Dawid Wozniak:
OK, so as you can see on the screen, hopefully. Yeah, it's recording what we are saying, and I will start with some presentation of this tool. So, I believe that we can start now. And so, it is the tool it's called GitTruck and if you open in the local machine, you will get screen like this. So, it is the list of the repository on the folder desktop. If you preanalyse them then you don't need to do that to any time. Of course, you can explicitly want to reanalyse those. I preanalysed 2 of them. So, I think that we can go, let's say to NAV. So it's just restoring everything to the memory from the file and we have an issue working with the huge repositories. So, we only take 5000 latest commits and need this because otherwise it would take like so much time to load as we have so commits, in our projects and everything needs to go to the memory. So that's problematic. Yeah, but here what you can see on the screen. It is the visualisation. So, on the left side you can see the name of the repository, which branch we analyse, when it was analysed, of which commits in the short versions of the hash, how many files are here, and we have some feedback box. Then we have the chart. Size of the bubble is meaningful. So, if you look at this bubble it this „app" folder. So, it's basically saying here that this folder is the biggest in the application and in this in this repository. So, this application is the biggest one comparing to this „test" that has this size and if you take the ratio in the real file explorer it's supposed to be more or less the same here. So, if it's twice big in terms of the file size, the bubbles should also be twice big.

Alexander:
Here we file size…

Dawid Wozniak:
Yeah file size like one MB and two megabytes. Then you have two files and this this is analysing the file size. Yeah, this is kind of information presented here like out-of-the-box. Then we also have some other metrics that they are colour coded. So, if we zoom in to some part, yeah, then you have some colours and by default, you have just the file extension. So, we have a lot of file extension there and maybe it's not that clear which corresponds to which file extension. Then you can hover over them and you can see the name of this file and the extension. So that's the one metric. Then that is number of commits. So then if something is darker, you know that they are more commits that we analyse there. Something lighter means than there is less comments that we have. So here we have 39, but we also have some files that have not been edited during those 5000 comments. That is why they are kind of gray out. In this visualisation we have the same metrics here for the last change. So, if something is lighter, it means that it was changed more recently. So here we have like 7 days ago and here we can see like it's almost one year ago. Yeah, we have the single author. It is a metrics when we basically have two categories, we have files that were created by one person and maybe it was just moving, renaming, or someone created this file to extract some logic. You have files that have multiple authors and no author if you don't have any commits. So, we have top contributor. So, we look through all the commits who is the person that committed the most and if there is now the person, we just read the latest comments and then we define one person that should be the top contributor. So, we should contact this person, in theory, to ask something about this file. If you need to work on that and then we have track factor. So how many people actually touched this file and here they might just change like the comma or do some small changes. We'll still include them. So here we have one author that you can know from other metrics, but here we can have like many of them, and I will come back to the file extension. It is clear and then we have chart depth. So, as you can see when we are on the global level, it's very crowded as we have a lot of files and it also takes a lot of time to load. So, if you want to speed it up, you can actually change this chart depth to some number and then it would hopefully show here. I think that I should have disabled animation first.

