

Elsa Culler: and is showing how you can have this remote repository up here. You can push and pull from that

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00:11:29.980 --> 00:11:34.980

Elsa Culler: in your local repository. And so can multiple other people.

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00:11:37.270 --> 00:12:00.360

Elsa Culler: so get in particular can also be very frustrating to use. If you've got multiple people trying to edit the same part of your project at the same time. So this results in what? In merge conflicts? We we train a number of students throughout, you know, full year here.

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00:12:00.580 --> 00:12:12.710

Elsa Culler: At evil and earthlab to use get and Github and this when the merge conflicts come up. it really just can derail

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00:12:12.790 --> 00:12:33.230

Elsa Culler: people's projects. And so if this happens, we can help you deal with it. I want to be clear about that. But we're going to give you some principles of coding. That like, I said, I think will help with collaborating well in the Hackathon setting, and also should totally avoid this kind of merge conflict

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00:12:33.330 --> 00:12:35.420

Elsa Culler: situation.

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00:12:35.440 --> 00:12:38.030

Elsa Culler: although we're happy to send virtual hooks.

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00:12:38.260 --> 00:12:42.310

Elsa Culler: so

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00:12:42.480 --> 00:12:46.219

Elsa Culler: for with that in mind

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00:12:47.210 --> 00:12:53.519

Elsa Culler: I've put together a couple of principles of collaborative coding to help out with this.

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00:12:53.650 --> 00:13:06.069

Elsa Culler: And so this is. This comes from 2 places, one like I said, we really want to avoid problems with get. And Github and number 2, is that we do have

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00:13:06.320 --> 00:13:20.639

Elsa Culler: a lot of people here who code a lot in the Nate's little informal survey there? But we do have people at all experience levels and something that we really believe here at easel is that

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00:13:20.750 --> 00:13:29.109

Elsa Culler: people have things to offer to project, whether or not they have lot of expertise with coding

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00:13:29.170 --> 00:13:32.740

Elsa Culler: and so working together in a way where you're

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00:13:33.830 --> 00:13:36.480

Sodiq Jinad: so bye.

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00:13:37.010 --> 00:13:38.960

Elsa Culler: Oh, how long was I muted?

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00:13:39.470 --> 00:13:46.890

Elsa Culler: It switched over to someone else like 10 s

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00:13:46.940 --> 00:13:51.050

Elsa Culler: something that we really believe at easel, as part of the inclusion. Is that

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00:13:51.120 --> 00:14:13.189

Elsa Culler: you know, the potential of someone to pro to contribute to your group is not related to their coding experience level. And so we want you to have tools to work, be able to work together and use everybody's expertise. Including, you know, bringing that coding experience in in an effective way, and also bringing in experience that others have

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00:14:13.310 --> 00:14:16.389

Elsa Culler: who maybe don't have much coding experience yet.

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00:14:16.790 --> 00:14:30.070

Elsa Culler: So the first principle is that or never code alone? So we're gonna recommend working with your hackathon team that you use pair or group programming to bring together contributions from several people.

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00:14:30.210 --> 00:14:36.940

Elsa Culler: and so what that? What that means in this context is that

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00:14:36.970 --> 00:14:41.390

Elsa Culler: you will designate one person. I'm calling them the typist.

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00:14:41.440 --> 00:15:07.040

Elsa Culler: And the reason that I'm calling them the typist is because that's what they're doing is they're typing what the group tells them to do. They're not sitting there coding by themselves. And

the typist, of course, can also contribute to the code, but they have to verbally get the rest of their team on the board before they can type that into their file.

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00:15:07.420 --> 00:15:09.380

Elsa Culler: number 2 is the

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00:15:09.810 --> 00:15:33.939

Elsa Culler: I guess I covered one and 3 together. Number 2 is really about Git and Github, which is that nobody else should be editing the file that the typist is working on in any version of the code repository until the typist has committed and pushed their changes back to Github. So that will require a little bit of communication on your part. To make sure that nobody else is working on the file at the same time, and it will help us avoid

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00:15:34.260 --> 00:15:49.469

Elsa Culler: get pain. And then finally, the other people. I'm calling them code architects. They're going to be contributing by figuring out how to structure the code and then making suggestions to the typist.

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00:15:49.500 --> 00:16:00.170

Elsa Culler: They can also contribute by doing research or writing pseudocode or flow diagrams to help structure the code and to help the typist know what to type.

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00:16:01.780 --> 00:16:25.989

Elsa Culler: And this this pair programming. I know probably. Well, probably some of you have done it before, and probably some of you have never done it before. And have had a lot of success not doing pair programming before. This is really a commitment to the quality of your code and also to inclusivity in easel.

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00:16:26.300 --> 00:16:28.279

Elsa Culler: using this kind of method.

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00:16:29.260 --> 00:16:52.840

Elsa Culler: The second principle is that we are gonna want you to write modular code, and that can mean a lot of different things. But in this particular situation oh, my! My format, and didn't quite work out here. I'll have to go in and change that but we're suggesting that, you know, you're gonna have a group of 7 that's really too many to do pair or group programming. So we suggest splitting those up.

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00:16:53.430 --> 00:16:59.380

Elsa Culler: and then each subgroup will have one file so that you can follow the rule about

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00:16:59.430 --> 00:17:11.219

Elsa Culler: only one person editing one file at a time get and Github should be able to merge changes that were made in different files. No problem.

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00:17:11.750 --> 00:17:23.639

Elsa Culler: and then in order to work together. The the kind of modular part of this is that we're gonna recommend saving data to files or databases to transfer between groups,

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00:17:24.210 --> 00:17:32.590

Elsa Culler: and that you agree in advance on how to format that data, and that's what we were going to practice in the second hour of this training is

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00:17:32.680 --> 00:17:39.699

Elsa Culler: doing a short workflow where you save some intermediate data and then

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00:17:40.540 --> 00:17:46.380

Elsa Culler: and then put that have that picked up by another. The other person in your group of 2,

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00:17:49.150 --> 00:17:53.229

Elsa Culler: okay, and so we're gonna work on some of these skills later today.

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00:17:54.130 --> 00:18:02.060

Elsa Culler: so hopefully, that makes makes sense to folks. And I think as we start working on it, it's gonna be

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00:18:03.150 --> 00:18:08.059

Elsa Culler: I'm hoping, really help all of you, to improve your

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00:18:08.200 --> 00:18:10.630

Elsa Culler: coding and your collaboration skills.

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00:18:11.830 --> 00:18:30.049

Elsa Culler: I wanted to talk about Github just a little bit. We're going to be using a tool called Github classroom today. That's gonna make a repository for specifically for the activity that we're doing in the second hour. But for the hackathon itself you probably will want to

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00:18:30.080 --> 00:18:34.090

Elsa Culler: make your own repository on Github.

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00:18:34.710 --> 00:18:40.920

Elsa Culler: And so I'm gonna make a a kind of example repository and try to show you some of the

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00:18:41.160 --> 00:18:48.040

Elsa Culler: collaboration tools that are available. I'm going to extend my screen to, because Github doesn't always display nicely

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00:18:48.070 --> 00:18:58.030

Elsa Culler: in really narrow screen. So there's tons of ways to make a new repository. One is on Githubcom to click this new repository button

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00:18:58.150 --> 00:19:11.669

Elsa Culler: and you could choose to be the owner of your repository, or you could put it in one of our easel organizations. I'm not. Gonna we'll we'll probably I assume that Virginia has a plan for for that

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00:19:11.850 --> 00:19:17.670

Elsa Culler: and I'm going to call this my hackathon demo

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00:19:17.930 --> 00:19:19.270

Elsa Culler: repository.

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00:19:20.620 --> 00:19:25.160

Elsa Culler: and then I want to

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00:19:26.260 --> 00:19:28.140

Elsa Culler: put a description.

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00:19:34.280 --> 00:19:36.250

Elsa Culler: I'm going to leave this public

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00:19:36.630 --> 00:19:41.520

Elsa Culler: you could decide as a group to keep yours private, but

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00:19:41.540 --> 00:19:52.799

Elsa Culler: I think, in the spirit of the the hackathon. Like. Probably most people will want to leave this public, and it also means that other people can see your work on the Internet.

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00:19:53.720 --> 00:20:04.079

Elsa Culler: we're gonna add a readme file. This is going to help your team kind of organize what the repository is about. And it's also going to help other people looking

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00:20:04.100 --> 00:20:11.169

Elsa Culler: at your repository to know what your repository is about. So we'll suggest that you go in and edit that and put a description.

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00:20:11.900 --> 00:20:13.920

Elsa Culler: and then,

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00:20:14.650 --> 00:20:36.650

Elsa Culler: this get ignore template. This is, gonna depend on what programming language you want to use. And so, for example, if we choose python here for the python folks in the crowd, then that means that if you're working in a Jupiter notebook, for example, and it. It wants to create those dot Ipython checkpoints files. If you've ever seen those

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00:20:36.850 --> 00:20:41.390

Elsa Culler: then those won't get added to your repository which will help keep your repository

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00:20:41.730 --> 00:20:47.450

Elsa Culler: nice and lean, and make sure that you don't have really big files that are changing a lot in there.

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00:20:48.090 --> 00:20:55.060

Elsa Culler: And you can also apply a license. You can do this later, too. We

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00:20:55.080 --> 00:21:02.740

Elsa Culler: generally go for the mit license unless you have like specific preferences about about it. And this is a pretty

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00:21:02.770 --> 00:21:10.790

Elsa Culler: nice site that. Well, you have to the choose a license.com is a pretty nice site for learning about different licenses.

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00:21:11.760 --> 00:21:15.809

Elsa Culler: I'm gonna go ahead and create this repository here.

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00:21:17.040 --> 00:21:19.240

Elsa Culler: And

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00:21:19.700 --> 00:21:40.300

Elsa Culler: So when we're talking about collaboration, there's a number of different like levels of collaboration on Github. So some of you have a lot of coding. Experience may use things like branches and forks and pull requests in order to manage contributions from multiple people. We're

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00:21:40.350 --> 00:21:48.539

Elsa Culler: we want to focus on the Earth data science here for the hackathon. So that's why I'm suggesting this

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00:21:48.840 --> 00:22:08.649

Elsa Culler: pair programming and modular coding approach, so that again, only one person modifies one file at one time rather than using branches or pull requests. But if you have a group where all of you know how to do that. Then please feel free to

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00:22:08.730 --> 00:22:16.440

Elsa Culler: Select a project manager in your group and and go ahead and do that kind of workflow. So the collaboration

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00:22:16.750 --> 00:22:22.719

Elsa Culler: that we're gonna talk about is gonna look a little bit more like

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00:22:22.950 --> 00:22:28.149

Elsa Culler: we're gonna want you to be able to get the code out of the repository and onto

127

00:22:28.230 --> 00:22:34.789

Elsa Culler: somewhere in in the cloud and cybers that we're gonna talk about

128

00:22:34.850 --> 00:22:40.469

Elsa Culler: and so to do that, you wanna click on this code button, and then you're able to get

129

00:22:41.150 --> 00:22:42.610

Elsa Culler: a URL

130

00:22:42.660 --> 00:22:46.959

Elsa Culler: to clone the repository clone is like, make a copy of it.

131

00:22:47.190 --> 00:23:01.919

Elsa Culler: Either with https or with Ssh. And we'll tell you which one of those you need. Once you get into cybers, there's a little copy button here. So this allows everybody to have their own copy of the code

132

00:23:02.050 --> 00:23:03.609

Elsa Culler: and to interact with it.

133

00:23:04.190 --> 00:23:18.449

Elsa Culler: and then just going back here really quickly. I think we're mostly going to be using kind of graphical user interfaces for

134

00:23:18.590 --> 00:23:26.530

Elsa Culler: interacting with get which sometimes collapse some of these steps, but I wanted to bring your attention back to this diagram.

135

00:23:27.380 --> 00:23:39.740

Elsa Culler: where we have, like the working directory and the staging area, and then committing to the local repository and then pushing up here. So this is git trying to make sure that you don't have any regrets.

136

00:23:39.770 --> 00:24:05.259

Elsa Culler: That you didn't push something up to the remote repository that you didn't intend to, and it's maybe a little bit overkill for these small scientific projects. But it's how get works? And so you'll often find that when you're trying to get your changes back up to the remote repo, there's gonna be a bunch of different steps, and they may have different names depending on the tool that you're using. But one of them is

137

00:24:05.630 --> 00:24:28.230

Elsa Culler: but it's it's going to be basically an adding step where you put it in the staging area, a committing step where you record the changes in the repositories, record of all of the changes going back in time. And then finally, the push step where you're actually sending your code up to the remote repository which in this case is github

138

00:24:28.770 --> 00:24:30.250

Elsa Culler: if that doesn't

139

00:24:30.330 --> 00:24:33.849

Elsa Culler: totally make sense right now.

140

00:24:34.290 --> 00:24:51.420

Elsa Culler: that's totally fine. Git is very, very complicated, and it's pretty hard to use. It's one of the harder skills in data science, but it gives you so many great advantages in terms of keeping track of all your changes over time and collaborating with people.

