



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	10
Title of Experiment	Develop a Testing Framework/User Interface
Name of the candidate	Pulipaka Prabhav
Team Members	M.Sai Praneeth Yadav, CH.Bharadwaj Karthik
Register Number	RA2111032010034
Date of Experiment	10-04-2023

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	5
2	Viva	5	5
Total		10	10


Staff Signature with date 12/4/2023

Aim

To develop the testing framework and/or user interface framework for the Fashion E-Commerce.

Team Members:

S No	Register No	Name	Role
1	RA2111032010034	Pulipaka Prabhav	Rep/Member
2	RA2111032010037	M.Sai Praneeth Yadav	Member
3	RA2111032010047	CH.Bharadwaj Karthik	Member

Executive Summary

Scope: The scope of testing an e-commerce website should include all of the website's functionalities and features. This includes evaluating the front-end and back-end systems of the website, as well as the user interface, database, security features, and integration with third-party services. To ensure compatibility, the website should be tested across numerous devices, operating systems, and browsers.

Objective: The goal of testing an e-commerce website is to guarantee that it performs correctly and efficiently, that it meets business criteria and user expectations, and that it provides customers with a seamless purchasing experience. The testing should discover any problems or issues that may have an impact on the usability, security, or performance of the website.

Approach:

The following actions should be taken while testing an e-commerce website:

- 1) Test Planning: Create a complete test strategy that covers testing objectives, scope, testing methodology, resources, and timelines.
- 2) Setup the testing environment to be as close to the production environment as feasible, including hardware and software configurations, databases, and third-party integrations.
- 3) Test Case Development: Create test cases that address all of the website's functional and non-functional needs. The navigation, search capabilities, product pages, shopping cart, checkout process, payment gateways, and user registration and login are all tested.

4) Test Execution: Run the test cases and document the findings. Any problems or flaws discovered during testing should be documented and tracked in a defect tracking system.

5) Reporting Defects: Report any defects or issues found during testing to the development team for resolution. The development team should also verify the resolution of the defects.

Test Plan

Scope of Testing

Functional: Is an approach of software testing in which the software system is validated against the functional requirements/specifications. The goal of functional testing is to test each function of a software programme by giving adequate input and comparing the output to the Functional requirements.

S.No	Test Item	Description
1)	User Registration	Test the user registration process to confirm that users may successfully create an account and that their personal and financial information is safe.
2)	Product Catalogue	Check that the product catalogue displays the correct product information, photos, sizes, colours, and prices.
3)	Shopping Cart	Test the shopping cart to ensure that it is working properly and that customers can easily add and remove items, adjust amounts, and proceed to checkout.
4)	Checkout Process	Test the checkout process to ensure that users can complete the payment procedure without encountering any errors or problems. Integrate payment gateways with a variety of payment options.
5)	User Account Management	User account management functionality such as order history, address management, and user profile change should be tested.

S.No	Test Item	Description
6)	Search Functionality	Test the search capability to ensure that consumers can quickly locate the products they want, such as searching by product name, category, brand, color, and size.

Non-Functional: Is defined as a type of software testing that examines a software application's non-functional features (performance, usability, dependability, and so on).

S.No	Test Item	Description
1)	Performance Testing	To guarantee that the website reacts swiftly and smoothly, test its performance under various traffic loads. Load testing, stress testing, and performance tuning are all part of optimising website speed and response time.
2)	Usability Testing	Test the usability of the website to ensure that it is simple to use, browse, and comprehend. This involves testing for usability, responsiveness, and consistency across devices and platforms.
3)	Accessibility Testing	Check the website's accessibility to guarantee that persons with disabilities can use it. This involves testing for accessibility requirements compliance, such as the Web Content Accessibility requirements. (WCAG).

S.No	Test Item	Description
4)	Security Testing	Examine the website's security features to ensure that user data is safe and secure, and that there are no weaknesses that attackers could exploit. This includes compliance testing with security requirements such as the Payment Card Industry Data Security Standard. (PCI DSS).
5)	Compatibility Testing	To guarantee that the website functions properly on all browsers, operating systems, and devices, test its compatibility with them.

Types of Testing, Methodology, Tools

Category	Methodology	Tools Required
Functional Requirements	Manual	Word Template
Performance Testing	Load Testing, Stress Testing	LoadRunner
Security Testing	Manual Testing, Automated Testing	OWASP ZAP

Result:

Thus, the testing framework/user interface framework has been created for the Fashion E-Commerce .