

EE / CprE / SE 491 – sdmay20-43  
Analysis of GitLab projects using BOA  
Bi-weekly Report 5

4/16/2020 - 4/30/2020

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

- These weeks have been the last pushes to polish and prepare our capstone for presentation only a few weeks away.
- Backend has been testing our CLI functionality using the BOA jar files in the command line to get clean output exported.
- We have started work in all of our final deliverables

### Past Weeks' Accomplishments

- Debugged backend output script and fixed a bug that duplicated the result .csv file every time an output was detected.
- Added exit function that kills forked processes in output script after it has processed output.
- Can import data in R and generate bar graphs with the data.

### Pending Issues

- Even though our pipeline is delivering as we expected it to, we still need to test a complete run for a series of projects against one single query
- If the output does not match the known value for our test project then we need to reevaluate whether repositories hosted on GitHub can be private for this project to succeed.

## Individual Contributions

Name	Contributions	Bi-weekly Hours	Total Hours
Diego Realpe	Put more work into the output script, cleaned up the function calling process and added features for exiting the polling script and setting a query format ID	17	133
Adrian Hamil	Repeatedly testing and fixing bugs with sequence file generation and query processing. Communicating with the research team to better understand the compiler.	19	169.5
Megan Miller	Importing data and writing R scripts to generate graphs. I'm looking into outputting the graph as an image file or other export versions.	9	143
Benjamin Carland	Finished boa query regarding the size of a given project by AST nodes vs. the number of commits to the project. Working on two more boa queries, one to	11	130.5
Yi-Hsien Tan	Finished a couple of boa queries using visitor pattern via AST. Will continue working on more useful boa queries.	10	139

## Plans For Upcoming Week

- Data Pipeline: Adrian Hamil & Diego Realpe
  - Testing Rscript calls on Bash alongside Megan
  - Work on Final Deliverables
  - Finish integrating the boa compiler and evaluator into the project.
- Boa Research: Ben Carland & Megan Miller & Yi-Hsien Tan
  - Finalizing all boa queries the team has
  - Finalize the output for each of the queries
  - Verify all the query outputs to ensure they are correct (testing/verification)