141

00:24:52.990 --> 00:24:54.860

Elsa Culler: So I think I'm

142

00:24:54.890 --> 00:25:09.219

Elsa Culler: nearing the end of my time. I wanted to point out a couple of other features on Github, for you got all when you're working with your teams. Everybody has a wiki in their repository. So anybody would be able to edit this and

143

00:25:09.890 --> 00:25:12.360

Elsa Culler: you know.

144

00:25:12.580 --> 00:25:16.729

Elsa Culler: put stuff in the wiki. So we use this a lot at

145

00:25:16.820 --> 00:25:27.249

Elsa Culler: Earthlab and easel in order to keep track of our documentation and then in the settings. Now, I'm going to have to.

146

00:25:29.640 --> 00:25:31.900

Elsa Culler: I'm gonna have to sign in

147

00:25:33.350 --> 00:25:42.780

Elsa Culler: so if you have this 2 factor authentication enabled, then you may run into this step, too.

148

00:25:42.960 --> 00:25:45.560

Elsa Culler: Here we go?

149

00:25:47.650 --> 00:25:49.230

Elsa Culler: let's see.

150

00:25:50.820 --> 00:25:58.219

Elsa Culler: Alright. It's not as obvious as I was hoping. Github also has a discussion figure feature.

151

00:26:00.130 --> 00:26:09.130

Elsa Culler: So. and Github has really great documentation. So if you're ever wondering how to do stuff, I really recommend searching for it. So

152

00:26:09.220 --> 00:26:20.719

Elsa Culler: here we are searching. So we go to settings. Yeah, I'm there and then. features! That's a little bit counterintuitive, isn't it?

153

00:26:20.860 --> 00:26:28.370

Elsa Culler: I think it wants me to go to my personal settings here.

and then

154

00:26:34.520 --> 00:26:35.770

Elsa Culler: hmm.

155

00:26:36.880 --> 00:26:39.119

Elsa Culler: let's check this one more time.

156

00:26:40.330 --> 00:26:45.710

Elsa Culler: No, under your repository name. Click settings. So I was in the right spot. Okay?

157

00:26:46.320 --> 00:26:47.540

Elsa Culler: And then

158

00:26:47.620 --> 00:26:50.500

Elsa Culler: scroll down to the Features section.

159

00:26:50.740 --> 00:27:01.329

Elsa Culler: Okay. maybe it's in general. Here we go. Features. So Wiki's are allowed here. Issues are allowed here. This is another great way to collaborate

160

00:27:01.680 --> 00:27:05.550

Elsa Culler: and discussions. I'm going to enable

161

00:27:06.690 --> 00:27:12.950

Elsa Culler: the discussions as well. And so now there's a discussions tab on here where you can talk to each other.

162

00:27:13.410 --> 00:27:21.989

Elsa Culler: and one last last thing before nate brings out the sheep hook.

163

00:27:22.990 --> 00:27:28.560

Elsa Culler: is in issues and in discussions. You can

164

00:27:28.790 --> 00:27:33.140

Elsa Culler: always tag another person.

165

00:27:33.670 --> 00:27:43.320

Elsa Culler: and you can. You can tag issues in places that are not issues. You can tag pull requests if you're using those, and you can tag people, and so

166

00:27:44.330 --> 00:27:50.880

Elsa Culler: to tag an issue. I would use a hash signed. But I don't have any other issues here to tag a person.

167

00:27:51.350 --> 00:27:54.870

Elsa Culler: I could go ahead. And

168

00:27:56.350 --> 00:28:17.430

Elsa Culler: I think it's spelled a little weirdly. So I'm just gonna tag myself because I'm the only person working on this repository, and then that this will send me a message about this issue that I'm submitting same thing with the discussions if I make a new discussion and tag myself in there, and that means I'll get a notification about it.

169

00:28:17.510 --> 00:28:25.109

Elsa Culler: And to get people to come up in the auto complete list here you'll go over to settings

170

00:28:25.210 --> 00:28:29.980

Elsa Culler: and collaborators. And then I could add people.

171

00:28:30.410 --> 00:28:31.660

Elsa Culler: For example.

172

00:28:33.600 --> 00:28:34.410

Elsa Culler: Nate

173

00:28:34.570 --> 00:28:38.369

Elsa Culler: could be a collaborator on this repository, and then he will

174

00:28:38.970 --> 00:28:45.189

Elsa Culler: once he accepts that he will show up as an option for

tagging. So that's a lot of stuff.

175

00:28:45.620 --> 00:29:04.979

Elsa Culler: I really am just wanting you all to be aware of some of these features that are available on Github, so that if later down the line you're thinking, oh, man, it would be really great if we could send messages to each other, or we could like ask each other offline. You know, when we're not in the zoom room together about some problem that we're having.

176

00:29:05.160 --> 00:29:13.389

Elsa Culler: I just want you to be aware of those. So then you can like come and ask us, Hey, how do you do that thing again, or look it up on the Internet.

177

00:29:13.660 --> 00:29:16.649

Elsa Culler: yeah, I'm going to stop there.

178

00:29:18.990 --> 00:29:22.090

Nate Quarderer (Earth Lab/ ESIIL): Alright, Elsa, thank you so much.

179

00:29:22.140 --> 00:29:31.770

Nate Quarderer (Earth Lab/ ESIIL): anybody have any quick questions or comments about what else I just talked about there related to some of the features and Github that we like to use.

180

00:29:34.480 --> 00:29:46.809

Ty Tuff, Ph.D.: Could we maybe have a quick survey to to your Google sheet about how many people already have a Github account, and maybe a second question about how many people regularly use that account.

181

00:30:05.640 --> 00:30:13.720

Ty Tuff, Ph.D.: I reposted the link to the Google sheet in case some of you are late. And we just had another poll question. Poll question. We just want to get an idea of

182

00:30:14.070 --> 00:30:16.719

Ty Tuff, Ph.D.: what experience you have with Github.

183

00:30:20.990 --> 00:30:36.299

Elsa Culler: Also, if you're a person who doesn't have a Github

account, this might be a great time to make one. So I'm gonna put the sign up link in the chat as well. Since we are going to be using Github for the hackathon activities

184

00:30:40.360 --> 00:30:47.050

Nate Quarderer (Earth Lab/ ESIIL): cool. So yeah, Ty, I added that survey item to the doc, do you have a github?

185

00:30:47.100 --> 00:30:53.049

Nate Quarderer (Earth Lab/ ESIIL): And if so, how often do you use it? Sometimes not very much regularly.

186

00:30:53.120 --> 00:30:56.539

Nate Quarderer (Earth Lab/ ESIIL): So if you could go ahead and let us know about your

187

00:30:57.570 --> 00:31:07.670

Nate Quarderer (Earth Lab/ ESIIL): github use in that, doc. That would be so helpful. And I did put a link back in the chat to. It looks like we have a lot of people who already have github accounts, which is really nice.

188

00:31:07.860 --> 00:31:16.659

Ty Tuff, Ph.D.: and it looks like we have maybe 40 of the people who use it at least once a week, 40 who use it sometimes, and 20 who never use it.

189

00:31:20.450 --> 00:31:21.420

Nate Quarderer (Earth Lab/ ESIIL): love it.

190

00:31:21.580 --> 00:31:36.150

Nate Quarderer (Earth Lab/ ESIIL): feel like. Before I came to Earth Web. I was definitely in that never category. And now I'm probably more in like the sometimes sometimes awkward kind of depends on what week we are in and where we're at in the semester. So the thanks everybody for the feedback.

191

00:31:36.180 --> 00:31:50.660

Nate Quarderer (Earth Lab/ ESIIL): Also, great job. Thank you so much. Didn't need to bring out the sheep hook for the giraffe, the and now I think we're right on schedule. What I'd like to do next is turn it over to our good friend Eric Verley, Easel software developer.

192

00:31:50.660 --> 00:32:07.039

Nate Quarderer (Earth Lab/ ESIIL): to talk a little bit about the cyber discovery environment. We also have Tyson here from cyber, since. I'm not sure if Tyson's gonna hop in or not. But he's here. But I'm I know Eric can handle this on his own one way or another. So, Eric, are, how are you feeling? Are you ready to rock? My friend?

193

00:32:07.170 --> 00:32:23.250

Nate Quarderer (Earth Lab/ ESIIL): Yeah, yeah. Ready to go alright systems go alright, Eric, I'm gonna turn it over to you. Give you about a half an hour or so. If that's about as much as you need, Eric, take what you need, and then we'll have the last hour or so to do the R. And python lesson. So, Eric, take it away. My friend.

194

00:32:23.810 --> 00:32:24.520

cool.

195

00:32:25.260 --> 00:32:39.950

Erick Verleye: Okay? So yeah, Tyson, please feel free to jump in. If I miss anything, I just wanna say something but it's really important today that we get everybody signed up for a cybers account.

196

00:32:40.230 --> 00:32:48.869

Erick Verleye: Some of you probably already have cybers accounts. Some of you probably need to sign up. So I'm gonna put the link in the chat right now I got it. It's in there.

197

00:32:48.920 --> 00:32:51.069

Erick Verleye: Oh, cool, okay, awesome

198

00:32:51.580 --> 00:33:01.270

and if you haven't already signed up, please. When you do sign up, try to create the account with the email that you use to register for the hackathon.

199

00:33:01.800 --> 00:33:03.910

Erick Verleye: We've pre-enrolled

200

00:33:04.050 --> 00:33:07.740

people into the Hackathon workshop with that email.

201

00:33:08.000 --> 00:33:16.310

Erick Verleye: if you can't remember. Alright, it's just not gonna work out. It's not a big deal we can. We can add you shortly.

202

00:33:17.740 --> 00:33:18.710

Erick Verleye: But

203

00:33:19.030 --> 00:33:22.550

okay. so I'll give everyone just a little bit of time

204

00:33:22.810 --> 00:33:26.920

Erick Verleye: to either login or to create their account.

205

00:33:27.640 --> 00:33:41.320

Erick Verleye: And then I guess I should talk a little bit about Stivers or Tyson, do you wanna just give an answer? Yeah. 1 one quick point. When you create your account, make sure that you set your password. And it's gonna send you an email confirmation. And you need to approve that.

206

00:33:45.920 --> 00:33:49.399

Tyson (CyVerse) he/him: Yeah, I can talk about cyber. So

207

00:33:49.420 --> 00:33:55.089

Tyson (CyVerse) he/him: I'm I'm a research professor at university, Arizona. I'm the copi of cybers.

208

00:33:55.410 --> 00:34:06.690

Tyson (CyVerse) he/him: Cybers is a 15 year old Cyber infrastructure project that's been funded by the National Science foundation to help life, science, life, scientists and life science. Broadly.

209

00:34:07.030 --> 00:34:23.299

Tyson (CyVerse) he/him: we have over 100,000 registered users and this platform that we're gonna be using in a few minutes is something called our discovery environment. which is a data science workbench. And it's a place where we're trying to make the cloud feel like your personal computer.

210

00:34:23.790 --> 00:34:30.430

Tyson (CyVerse) he/him: But it looks like Eric's gonna go through the the user portal first. So after you've created your user account.

211

00:34:30.560 --> 00:34:33.719

Tyson (CyVerse) he/him: you'll need to go to the workshops, Tab

212

00:34:33.770 --> 00:34:37.290

Tyson (CyVerse) he/him: Eric, can you maybe make your fonts bigger?

213

00:34:38.670 --> 00:34:39.819

Tyson (CyVerse) he/him: Kind of small?

214

00:34:39.920 --> 00:34:44.529

Erick Verleye: Yeah, let me try to just go like full screen. I don't know if that's gonna

215

00:34:46.790 --> 00:34:47.620

Tyson (CyVerse) he/him: one.

216

00:34:53.880 --> 00:34:55.310

Tyson (CyVerse) he/him: Okay? So

217

00:34:56.000 --> 00:35:04.240

Tyson (CyVerse) he/him: maybe a quick show of thumbs up or positive check marks on the reactions after you have

218

00:35:04.360 --> 00:35:07.640

Tyson (CyVerse) he/him: critic your account. And if you have a red

219

00:35:07.720 --> 00:35:13.609

Tyson (CyVerse) he/him: X, it means we need help, and we may. If if you fall too far behind, it's okay. You can just watch for today.

220

00:35:13.770 --> 00:35:21.399

Tyson (CyVerse) he/him: and we can drop into maybe a breakout room and get you set up while they're going on our studio stuff.

221

00:35:21.710 --> 00:35:26.609

Tyson (CyVerse) he/him: So this dashboard that Eric is is working in right now.

222

00:35:26.760 --> 00:35:39.220

Tyson (CyVerse) he/him: On the left side, you guys will see a workshops tab, and you'll want to click on the workshop called easel environmental mosaic, and then either click on enroll.

223

00:35:39.770 --> 00:35:51.439

Tyson (CyVerse) he/him: or, if you're all, II think, should just ask you to enroll and then we'll go through and improve you in just a minute. The reason we're doing this is that cyverse has a subscription system in place.

224

00:35:51.930 --> 00:36:05.540

Tyson (CyVerse) he/him: and we need to approve your account to give you access to some of the toys. and if you, if you already have an account you still need to sign up for the workshop. for, partly for our records and our reporting.

