Test Approach

Project: Buggy Cars Rating

Summary: Looking at the market demand for cars rating, Company has decided to build an application that will have most of the information related to cars from **Automobili Lamborghini S.p.A.** The agile (Kanban) Methodology will be followed for this project.
This project will be delivered by June 30th, 2022

Document review: This document will be reviewed and approved by the Product Owner and business analyst.
Any changes to this document will be accepted only if the team agrees.

Scope: In scope: All the types of testing mentioned in the Test approach.
2. Rating of all the registered cars will be displayed.
3. All the legal requirements will be followed as mentioned in the Requirement document.

Out of Scope: 1. API testing.
  2. Any change request.

Test Approach:
1. Test Preparation (Test script completion for each story before the testing starts)
2. End to End Functional Testing (End to End testing for each function should be done before every sprint release.
3. System Testing
4. Regression Testing.
5. Write and complete automation testing.
6. Execute automation test suite.
7. Smoke testing in Test Environment after every release before UAT release.

Test Environment

Test environment which will use for System Test:
1. **T1**
2. **T2**

Test environment for UAT testing: UAT Test

Database: Database verification will be done in Microsoft SQL server with databse **abc**

Resources: Tester Abc will be responsible for Manual testing.
Tester CDE will be responsible for Automation testing.

Testing tools: 1. Kanban board will be used for User stories and requirement details.
2. Jira will be used for Defect Management.

3. **Selenium web driver** will be used for Automation Testing.
4. Confluence will be used for documentation and information sharing.
5. Octopus will be used for release management.

Release Control
1. There will be 2 weeks sprints finishing by every alternate Wednesday.
2. The scope for each sprint will be agreed upon and decided by the whole team.
3. Every ticket will be released to test environment T1 first and will be released to Uat only after the Tester confirms his/her confidence for release in uat.
4. The release will be done by the tester only after the Developer confirms the build completion.

Review and approval

All these activities are reviewed and signed off by the business team, project management, development team, etc.

Defect 1:

Summary: The website name and the the title do not match(***Buggy Cars Rating*** vs ***Buggy Rating***)

- Environment: T2 (Test environment)
- Severity: Critical (1)
- Priority: High (High business impact)

Steps to reproduce

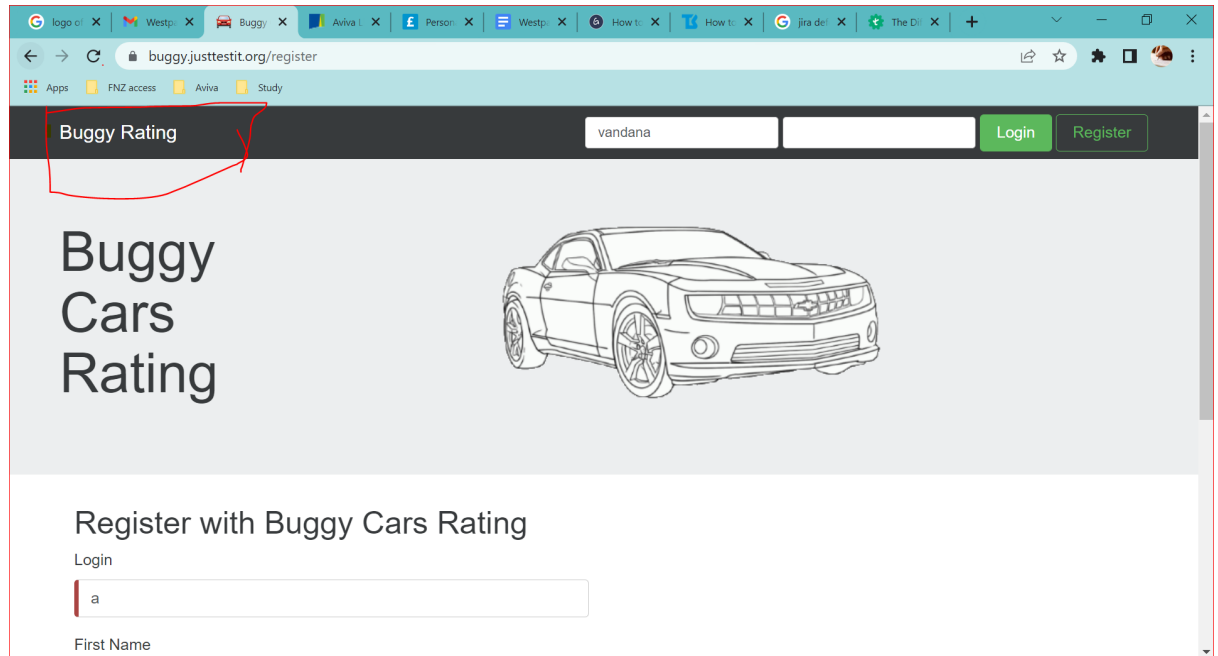Step 1. Go to the Buggy Cars Rating website.

