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Executive Summary

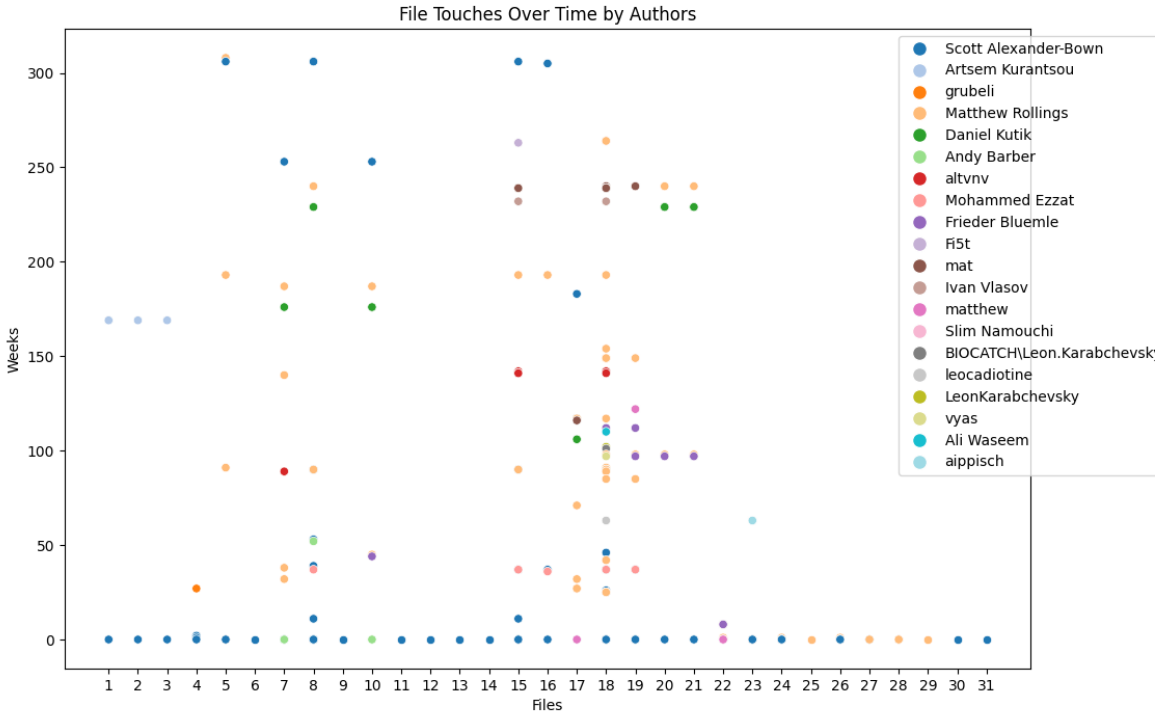
Introduction

This report provides an overview of the project's progress, key contributors, and insights derived from the analysis of the project's GitHub repository. My team and I created our own repository on GitHub, following a series of steps to extract and analyze data from the project. See Methodology below for more information on how we analyzed the data.

Link to the group repository: [Click Here]
Link to my fork: [Click Here]

Workload Analysis

The scatter plot below illustrates the frequency of file touches over time by different authors. Each point represents a file touch, with colors indicating different authors.



The file names were replaced with numbers for ease of reading. The legend can be found here.

Key Findings

- **Active Contributors:** The most active contributors, such as Scott Alexander-Bown and Matthew Robbins, have consistently modified files, indicating their deep involvement in the project. These contributors are crucial for the project's success.
- **Recent Activity:** Recent weeks have seen increased activity from specific developers, suggesting ongoing enhancements and bug fixes. For example, Scott Alexander-Bown has been particularly active in recent weeks.
- **Potential Departures**: Some developers, such as Andy Barber and Gabriel Rabiner, have shown a decline in activity, which may indicate their departure from the project. Monitoring these trends can help in reallocating resources effectively.

Methodology

We focused on modifying a given CollectFiles.py script to gather information exclusively about source files from the repository. We then developed a custom script, authorsFileTouches.py, to collect and analyze the contributions of various authors to these source files. This involved generating a GitHub token, integrating it into our script, and ensuring the data was accurately collected. Together, the scripts generated spreadsheets, which we used to generate a scatter plot to visualize the frequency of file modifications. The spreadsheets I generated and the data I used can be found here.

Useful Git Commands

In order to analyze the scottyab/rootbeer project, I used the following git commands:

- git clone [repository-url]: Cloned the team's repository to my local machine, enabling offline access and modifications.
- git branch [branch-name]: Created a new branch (e.g., contributors and mine_repository) for isolated work on specific tasks.
- git checkout [branch-name]: Switched between branches to work on different aspects of the project.
- git add [file]: Staged changes to the contributors.txt file and other modified files for commit.
- git commit -m "[message]": Committed changes with descriptive messages to track modifications and updates.
- git push: Uploaded local branch changes to the team's remote repository on GitHub.