**Design Document**

**Menu Design:**

Menu Will be designed to have two Links for Community Activity Metrics Model and Starter Project Health Metrics Model. This will be a simple layout to have both links to these pages on the center of the page printed in list format. The pages itself will have a back link to get back to this page.

**Community Activity Metrics Model:** This page will display graphs of data corresponding to Contributors in the past 90 days, number of Issues closed in the past 90 days, the average number of commit frequencies, and the number of releases in the last year.

Contributors Count: This Metric will measure the number of contributors in the past 90 days. This data will be displayed in a line graph. This is the optimal graph because it will provide the user with an easy-to-read graph and clearly show the data. It will also provide an easy way to read how the number of contributors changes over time.

Requirements: The line graph will display the number of contributors across time, and show trends in the contributor count.

Issues Closed: This Metric will measure the number of issues closed in the past 90 days. This will also be displayed in a bar graph to show the user when, over the past 90 days, most issues were resolved.

Requirements: Each bar represents a period of time and the height will be the number of issues closed in that time period.

Commit Frequency: This metric will display the average number of commits over the past 90 days. This metric will be displayed in a bar graph to clearly show the user which weeks had heavy commits and which weeks did not have as heavy load of commits.

Requirements: Each bar represents a period of time and the height will be the number of commits in that time period.

Recent Releases Count: This metric will display the number of releases in the last year. This data will be displayed in a bar graph to show which months had higher number of releases than others. This is an optimal graph to show the data to the user clearly.

Requirements: Each bar represents a period of time and the height will be the number of releases in that time period.

**Starter Project Health Metrics Model**

Time to First Response:This metric will determine the amount of time between when an activity was opened and when it received the first response from a human. This metric is important because it is a good signal if the project is making progress in a timely manner. The metric can be displayed as a line graph, so the passage of time is clearly visible to the viewer.

Change Request Closure Ratio: This metric will measure the ratio between the number of open change requests and the number of change requests closed within the past 90 days. It is important to track this metric because it is an indicator of whether the project is able to keep up with its challenges. It will be displayed as a line graph, so viewers can see how this ratio changes over time.

Bus Factor: This metric will measure the number of people on the project that have to be hit by a bus (or quit the project) in order for the project to face serious issues. The metric is important because it helps track the stability of a project and how susceptible it will be to falling apart. It will be displayed as a line graph over the course of 90 days as the project accepts different challenges and contributors.

Release Frequency: This metric will measure the rate at which the project publishes a release of their software. If software/updates are not regularly released, it can be concerning for the project’s viability. The metric can be displayed with a bar graph, as it is measuring a frequency over different periods of time.