Step 2. Go to on the top corner of the website on the left side

Expected results: The name of the Website should be 'Buggy Cars Rating'

Actual results: Car word is missing from the heading of the website. It is displaying as "Buggy Rating"

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:

Defect 2:

Summary: The website is vulenrable to xss attacks as most of input field have no validations of sepecial characters which are used in different security injections.

- Environment: T2 (Test environment)
- Severity: Critical (1)
- Priority: High (High business impact)

Steps to reproduce

Step 1. Go to the Buggy Cars Rating website.

Step 2. Go to on the top corner of the website on the right hand side and key in user name and password with special characters e.g. <, >, !, %
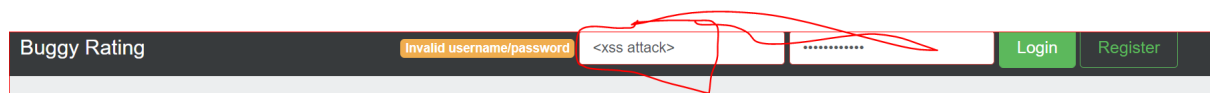
Step 3: Click on login button.

Expected results: The user should be prompted with with client side validation or server side validation and possible xss attacks

Actual results: User is able to key in those special characters which facilitate xss attack on any website.

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:

Defect 3:

Summary: The registration page is vulenrable to sql injection as well as xss attacks as most of input field have no validations of sepecial characters which are used in different security injection purposes.

- Environment: T2 (Test environment)
- Severity: Critical (1)
- Priority: High (High business impact)

Steps to reproduce

Step 1. Go to the Buggy Cars Rating website.

Step 2. Go to on the top corner of the website and click on Register link

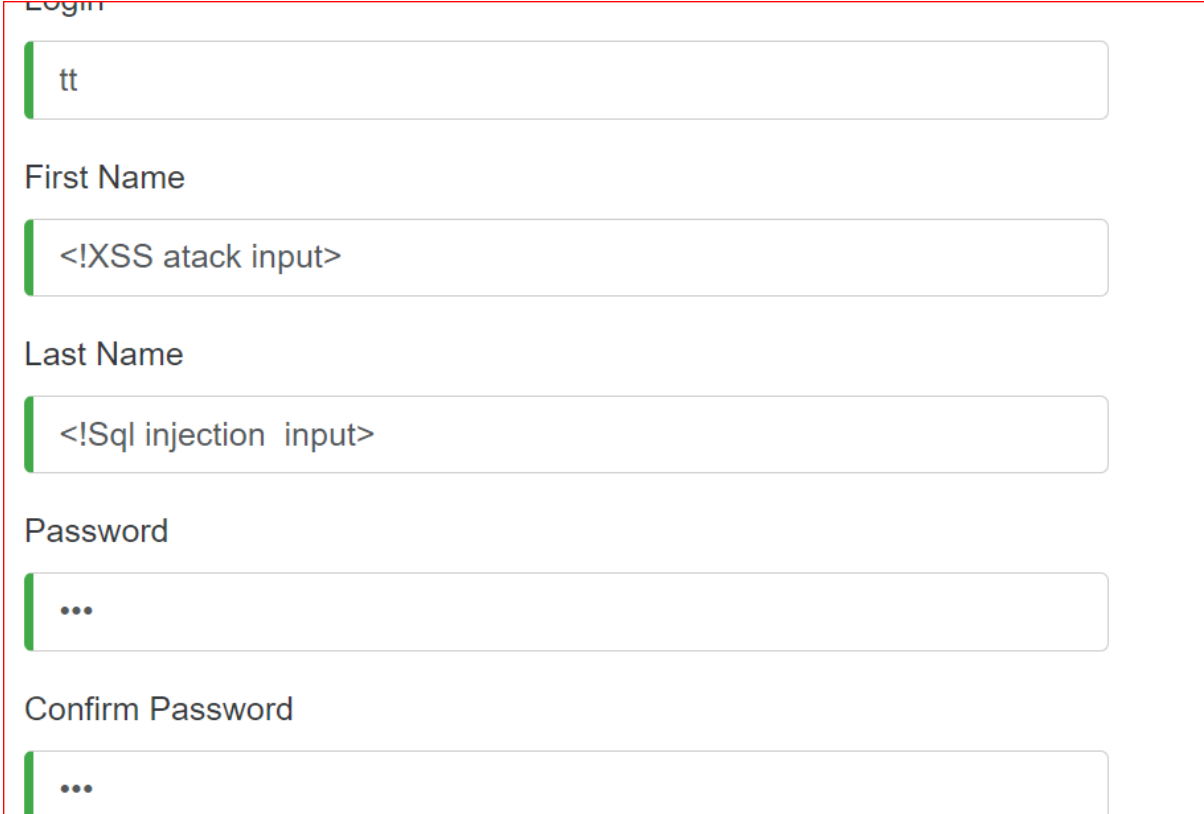Step 3: Key in different fields with special characters e.g. <, >, !, %