225

00:36:11.190 --> 00:36:25.329

Erick Verleye: Yep. So this is primarily what we're gonna use for the workshop for the hackathon and it'll be, you know. For most people, it's gonna give you way. More computing power than you have locally. It's also gonna help with collaboration, because you'll have the exact same

226

00:36:25.480 --> 00:36:29.609

Erick Verleye: environment and uis everybody else on your team. So

227

00:36:31.130 --> 00:36:36.139

Tyson (CyVerse) he/him: is the the Esol environmental mosaic workshop public.

228

00:36:37.740 --> 00:36:40.070

Tyson (CyVerse) he/him: Some folks are saying they can't see it.

229

00:36:42.100 --> 00:36:46.390

Tyson (CyVerse) he/him: So, Eric, can you maybe go back to the the workshops form.

230

00:36:51.790 --> 00:36:55.959

Erick Verleye: I believe it's number 1, 3, 8, 7 length would be

231

00:36:57.110 --> 00:37:00.300

Erick Verleye: like that. and

232

00:37:02.100 --> 00:37:07.890

Tyson (CyVerse) he/him: it should be underneath upcoming workshops it. It looks different for Eric, because he's an owner.

233

00:37:12.140 --> 00:37:17.730

Tyson (CyVerse) he/him: and you can also, I think you can go directly to that workshop. Slash 1, 3, 8.

234

00:37:20.260 --> 00:37:21.370

Erick Verleye: There's there.

235

00:37:29.570 --> 00:37:30.740

Yep. So

236

00:37:33.950 --> 00:37:44.000

Tyson (CyVerse) he/him: yeah, so we'll explain in a minute. But we're right now. The URL for cybers that we're working in is the user portal. And it's user.cyvers.org

237

00:37:44.280 --> 00:37:51.290

Tyson (CyVerse) he/him: in a minute. We're going to transfer over to the discovery environment. And that's going to change the URL to de cybers org.

238

00:37:58.970 --> 00:37:59.810

Okay?

239

00:38:10.390 --> 00:38:15.630

Tyson (CyVerse) he/him: And I've just gone through and approved a a few users that had just requested.

240

00:38:16.720 --> 00:39:04.930

Erick Verleye: yeah, Jennifer has a lot of the same

241

00:39:05.200 --> 00:39:07.940

Erick Verleye: capabilities. It's just a public

242

00:39:08.300 --> 00:39:09.679

public resource.

243

00:39:10.730 --> 00:39:14.549

Erick Verleye: an alternative to something private, like Google or Microsoft.

244

00:39:17.700 --> 00:39:36.419

Tyson (CyVerse) he/him: Yeah. And I'll just add that places like Google's Co lab and like, maybe use my binder before those are free resources and cybers is the equivalent of like. If you were to pay to go and get really large resources. But it's a public research infrastructure. And it's free to you. All.

245

00:39:50.940 --> 00:39:55.630

Erick Verleye: Okay, got 31 participants. Now.

246

00:39:57.910 --> 00:40:00.280

was anyone having trouble?

247

00:40:00.600 --> 00:40:03.350

Erick Verleye: Anybody can't sign in or

248

00:40:05.020 --> 00:40:17.360

Tyson (CyVerse) he/him: waiting for it may take a minute or 2 to get the confirmation email. and if it takes more than a few minutes, then. I will send a message to our team in slack. Just make sure they're going out.

249

00:40:24.890 --> 00:40:25.790

Erick Verleye: Okay.

250

00:40:29.380 --> 00:40:30.709

Erick Verleye: I guess what?

251

00:40:32.580 --> 00:40:38.080

Erick Verleye: Maybe just give like, one more minute for that, and then we'll move on to the discovery environment

252

00:40:38.720 --> 00:40:41.860

Erick Verleye: and show how to use cybers.

253

00:40:43.680 --> 00:40:47.339

Erick Verleye: And then a little bit on Github authentication within cybers

254

00:41:11.480 --> 00:41:17.780

Erick Verleye: for anyone that hasn't received an email. Do you? Wanna just put that in the put your email in the Google.

255

00:41:18.370 --> 00:41:19.280

Erick Verleye: she

256

00:41:20.380 --> 00:41:27.359

Tyson (CyVerse) he/him: yeah, if you can put your either put your email in the Google Sheet or in the the chat here, and then I'm gonna go and see if I can get it

257

00:41:31.610 --> 00:41:32.460

Erick Verleye: cool.

258

00:41:41.470 --> 00:41:42.530

Erick Verleye: Make sure that

259

00:41:44.600 --> 00:41:47.489

Erick Verleye: get that all straightened out.

260

00:41:50.200 --> 00:42:00.769

Tyson (CyVerse) he/him: But for everyone that has been able to create an account and enroll I guess, for anyone who hasn't. Just if you like to follow along, we're gonna go into the discovery environment. Now.

261

00:42:01.080 --> 00:42:03.649

Tyson (CyVerse) he/him: create a

262

00:42:04.550 --> 00:42:08.519

Erick Verleye: virtual machine match maneuver. So you can start doing some

263

00:42:09.340 --> 00:42:18.010

Erick Verleye: computing. So once you press on the discovery environment. And this is where you'll be in deceiverstorg instead of usercyvers.org.

264

00:42:18.570 --> 00:42:24.389

Erick Verleye: you're going to want to go to apps here on the left side.

265

00:42:25.540 --> 00:42:29.120

Erick Verleye: and then you're gonna see this list of featured apps?

266

00:42:30.130 --> 00:42:36.130

Erick Verleye: so there's there's a lot of different apps you can choose from. But the

267

00:42:36.190 --> 00:42:52.969

Erick Verleye: one that primarily going to use for the hackathon is, gonna be this Jupiter lab geospatial app. So this is, gonna do is spin up a Jupiter lab server that you can connect to and for those of you who are familiar with Jupiter notebooks or our studio.

268

00:42:53.140 --> 00:42:57.889

Erick Verleye: This is going to allow you to have that interface on the cloud.

269

00:42:59.780 --> 00:43:13.990

Elsa Culler: So okay, and you might just sign in again. If if you're if you just authenticated. You set the press sign in automatically. Hey, Eric, could you either switch to sharing just your browser, or maybe use increase the font size a little bit

270

00:43:14.230 --> 00:43:17.020

Erick Verleye: sorry about that. I forget how.

271

00:43:26.470 --> 00:43:29.360

Erick Verleye: Okay is that better?

272

00:43:30.580 --> 00:43:31.690

Erick Verleye: The

273

00:43:34.140 --> 00:43:34.910

Erick Verleye: okay.

274

00:43:36.860 --> 00:43:37.620

Cool.

275

00:43:38.020 --> 00:43:45.770

Erick Verleye: Alright. So once you go to apps. And again, you see featured apps, and you'll see this Jupiter lab geospatial.

276

00:43:46.570 --> 00:43:54.280

It's gonna be version 3.6 point 3. We've got some version 4. But we'll stick with 3.6 point 3 for now.

277

00:43:54.500 --> 00:43:56.590

Erick Verleye: No work. So

278

00:43:58.490 --> 00:44:01.420

Erick Verleye: you can change the analysis name if you'd like.

279

00:44:01.440 --> 00:44:05.639

Erick Verleye: I'm gonna leave it as Jupiter Lab Geospatial analysis one for now

280

00:44:06.490 --> 00:44:10.730

Tyson (CyVerse) he/him: and this output folder, you can keep that same as well

281

00:44:11.520 --> 00:44:20.130

Erick Verleye: abusing it. So if we go to next, this is where we can configure sort of the hardware that's going to be.

282

00:44:20.610 --> 00:44:24.550

Erick Verleye: That's really roughly so

283

00:44:24.880 --> 00:44:37.339

Erick Verleye: just for now, just for the demo, I'm just gonna do 4 cores feel free to do. 8 16. I can try to push it. if you think you're gonna need a lot of resources, and I'll just do 8 gigs of RAM for now.

284

00:44:37.940 --> 00:44:41.200

Erick Verleye: disk space.

285

00:44:41.850 --> 00:44:43.509

Erick Verleye: we'll just do 32

286

00:44:43.980 --> 00:44:49.830

Erick Verleye: maximum CPU cores. We'll keep that at 40. Yeah.

287

00:44:49.860 --> 00:44:57.030

Tyson (CyVerse) he/him: So with these minimums that he's setting, these are going to give you at least that amount of resource.

288

00:44:57.260 --> 00:45:11.150

Tyson (CyVerse) he/him: If you don't set any of these, and you just leave it as default. I think the defaults are actually maybe 2 cores and 8 gigs of RAM. So it it's okay to leave it as a default. But yeah, let's go ahead and set that right now.

289

00:45:16.380 --> 00:45:23.289

Erick Verleye: So I go to next. and we'll see once analysis on here.

290

00:45:23.810 --> 00:45:24.680

Tyson (CyVerse) he/him: Hello.

291

00:45:25.500 --> 00:45:27.860

Erick Verleye: good. I'll press launch.

292

00:45:44.470 --> 00:45:46.880

Erick Verleye: Okay, so so on.

293

00:45:47.900 --> 00:45:52.770

Erick Verleye: Have any questions up to this point, any issues.

294

00:45:54.480 --> 00:46:10.019

Ty Tuff, Ph.D.: I'm seeing a lot of emails in the chat. I'm guessing those people are struggling a little bit. Yeah, I sent everybody reset on their passwords. Did any of those people that put their email in get the Password Reset email?

295

00:46:14.040 --> 00:46:16.130

Nate Quarderer (Earth Lab/ ESIIL): Looks like a few were getting it. I saw

296

00:46:17.580 --> 00:46:20.139

Nate Quarderer (Earth Lab/ ESIIL): several that said that it worked and that they got in.

297

00:46:22.350 --> 00:46:31.030

Ty Tuff, Ph.D.: It looks like Eric, that you may have just gotten a little bit ahead of some of the people who were

298

00:46:31.960 --> 00:46:37.679

Ty Tuff, Ph.D.: we were trying to keep up. I mean, I'll just go back and reiterate some of those previous points.

299

00:46:37.840 --> 00:46:42.910

Okay, yeah, I'll I'll go back through it. I don't think you have to press, create, save launch.

300

00:46:43.450 --> 00:46:57.679

Tyson (CyVerse) he/him: okay, so go back to featured apps.

301

00:46:58.290 --> 00:47:05.400

Erick Verleye: I was right there because there was a question about the different possible things that people could open.

302

00:47:05.490 --> 00:47:10.659

Ty Tuff, Ph.D.: Could you just take a second on this page and just describe some of the different options that people have.

303

00:47:11.340 --> 00:47:19.030

Erick Verleye: Yeah. So out of these Jupiter lab ones are just gonna

be different. Environments, like computing environments are gonna have different packages installed.

304

00:47:19.380 --> 00:47:22.780

Erick Verleye: cutting out what it is that you'd like to do.

305

00:47:23.230 --> 00:47:27.020

Tyson (CyVerse) he/him: The cloud shell is just a

306

00:47:27.890 --> 00:47:30.349

Erick Verleye: click blank terminal.

307

00:47:30.710 --> 00:47:37.729

Erick Verleye: that you can use like a like an Aws, Ec, 2 instance

308

00:47:38.320 --> 00:47:45.920

Erick Verleye: and then there's a couple different art studio interfaces.

309

00:47:47.620 --> 00:48:00.739

Erick Verleye: It will boom to desktop. She can have a a desktop emulator here. Ps code. So these are the featured ones you survive with some of the most use the ones with the most used cases. But there's

310

00:48:01.460 --> 00:48:03.019

Erick Verleye: tons of different apps.

311

00:48:04.010 --> 00:48:08.110

Erick Verleye: so

312

00:48:08.260 --> 00:48:13.660

Erick Verleye: you can look through. I think this should give a description when you you choose them

313

00:48:14.980 --> 00:48:17.669

Erick Verleye: like me. Documentation.

314

00:48:19.140 --> 00:48:20.000

Yeah.

315

00:48:20.460 --> 00:48:23.960

Erick Verleye: So they give you some probably give you more of a description than others.

316

00:48:24.260 --> 00:48:29.019

Erick Verleye: but let me terminate this.

317

00:48:30.630 --> 00:48:41.910

Erick Verleye: I didn't mean to open up that cloud show. So but okay, let's just go back through the creation of this Jupiter lab geospatial.

318

00:48:45.340 --> 00:48:49.329

Erick Verleye: Keep all this the same. Go to next

319

00:48:50.870 --> 00:48:54.040

Erick Verleye: and pick your minimum resources.

320

00:49:05.600 --> 00:49:14.530

you know. Yeah, don't. You don't have to press, create, save, and launch. You do not have to press this. I know there are a few questions about this, but just

321

00:49:14.920 --> 00:49:23.500

Erick Verleye: a just press launch analysis. and I already have one going. So I'm not going to

322

00:49:24.380 --> 00:49:27.979

Erick Verleye: press it. But yeah, this is all you have to all you have to do.

323

00:49:29.320 --> 00:49:34.309

Erick Verleye: And then.

324

00:49:34.900 --> 00:49:39.850

Erick Verleye: once that's launched. you should see a screen like this.

