Test Approach

Buggy Cars Rating

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**Document Version:**

|  |  |  |  |
| --- | --- | --- | --- |
| Document Name | Version | Date | Author |
| Test Approach – Buggy Cars | 1.0 | 30/04/22 | Jey |

1 Purpose of the Document

The purpose of this document is to outline the high- level test approach for the Buggy Cars Rating project, defining the preliminary test scope, high-level test activities, and risk, together with test strategy for the project. It also provides the tools required to run the test and other assumptions made for this testing. This document is one of the major requirement for the assessment.

2. Test objectives and scopes

2.1 Buggy Cars Rating

Buggy Cars Rating is a website that contains details of different cars. We can view the different models of car belongs to different makes. We can also vote and add comments to rate the cars. We have to login to vote and add comments. It provides a functionality to register and login. We can view the cars belongs to the makes with rankings.

2.2 Objective

As per the assessment requirement, The main objective of the project is to test the buggy cars rating website and log the issues. We also should create an automation test suite to cover major 5 functionalities of the application. We should log 3 critical defects of the buggy cars rating website and add it to automation test suite in the repository.

2.3 In scope

The application in scope is Buggy car rating website. All the functionalities of the webpage are in scope for the project. The automation test scope will be limited only to major 5 functionalities of the application.

Those 5 functionalities are,

1. Login
2. Register
3. Vote
4. Comment
5. View Models by Make

All other functionalities of the Buggy car website will be out of scope for the automation test. 2-3 critical bugs should be logged in the defect report document.

2.4 Out of Scope

Apart from the functionalities mentioned in the “In Scope” section, all other functionalities are considered as “out of scope” for the automation test suite. Non-Functional testing like Performance testing is considered as “Out of scope” for the project.

Any other application that is related to Buggy Car website is considered as “Out of scope” for this project. The application is tested in different browsers but other devices such as mobile and tablets are considered as out of scope.

3. Test Strategy

The test approach of the application starts with understanding the major functionalities of the application. As there is no specific requirement document, Understanding the system under test gives clear idea of how the system behaves. Once the application functionality is well understood, then the plan is to begin the test analysis for this testing. Analyse the key requirements and find out any deviations that could occur. After the test analysis is done, we could focus on deriving major scenarios to begin the testing.

The types of the testing for the project is categorized below,

1. Smoke Test

2. Automation Test

3.1 Smoke Test:

Smoke Testing is a software testing process that determines whether the deployed software build is stable or not. Smoke testing is a confirmation for QA team to proceed with further software testing. A smoke test will be performed to find out any critical defects exists in the system. Any defects found during this test phase will be logged in the defect document. This smoke test will be done in browsers such as Chrome, Firefox and Edge.

3.2 Automation Test:

As per the assessment guidelines, we need to create a automation test suite using any tools/framework for the major five functionalities of the application. After the smoke test is done, an automation framework will be developed as per the industry guidelines and standards. Automation test framework selected for the testing is Selenium – Cucumber – Java using TestNG runner. This framework will provide clear understanding of the test cases to the business as the test cases are designed using Gherkin. It will also provide extensive re-usability. Using Selenium, we can create robust, browser-based regression automation suites and tests, scale and distribute scripts across many environments. Test NG provides a very good flexibility to run the test.

As detailed in the “In-Scope” section, 5 major functionalities are considered for this testing. There will be one positive and one negative test will be created for the each of 5 functionalities to test the system.

The code will be uploaded to the GIT hub repository along with this test approach and defect document. All other details about the test automation suites are mentioned in the Readme file.

4. Testing Tools

The following tools will be used for the automation testing.

• Java - Programming language

• Selenium - Automate web applications

• Cucumber-JVM - Java implementation of Cucumber

• Maven - Build automation tool

• TestNG - Testing framework

• Dependency Injection – Pico container

• slf4j for logger management

5. Test Deliverables

As per the assessment requirement, the following deliverables should be provided. They are as follows,

* Test Approach document
* Defect Document
* Automation Test suite

All the deliverables will be uploaded to GIT hub and URL will be provided to the chapter lead.

6. Assumptions

The following assumptions are made before the testing is started for the application,

* The application Buggy car works in all major browsers like Chrome, Firefox, and Edge.
* As there is no requirement document given for the project, the current application behavior is currently considered as a requirement of the project.
* The application is ready to test in the given test environment (test URL)
* Application under test will be available throughout the testing duration

7 Risks and Issues

The major risk for the testing includes,

1. Application under test is unavailable due to environment issues
2. Assumptions made for the project is incorrect
3. Unavailability of resource to execute the tasks
4. Not able to complete under the given time. (If it is not enough)