Step 3: Click on register button.

Expected results: The user should be prompted with with client side validation or server side validations, User should be warned to not use any special characters which may cause possible sql injection/xss attacks

Actual results: User is able to key in those special characters which facilitate xss attack on any website.

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:

Defect 4:

Summary: Overall rating details are confusing and do not give a clear understanding about the feature and purpose..

- Environment: T2 (Test environment)
- Severity: Major
- Priority: High (High business impact)

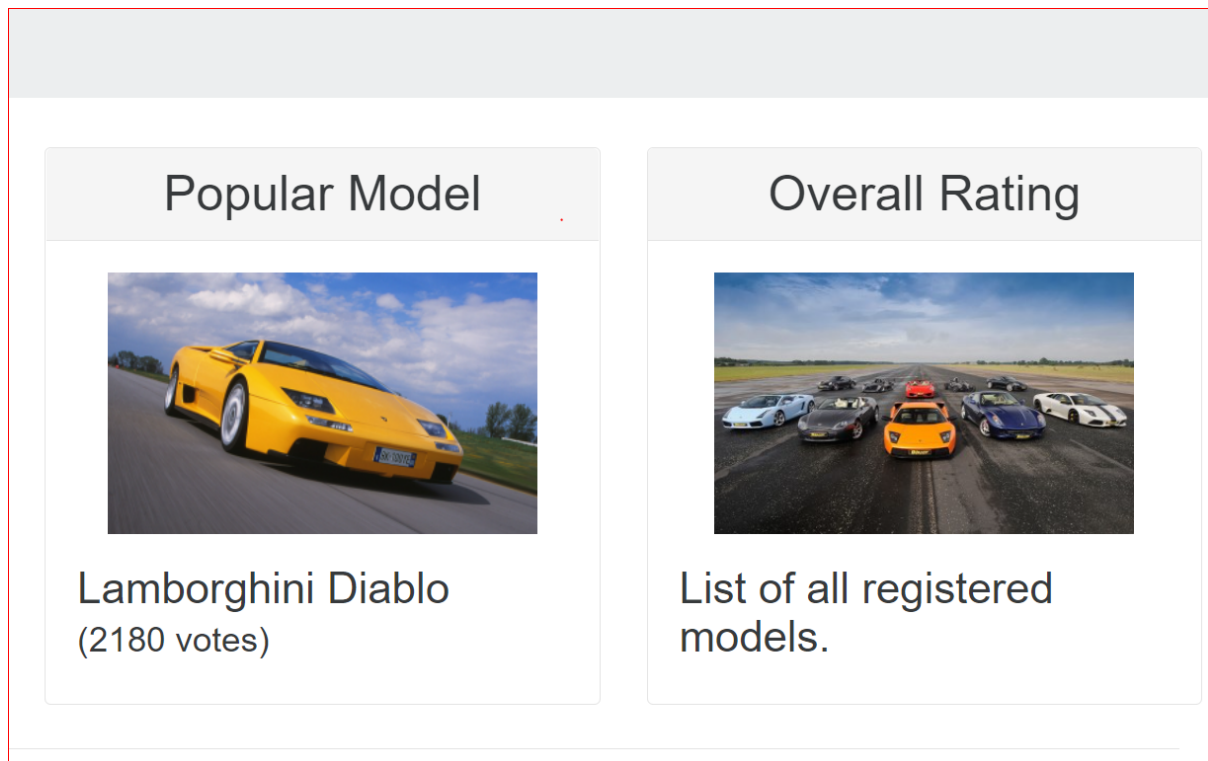**Steps to reproduce**

Step 1. Go to the Buggy Cars Rating website.

Step 2. Third tab with the heading 'Overall Rating

Expected results: It should display as "Overall rating of Registered cars" Message is confusing and looks non-related to each other.

Actual results: On top of the picture, it displays as '*Overall rating*'. Howeve, No further details are provided related to this. At bottom of the picture, it displays 'List of registered cars which also do not make sense in relation to the overall rating.