325

00:49:42.650 --> 00:49:50.399

Erick Verleye: And for the sake of time. I think a lot of people are here. So I'm just going to

326

00:49:51.040 --> 00:49:55.570

press this. You're gonna wanna press this, go to analysis button at the very top.

327

00:49:55.610 --> 00:49:58.160

Erick Verleye: This is actually gonna connect you to

328

00:49:58.550 --> 00:50:01.009

Erick Verleye: the Jupiter lab.

329

00:50:01.790 --> 00:50:04.399

Erick Verleye: So we press go to analysis.

330

00:50:06.740 --> 00:50:19.330

Erick Verleye: And then we're gonna be in what's hopefully familiar to a lot of people. This Jupiter lab interface. if it's not familiar, that's okay. Easy, intuitive.

331

00:50:21.430 --> 00:50:33.199

Erick Verleye: alright. So have we got at least at least a few people or several people to this point where they're they're inside the Jupiter lab. They won't have any

332

00:50:34.830 --> 00:50:37.549

Erick Verleye: issues getting here

333

00:50:40.570 --> 00:50:41.320

Erick Verleye: cool.

334

00:50:42.640 --> 00:50:54.310

Erick Verleye: Alright. So you can kind of explore in here again, if you want. Python environment that already has a lot of packages installed. Go ahead and use this OS Geo tile.

335

00:50:55.170 --> 00:50:58.139

Erick Verleye: Yep, launch analysis.

336

00:50:59.050 --> 00:51:02.690

And then, once it's launched, you could say, Go to analysis.

337

00:51:03.680 --> 00:51:17.830

Erick Verleye: Can I explain what's going on? Can you go back to the discovery environment? Real quick. And then can you open up the Hamburger menu on the left so everybody can see what those things are

338

00:51:18.200 --> 00:51:22.000

Tyson (CyVerse) he/him: so. So what Eric has done is he's launched an app

339

00:51:22.040 --> 00:51:48.980

Tyson (CyVerse) he/him: which is essentially a container, and we have this list of featured apps like Jupiter in our studio. This is a managed workbench. So the scheduler is then giving you a virtual machine, and it's putting whatever the application was that you asked to start on the virtual machine, and then, after about 30 s, that thing should start and it should pop up in the analysis tab. So, Eric, can you click on analyses there, and it'll take us back to the full list.

340

00:51:49.070 --> 00:51:58.260

Tyson (CyVerse) he/him: So you can see that Eric has one analysis currently running, and that's one that's got a few more icons there on the right. but

341

00:51:58.430 --> 00:52:04.349

Tyson (CyVerse) he/him: You can see your analyses in here, and you can start and stop these or restart them after they've been stopped.

342

00:52:04.570 --> 00:52:29.440

Tyson (CyVerse) he/him: And if you click on the name of the analysis after it stopped, it'll take you to a folder in the discovery environment. So there's a data store inside of cybers sort of like a cloud bucket. But it it has a managed username, which is your username and that username is gonna be visible to you like a hard drive or like a mounted folder inside of this running analysis.

343

00:52:29.520 --> 00:52:34.529

Tyson (CyVerse) he/him: So I mentioned that this discovery environment is intended to make the cloud feel like your laptop.

344

00:52:34.670 --> 00:52:57.140

Tyson (CyVerse) he/him: This is just that interface, so that you can connect multiple computers to a single hard drive, which is where your data are your data, your personal private data. When we go into this Jupiter lab in a few minutes or into the start studio, you're gonna be on a separate computer that doesn't have any data in it yet. And you'll have to download the data from Github. And that's gonna be the next step.

345

00:52:59.790 --> 00:53:01.800

Erick Verleye: Yeah.

346

00:53:02.090 --> 00:53:03.590

Erick Verleye: so

347

00:53:04.240 --> 00:53:07.500

Erick Verleye: as far as connecting your Github to.

348

00:53:07.690 --> 00:53:21.049

Erick Verleye: I guess, just for the sake of time, I'm gonna go through this sort of quickly. But if you have private repos, if repos that aren't public to everybody, then you're going to need to add your Ssh key.

349

00:53:21.300 --> 00:53:27.069

Erick Verleye: you're gonna have to create an Ssh key pair on this instance, and then you're going to have to

350

00:53:27.200 --> 00:53:31.389

Erick Verleye: add the key to your Github account. Okay? So

351

00:53:31.580 --> 00:53:50.809

Ty Tuff, Ph.D.: I'm gonna run through that pretty quick, and we've made it. We've tried to make it pretty easy here. So the first thing you wanna do is pause just real quick and see how many people are with us here. I think most people made it. I just wanna make sure everybody is, has a Jupiter lab open before we do this next step

352

00:53:54.060 --> 00:54:12.539

Ty Tuff, Ph.D.: and people are asking if you can zoom in a little bit. Make the font bigger. So maybe, could I have people if you're not in here. I'm just let's assume everybody's in, and if you're not in, give us, tell us in the chat that you're not in yet, and that you need us to wait for just a second, and we can help you get up to this step

353

00:54:12.710 --> 00:54:19.689

Ty Tuff, Ph.D.: seeing thumbs up, and I'm in, which is awesome. Just want to make sure everybody is with us.

354

00:54:25.220 --> 00:54:32.569

Ty Tuff, Ph.D.: Okay, I think we're good to go. I'm not seeing anybody freaking out in the chat yet. So please freak out on the chat.

355

00:54:33.540 --> 00:54:40.529

Nate Quarderer (Earth Lab/ ESIIL): Can I make one comment about the slack channel? So we do have an easel slack Workspace that we use?

356

00:54:40.590 --> 00:54:51.959

Nate Quarderer (Earth Lab/ ESIIL): We will create a channel for the hackathon in a musical workspace and invite folks to it. I would say for that. I did that. I yeah, I just created. It called Hackathon 2,023,

357

00:54:52.030 --> 00:54:56.580

Ty Tuff, Ph.D.: and So I think that was some of the subt traffic, as we were doing on the chat.

358

00:54:56.750 --> 00:54:58.090

Nate Quarderer (Earth Lab/ ESIIL): All good, all good.

359

00:55:00.810 --> 00:55:13.049

Erick Verleye: Oh, yeah, great question, Eric. So no, even if you do a save launch the the key pair, you know, once you destroy this analysis once it's terminated.

360

00:55:13.090 --> 00:55:32.199

Elsa Culler: all you know, your key pair is going to be deleted. So you're not to recreate this but, Eric, that doesn't happen just because you close the browser window right? The analysis. So people are using the same thing for the hackathon. They'll still have their

key pair.

361

00:55:32.690 --> 00:55:43.510

Erick Verleye: Yeah, I just I wouldn't. Keep your analysis running until next week. We're probably wanna shut those down just to conserve resources.

362

00:55:44.020 --> 00:55:57.130

Erick Verleye: So if you honestly, if you've already added key pairs to your get help before and you'd know how to do this. Maybe just follow on visually that way. You don't have to add a key pair and then just delete it when we're done

363

00:55:58.420 --> 00:56:05.989

Erick Verleye: so I'll just go through this really quick. The first thing you wanna do is go to the left side. Who, Baron, you should see this? Get icon

364

00:56:06.330 --> 00:56:12.529

Erick Verleye: When you click on that you'll see the git app opens up inside Jupyterlab.

365

00:56:13.580 --> 00:56:25.869

Erick Verleye: Once you're here, you should see these 3 options. If you don't make sure that you're at you, press this file a couple of times and get to your Root Directory, your home directory here.

366

00:56:26.240 --> 00:56:32.059

Erick Verleye: So press clonal repository. And then

367

00:56:32.330 --> 00:56:33.740

Erick Verleye: I'm gonna put

368

00:56:35.280 --> 00:56:37.819

Erick Verleye: this link in the chat.

369

00:56:39.790 --> 00:56:52.990

Erick Verleye: Say, go to the repo. So we're gonna clone a repo that's gonna create a key pair for you, basically. So let me put this in the chat.

370

00:56:56.680 --> 00:56:58.539

Erick Verleye: So if you go to clone.

371

00:56:59.200 --> 00:57:04.810

Erick Verleye: you know, want to put this, and because we don't have a key pair created yet we have to use an Https

372

00:57:05.310 --> 00:57:06.250

link.

373

00:57:09.060 --> 00:57:11.480

Erick Verleye: Not an Ssh, right?

374

00:57:12.710 --> 00:57:17.250

Erick Verleye: So we're gonna put this https for this Github repo and press clone.

375

00:57:17.290 --> 00:57:19.550

Ty Tuff, Ph.D.: I didn't see it pop up in the chat.

376

00:57:19.930 --> 00:57:25.870

Erick Verleye: Oh, sorry I have my direct messages on. Let me go to everybody.

377

00:57:26.170 --> 00:57:28.260

Erick Verleye: Thanks time. There you go.

378

00:57:29.590 --> 00:57:31.050

Erick Verleye: see

379

00:57:38.870 --> 00:57:44.359

Erick Verleye: it should clone, and then if you go back to your files. You should see this innovation summit utils.

380

00:57:46.090 --> 00:57:52.829

Erick Verleye: You. Press on that. Then you should get into configure. Github. Ssh, the ipy, and be

381

00:57:55.130 --> 00:57:58.489

Erick Verleye: once you open up the notebooks, can ask you which kernel

382

00:57:58.700 --> 00:58:04.249

Erick Verleye: these are native packages. So it actually doesn't really matter what you use. But

383

00:58:04.320 --> 00:58:05.400

go ahead and just

384

00:58:05.810 --> 00:58:07.440

Erick Verleye: du Osg 0,

385

00:58:08.610 --> 00:58:20.389

Erick Verleye: and if you're curious just about what's in here, you can read through it. But it's basically just creating a dot Ssh folder it's gonna create a key pair. It's gonna add Github.

386

00:58:20.690 --> 00:58:29.819

Erick Verleye: IP to your known hosts. It's gonna do all the kids stuff. And hopefully, one one fell swoop. So

387

00:58:32.110 --> 00:58:40.309

Erick Verleye: to execute this press on the cell, hold, shift and enter, or you hold, shift and press. Enter, or you can just press this play button.

388

00:58:40.920 --> 00:58:48.679

Erick Verleye: I'll do shift and enter first thing. It's gonna ask for your username. And that's gonna ask

389

00:58:49.830 --> 00:58:56.540

Erick Verleye: for your email just to track the history. It's not actually super important.

390

00:58:57.860 --> 00:59:12.329

Erick Verleye: So once you input, both of those things, it's gonna say, okay, we generated a key pair. It's using 2, 5, 5, 1, 9 encryption with save to your Ssh. Dot github, to your private key and your public key.

391

00:59:12.880 --> 00:59:16.720

and then at the very end, it's gonna print out your public key.

392

00:59:17.400 --> 00:59:20.900

Erick Verleye: Okay, so this is gonna be what we have to put on Github.

393

00:59:21.390 --> 00:59:27.190

Erick Verleye: So if you've gotten to this point, the very bottom, go ahead and copy this line, this whole line starting with Ssh

394

00:59:27.300 --> 00:59:29.129

Erick Verleye: all the way to this last part.

395

00:59:30.140 --> 00:59:31.699

Erick Verleye: So we'll copy that

396

00:59:33.160 --> 00:59:38.180

Erick Verleye: we're gonna need to go to Github. let me increase the font here.

397

00:59:39.280 --> 00:59:43.849

We're gonna need to go to settings, our profile settings.

398

00:59:48.580 --> 00:59:52.069

Erick Verleye: Yup, Yup. slow down.

399

00:59:53.080 --> 00:59:54.200

So

400

00:59:55.270 --> 00:59:59.710

alright is anyone having issues getting to this point, opening up the scripts.

401

01:00:05.590 --> 01:00:07.670

Ty Tuff, Ph.D.: Yeah.

402

01:00:07.830 --> 01:00:19.430

Erick Verleye: we're well, we'll pause here and let everybody catch up. Eric, do you think you could just start over? I mean, and you don't need to run it again. But maybe just go back to and run through this little section again.

403

01:00:19.640 --> 01:00:27.399

Erick Verleye: Yeah, sure. Okay. So once you open up the Jupiter

404

01:00:27.500 --> 01:00:32.710

Erick Verleye: notebook. The first thing you're gonna want to do is go to this. Get icon on the left.

405

01:00:33.110 --> 01:00:37.259

Erick Verleye: What's it gonna be for the git widget instead of Jupiter lab

406

01:00:37.430 --> 01:00:39.310

Erick Verleye: to impress on that.

407

01:00:39.570 --> 01:00:44.269

And you should see an option to clone a repository once you're here.

408

01:00:44.450 --> 01:00:48.859

Erick Verleye: Okay. so if you choose, clone.

409

01:00:49.030 --> 01:00:51.419

it's gonna ask you for a URL

410

01:00:52.940 --> 01:00:58.950

Erick Verleye: are usually the Earth lab or the Jupiter Lab Geospatial

411

01:01:00.180 --> 01:01:12.480

Erick Verleye: cause. Not all of the analysis are, gonna have the git app installed. But if you're using this geospatial analysis, yeah, yeah. So okay, so that's a good point, though, is that?

