

# Class 13: Homework 5 Studio

- Review: Last Class
- Homework 5 Discussion
- Homework 5 Studio

# Discussion: Prototype Time Pressure

Prototypes are meant to be a quick experiment to test out an idea.

In industry, you'll often need to prototype something with a tight deadline. How do you make that deadline?

Discuss with your peers (2-4), the time pressure you faced working on your homework 5 prototype. What would you do differently if you had to do it again?

# Sprints

A sprint is a time-boxed period during which a specific set of work must be completed and made ready for review. They help teams to focus on delivering small, incremental improvements to their software.

# Discussion: Pair-Programming with LLM Coding Agents

LLM coding agents (e.g. GitHub Copilot) are an important tool for rapid prototyping. But they can be frustrating to work with and can slow us down by going in unexpected directions. Remember, you're in control here.

Discuss with your peers (2-4), your experience using GitHub Copilot to help you implement your homework 5 prototype. What worked well? What didn't work so well? How did you adjust?

# Discussion: Local LLM Accuracy

Small LLMs with limited parameters (i.e. 1B) are often inaccurate. Yet, are still surprisingly useful for simple user tasks. To get the most of them, you need to provide them with structure and context.

Discuss with your peers (2-4), your experience using a local LLM to help you implement your homework 5 prototype. How did you adjust your interactions with the LLM to get better results? Did you need to adapt and change your user task to fit the capabilities of the LLM?

# LLM and JSON

LLMs are often better at understanding structured data. JSON is a common format for structured data that LLMs can easily parse and generate. (“Instruct” models may also work better here.)

Instead of asking the LLM to work with natural language, can you ask it to work with a structured format instead?

# Discussion: Homework 5 Deadline

The feeling of learning is frustration. You try something, and it doesn't work. This was your first time trying to rapidly produce a prototype with an LLM.

How are you feeling about Homework 5?

# Homework 5 Studio

# What's Next?

**Next Week:** Oral Exam Preparation + Start the Group Project