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:

Defect 5:

Summary: Validation errors on the registration page is not clear enough and creats futher confusion for the end user.

- Environment: T2 (Test environment)
- Severity: Major

- Priority: High (High business impact)

Steps to reproduce

Step 1. Go to the Buggy Cars Rating website.

Step 2. Click on Register tab.

Step 3. Fill in all the required details.

Step 4. Submit Register

Expected results:

1. Tabs filled with wrong/unexpected format should turn red.

2. There should be validation wtih erros with details of fields for each field/bar (e.g.-first name/last name).

Actual results: For each field validation, validation engine throws the same error without providing specific details specific fields. The common and same error is very confusing and hard for users to understand what is required to fix page/field validation.

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:
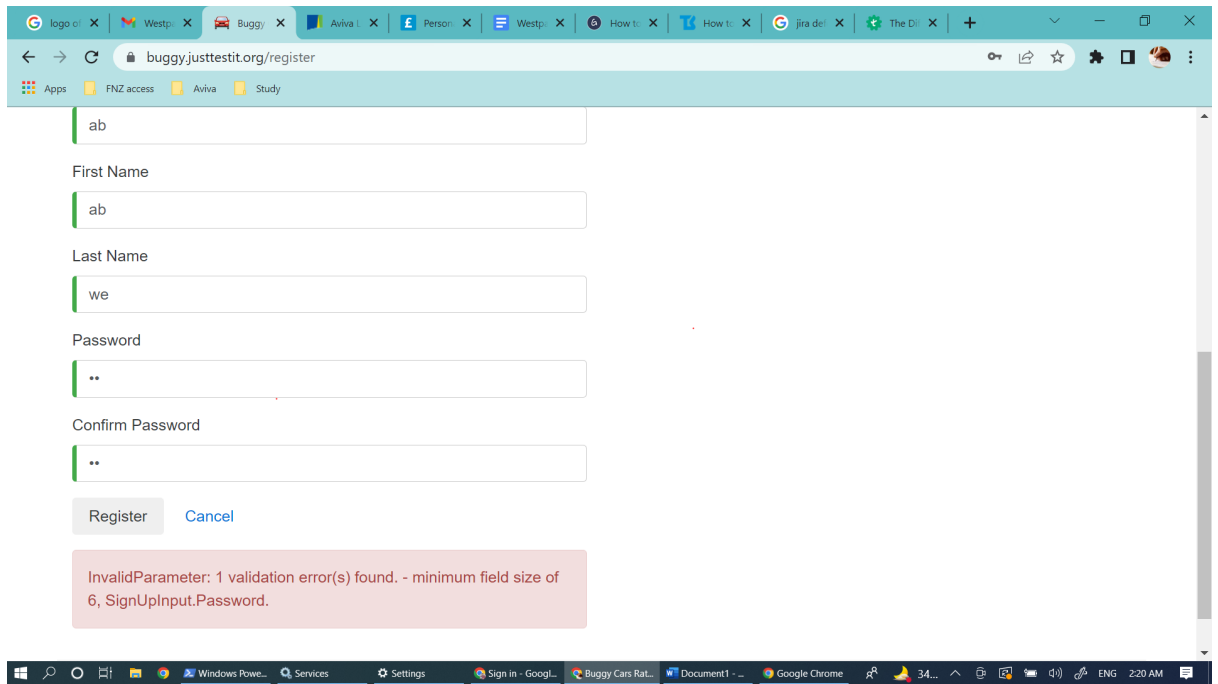
Defect 6:

Summary: The error message for last name field displays as error for the first name fields on Register page. This creates further ambiguity.

- Environment: T2 (Test environment)
- Severity: Minor
- Priority: low (High business impact)

Steps to reproduce

Step 1. Go to the Buggy Cars Rating website.

Step 2. Go to register page while clicking on Register link.

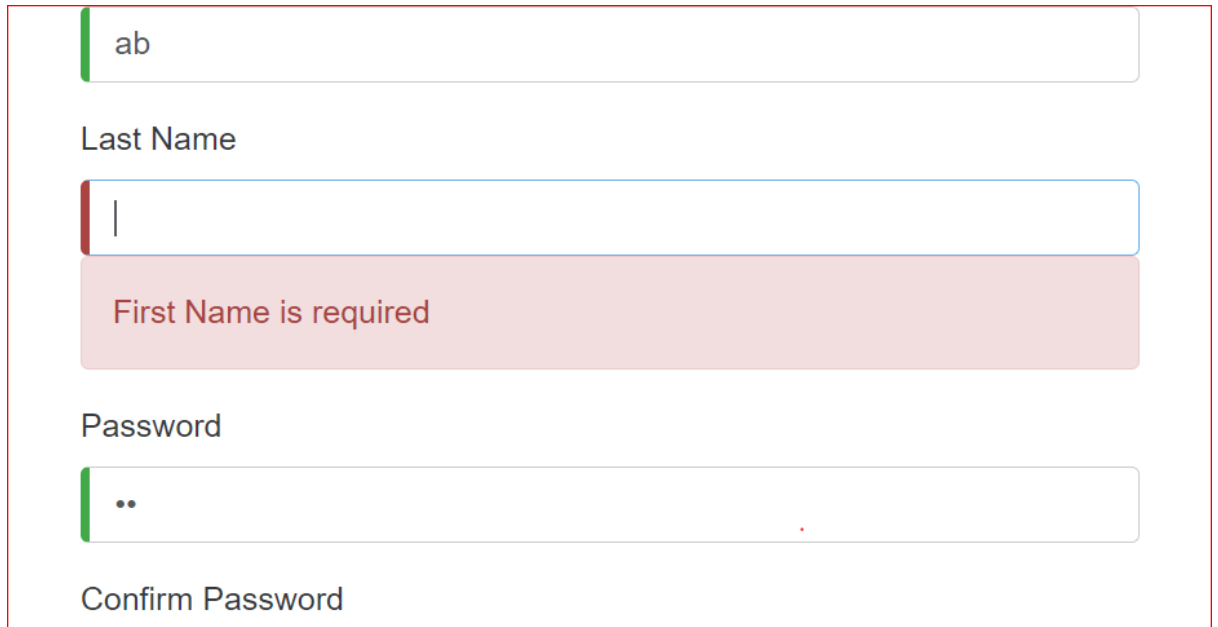Step 3. Fill in all the required details except lastname field.

Expected results: It should throw an error for 'Last name' field as required.

Actual results: It throws an error with error message as first name is required while the first name is already provided.

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:

Defect 7:

Summary: Twitter logo is not consistent with industry used logo with twitter bird on foother of the website. This might not be a defect, rather a enhacnemen for the better industry consistency.