412

01:01:12.690 --> 01:01:16.990

Erick Verleye: yeah, not every app is. Gonna have this

413

01:01:17.000 --> 01:01:22.409

Erick Verleye: this get extension, but the the Jupyter Lab Geospatial will. So

414

01:01:23.190 --> 01:01:33.560

Erick Verleye: if you haven't if you chose an app that doesn't have this. And you're familiar with the command line using git commands.

415

01:01:33.820 --> 01:01:36.629

Erick Verleye: You could certainly do that.

416

01:01:36.810 --> 01:01:43.729

Tyson (CyVerse) he/him: Yeah, I just want to explain why. So this particular Jupiter lab is an older version of Jupiter lab.

417

01:01:43.740 --> 01:01:53.090

Tyson (CyVerse) he/him: and the Get widget is still functional. The newest version of Jupyter Lab, the latest version, the embedded plugins haven't caught up.

418

01:01:53.140 --> 01:01:56.439

Tyson (CyVerse) he/him: So there's not a all the little side extra things.

419

01:01:58.310 --> 01:01:59.500

Erick Verleye: Yeah.

420

01:02:00.070 --> 01:02:05.799

Erick Verleye: it was a little bit of a mismatch between the the Widget developers and the Jupiter lab. So

421

01:02:06.550 --> 01:02:16.049

Erick Verleye: Jennifer, yeah, that looks great in the chat. If you guys need a you know some instructions, just a a list of things. That's that's exactly what

422

01:02:16.150 --> 01:02:18.530

Erick Verleye: we need to do.

423

01:02:20.490 --> 01:02:28.540

Erick Verleye: So okay, once you clone the repo, you're going to see this innovation summit utos folder in your file browser.

424

01:02:29.320 --> 01:02:33.950

Erick Verleye: yeah, okay, so what this is accomplishing. So

425

01:02:35.130 --> 01:02:47.750

Erick Verleye: when you need to authenticate to github, basically, yeah, like, so this is basically gonna allow access for this virtual machine to your Github account. And it's private repositories

426

01:02:47.990 --> 01:02:58.289

Erick Verleye: you're gonna be able to prove to Github that the request you're making to them is a a valid one from somebody who should have control over the account they're trying to access.

427

01:02:58.470 --> 01:03:01.130

Erick Verleye: This was accomplished with a key pair.

428

01:03:01.640 --> 01:03:10.390

Erick Verleye: In fact, Github completely deprecated password and username authentication

429

01:03:10.720 --> 01:03:15.860

Erick Verleye: when when cloning repositories, pushing, pulling things like that.

430

01:03:17.050 --> 01:03:18.200

Erick Verleye: So

431

01:03:19.610 --> 01:03:24.700

Erick Verleye: that's what we are doing now. Once we complete this.

432

01:03:26.550 --> 01:03:33.840

Erick Verleye: It will make all of your private repos public, or it won't make them public. But you'll be able to access them from cypress.

433

01:03:34.310 --> 01:03:54.070

Tyson (CyVerse) he/him: so only you will be able to access them. Yeah. And I can explain. So these analyses that everybody's running right now they are private only to you. So if anybody else were to try to copy the URL from Eric's screen share and try to access it, they wouldn't be able to access that URL.

434

01:03:54.200 --> 01:04:03.270

Tyson (CyVerse) he/him: So it's he's in a secure environment. We're putting in our private keys so that we can connect to another secure Github private Repo

435

01:04:06.060 --> 01:04:08.840

Yup. So this will make it. So

436

01:04:08.940 --> 01:04:13.070

Erick Verleye: only you're able to access your repose.

437

01:04:13.820 --> 01:04:19.220

Erick Verleye: okay, so does anybody not

438

01:04:19.620 --> 01:04:23.960

Erick Verleye: see this public key output yet again, once you open up this

439

01:04:24.780 --> 01:04:30.889

Erick Verleye: this configure Github Ssh, notebook. All you have to do is run this and then input your username and email.

440

01:04:31.680 --> 01:04:37.260

Erick Verleye: But if everybody is here and has this copy to their clipboard. Then I'll move on.

441

01:04:42.560 --> 01:04:45.570

You have to do this once per analysis.

442

01:04:46.070 --> 01:04:52.230

Erick Verleye: So during the hackathon, hopefully, you only have to do it one time, you know, you'll start your analysis at the beginning of the hackathon.

443

01:04:52.550 --> 01:04:55.149
Do this once, and then it will be

444
01:04:55.400 --> 01:04:56.720
Erick Verleye: good to go.

445
01:04:56.780 --> 01:05:09.440
Erick Verleye: yeah, yep, and you'll be able to also access your github from our studio as well. Yup, cause it's all in your your home folder. So

446
01:05:10.100 --> 01:05:13.259
Erick Verleye: once we have this public key.

447
01:05:15.610 --> 01:05:20.819
Erick Verleye: So right, we just created it on our Cybersvm. And now we have to connect it somehow

448
01:05:22.080 --> 01:05:25.500
Erick Verleye: can't get the public. Okay. So when you run this?

449
01:05:26.620 --> 01:05:34.879
Erick Verleye: what? What is happening? It's not printing out anything. There's an error.

450
01:05:36.050 --> 01:05:41.089
Erick Verleye: If you can't get the public, do you? Maybe wanna unmute and give us a little bit of description of where you're at.

451
01:05:52.430 --> 01:05:53.250
Erick Verleye: Okay.

452
01:05:53.610 --> 01:05:58.919
Erick Verleye: I think a lot of people are

453
01:05:59.430 --> 01:06:01.380
Erick Verleye: I ready to go

454
01:06:02.730 --> 01:06:06.049

Erick Verleye: and we can come back and try to fix that in a little bit.

455

01:06:07.200 --> 01:06:18.510

Erick Verleye: Okay? Yup. So then just put in your your username and your your username and your email aren't gonna be really for authentication purposes are going to be more. For when you make a commit, it's going to put in like, get history.

456

01:06:18.580 --> 01:06:22.440

Who it was that made that commit. It's kind of it's kind of just for bookkeeping.

457

01:06:22.760 --> 01:06:27.020

Erick Verleye: But

458

01:06:27.340 --> 01:06:30.709

okay, so you go to your profile.

459

01:06:30.760 --> 01:06:32.440

Erick Verleye: go to settings.

460

01:06:34.040 --> 01:06:37.019

And then on the very left side

461

01:06:37.790 --> 01:06:47.780

Erick Verleye: under access. You should see Ssh and Gpg keys. And this is where we're gonna have to add that public key to.

462

01:06:49.660 --> 01:06:50.550

Erick Verleye: Okay.

463

01:06:52.010 --> 01:06:57.070

Erick Verleye: so go to Ssh. Keys. You should see New Ssh. Key

464

01:06:58.590 --> 01:07:05.719

Erick Verleye: you can call this. Well, let's call this cybers. You can call it Cybers Hagclown. Whatever you want to name it so that it makes sense.

465

01:07:06.340 --> 01:07:09.160

Keep this key type of authentication key.

466

01:07:09.680 --> 01:07:15.230

Erick Verleye: and then all that output the very last line from Jupiterlab.

467

01:07:15.370 --> 01:07:17.479

Erick Verleye: You're going to copy and paste.

468

01:07:17.830 --> 01:07:20.389

Erick Verleye: and you might be thinking something like.

469

01:07:20.410 --> 01:07:32.130

Erick Verleye: Well, you know, you're sharing your key, you know. Like to everybody right now on zoom, that's that's the whole point of a public and private key pair. Is that anybody? This is my public key.

470

01:07:32.150 --> 01:07:39.600

Erick Verleye: and then my private key. I haven't even seen yet. I haven't even looked at the contents of it. The public key is okay

471

01:07:39.810 --> 01:07:47.059

Erick Verleye: to, I mean, oh, less information giving out is always the best option, but it's not a big deal if your public key is seen

472

01:07:47.150 --> 01:07:49.579

Erick Verleye: by other people. So

473

01:07:50.600 --> 01:07:53.449

all right. So you add Ssh, key.

474

01:07:54.080 --> 01:07:57.140

Erick Verleye: it'll probably ask you to sign in

475

01:07:57.200 --> 01:07:59.359

Erick Verleye: and and just reauthenticate.

476

01:08:00.800 --> 01:08:03.050

Erick Verleye: And

477

01:08:03.390 --> 01:08:09.859

Erick Verleye: now we should see cybers, and we'll see it hasn't been used yet. But it is added.

478

01:08:10.630 --> 01:08:15.940

Erick Verleye: now let's see if it works I should be able to

479

01:08:17.310 --> 01:08:19.340

clone a

480

01:08:21.270 --> 01:08:22.540

Erick Verleye: a

481

01:08:25.200 --> 01:08:29.579

Erick Verleye: I should be able to clone a private repo with the Ssh.

482

01:08:30.029 --> 01:08:37.630

Erick Verleye: URL. So this would be the ultimate test. If you have a private repo, use the Ssh URL

483

01:08:38.779 --> 01:08:42.149

Erick Verleye: and then you can go

484

01:08:42.310 --> 01:08:43.689

back here

485

01:08:43.710 --> 01:08:54.049

Erick Verleye: to the git widget, we do clone repository. And instead of using Https again, how we're gonna use the Ssh URL, because we have our Ssh key.

486

01:08:54.370 --> 01:08:58.140

Erick Verleye: And this is a private repo that I'm trying to clone right?

487

01:08:58.660 --> 01:09:05.189

Erick Verleye: So see if that works. And it did. Okay? So

488

01:09:06.260 --> 01:09:15.449

Erick Verleye: so again, this is a private repo. It's only available to me. My reason I was able to clone it onto cybers is because I've added an Ssh key pair, and cybers knows it's me

489

01:09:16.569 --> 01:09:37.370

Ty Tuff, Ph.D.: er Github knows it's me who's asking for the repo Eric mine. I had to click back to the home folder again that some people might have missed that step, and they're seeing a weird menu when they go back the second time. Can you just re show them how to get the clone repository button to show up again. Oh, yeah, okay. So if you're if you're inside, this is a

490

01:09:38.189 --> 01:09:42.520

Erick Verleye: if you're inside of a git repository.

491

01:09:43.310 --> 01:09:58.909

Erick Verleye: So right now, I'm in Innovation summit utils. There's a there's a hidden dot get folder in this folder that you just can't see because it starts the dot. But if that exists in the reapi in the in the file system you're in. When you go to the get

492

01:09:59.380 --> 01:10:03.620

a widget, it's going to show you a bunch of git options

493

01:10:03.710 --> 01:10:09.849

Erick Verleye: for that repo like your history committing pushing stuff like that.

494

01:10:09.920 --> 01:10:20.959

Erick Verleye: If you want to get back to the just like the main, get menu where you can clone things you need to in your file. Explorer. You need to go to a repo.

495

01:10:21.540 --> 01:10:25.570

Erick Verleye: Sorry you need to go to a folder that is not a git

496

01:10:25.830 --> 01:10:31.770

Erick Verleye: directory. So if I press this little icon, it's gonna

go up to my home directory

497

01:10:32.650 --> 01:10:36.439

Erick Verleye: in this directory. Here. There's no hidden dot git

498

01:10:36.650 --> 01:10:37.590

folder.

499

01:10:38.020 --> 01:10:47.149

Erick Verleye: So when I go to the git widget, I get this menu again that says, Okay, you're not in a git folder. Would you like to

500

01:10:47.310 --> 01:10:50.120

Erick Verleye: clone one, you know, create one.

501

01:10:51.920 --> 01:10:53.519

Erick Verleye: That's why that happens.

502

01:10:54.170 --> 01:11:02.169

Tyson (CyVerse) he/him: And if you're into command line stuff. If Eric were to open a terminal here in the Jupiter lab. He could go to the

503

01:11:02.370 --> 01:11:04.980

Tyson (CyVerse) he/him: probably see that hidden folder.

504

01:11:06.170 --> 01:11:11.700

Erick Verleye: Yeah. If I go to Yup, you can see the docket here.

505

01:11:13.380 --> 01:11:14.350

you know.

506

01:11:19.610 --> 01:11:21.170

Erick Verleye: Yeah.

507

01:11:23.010 --> 01:11:32.269

Ty Tuff, Ph.D.: There was a question about which repo are they cloning over? And we haven't actually pointed them to the to the repo that they're pulling in yet.

508

01:11:32.360 --> 01:11:38.360

Ty Tuff, Ph.D.: So so when you get to this last step of that, actually pulling the repo, I think we need to

509

01:11:38.370 --> 01:11:47.079

Elsa Culler: send it back to Elsa. Yeah, we're gonna do that. We're gonna do that altogether in about 15 min. Once you guys have

510

01:11:47.380 --> 01:11:50.600

Elsa Culler: had a chance to get together with your groups.

511

01:11:51.180 --> 01:11:52.100

Erick Verleye: Okay.

512

01:11:54.270 --> 01:12:07.950

Erick Verleye: yeah, we'll go over this some more a little bit just for the sake of time, I think. Hand it over. I see. Jennifer put a comment about failed to clone, failed to fetch Jennifer. Do you think you could unmute and just give us a little more detail about

513

01:12:07.990 --> 01:12:10.379

Ty Tuff, Ph.D.: How far you got and what that means.

