Executive Summary

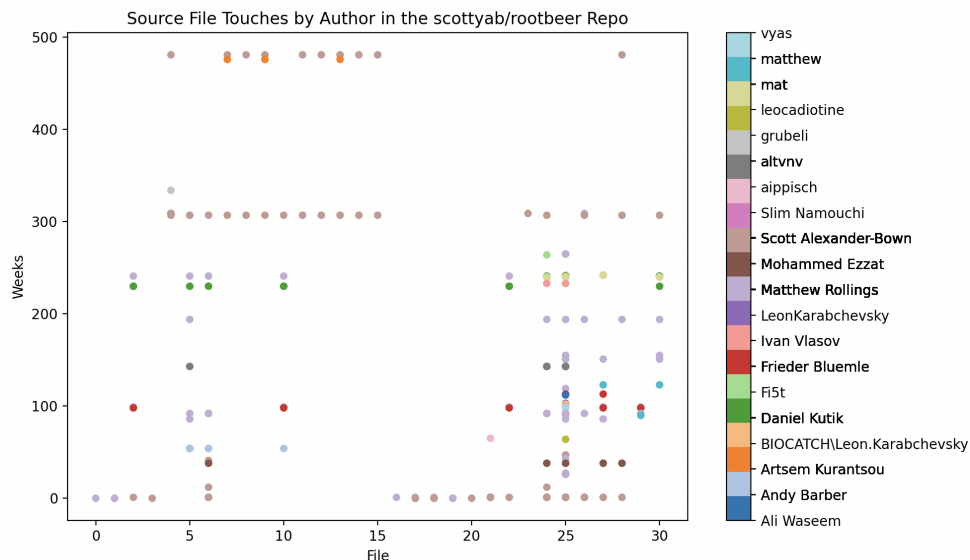**Link to Fork Repository:** https://github.com/buit7/Group-3.git

Objective

This report serves to inform of the status of the scottyab/rootbeer project through analysis of commits involving source files, made by our developers on GitHub.

Defining Source Files

The project uses the programming languages: Java, Kotlin, and C++. Although the C and CMake languages are also included in the Languages section of the repository, header and script files (e.g., x.h, x.kts, x.sh, CMakeLists.txt, etc.) were excluded. As such, only files with **.java**, **.kt**, and **.cpp** extensions were deemed as source files. The GitHub commit API was used to mine the repository's commit history. The git commands, 'git branch' and 'git checkout', were also helpful for maintaining proper organization during the mining process.

Analysis of Developers

The scatter plot below shows which source files were touched by which developers and during which week of development. 31 source files (x-axis) were touched over the course of 481 weeks (y-axis) by a total of 20 developers (colorbar on the right). 6/19/2015 was the start of Week 0.

Source File Touches by Author in the scottyab/rootbeer Repo

Scott Alexander-Bown and Matthew Rollings worked exclusively on many java files for the first 30+ weeks. As more developers joined over the course of 200+ weeks, Rollings continued to work while Alexander-Bown dropped off. Rollings contributed the most work during this time. By the 280th week, development reached a halt with all developers eventually leaving the team. After the 300th week, Alexander-Bown returned with contributions to a significant amount of Java and Kotlin files by himself, save for one commit by grubeli many weeks later.

The project was again placed on hold, with the most recent contributions by Artsem Kurantsou in 2021 and Alexander-Bown in 2024. Scott Alexander-Bown ended up contributing the most to the project's source files overall.