Sprint 2 Plan

Product Name: Code Performance Analyzer

Sprint 2 Goal

Sprint 2 will focus on improving model accuracy by generating training data, training and tuning the model, and creating a script to compare its outputs. On the frontend, we will research how to connect the backend to the extension and build a sidebar that displays the complexity results from the model.

User Stories - Backend

User Story 2.1: As a user, I want the extension to return a relatively accurate time-complexity estimate so that the extension is useful.

- **2.1.1:** Set up framework for training data generation *– 10 hours*
- **2.1.2:** Train and tune the complexity of the model – *4 hours*
- **2.1.3:** Create script to compare the model outputs – *4 hours*

User Stories - Frontend

User Story 2.2: As a user, I want the extension to clearly display complexity in an editor annotation, terminal, and sidebar.

- **2.2.1:** Research how to integrate backend with current frontend structure – *4 hours*
- **2.2.2:** Create UI sidebar for feature display - 6 hours
- **2.2.3:** Integrate runtime performance results into the sidebar – *6 hours*

Team Roles

Team Member	Role
Philip Pesic	Backend Developer
Adwaith Madadi	Backend Developer
Rohit Mandal	Backend Developer
Michael Pimentel	Frontend Developer
Juan Alvarez Sanchez	Frontend Developer

Task Assignment

Philip Pesic: Backend Tasks 2.1.1

Adwaith Madadi: Backend Tasks 2.1.3

Rohit Mandal: Backend Tasks 2.1.2

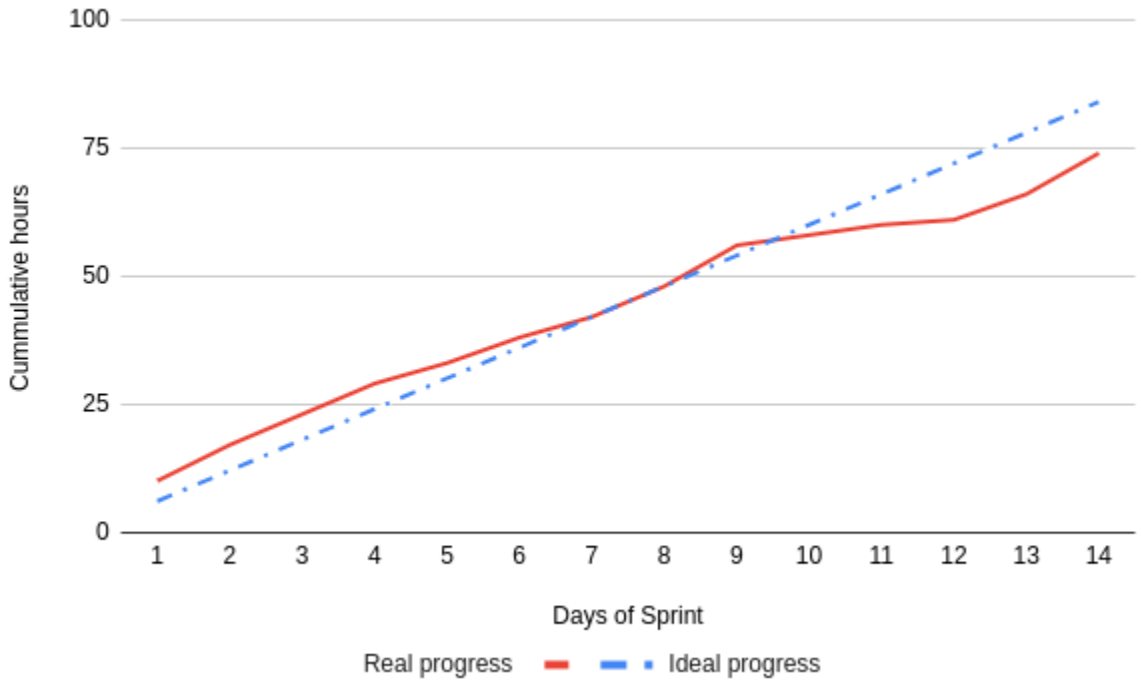
Michael Pimentel: Frontend Tasks 2.2.1, 2.2.2

Juan Alvarez Sanchez: Frontend Tasks 2.2.2, 2.2.3

Scrum Board

https://docs.google.com/document/d/15PlzT7TNhLe6Ni6R2BIPt3uAZVzQrlsptkJnA_Or7GM/edit?usp=sharing

Sprint 2 Burnup Chart



Scrum Meetings

Day	**Location**
Saturday	Zoom
Tuesday	Zoom/In Person
Thursday	Zoom and TA Meeting

Sprint 2 Recap

During Sprint 2, the backend team generated training data, trained and tuned the model, and built a comparison script to check its outputs. The frontend team researched backend integration, created the new sidebar interface, and began showing runtime complexity results inside the extension.