514

01:12:10.730 --> 01:12:16.179

Jennifer Turliuk: Yeah, sure, I got to the end part. I created a repo in

515

01:12:16.200 --> 01:12:27.500

Jennifer Turliuk: Github because I wasn't sure which one to use. So I created a private one, and then I tried copying Ssh. Over into it, and I'm getting a message saying failed to fetch.

516

01:12:28.410 --> 01:12:31.619

Jennifer Turliuk: But I can see my

517

01:12:31.750 --> 01:12:42.360

Jennifer Turliuk: I think I can see some github stuff in cybers now, so I'm not sure what's happening. But maybe I just need to wait for a github repo from you folks.

518

01:12:43.330 --> 01:12:49.389

Erick Verleye: Yeah, is it a so? There's nothing. You just create a brand new repo. There's nothing in it that's right.

519

01:12:49.800 --> 01:12:50.860

Erick Verleye: It might.

520

01:12:51.260 --> 01:13:00.920

Erick Verleye: You might not be able to clone a completely empty repo. I've actually, that's the only thing I can

521

01:13:01.520 --> 01:13:02.700

think of.

522

01:13:02.800 --> 01:13:11.599

Erick Verleye: Does anyone have any problems cloning repo that already. It's like somebody else had the same problem and somebody else it?

523

01:13:12.270 --> 01:13:20.919

Ty Tuff, Ph.D.: Oh, yeah, yeah, people are saying it got fixed once the public key was all taken care of. But it looks like people need you to go through the public key entering into Github again.

524

01:13:21.400 --> 01:13:28.080

Erick Verleye: Okay, okay. go over that really quick. So if we go back to

525

01:13:30.420 --> 01:13:35.680

Erick Verleye: this, scripts are the one that we ran the configure. Github Ssh.

526

01:13:36.630 --> 01:13:42.020

Erick Verleye: run this at the very bottom. You don't have this public key here.

527

01:13:43.230 --> 01:13:52.039

Erick Verleye: So go ahead. And this very last line is what you need to copy to your clipboard right now. So you control copy or right-click copy

528

01:13:52.450 --> 01:13:56.190

Erick Verleye: And then when you get to Github.

529

01:13:57.480 --> 01:14:03.790

Erick Verleye: what you wanna do is press on your little icon here, your profile icon on the top right

530

01:14:04.820 --> 01:14:07.269

Erick Verleye: and scroll down to settings.

531

01:14:08.450 --> 01:14:15.700

Erick Verleye: Not to be confused, but like, if you're in a repo, you don't want to press on these settings here, you want to go to your your profile, icon.

532

01:14:16.250 --> 01:14:17.840

Erick Verleye: and then press settings.

533

01:14:20.130 --> 01:14:25.200

Erick Verleye: And then on the very left, you can see the profile account

534

01:14:25.270 --> 01:14:26.350

Erick Verleye: A,

535

01:14:26.780 --> 01:14:29.539

you're gonna want to go to the access section.

536

01:14:30.720 --> 01:14:33.899

Erick Verleye: and then you're going to want to go to Ssh and Gpg keys.

537

01:14:35.780 --> 01:14:38.959

Erick Verleye: What you should see is this

538

01:14:39.050 --> 01:14:41.759

header for Ssh keys?

539

01:14:42.050 --> 01:14:45.620

Erick Verleye: And then if you have any keys already, you see them listed below.

540

01:14:46.550 --> 01:14:56.509

Erick Verleye: okay. So Kenji said that you were okay, so maybe you could

541

01:14:58.050 --> 01:15:03.789

Erick Verleye: alright anyway. So once you get to here.

542

01:15:03.960 --> 01:15:14.740

Ty Tuff, Ph.D.: looks like there are some reports of people successfully cloning their new blank private repos.

543

01:15:15.240 --> 01:15:26.710

Ty Tuff, Ph.D.: Okay? And then there was a note about Ssh, so maybe after the Ssh key, do you want to talk again about the link to the repo? Make sure you get the right link to the repo, the cloning.

544

01:15:26.930 --> 01:15:31.249

Erick Verleye: Yeah. I guess what what I will say really quick.

545

01:15:32.100 --> 01:15:45.390

Erick Verleye: It could be an issue, because it's not being copied and pasted correctly the public key. So just make sure when you when you click add new Ssh key, and you get to this screen

546

01:15:46.180 --> 01:15:50.279

Erick Verleye: and you give it a title that you're copying

547

01:15:50.290 --> 01:15:52.370

this entire line here.

548

01:15:53.720 --> 01:15:58.820

Erick Verleye: starting with Ssh and the encryption type all the way.

549

01:15:59.180 --> 01:16:00.230

Erick Verleye: 2,

550

01:16:00.880 --> 01:16:04.849

Erick Verleye: your username. It should be Jovian at, you know some.

551

01:16:05.160 --> 01:16:09.910

Erick Verleye: some string here. but this entire public key has to be copied.

552

01:16:10.520 --> 01:16:16.660

not just like this part. This part might look like, you know, a secret or a password. But you need this entire thing here.

553

01:16:17.380 --> 01:16:27.429

Erick Verleye: cool. Yeah, it could've just it could just needed a second to

554

01:16:28.040 --> 01:16:30.499

Erick Verleye: so get added. But

555

01:16:30.730 --> 01:16:35.539

Yup. So you're just going to copy and paste in this whole thing here.

556

01:16:35.970 --> 01:16:43.649

Erick Verleye: and then press. Add Ssh. Key and I already have a key with the same Hello, key. So if I won't let me. But

557

01:16:43.960 --> 01:16:52.380

Erick Verleye: okay, once you've added it so you'll go back and you should see something like

558

01:16:53.460 --> 01:16:58.630

Erick Verleye: right like cybers here, I'll see when it was added when it was last used.

559

01:16:59.860 --> 01:17:11.520

Erick Verleye: To test it, you're going to want to try to clone a private repository of yours? So

560

01:17:12.480 --> 01:17:15.179

Erick Verleye: if I go to my repositories.

561

01:17:17.000 --> 01:17:20.109

Erick Verleye: let's actually go to Esol.

562

01:17:24.140 --> 01:17:25.550

Erick Verleye: and I'll choose a

563

01:17:25.780 --> 01:17:28.240

Erick Verleye: public

564

01:17:29.450 --> 01:17:33.700

Erick Verleye: user portal database. Okay, so this is a private repo.

565

01:17:34.220 --> 01:17:42.050

Erick Verleye: Alright. So it's private right here. So only you should be able to access. Other people like Github gives access to

566

01:17:42.180 --> 01:17:47.560

Erick Verleye: should go to code here the screen button.

567

01:17:48.040 --> 01:17:59.130

Erick Verleye: and then you're gonna have the default would be ssh, so you shouldn't have to change it. But there are 3 different options for cloning a repo. Since you've added your Ssh key pair

568

01:17:59.560 --> 01:18:05.130

Erick Verleye: you'll be able to use the Ssh. URL. Just go ahead and press copy.

569

01:18:06.130 --> 01:18:10.050

Erick Verleye: You can come back to the Jupiter lab again once you're in

570

01:18:10.490 --> 01:18:13.880

Erick Verleye: a folder that does not have a dot git

571

01:18:14.350 --> 01:18:20.770

a folder that is not already a git repo. So if I press this a bunch of

times, it'll take me to my home folder.

572

01:18:21.710 --> 01:18:23.979

Erick Verleye: Go to the git, widget

573

01:18:24.800 --> 01:18:26.720

Clona repo.

574

01:18:27.370 --> 01:18:30.419

Erick Verleye: and then I can paste that

575

01:18:31.540 --> 01:18:38.590

Ssh URL is going to be git at Github. The organization name, the repo name. Cool?

576

01:18:39.540 --> 01:18:43.580

Erick Verleye: Yeah. Include. Okay, I'm on a clone

577

01:18:44.530 --> 01:18:49.930

Erick Verleye: so successfully clone again. We're only able to do that because we had our Ssh key. Keep here.

578

01:18:50.300 --> 01:18:55.180

Erick Verleye: so how to navigate between?

579

01:18:55.550 --> 01:19:11.280

Erick Verleye: oh, okay. So if you're asking for the URL for that Po for that private repo. That's one of the private repos that I have access to. Yeah. Okay, so go ahead and please.

580

01:19:11.290 --> 01:19:12.790

Erick Verleye: clone.

581

01:19:13.190 --> 01:19:13.990

Nope.

582

01:19:14.250 --> 01:19:15.120

Erick Verleye: chat.

583

01:19:16.470 --> 01:19:21.549

Ty Tuff, Ph.D.: yeah. Mine. But you won't be Ssh into my repo, either, so probably won't work for mine actually.

584

01:19:22.000 --> 01:19:26.359

Erick Verleye: Oh, okay, yeah, we only have access to it. So

585

01:19:26.800 --> 01:19:40.740

Erick Verleye: so yeah, you'll only have the Ssh key pair is only gonna give you access to the reposit. You know you own on Github, or that you have given permission.

586

01:19:41.820 --> 01:19:42.870

Erick Verleye: So

587

01:19:43.740 --> 01:19:45.570

Erick Verleye: oh.

588

01:19:45.620 --> 01:19:49.970

Erick Verleye: cool. Okay. So maybe that one was was public. But

589

01:19:50.330 --> 01:19:56.879

yeah, so once you have all these Repos cloned. All it does is create a folder in your home directory, or have you cloned it

590

01:19:57.090 --> 01:19:59.910

Erick Verleye: so you can go through all these. I can go to

591

01:20:00.480 --> 01:20:05.100

Erick Verleye: user portal database, you know. Then you can just use this file browser to get through. And

592

01:20:05.320 --> 01:20:13.200

Elsa Culler: could you? Quickly Demo, like going up a directory in the file. I think that's

593

01:20:14.470 --> 01:20:21.740

Erick Verleye: yeah. So there's a couple of different ways. So let me like actually go inside a functional folders here. So I'm like.

594

01:20:21.820 --> 01:20:31.460

Erick Verleye: I don't know 6 layers into a directory right now on the file explorer. So there's a couple of different ways to go back up to get back to your home folder.

595

01:20:31.870 --> 01:20:34.739

Erick Verleye: One is, you can just click

596

01:20:35.500 --> 01:20:46.669

Erick Verleye: one of the directories in this path here to get to to that specific directory. So if I want to go back to data, let's press data. I'm in data. Sorry. So I can't. I press it again. I'm just gonna stay here.

597

01:20:46.910 --> 01:20:48.280

Erick Verleye: If I want to go to test.

598

01:20:48.790 --> 01:20:50.240

I just press test.

599

01:20:50.260 --> 01:20:51.900

Erick Verleye: Want to go back to instance?

600

01:20:52.470 --> 01:20:57.710

Erick Verleye: yeah. So

601

01:20:58.070 --> 01:21:10.550

Erick Verleye: there's a question in the chat about cloning private repos with https, so get hub deprecated. The ability to clone repos over https

602

01:21:11.040 --> 01:21:14.679

Erick Verleye: cloning private repos. You can still call them public repos.

603

01:21:15.170 --> 01:21:24.440

Erick Verleye: but they don't wanna transfer repositories. Or, you know, sensitive data. Using https, they'd rather use Ssh

604

01:21:24.580 --> 01:21:27.430

Erick Verleye: to transfer those. It's more secure.

605

01:21:27.500 --> 01:21:35.060

Erick Verleye: And they also didn't like people. You know they didn't wanna have people using username and password to to clone https. So

606

01:21:35.150 --> 01:21:39.069

Erick Verleye: if it's a private repo, you have to use the Ssh, yeah, URL,

607

01:21:39.850 --> 01:21:44.509

Erick Verleye: and you have to have your key pair added.

608

01:21:44.780 --> 01:21:45.610

so

609

01:21:48.060 --> 01:21:59.280

Erick Verleye: okay, so you can click on these 2 things. You know, you can click on. Pass here to to get to those directories. But if you just wanna go all the way back to your home directory, if you just wanna total reset.

610

01:21:59.340 --> 01:22:02.490

Erick Verleye: you can press this icon here.

611

01:22:03.380 --> 01:22:06.979

Erick Verleye: and it will take you all the way back. Tom.

612

01:22:08.650 --> 01:22:09.450

So

613

01:22:13.820 --> 01:22:16.049

Erick Verleye: okay,

614

01:22:17.180 --> 01:22:22.600

Erick Verleye: yeah. Thanks. Also. Yeah. Directory and folder. Can

615

01:22:23.170 --> 01:22:25.950

Erick Verleye: pretty much be used Internet interchangeably. So

616

01:22:26.840 --> 01:22:38.740

Ty Tuff, Ph.D.: alright, I think we're gonna do another check in with everybody back on the Google, Doc. And so if everybody could go back to that document, we're adding, we're gonna add a few questions.

617

01:22:40.020 --> 01:22:50.239

Ty Tuff, Ph.D.: about how people are getting along with this. Let me put that link back into the thing.

618

01:22:52.470 --> 01:22:54.479

Ty Tuff, Ph.D.: Just Google, Doc, again.

619

01:22:59.990 --> 01:23:09.760

Ty Tuff, Ph.D.: Yeah, so right now, the questions here are, yeah, did you successfully get into the discovery environment? So give us a plus if you did, or a minus. If you didn't.

