

Test Approach

Scope and Objective

System under test: Buggy Cars Rating (<https://buggy.justtestit.org/>)

Objective for this project is to find and list as many critical bugs as possible and to automate 5 main functionalities to ensure the product is meeting good quality standards. The approach will be mainly exploratory testing, the scripts will be designed under a modular based framework. Tests will be executed from the IDE but ideally a CI/CD would be set up where the tests are executed in a pipeline.

What to Test

Given the objective of this project is to automate 5 main functionalities, testing will fall under those functionalities

1. User registration
2. Login/ Logout
3. User profile changes *
4. Overall rating page navigation **
5. Popular make page navigation ***

* The tests for user profile changes have been added in the same test file as Login/Logout as a user will always need to be logged in to be able to edit their profile.

,* Due to the sheer amount of critical bugs in this application, automating other functionalities such as viewing comments and viewing individual models is not feasible at this point in time hence functionality 4 and 5 are basic navigation tests.

Test Breakdown (High Level)

Functionality	Test	Test Details	Expected Result
User registration	Register new user	New user fills out all the required fields and clicks 'Register' button	User is able to successfully register. 'Registration is successful' message is displayed
	Register existing user	Existing user registers again by filling out required fields and clicking	User is unable to register. 'UsernameExistsException: User already

		'Register' button	exists' is displayed
Login/ Logout	Successful Login	User fills out username and password fields with valid data and clicks 'Login' button	User is able to login successfully
	Unsuccessful Login	User fills out username and password fields with invalid data and clicks 'Login' button	User is not able to sign in. Login error message is shown
	Logout User	After logging in, User logs out by click the 'Logout' button	User is able to logout successfully
User profile changes	Edit Profile	User is able to navigate to the profile page after logging in, fill out the input fields with valid data and click the 'Save' button	User has successfully edited their profile
Overall rating page navigation	Search for car make	User is able to navigate to the 'Overall Ratings' page and search for a car make	User can successfully search for car make
Popular Make page navigation	Validate popular make	User is able to navigate to the 'Popular Make' page and confirm the popular make name	User can validate the popular make name

Tools Used

- Selenium Java 4.8.3
- Junit Jupiter 5.9.1