So, as I mention they are nice when you have small repository. So, when you have one level then you will see exactly what you will see if you go to the File Explorer then you can see okay on the top level I have some more photos and so on. We can go deeper and deeper. Let's go to the photo. Then we don't have that much bubbles and it's basically renders a little faster. So, we can find out more when you click on something you will get some details. So, if you click on the folder, you'll get how many files are here, how many sub folders are there and you can see the localization of this and the author distribution. So, it is basically how we determine the top contributor and you can see all people who contributed to this folder, let's say. Here, you have a glimpse on the commit history. So here, you have some dates and some commits that were done. But here, it is just the glimpse. They are not clickable, and you cannot do much with them. Then you have this commit tab. So, this is actually what I'm responsible for. So at the beginning, you have them just sorted from latest to oldest commits, all the commits that you can see, you can change it to be from oldest to latest. They are grouped by the date. So, on this date, we have more than one comments, they are here in this group. So, you can collapse this group as you are not interested in this day. You look down the list and you can also have them sorted or grouped by author. So, then you can see okay this is what Mark did and then you have OK this is what another person did and so on. I will stick with the dates. It's easier and we have some filters. Well, maybe you remember that in the commit message there was some „fix". If you put „fix" here, you have only commits with that. So, including this word „fix" form the commit message. But maybe it's also not enough, and you remember that there was „fix" somewhere, so then you can see if it is in the commit description. Then we have commits like this which doesn't have this word in the title, but it's somewhere here in the description. It's in this place and so now you are in the detail view on the commit. So, you have message, description, hash, when it was created, by whom. If you click show edited files, then we fetch which files were changed with this particular commit and if they are present in the repository, we will highlight them. Everything else will be gray out. It's difficult to see which files are highlighted if they are very small. So, you can imagine that if the bubble is very small, so it's small file, then it's difficult to spot. That is why we will also list them here and below that. So, if we wait a minute, I think that it should finish. It is relatively small commit. I think we also don't put any metres or any links here because of the security issues. In yhis case, I might just make it a little smarter and make this box little wider so you can see the full path to the file that was edited, yeah. Finally, we have also authors, so you can say, OK, this person maybe due to your knowledge, I'm looking for. Actually, it's not this. So, I can exclude this particular user and then I can see all commits but this person's commits and we have dates. So, the dates first of all have the informative role. So, if I change some filters, now it's slow because it's rendering. So then I change her. The dates from which date to which date, they include first and last commits. So, if I add here some extra filter, then they change, but you can also set it to some fix date, so you can say OK, I'm just interested what happened in 2023 so that we start from that and the list has been updated. Yeah. So, it was the short introduction, short presentation. What I'm going to ask about now is the UI. So, if you look at the UI of this commit tab and what do you think about that information about the commit messages, commit history presented in the clear and easy to navigate UI?

Alexander:
So we're only evaluating this right side?

Dawid Wozniak:
So the one thing here in the general, the commit part, another is this commit tab. And of course, to get here you need to click some bubble, so it's also the part of the overall experience with this path to see commits. So it all should be included. But first of all, I think that this commits view is the most important part of the UI for comment history in this product, yeah.

Alexander:
Can you go back to the general tab? Amazed. Really nice. Really nice tool. I thought this was pretty cool. The author distribution.

Dawid Wozniak:
Yeah, that's actually something that used to be here for a long time. It was not the part of my master thesis. I mentioned that. But yeah, it's nice that we have it here.

Alexander:
Yeah. That's not part of yours thing that I commented. So now you're on the sorting.

Dawid Wozniak:
Yeah, so here you can choose that you want to have dates or you can sort out so by author and you've got an order it supposed to be, yeah.

Alexander:
I think one thing I've noticed a few, I mean again, I think it's really nice. One thing feature wise was I wondered about date and then descending. I don't know when I would use that I think.

Dawid Wozniak:
It is from latest to latest. It doesn't load like all the way back to the first commit. We are still working on the scalability issues so yeah hopefully at some point you can actually request to have the whole history here. Yeah.

Alexander:
I mean like for example here with dates. I like how it's ordered by date and I'm guessing within each group it's also by time.

Dawid Wozniak:
Yeah. So here it is always on the top of the list, the latest on the top. So, if you look here, it was committed like around 7:00 PM and if you look down the list then you have like around 5:00 PM and so on. So, it's latest on the top and oldest on the bottom, if you have more than one commit in the group. Also, if you have the author, it's the same, so the latest are on the top and the authors are in the group, yeah.

Alexander:
That's good. Can you have the little more split between the dates? Cause otherwise I think the groups could kind of collapse together and I would, maybe you could make the dates section like bold. I don't know to make it even clearer.

Dawid Wozniak:
Yeah, that's a nice suggestion. So, if you needed to give a grade from zero, that's it is like completely not usable UI to ten that's like perfect UI. Nothing to change. What would be the grade?

Alexander:
I'm really impressed. In a moment… OK. You want me to get exact that one… I can say eight.

Dawid Wozniak:
OK, that's nice. And now I have a question about general tool. So everything you can see here and if you look at it, do you think that it would be beneficial to use this tool in your work or site project for any purpose? And it's also the scale question from zero that you will never use it this product to ten that you think that you can use it for all your projects private and work project multiple times a day.

Alexander:
Yeah, I was thinking about that. That's because I think I would have to use a little bit to see. That's one thing I noticed that I actually think really useful is when you can see the bubbles within like a specific area. You can see someone that committed a lot to this area. And so that tells you like that person is probably an owner, yeah.