620

01:23:10.160 --> 01:23:21.679

Ty Tuff, Ph.D.: did you get into the Jupiter hub? Give us a plus if you did, or a minus, if you didn't. did you add an Ssh key to Github successfully? Give us a plus if you did, or a minus if you didn't.

621

01:23:21.830 --> 01:23:30.409

Ty Tuff, Ph.D.: and I was able to clone, clone a repository. Give us a yes, if you did, or plus plus if you did or and minus, if you didn't

622

01:23:44.160 --> 01:23:58.510

Ty Tuff, Ph.D.: alright, it looks like we got almost everyone but we do have at least one minus all the way back at the discovery environment. So if that person wanted to. Message, Nate

623

01:23:58.580 --> 01:24:03.680

Ty Tuff, Ph.D.: quarter send a private message to Nate. He could try to set up a little

624

01:24:03.980 --> 01:24:13.330

Ty Tuff, Ph.D.: little side room to maybe get you up and running and help you through some problems that you're having. So that one person

that wasn't even getting on the discovery environment. Yet let us help you with that

625

01:24:13.720 --> 01:24:23.430

Ty Tuff, Ph.D.: then it looks like if people got through that stage they were generally pretty successful up until the Ssh key. So I see, looks like 2 people.

626

01:24:23.780 --> 01:24:38.109

Ty Tuff, Ph.D.: 3 people, maybe sort of struggle with those last 3 steps. So a don't stress. It's sort of the hard, weird part and is not super critical, for your success will help you get through those points.

627

01:24:38.170 --> 01:24:50.780

Ty Tuff, Ph.D.: but let's see. let's try at least get those. The Discovery Environment Person first into a breakout group, and then we maybe will go back and do some Ssh key stuff with people in breakout groups in a little bit.

628

01:24:50.830 --> 01:24:53.969

Ty Tuff, Ph.D.: But it looks like most people are coming along with us. Go ahead, Elsa.

629

01:24:54.550 --> 01:25:07.769

Elsa Culler: Yeah. So I am planning to put everybody in breakout rooms within groups of 2 to work on this activity. And so when you, when we're working on the activity, everybody will have

630

01:25:07.910 --> 01:25:19.989

Elsa Culler: an opportunity to again work on cloning repositories and using the discovery environment. I am making one room for troubleshooting. So again, if you contact Nate

631

01:25:20.080 --> 01:25:26.430

Elsa Culler: and let him know that you need troubleshooting, then we will pull you into that room and figure that out

632

01:25:27.430 --> 01:25:29.840

Elsa Culler: because that work for everyone.

633

01:25:32.790 --> 01:25:33.840

Elsa Culler: Yeah.

634

01:25:34.000 --> 01:25:36.680

Elsa Culler: So

635

01:25:36.710 --> 01:25:42.989

Elsa Culler: I am going to make these breakout rooms. And so I want to go over

636

01:25:43.430 --> 01:25:48.189

Elsa Culler: briefly what you guys will be doing in the breakout room.

637

01:25:53.260 --> 01:25:57.349

Elsa Culler: okay. So you can see

638

01:25:58.050 --> 01:26:02.479

Elsa Culler: a. This is our

639

01:26:02.870 --> 01:26:08.349

Elsa Culler: agenda. We're probably not going to get through all of this, and that's totally fine.

640

01:26:08.670 --> 01:26:16.170

Elsa Culler: But what you're going to do in the breakout room is this set of tasks right here.

641

01:26:16.350 --> 01:26:25.269

Elsa Culler: And so I want to. I'll put this in the chat now I think you should still have access to it when we go into the breakout rooms.

642

01:26:25.390 --> 01:26:31.340

Elsa Culler: But if not, I will put that in here. And so what you're gonna do is you're gonna be in a group of 2.

643

01:26:31.420 --> 01:26:36.269

Elsa Culler: Only one of you should click on this link here

644

01:26:36.350 --> 01:26:47.690

Elsa Culler: because you're gonna be working on 2 people working on one repository. And so this is going to create a repository for you that contains 2

645

01:26:48.230 --> 01:26:51.739

Elsa Culler: files that you can edit, and for you to collaborate on

646

01:26:51.980 --> 01:27:02.439

Elsa Culler: one of the files is for working with some annual or working with some la temperature data that's also included in the repository.

647

01:27:03.070 --> 01:27:07.780

Elsa Culler: And the other notebook is, gonna be about analyzing that data. Once it has been

648

01:27:07.800 --> 01:27:14.280

Elsa Culler: wrangled and put into the correct format. So

649

01:27:14.580 --> 01:27:17.779

Elsa Culler: one person accepts the Github classroom assignment.

650

01:27:18.010 --> 01:27:26.759

Elsa Culler: But then both team members should clone the github hub repository into cybers, using either jubilee or our studio.

651

01:27:26.960 --> 01:27:32.620

Elsa Culler: And don't worry about this, because we will go over it when we bring you back.

652

01:27:32.820 --> 01:27:43.110

Elsa Culler: but do make sure that both team members have the URL to their Github Repository. So if I open up this

653

01:27:43.370 --> 01:27:46.710

Elsa Culler: link, which again, only one of you should do.

654

01:27:47.790 --> 01:27:54.620

Elsa Culler: It's gonna have this. Accept this assignment, page. and it's not a big deal. Also, if

655

01:27:55.420 --> 01:28:02.930

Elsa Culler: if both of you accept the assignment. Just decide between the 2 of you which one of the repositories you want to use.

656

01:28:03.490 --> 01:28:09.480

Elsa Culler: So it's gonna bring up this page. It says, refresh this page. To see updates should be pretty immediate.

657

01:28:09.660 --> 01:28:11.460

Elsa Culler: and if you refresh the page

658

01:28:11.640 --> 01:28:14.169

Elsa Culler: and you will get this link here.

659

01:28:14.230 --> 01:28:17.039

Elsa Culler: So you'll be following the steps here.

660

01:28:17.360 --> 01:28:19.250

Elsa Culler: and then

661

01:28:19.660 --> 01:28:26.249

Elsa Culler: you'll be able to get both the Ssh and the https Urls here.

662

01:28:26.510 --> 01:28:29.289

Elsa Culler: use the Ssh one, because we've got ssh

663

01:28:29.740 --> 01:28:42.629

Elsa Culler: setup. And here's the copy button, and again we will go over how to do this. So if you're if you're not figuring out how to do this in the break out room. That is

664

01:28:42.730 --> 01:28:46.759

Elsa Culler: totally okay. What you can do instead

665

01:28:46.810 --> 01:28:50.039

Elsa Culler: is open up the notebooks here.

666

01:28:51.220 --> 01:28:54.480

Elsa Culler: In Github and

667

01:28:55.330 --> 01:29:00.070

Elsa Culler: do this step one. So you're gonna talk to each other about

668

01:29:00.230 --> 01:29:17.210

Elsa Culler: what file format you want your data, in what columns do you need in your data? And what will the data in each column look like? And for reference, you're going to be making some monthly sorry, some monthly la temperature data into annual la temperature data.

669

01:29:18.340 --> 01:29:22.200

Elsa Culler: From 1945 to present.

670

01:29:23.200 --> 01:29:24.470

Elsa Culler: Okay.

671

01:29:24.950 --> 01:29:30.130

Elsa Culler: you will also, as a group, choose which person will work on which notebook.

672

01:29:30.540 --> 01:29:35.940

Elsa Culler: so one of the notebooks is in our notebook, and one of the notebooks is a python notebook.

673

01:29:36.050 --> 01:29:39.540

Elsa Culler: But there should be enough instructions in there for

674

01:29:39.850 --> 01:29:44.390

Elsa Culler: for anybody to complete either notebook.

675

01:29:44.820 --> 01:29:57.240

Elsa Culler: And I already said to plan what your intermediate data file will look like. Okay, so we're gonna do these breakout rooms for about

676

01:29:57.500 --> 01:29:58.810

Elsa Culler: 10 min.

677

01:29:59.690 --> 01:30:13.390

Elsa Culler: You can. In the breakout rooms. You should be able to use the ask for help feature in order to get someone from the facilitating team to come help you out.

678

01:30:13.820 --> 01:30:17.850

Elsa Culler: And like Ty says.

679

01:30:18.060 --> 01:30:22.720

Elsa Culler: we, really, the point of today is playing around the discovery environment.

680

01:30:22.970 --> 01:30:26.550

Elsa Culler: playing around with Github, getting familiar with this stuff.

681

01:30:26.560 --> 01:30:28.600

Elsa Culler: and we're not expecting

682

01:30:28.770 --> 01:30:47.810

Elsa Culler: necessarily, even any of you, to walk away expert on doing all of these steps today. What we're trying to do is to get it. So that next time we go over this it goes a little bit faster, and the next time it goes a little bit faster. So that by the time we get to the hackathon

683

01:30:47.820 --> 01:30:52.130

Elsa Culler: we can read through this part of the setup

684

01:30:52.810 --> 01:30:55.390

Elsa Culler: so

685

01:30:56.580 --> 01:31:01.870

Elsa Culler: I put the link to the agenda in the chat. I'm going to do that

686

01:31:01.980 --> 01:31:06.839

Elsa Culler: again. and then I'm going to open up these breakout

rooms.

687

01:31:08.820 --> 01:31:26.069

Rachel Lieber: I'll say, can I share my screen really quickly, as I get into group. Rachel, you're doing your thing. Yes, everybody, take a deep breath. We've just covered a lot of information. So as we get ready to work together, I wanted to give some reminders about our values

688

01:31:26.220 --> 01:31:38.799

Rachel Lieber: as we work together, so take a moment to just stretch in whatever way that looks for you. As we prepare to get into our break-it rooms and go ahead and review our values.

689

01:31:38.920 --> 01:31:44.700

Rachel Lieber: A people centered kind, innovative environmental data, science and learning.

690

01:31:57.940 --> 01:32:01.680

Rachel Lieber: Alright. So I think we're ready. Now

691

01:32:13.550 --> 01:32:19.519

Ty Tuff, Ph.D.: we have a raised hand. Thanks. Raise their hand as well, and ask a question.

692

01:32:22.870 --> 01:32:25.249

Rachel Lieber: I don't feel like they're not in here anymore.

693

01:32:36.520 --> 01:32:40.869

Tyson (CyVerse) he/him: Trying to teach people cybers and 15 min is difficult.

694

01:32:42.770 --> 01:32:43.750

Ty Tuff, Ph.D.: We have.

695

01:32:54.260 --> 01:32:55.420

Elsa Culler: Okay.

696

01:33:02.530 --> 01:33:17.320

Jen Kovacs (she/her/hers): Hi, I, I'm gonna be problematic. So I'm

actually in 2 places. But I'm only one person. Because I have 2 screens and only visuals on one. Sorry. I. I'm in Room 11 and Room 12.

697

01:33:17.350 --> 01:33:23.559

Jen Kovacs (she/her/hers): But I'm only going to be able to interact in Room 12 and not Room 11. So who's ever in Room 11 is in there by themselves.

698

01:33:23.930 --> 01:33:25.070

Jen Kovacs (she/her/hers): Sorry to be.

699

01:33:36.760 --> 01:33:38.980

Lise St Denis: Hey? Should I be in a breakout room?

700

01:33:39.500 --> 01:33:52.280

Matt Austin (he/him): You can go to Room 11. I can put you one if you in one, if you want least I left. I'm fine. I'm fine. I just

701

01:33:54.680 --> 01:33:59.149

Elsa Culler: okay. Looks like there's a couple still in here that don't have breakout rooms.

702

01:34:00.460 --> 01:34:03.340

Elsa Culler: Yeah, I'm kind of moving people around

703

01:34:04.590 --> 01:34:06.030

Elsa Culler: so.

704

01:34:07.470 --> 01:34:13.830

Elsa Culler: yeah, people should have breakout rooms, but not everybody has joined there, so

705

01:34:14.640 --> 01:34:18.980

Elsa Culler: can we?

706

01:34:19.100 --> 01:34:23.730

Erick Verleye: just so. We don't forget we like. Tell everybody to terminate their

707

01:34:24.890 --> 01:34:27.609
analyses at the end of this.

708
01:34:29.030 --> 01:34:31.250
Elsa Culler: Yep, good job. Great idea.

709
01:34:33.610 --> 01:34:40.870
Nate Quarderer (Earth Lab/ ESIIL): hey? Can I have a request. can I, Eric? Would you be able to go to Room 2 and talk with Ian?

710
01:34:40.990 --> 01:34:51.250
Nate Quarderer (Earth Lab/ ESIIL): He slacked me and had a question, and I wondered if you might be able to help him. And if it's something that like we need to set up a separate meeting, for don't hesitate to do that, and we can over that.

711
01:34:51.780 --> 01:34:54.209
Erick Verleye: Sure. Yeah, how do I?

712
01:34:54.430 --> 01:35:02.269
Nate Quarderer (Earth Lab/ ESIIL): I think if you click on breakout rooms or hold on, I think I can do it. So what term do you want them in?

713
01:35:02.470 --> 01:35:07.290
Rachel Lieber: Can you send in the room to thank you, Rachel?

