

Person1: From your point of view, what is sustainability in terms of software?

Person2: It's, uh, how reusable it is in future.

Person1: Mm-hmm.

Person2: As in, uh, using certain kind of techniques and procedures during development and design of software itself, so that it's reusable later on. Or how our software is coping up with the changes.

Person1: Mm-hmm.

Person2: Yeah.

Person1: And, what are the attributes or features of the software itself that let you believe it's sustainable?

Person2: Uh, it's, it de-, it depends on different, uh, things, as in during development, what kind of, uh, say, version control system we use-

Person1: Mm-hmm.

Person2: So that people can refer it later on and reproduce the results. It's kind of, uh, making your software and designs reproducible later on, on, just a little bit of tweaking so that it's reusable, and, uh, proper, you know, proper storage for the software, and the kind of development process that we use.

Person1: Hmm.

Person2: Or, the software engineering principles that we use during the de-, during its development, um, [inaudible 00:02:49] using Agile software development kind of techniques.

Person1: Mm-hmm.

Person2: Yeah, it's based on those factors that will decide whether it's sustainable or not. And then, also, um, [let's say I 00:03:01] use R as a language, I can, I can create end, uh, results in HTML or PDF file so that I can have [inaudible 00:03:12] the results [there 00:03:13] itself. or [inaudible 00:03:14] notebook, because those kinds of tools generally create results along with the code that you put, so it's easy to reproduce later on for whoever will be using the software if I leave.

Person1: Mm-hmm.

Person2: [Team 00:03:25], yeah.

Person1: Uh, regarding the software that you've developed, was sustainability a consideration?

Person2: Or, duration of the sustain- [inaudible 00:03:38].

Person1: Hmm?

Person2: What's that?

Person1: Uh, regarding the software that you've developed, was sustainability a consideration?

Person2: Other factors that I considered?

Person1: If, if sustainability was a factor in the software that you've developed.

Person2: Yeah.

Person1: It was?

Person2: So, y-you are asking me, um, what kind of techniques did I use, or, uh ...

Person1: I-if sustainability, in the definition you gave me, overall, uh, was it a factor in the software that you've developed?

Person2: Yes, that was the major factor, because, uh, when I started developing, due to my Master's project, I was using [few algorithms 00:04:21], and, uh, some packages which were already existing, but they were not documented properly, so I had to build them from scratch, kind of.

Person1: Mm-hmm.

Person2: Because I couldn't use certain modules, which I could easily fit on my module, and then use it later on. So, the time that I spent in, digging in stuff and then find all that how I can fit that module, so that could be saved, uh, if I considered the sustainability, if they could have considered sustainability factor-

Person1: Mm-hmm.

Person2: -by developing the component. So, by developing my component, I have included their components, but then, using, uh, I put it in the, this one, in my GitHub repository, and then documented everything, and even, uh, the college where I did this project, it was in City1. Not City1, it was just [inaudible 00:05:13]. So, we have, we have this, laptops to speak to the robot, so we have created a "read me" file documenting everything, basic steps that we want to-

Person1: Mmm.

Person2: -run before setting up that software. So we considered that thing, and then developed the component using all [inaudible 00:05:31] ones. Which were otherwise difficult to use.

Person1: So, it was a consideration from the beginning.

Person2: Yes.

Person1: Um, have you worked on any projects that were not sustainable?

Person2: Um, yes, but then I got through that they were not sustainable while I was, I started using them.

Person1: Mm-hmm.

Person2: In my project, so, yes.

Person1: So you have worked on projects that were not sustainable.

Person2: Yeah.

Person1: Uh, were there any consequences of it not being sustainable?

Person2: Um, yes, because, uh, other people will be working on, say, same kind of domain, and solving the same purpose, they have to reinvent the wheel again.

Person1: Mm-hmm. Yeah.

Person2: So, that could have saved them little time, if they could have used the component [software 00:06:26] the one which is, which was already built. And if at all it would have been sustainable.

Person1: Mmm.

Person2: So, that's the main reason it, instead of creating everything from the beginning, it would be good to use the components of the software built by others already. Because, there's no purpose, you're solving the same, um, goal, you are trying to achieve the same goal, but then you are trying to spend time in, um, building the components which were already there. So, that's the main consequence.

Person1: Mmm.

Person2: It's the time that matters in developing and releasing the software later on.

Person1: Mm-hmm.

Person2: And then, the problems that we face, the bugs that we get while using that component, which is not sustainable. So, it's better to have documentation in place and at least the steps that we, um, followed to, uh, get that software running. And then use it in our project, or any other project later.

Person1: Mmm. I see. Well, that's all I have for you today. Um ...