EE / CprE / SE 491 – sdmay20-43
Analysis of GitLab projects using BOA
Week # Report 6

11/19/2019 - 12/3/2019
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

Weekly Overview
The team has done major progress in both their back end and on the BOA development.
Semester is closing up and we need to work on polishing or Design Document and prepare for
the Demo which is happening **Friday 13th** (spoopy). We got the Youtube lightning talk done
and the demo we showed in it went great.

Past Week's Accomplishments

- Data Pipeline: Adrian Hamil & Diego Realpe
  ● Backend data pipeline is complete. Repositories can be automatically pulled down from
    GitLab and pushed up to Github
  ● The Script uses Sed, Bash functionalities and others to manipulate the JSON object that
    contains the metadata that will be passed to the BOA pipeline
  ● Helped fix authentication issues with GitLab, passing access token allows to query for the
    JSON info
  ● Redacting the weekly notes and readying the weekly reports to be pushed by CN to the
    website

- Boa Research: Ben Carland & Megan Miller & Yi-Hsien Tan
  ● Presentations Done!
  ● The final presentation was very informal as we were advised to not use a presentation
    software. We mostly relied on notes and experience we had gained.
  ● Focus on the project, what have we learned that could be useful for metrics

- Use to find bugs and other stuff
- **BRAINSTORM QUERIES!**

Pending Issues

- Data Pipeline: Adrian Hamil & Diego Realpe
  - The Script malfunctioned for a couple of minutes while demoing it to Mitra, it worked fine after rerunning it but this behaviour is troubling, we need to investigate it.
  - Possible causes: GitLab API does not scan code until it is asked to via the web browser, lagging caused by the iastate VPN or firewall.

Individual Contributions

Name	Contributions	Weekly Hours	Total Hours
Diego Realpe	Authentication, Writing Bash, Fetching GitLab API, Script Writing, Youtube Filming	8	70
Adrian Hamil	Research Github Authentication methods, Writing Bash, Manipulation of JSON, Repo Management, Acting & Editing for youtube video	31.5	101.5
Megan Miller	Brainstorming for queries, youtube video production, design presentation	8	76
Benjamin Carland	Query Brainstorming, Youtube Script Writing, Research into FindBugs and how we might implement it. Work on Design Presentation	8	71
Yi-Hsien Tan	Query ideas, Youtube video contribution, research on code quality evaluation.	8	78

Plans For Upcoming Week

- Data Pipeline: Adrian Hamil & Diego Realpe
  - Share script with BOA researchers
  - Polish script pertaining cases where information may have already been pushed
  - Discuss amount of scripts we are gonna use

- Boa Research: Ben Carland & Megan Miller & Yi-Hsien Tan
  - Research about Stan4J
  - Determine if Stan4J and/or FindBugs can be called via Boa queries (Contact Sumon).

- Brainstorm new queries
- Look how other companies have developed their own BOA queries