- Environment: T2 (Test environment)
- Severity: Major (2)
- Priority: High (High business impact)

Steps to reproduce

1. Go to the Buggy Cars Rating website.
2. Scroll down to the footer section of website.

Expected results: The Twitter logo should be the official fluttering hummingbird logo.

Actual results: Twitter logo is displayed as a small "t"

Business impact: It will confuse users. Social media is one of the strong ways of communication these days and this issue will create confusion among users.

Support documentation: Refer to the screenshot attached to this Jira/ticket/Defect.

A screenshot is attached below:
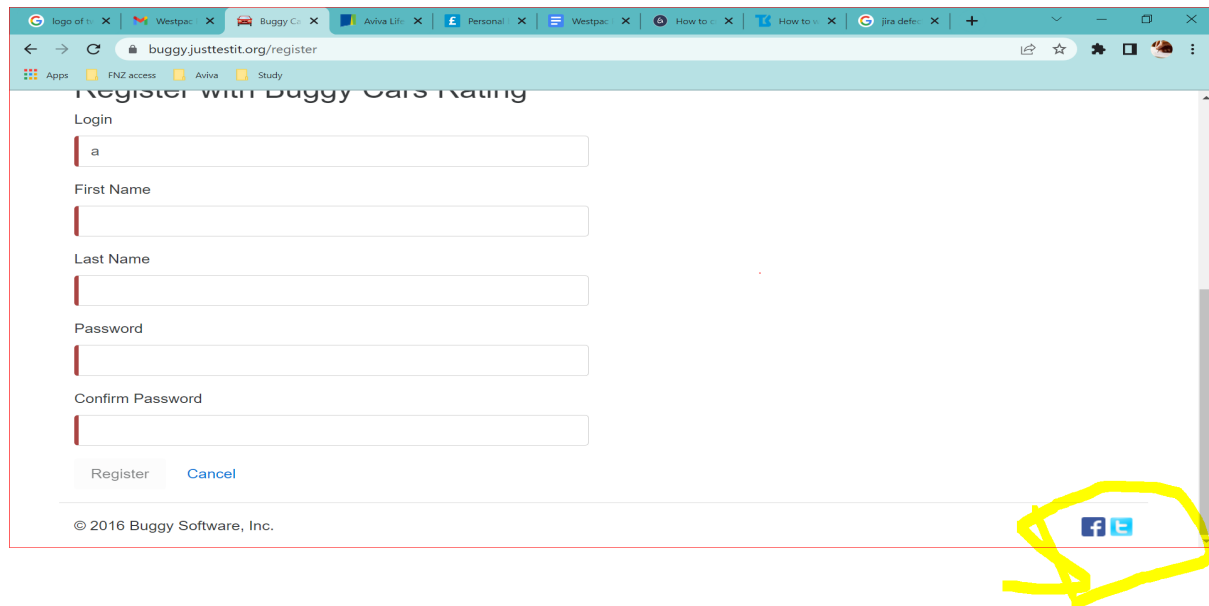
Suggestion for enhancement

1. An email field should be present along with email validation so that whenever password reset/forgot password kind of scenarios arise, The system has a way to facilitate such behaviour or requirement. Email field would also enable multi factor authentication.
2. There should be a criteria for password strength with minimum and maximum length with alphanumeric combination which is missing.
3. All pages must have client side as well as server side validations to reduce the security vulnerabilities.
4. All input fields values must be processed through antixss libraries to sanitise user inputs to avoid any security attacks.

5. The first name and second name make more sense to be on top of the registration page. Login and password fields should be together for the better look and feel and a better customer experience.
6. All fields should have a specific validation errors below the field once invalid details are inserted.
7. Upon submission of registrtion page, Page is not providing specific details to input or server side error. User is able to key in duplicate login details.
8. Uniqueness of login account should be done on run instead doing it on the submission of page with proper error message.
9. Registration message can have more details about the benefits user will get after registering with us.
10. A welcome email should be sent to all registered user with login details for the recrods purpose.
11. Forgot user, Forgot password and Reset password function should be avilable on the website.
12. Page performances must be reviewed as I have noticed considerable delays while loading popular make, popular model and overall raiting page.