Dawid Wozniak:
Like that?

Alexander:
Yeah, exactly. That's actually, I mean, especially for such a big repository like this with such a long history. That's pretty useful actually because that it's not always clear who knows about this area, so this could get like a visualisation of that. I mean, a lot of the other things, obviously, like seeing commit messages and stuff like that. That's already natural developement. You want me to read from zero to ten and zero was not usable at all. And 10 is?

Dawid Wozniak:
Yeah, it's like super usable.

Alexander:
I think it would be like in the middle of like five.

Dawid Wozniak:
That's a nice grade. So when you said five it means that there are some scenarios that you can use this product for.

Alexander:
Yeah, I noticed a couple.

Dawid Wozniak:
That's nice. Yeah. And I would like to ask what your primary usage of this comment tab would be. So, what kind of scenario you think? Some that would require you to go here and doing some sorting, some filtering to get some useful information. Do you have any thing that you think that can be fulfill by this tab?

Alexander:
So now you could filter, this is by author. Were there other filters?

Dawid Wozniak:
So yeah, I will repeat, we can filter by sampling of the commit message, or we can also search the description. We can philtre by author, and we can include some people exclude some people and we can filter by date. Here we also have the checkbox to show the merge commits view. That's designed for GitHub and then you have this functionality when you have many commits you can just basically say I don't want to see them and collapse them. Yeah. So that is what we can do here. And for sorting, we can sort by date or by author.

Alexander:
I feel like it's very similar to what we have in an DevOps already so. You know, I could use both. This is also really nice.

Dawid Wozniak:
Yeah. So, there are few differences. So the pure version of the DevOps. You cannot filter by author and include exclude things. And if you want to search for something, you actually need to scroll.

Yeah. So here you can also say, like, I'm interested what happened in the last year. And then if I change that, so I basically go here and say, OK, this then I have easier access to all the things that happened last year.

Alexander:
So it also might be useful for some people, I assume. For author, maybe for author, maybe it could be interesting. I don't know if I'd be interested in what one of my coworkers has done in the last year. Maybe my manager would be interested in seeing that, but maybe we have like some service accounts that you know autocreates PR and stuff that maybe sometimes that could be useful.

Dawid Wozniak:
Yeah, that's a nice scenario that can be fulfilled. And now when we play a little with it. I can ask you a few questions, do you think that there is something missing regarding this commit message history? Something that you would like to have here but it's not there. Some feature that would be beneficial for your work.

Alexander:
Yeah, I think you mentioned it clickable links could be useful, right? Clickable links like I mean like there and then it opens up a commit in the description - the links to the PR or the link to the item in the develops. I mean.

Dawid Wozniak:
So, in this case would be linked to the commits okay.

Alexander:
Yeah, but you mentioned there was some security stuff there.

Dawid Wozniak:
Yeah. So, the security staff was more connected with here. When you have an image there because then we actually need to fetch it and you put it here. So that's the problem they're having. Just the link to the request of the commit is not the problematic. It was just not requested. So, we have already the hash, we have the information from Git, what the URL of your repository is. So, it's relatively possible to add.

Alexander:
Now just wondering if I got here and I was interested in this commit, maybe I'll wanna see the files that were changed and the changes that basically that could be it like a natural next step.

Dawid Wozniak:
Yeah, that's a nice suggestion. It was also suggested by some other people. So, for now, we didn't do this because it takes a lot of time to actually generated in the nice way and but it's something that we might consider in the future work. OK, so it was my actually last question about the product, but maybe there is something that you would like to say that I haven't asked about and maybe not relating to commits.

Alexander:
Ohh, sorry. Can you go back those? Wasn't there something show edited files? Ohh there were some features like that.

Dawid Wozniak:
Yeah. So, I think that I mentioned that so then we will fetch which files were changed with this commit into view with this commit detail. We will show it in this commit view, list of them and we

will highlight them in the visualisation. So, depending how many files were changed and how big they are in the visualisation, they might be more or less visible. So here actually I don't know this comment, so we need to wait. Yeah, maybe it's a huge commit. Maybe it's just one file. You can see that this file was changed, so it's easy to spot because it's bigger than other files. Yeah. So here we have also two other files that were changed in „baseapp" and they are highlighted, but you need to zoom in somewhere, so the bubble becomes bigger. Otherwise, you have just this impression maybe just one file was changed.

