SOFTWARE QUALITY

CS 5393

PROJECT PROPOSAL

FALL 2020

GAUGE TEST AUTOMATION FRAMEWORK

SUBMITTED BY:
VIDHYASHREE NAGABHUSHANA
v_n63@txstate.edu
A04927921

PROJECT TITLE: GAUGE TEST AUTOMATION FRAMEWORK

INTRODUCTION:

Gauge is a free and open source framework for writing and running acceptance tests. It has a consistent cross platform support for writing test code. Gauge supports writing step implementations in Java, C#, Python, Typescript and Golang. Also, gauge helps us to focus on testing the flow of an application by making steps as re-usable as possible. We will not need to build custom frameworks using a programming language. It also supports Data-Driven Testing, parallel execution, cross-browser testing, and behavior driven testing.

The key features of Gauge are:

- ➢ Simple, flexible, and rich syntax based on Markdown.
- ➢ Consistent cross platform/language support for writing test code.
- ➢ A modular architecture with plugins support
- ➢ Extensible through plugins and hackable.
- ➢ Supports data driven execution and external data sources
- ➢ Helps you create maintainable test suites
- ➢ Great support for VS Code

GOAL OF THE PROJECT:

Goal of this project is to study the new testing tool "Gauge" and understand its features. Also, analyzing the features of the tool, creating sample programs and sample test cases to understand the working of the tool and its process, understand what is good about the tool and what is bad and can be improved.

RELEVANCE:

Testing is a very important aspect of software quality and we need to have good tools to perform the testing on various types of code to check for the correctness of the code. We can perform acceptance tests using the tool Gauge. Gauge supports writing step implementations in Java, C#, Python, Typescript and Golang. Also, gauge helps us to focus on testing the flow of an application by making steps as re-usable as possible. We will not need to build custom frameworks using a programming language.

STUDY PLAN:

WEEKS	TASK
Week 1	Download and Install the tool from https://docs.gauge.org/getting_started/installing-gauge.html?os=windows&language=java&ide=vscode.
Week 2	Try to understand the working of the tool and get some hands on practice
Week 3	Create some sample programs and write test cases and run it against the tool to learn how the tool works
week 4	Analyze the tool and understand the advantages and disadvantages of the tool
week 5	Run more sample tests for better understanding
week 6	Work on the report and presentation, prepare for the demo

MILESTONES AND DATES:

- **09/25/2020 – Project email approval received**
- **09/25/2020 – 10/05/2020 – Worked on the project proposal**
- **10/07/2020 – Project proposal submission**
- **Tasks based on the study plan performed**
- **More programs are tested with necessary test cases**
- **Pros and cons of the tool are analyzed**
- **Second week of November – Start report work**
- **11/23/2020 – Submission of project report**
- **11/30/2020 – Project presentation and submission**