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RE: Scottyab/Rootbeer Project Analysis

This report contains a background on the “Scottyab/rootbeer” GitHub project and an analysis of the commit history for the project since its creation.

Background

This project is intended to provide a way for android application developers to check for super-user privileges are enabled on a device by checking for the existence of, or modification of, specific system files.

19 of the 28 collaborators contributed to the project since its creation. There were a total of 191 commits to the project, with 184 pull requests successfully accepted and merged. This project contains over 35 source files, with the primary languages being Java and Kotlin. There are 2 C and C++ files that allow Java to re-use already existing kernel code.

Analysis

Like mentioned previously, of the 28 collaborators, only 19 made contributions. Figure 1 illustrates a breakdown of the authors that were active over the last 8 years on the project. Each color denotes a different author. The higher a data point, the more recent a contribution was.

Figure 1 – Author Contributions



The most commits were made by the project maintainers Scott Alexander-Brown and Matthew Rollings. Anyone, not included in the Legend of Figure 1, may be removed from the project, as they have not contributed anything. This project has not been updated since 2021.

According to the commit history (git diff-tree), the majority of changes were made to the Java files. These changes were functionality changes that added new detections to further the functionality of the project. Additionally, reviewing the history of the branch (git log) was helpful in tracking the most recent changes. The sources used to gather this data can be found here: [Repository](https://github.com/S1robe/CS472-Team) (https://github.com/S1robe/CS472-Team)