Homework: brainstorming

Programming Languages in Software Engineering at Constructor University Bremen

Maximum points: 14   Deadline: 21 September, 23:59

We're going to start out this course by discussing how you see the recent changes in software development, in particular with the growth of AI, and how you see this develop in the future. Based on your experience with AI tools and your expectations, we'd like you to imagine the language of the future. Throughout the course, you will implement a prototype. To compare these prototypes, you will also develop a cross-language benchmark.

The questions we are looking at are speculative, both because they are about the future, and because you may not have much experience in these topics. I encourage you to refer to resources that support your positions.

This exercise is also meant as a starting point for making your teams. To make your plan more convincing, I encourage you to formulate your response as a pitch for your idea.

Submission instructions: Fork this repository and make a `brainstorming/yourname.md` file with your answer, then send a pull request. If you have multiple files, make a `brainstorming/yourname/` directory instead.

Exercise 1 (2 pts): What major changes have there been in software development in the last 3-5 years, and how do they impact the work of a software engineer?

Exercise 2 (2 pts): What further changes do you expect to see in the coming 3-5 years?

For the coming two questions, one of the three points is for coming up with an idea that is feasible within the constraints of a course.

Exercise 3 (3 pts): What can be improved about programming languages and their tooling to better fit these changes?

Exercise 4 (3 pts): How can we measure whether a language is a good fit for the modern development flow?

Exercise 5 (2 pts): Provide at least two sources supporting your answers.

Exercise 6 (2 pts): Formulate your answers into a compelling narrative that effectively makes your point. You do not have to write this separately; a single document that presents your responses as a pitch is fine.