Alexander:
Yeah. OK. So maybe like a link to the commit message. Then you can see the actual like changes in the files, right? This tool doesn't have that feature in it.

Dawid Wozniak:
OK, not yet but coming back, what I said, if you have some general comments about the tool or something that you would like to say regarding commits, but maybe also not regarding commits, something that you would like to have or basically opinions about this tool. It's time for you and then I have a few questions about your career, yeah.

Alexander:
I feel like there was just something about this option I was thinking…

Dawid Wozniak:
If you just get some idea when we talk, you can add it in the end. Yeah. So now, I will ask you a few questions. So, the first question is how many years you have worked professionally with IT projects, including part time jobs and it is in years, so you don't need to be precise to amounts of months or weeks.

Alexander:
Four years, I think.

Dawid Wozniak:
Yeah. And what is your primary role?

Alexander:
Primary goal?

Dawid Wozniak:
Primary role

Alexander:
Software engineer

Dawid Wozniak:
OK and when you think about your average team, how big it is including developers, tester and QAs, product managers, product owners but not the high management.

Alexander:
Like eight.

Dawid Wozniak:
When you have your average project, do you know how many commits are there and you can say like per day, per month, per week. And I mean the commits that actually go to the main or master

branch that you do in the project. So, if you have like a team working on the project, then you can guess like for example, yeah, so how many per day or per week or per month we add there.

Alexander:
Do you mean my team or the whole product?

Dawid Wozniak:
The whole product because it is actually question about the product. So, you can guess it is the estimation, like per week or per day, then I can scale it up. So, we can say per day I can multiply by 7 and and say okay it's per week.

Alexander:
Yeah, I think like per day 60.

Dawid Wozniak:
If you think about the file, so here we have like 36,986 files and what is the size of your average project is also the rough estimation in thousands of files and it is only about the files that you actually write. It does not include like auto generated files and files that are like fetched from NPM or some other distribution systems.

Alexander:
If we have two repositories, everything, so maybe those two bring up a lot, but a lot of the other ones that kind of small, so maybe 1000 or something. 800, maybe.

Dawid Wozniak:
So, it was my last question and now I have some choclate for you. You are one of the last people. So, you have a kind of limited choice. So, if you don't like any of them, you can arrange it in in something different. Yeah. So, thank you. And based on your feedback and feedback from other people, I will write my master thesis about the role of commit messages in the project visualisation. So, if you would like to be informed about the results, it would be in the article format, so we should not be that long. Then I can e-mail to you if you would like to have it.

Alexander:
So GitTruck tool already exists.

Dawid Wozniak:
Yeah, yeah exists. It is just a different version. So, my version is the beta version is something different. Yeah. And then we will merge it to the main one. So, there are also other people who work on this tool. So would you like to be informed about the results of my paper?

Alexander:
Yeah, sure.

Dawid Wozniak:
OK, great. So I will e-mail it to you, do they want to say anything else?

Alexander:
Yeah, just the feedback and this wasn't necessarily to your commit thing. It was just when we looked at this thing, there were a lot of files that did not bring any value that was „rdb", something files. Yeah. So maybe some ability to filter those files out there, ability to do that.

Dawid Wozniak:
So, if you go there and you select one of these files, let's say this one and then you say okay, actually

I'm not interested in this extension, you can click hide. Yeah, those files and then they are gone. We need to regenerate everything. So, it might be helpful to see what you would like to see. It is just difficult to predict which extension are not important for you. So, for some people they have like a lot of json file because there is a translation there and you will not usually change them. But for some people json file they are important because they work for the test of some project. Then you want to see who changed some json response of somethings. So now we removed them and you can go and search for some other things. If you want to show them again then you just click here and they will appear again. So, there are some functionalities to make it more flexible. So, if you click General, yo u can hide it here.

It is a top contributor, but if I go to file extension then this file extension is just gone, but we have some other file extension here. Yeah. So this actually hides one of this, you need to find the file that cause this extension and then click. I don't want to see files with this extension. Yeah, maybe we can also add this functionality here. So, you can basically like think I would like to see just CS files and so it might be more accessible that way. Yeah. It just the matter of taste in the context of the user experience.

Alexander:
Yeah, sure.

Dawid Wozniak:
OK. Thank you. So, it is the end. I will stop the transcription.