714
01:35:11.380 --> 01:35:15.890
Matt Austin (he/him): I don't believe I ever got a breakout room. Join option.

715
01:35:17.770 --> 01:35:21.430
Elsa Culler: sorry. Who is

716
01:35:21.590 --> 01:35:36.960
Elsa Culler: okay. I think that you have one. But yeah, I was just trying to figure that out.

717
01:35:37.600 --> 01:35:38.710
Nate Quarderer (Earth Lab/ ESIIL): Another one.

718

01:35:39.430 --> 01:35:40.300

Rachel Lieber: Okay.

719

01:35:43.320 --> 01:35:46.089

Ty Tuff, Ph.D.: I have a warning here that somebody is in the waiting room.

720

01:35:46.910 --> 01:35:48.910

Rachel Lieber: Right?

721

01:35:53.080 --> 01:35:55.319

Nate Quarderer (Earth Lab/ ESIIL): Okay. Matt has been.

722

01:35:58.160 --> 01:36:04.620

Tyson (CyVerse) he/him: So I hope you guys noticed my background. This is my Dumpster fire workshop background

723

01:36:05.340 --> 01:36:09.269

Ty Tuff, Ph.D.: with the easel logo.

724

01:36:10.500 --> 01:36:13.960

Tyson (CyVerse) he/him: We should we should reserve this for later in workshops.

725

01:36:15.310 --> 01:36:22.819

Elsa Culler: Yeah, Rachel's the one to yell at you for mismanagement.

726

01:36:23.710 --> 01:36:27.100

Elsa Culler: This is an official one. II got this from the site visit

727

01:36:29.790 --> 01:36:30.470

that

728

01:36:35.050 --> 01:36:40.270

Rachel Lieber: I just see a couple people here that I'm do they need rooms?

729

01:36:41.560 --> 01:36:51.079

Elsa Culler: Yeah, I'm not sure us. Oscar, can you hear us? I see Oscar assigned to Room 14. But I don't think that

730

01:36:51.490 --> 01:36:53.879

Elsa Culler: Umhm Rica is is

731

01:36:54.110 --> 01:36:56.470

Elsa Culler: oh, Rica's assigned to room one.

732

01:36:57.000 --> 01:37:01.610

Elsa Culler: I'm gonna move them to 14 with Oscar.

733

01:37:02.560 --> 01:37:05.659

Elsa Culler: So Oscar and Rika, if you can hear us.

734

01:37:06.000 --> 01:37:09.529

Elsa Culler: go ahead and join the breakout room

735

01:37:09.850 --> 01:37:11.770

Elsa Culler: so you can get started on this.

736

01:37:18.300 --> 01:37:23.980

Ty Tuff, Ph.D.: Alright. So in like 5 min we bring everybody back and just have them shut down their machines and call it good for the day.

737

01:37:26.700 --> 01:37:35.520

Rachel Lieber: and I think every like your reassurance along the way has been really nice, everybody in the chat and everything. So

738

01:37:35.700 --> 01:37:36.810

Rachel Lieber: yeah.

739

01:37:36.850 --> 01:37:39.820

Rachel Lieber: it's a lot, and it moves quickly.

740

01:37:41.330 --> 01:37:44.610

Rachel Lieber: And it's virtual. I mean, there's like a lot of elements to it.

741

01:37:59.720 --> 01:38:04.819

Nate Quarderer (Earth Lab/ ESIIL): Yeah, also, do you want when they come back? Do you want them to share anything out? Or do we want to like

742

01:38:04.990 --> 01:38:13.249

Nate Quarderer (Earth Lab/ ESIIL): gotten so many unsolicited compliments in my life? Youtube Star, 1 million views on Youtube.

743

01:38:13.530 --> 01:38:20.619

Elsa Culler: at least 23 views on Youtube.

744

01:38:20.670 --> 01:38:30.500

Nate Quarderer (Earth Lab/ ESIIL): Well, it looks like folks are making their way back in from the breakout rooms, and so thanks everybody for your participation there. We did add one more item

745

01:38:30.570 --> 01:38:38.260

Nate Quarderer (Earth Lab/ ESIIL): to the Google Docs survey that we've kind of been building throughout the morning. And we're just curious, like.

746

01:38:39.250 --> 01:39:02.979

Nate Quarderer (Earth Lab/ ESIIL): on like a level of confidence like, how confident are you in your ability to like walk through these steps again? The steps that Eric, and also kind of walked you through, not confident, somewhat confident, very confident. Remember, we're good. We recorded this so you could go back and watch it. We're gonna make maybe a clean recording, too, but doesn't have all the stopping and starting, and so keep your eyes cool for that.

747

01:39:03.360 --> 01:39:06.700

Nate Quarderer (Earth Lab/ ESIIL): You wouldn't be asked to do this blindly, like you have some resources.

748

01:39:08.530 --> 01:39:17.000

Nate Quarderer (Earth Lab/ ESIIL): I put a link in the chat to the doc, too. The we've got a few minutes left. I know that we want to walk folks through how to shut down

749

01:39:17.050 --> 01:39:23.320

Nate Quarderer (Earth Lab/ ESIIL): the instance that you set up. And so I think either Eric or else is gonna walk folks through that

750

01:39:23.590 --> 01:39:27.500

Nate Quarderer (Earth Lab/ ESIIL): so you have one question from Jennifer in the chat box.

751

01:39:27.610 --> 01:39:33.299

Nate Quarderer (Earth Lab/ ESIIL): How to make individual cells run inside fibers. I don't know if that's something that we can answer here, quick.

752

01:39:33.630 --> 01:39:40.230

Nate Quarderer (Earth Lab/ ESIIL): So yeah, also, or Eric. Either. One of you 2 want to take over in terms of

753

01:39:41.080 --> 01:39:47.559

Nate Quarderer (Earth Lab/ ESIIL): showing folks how to shut things down, and we can try to get questions in the chat answered.

754

01:39:49.170 --> 01:39:51.730

Elsa Culler: I'm going to volunteer Eric for that.

755

01:39:52.460 --> 01:39:59.250

Erick Verleye: Yeah, yeah, for sure. alright, let me go.

756

01:39:59.490 --> 01:40:08.649

Ty Tuff, Ph.D.: There's a request about how to hit the push button to recommit something. So maybe before you on your way to shutting it down, you could

757

01:40:08.760 --> 01:40:10.489

Ty Tuff, Ph.D.: commit some change real quick.

758

01:40:11.710 --> 01:40:15.110

Yeah, sure.

759

01:40:16.640 --> 01:40:17.740

Erick Verleye: yeah.

760

01:40:18.190 --> 01:40:38.110

Ty Tuff, Ph.D.: Sorry. I already I already terminated my analysis. But how about you? Just punch it till next week just cause long 2 h, so we'll show you how to shut it down. And then next week we'll review this really quickly, and we'll be pushing and pulling next week and make sure everybody's got it.

761

01:40:38.390 --> 01:40:39.230

Erick Verleye: Yeah.

762

01:40:40.620 --> 01:40:56.950

Erick Verleye: yeah. So during the hackathon, hopefully, you know, you can just spin up one analysis and then keep it for the 2 and a half days. but since it's gonna be another couple of weeks, we don't want to just have this running and use up the resources. So

763

01:40:57.110 --> 01:41:01.100

Erick Verleye: if you go back to dots, cybers.org.

764

01:41:01.200 --> 01:41:03.690

If you already have this tab open.

765

01:41:04.930 --> 01:41:09.029

Erick Verleye: and then you go to your analysis

766

01:41:09.680 --> 01:41:11.730

analysis. Here

767

01:41:12.400 --> 01:41:14.080

Erick Verleye: on the left side

768

01:41:15.320 --> 01:41:22.660

Erick Verleye: you should see most. You might, or probably have one here in the list, maybe 2 analyses.

769

01:41:23.940 --> 01:41:27.079

Erick Verleye: go ahead. And it should say, running.

770

01:41:27.600 --> 01:41:36.309

Erick Verleye: So just check market. and on the right side here, oh, okay, yeah. You already stopped that one.

771

01:41:36.520 --> 01:41:48.209

Erick Verleye: Yeah, yeah. Yeah. This one. I just thought a little bit ago, but if it's running it should have a little. Is it red and a little red? Yeah. And if you click on the more actions. I think you'll see all the options.

772

01:41:48.410 --> 01:41:52.960

Jen Kovacs (she/her/hers): Yeah, that's right. I guess. No.

773

01:41:53.570 --> 01:41:54.880

Erick Verleye: So

774

01:41:57.420 --> 01:42:01.539

Erick Verleye: yeah, you could relaunch it. But

775

01:42:01.780 --> 01:42:13.270

Tyson (CyVerse) he/him: I wanna add a point. I'm I'm seeing some of the comments on the chat. So you're starting a virtual machine and you're running your analysis. And you're adding your your Github, private key and whatnot.

776

01:42:13.280 --> 01:42:27.660

Tyson (CyVerse) he/him: When you turn this thing off, it is going to go poof into the ether and disappear. So if you have not pushed your changes back up to Github or download it. You can actually download files out of this thing to your local computer.

777

01:42:27.680 --> 01:42:41.470

Tyson (CyVerse) he/him: But if you don't commit your changes. When you turn this thing off, it's gonna go away. This is no different than sitting at a library computer and putting your USB key in it. When you get up to leave, you take it with you.

778

01:42:41.600 --> 01:42:47.759

Tyson (CyVerse) he/him: So there, there are some other aspects like with the data store. You can copy files into that. But we'll do that on another day.

779

01:42:49.750 --> 01:42:50.650

Yup.

780

01:42:50.870 --> 01:42:52.750

Erick Verleye: now, once you terminate.

781

01:42:53.940 --> 01:42:55.970

it's gone. So.

782

01:42:56.630 --> 01:43:03.210

Ty Tuff, Ph.D.: Eric, I need to terminate mine. Well, when I share my screen real quick, and just show people, since my button will actually work.

783

01:43:03.580 --> 01:43:05.120

Erick Verleye: sure.

784

01:43:06.950 --> 01:43:19.479

Tyson (CyVerse) he/him: And while Ty is doing that, I just want to add, if you want to run this thing for a few days, it'll run for 72 h without turning it off. And you see, Ty actually has an hourglass so he can extend it for another 3 days.

785

01:43:19.570 --> 01:43:35.070

Tyson (CyVerse) he/him: So if you do want to run a long term analysis, say, it's gonna if you take a few days to run. You can push the time out for a few days. Just remember, though, you're burning hours every hour on your allocation, you you leave this thing running. So you wanna you wanna mind your minutes.

786

01:43:35.660 --> 01:43:37.400

Ty Tuff, Ph.D.: So here I am terminating

787

01:43:42.380 --> 01:43:43.230

Ty Tuff, Ph.D.: thing.

788

01:43:45.010 --> 01:43:46.280

Ty Tuff, Ph.D.: You use that.

789

01:43:53.240 --> 01:44:09.469

Ty Tuff, Ph.D.: Okay, I just want to reiterate the things that we want you to have gotten from today are getting into the discovery environment and interacting your discovery environment with Github. I know there were some questions about the final push. We'll deal with those next week.

790

01:44:09.580 --> 01:44:21.799

Ty Tuff, Ph.D.: So next week is dealing with real data. So we're gonna talk about some of the data that we prepared for the hackathon, how to get those data in and out of discovery environment quickly. And how to interact that with Github.

791

01:44:22.020 --> 01:44:34.680

Ty Tuff, Ph.D.: And then the third week will be AI instead of how to use AI and analytics on some of those data that'd be prepared for you. So yeah, does anyone have any questions, comments, concerns with the last 5 min before we

792

01:44:34.690 --> 01:44:35.930

Ty Tuff, Ph.D.: and today.

793

01:44:47.330 --> 01:44:58.560

Nate Quarderer (Earth Lab/ ESIIL): as folks are as folks are leaving, there's no homework, Jennifer. No, just come to the next one. Your hope and I would say to his folks are leaving, just make sure to give a round of applause to Eric, and also

794

01:44:58.680 --> 01:45:06.290

Nate Quarderer (Earth Lab/ ESIIL): for all of their hard work today. Thank you folks so much. And for Tyson for coming and hanging out, we appreciate you. Hi, thank you so much

795

01:45:06.570 --> 01:45:14.640

Nate Quarderer (Earth Lab/ ESIIL): for helping manage the chat. And, Rachel, thank you for all your work. Keeping us organized, Virginia. Thank you

796

01:45:14.900 --> 01:45:16.289

Nate Quarderer (Earth Lab/ ESIIL): for coordinating.

797

01:45:16.610 --> 01:45:25.389

Nate Quarderer (Earth Lab/ ESIIL): And and thanks to our audience members as well. Thanks Lease and James and Lily Sonobi's for being here friends.

798

01:45:25.510 --> 01:45:48.830

Nate Quarderer (Earth Lab/ ESIIL): We look forward to seeing everybody next week same time same place and again, if you restock or loss, don't sweat it. This is not meant to be stressful. We are here to help you. We're happy to set up office hours or anything to help folks. We will have a recording of today's work available so that you can go back and check that out as well. So thanks again, everybody.