

EE / CprE / SE 491 – sdmay20-43  
Analysis of GitLab projects using BOA  
Bi-weekly Report 4

2/27/2020 - 3/11/2020

Client: Simanta Mitra

Faculty Advisor: Simanta Mitra

### Team Members

Diego Realpe - Team Leader | Test Engineer

Adrian Hamill - Test Engineer

Megan Miller - Test Engineer | Website Manager

Benjamin Carland - Test Engineer

Yi-Hsien Tan - Test Engineer | Organizer | Website Manager

### Bi-weekly Overview

- The entire team has been debating the idea the Spotbugs might not be the best choice in terms of maintaining our design purpose of a single click solution for the user.
- AST related Boa Queries are the only obvious alternative. This is however an ongoing discussion between the team during this iteration. On Thursday we will discuss the value of including SpotBugs in the project

### Past Weeks' Accomplishments

- Boa team discussing the idea of using AST instead of SpotBugs. This is very daunting because AST queries are complex and require a detailed knowledge of syntax trees.
- The Boa team looked into how R would be used in the data pipeline output.

### Pending Issues

- The Team needs to make a definitive decision about SpotBugs vs AST. Particularly whether SpotBugs really fits our purposes for this project.

## Individual Contributions

Name	Contributions	Bi-weekly Hours	Total Hours
Diego Realpe	Research on spotbugs and last efforts to salvage our efforts on writing scripts for it. Testing the entire pipeline runs.	12	89
Adrian Hamil	Worked along Diego to make runs of repos, of students and updating our pull down push up solution	11	127.5
Megan Miller	Watched how-to videos and read instructions on how to use R and how it can be run on the Boa queries' output.	10	113
Benjamin Carland	Completed primary Git statistics queries. Looking into AST as a more viable option after debate about Spotbugs. Worked on the peer review video due this week.	12	107.5
Yi-Hsien Tan	Continue researching/running tests with AST on Boa as the final alternative/resolve if another third party program does not fulfill what we need.	12	119

## Plans For Upcoming Week

### - Data Pipeline: Adrian Hamil & Diego Realpe

- Testing the pipeline making live runs, taking the actual repos and running against student repos. Found some bugs that require fixing in the future spring break.
- Doing some final research to see if our SpotBugs solution can be implemented into BOA
- Need actual queries from BOA team to observe real results

### - Boa Research: Ben Carland & Megan Miller & Yi-Hsien Tan

- Work on AST queries that fulfill our query ideas
- Continue working on Git statistics queries
- Work with R to analyze the output data for more of the queries.