Aaron Weiss
CSC-415
Dr. Pulimood
10/13/17

Open Source Software Proposal

PROJECT TITLE:
TCNJ Speaks
GITHUB:
TCNJ-Speaks: https://github.com/weissa7/TCNJ-Speaks
SOCIAL JUSTICE ISSUE:
As a community, our students come from many backgrounds. As such, everyone faces differing social injustices during their time at TCNJ. My project aims to bring awareness to social justice issues on campus.
OPTION:
For this project I will design and implement a solution to find out what the biggest social issues on campus are (*Option 2*).
PLATFORM:
TCNJ Speaks will be realized through a web-based application. Not all students have both an android as well as an apple device. A web application will be able to reach the entire campus for more responses. The application will use *Ruby on Rails* backend with *Angular 4* front end.
Ruby on Rails is a popular industry choice for fast development of web applications. Angular 4 is a typescript based front end framework that allows for powerful apps.
PROJECT IDEA:
This project aims to uncover what are the larger social issues directly affecting our campus.
INNOVATION:
What is the largest social justice issue on campus? Through asking others, one may find that each person has a different opinion on the biggest problem in the community relating to social justices. A survey can help gather these opinions, but a survey is a fixed time-stamp. Any contemporary issues that arise after the survey cannot be accounted for. TCNJ Speaks removes the time fixation and shows the changing of issues over time.
ALGORITHM:
The algorithm involved will be a popularity sort of reported problems within a given time restraint. For example, a certain issue could be the 'hottest' due to many reports within a 1-week time span, but over a 2-month time span there is a much more common situation being reported. The algorithm can be made more complex using location information to limit the data pool.
DATA STRUCTURE:
The report data will be stored in a database. The data retrieved directly from the database and manipulated accordingly.
SOFTWARE ENGINEERING CONCEPTS:
The concepts expected to enforce during this project is design and project management. Design is reinforced with every project attempted. With proper management, the project will be completed at a reasonable pace.
LANGUAGE / PLATFORM LEARNING PLAN:
Ruby on Rails and *Angular 4* introduces all new frameworks and platforms that I personally have never worked on before. The learning process used will very incremental in nature. Initial research and the creating of a basic core will be the primary goal. Expanding on said core to fit project requirements will follow.

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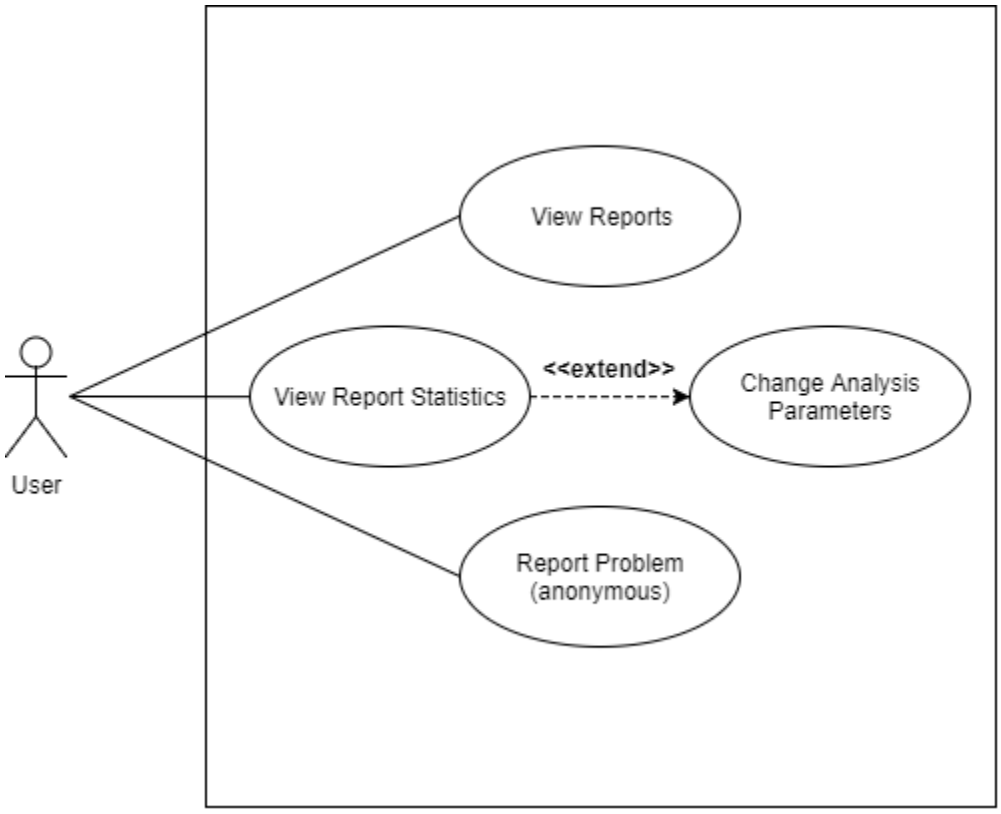
USE CASE DIAGRAM:



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