# Sprint 1 Plan

**Product Name:** Code Performance Analyzer

## Sprint 1 Goal

Sprint 1 will establish the foundation of the Code Performance Analyzer by creating the first model capable of producing simple Big-O estimates for standalone Python functions. At the same time, we will build the initial extension UI framework and implement a mocked complexity annotation to preview how results will appear in the editor.

## User Stories - Backend

**User Story 1.1:** As a user, I want to run a simple model that can analyze Python code through a local script so that I can get an initial Big-O complexity estimate.

- **1.1.1:** Research Model Feasibility *– 4 hours*
- **1.1.2:** Setup model hosting infrastructure *– 8 hours*
- **1.1.3:** Setup model inference *– 6 hours*

## User Stories - Frontend

**User Story 1.2:** As a user, I want to see a mocked complexity annotation inside the editor UI so I can preview how the extension will eventually present feedback.

- **1.2.1:** Research API and Extension Capabilities *– 6 hours*
- **1.2.2:** UI Design for annotations and layout *– 6 hours*
- **1.2.3:** Mock Implementation *– 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 1.1.1, 1.1.2, 1.1.3

**Adwaith Madadi:** Backend Tasks 1.1.1

**Rohit Mandal:** Backend Tasks 1.1.2, 1.1.3

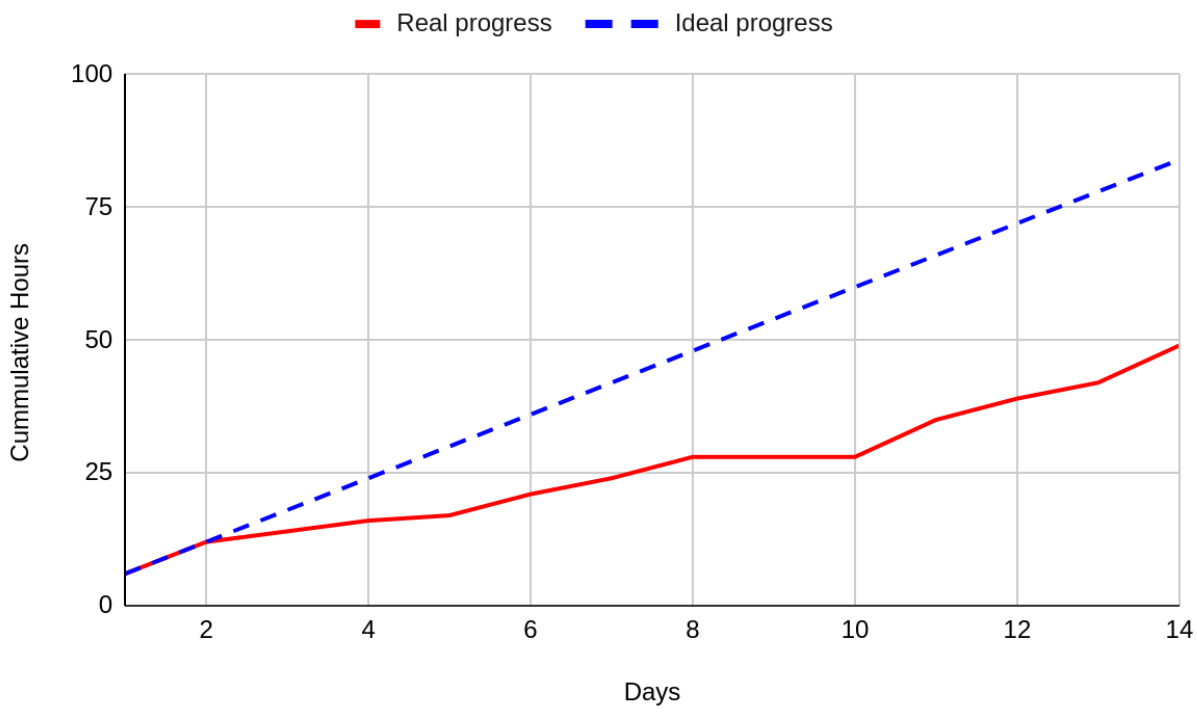
**Michael Pimentel:** Frontend Tasks 1.2.1, 1.2.2, 1.2.3

**Juan Alvarez Sanchez:** Frontend Tasks 1.2.1, 1.2.2, 1.2.3

## Scrum Board

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

### Sprint 1 Burnup Chart




### Scrum Meetings

| Day | Location |
|---|---|
| Saturday | Zoom |
| Monday | Zoom/In Person |
| Thursday | Zoom and TA Meeting |

## Sprint 1 Recap

In Sprint 1, we completed the first version of the complexity model and confirmed it could run locally to estimate Big-O behavior. We also built the initial UI and delivered a working mock annotation, giving us a functional prototype across both backend and frontend components.