**TEST PLAN**

**[Table of Contents]**

| **Sr.no** | **Title** | **Page no** |
| --- | --- | --- |
| 1 | Introduction | 1 |
| 2 | Feature to be tested | 2 |
| 3. | Feature not to be tested | 3 |
| 4. | Test Level and Test Types | 3 - 5 |
| 5. | Exit Criteria | 6 |
| 6. | Suspension Criteria | 6 |
| 7. | Test Deliverables | 6 |
| 8. | Test Environment | 7 |
| 9. | Estimation | 8 - 9 |
| 10. | Reference Link | 9 |

1. **Introduction**

**1.1 Overview:**

* GCR Shopping is an Ecommerce web-based Application, which helps to deliver the product to end users quickly from any remote location.
* This platform is benefitted to the owner by selling products and benefitted to **users** by purchasing the required product.

**1. 2 Test Objective:**

* Test Objective will be to ensure the application meets quality standards.
* Quality standards can be achieved with less/no defects in terms of functionality and non-functionality of application.
* Main focus will be to perform functional testing on components or features that are mostly used by users.
* Some of important user flow that needs to be focused on

- Users should be able to buy products, add reviews, and checkout only after login as a valid user.

- Users should be able to search products.

- Users should be able to buy products.

- Users should be able to sign-in/sign-up.

- Site should not fail or be down when a user accesses the service.

1. **Feature to be tested**
2. **Admin:**

* Admin Login Form
* Catalog - Category Form
* Catalog - Manufacturer Form
* Catalog - Product Form
* Localization - Currency Form

1. **User:**

* Filter - [Search Filter / Manufacturer Filter]
* User Sign-in Form
* User Sign-up Form
* Forget Password Form
* Category List
* Products List
* Product View
* Buy Products - [Only after Login]

- Choose Product

- Update Quantity

- Delete Product

- Change Details

- Select Payment Options

- Checkout

1. **Admin - User Integration / User- Admin Integration:**

- [Add/Edit/Delete] Category -> Update Category List

- [Add/Edit/Delete] Product -> Update Product List

- [Add/Edit/Delete] Manufacturer -> Update Manufacturer Detail

- [Add/Edit/Delete] Currency -> Update Currency Detail

- [Accept/Reject/Edit/Delete] Review -> Update Product Review

**3.** **Feature not to be tested**

* All features will be tested.

**4.** **Test Level & Test Types:**

4.1 Test Levels:

* Unit Testing
* Integration Testing
* System Testing

**4.1.1 Unit / Component Testing:**

* Unit Testing is at first place of Testing Levels.
* In Unit Testing we can ensure that each single component works as per expectations.
* In the GCR Shopping application, there are multiple components on admin and user site, our main motive will be to test if the components are working as per expectations.

**4.1.2 Integration Testing:**

- Integration is one of testing level done after component and system testing

- Integration testing ensures that two / more components are integrated properly

- For GCR App we will test the integration of component  **Note**: The component that will fail with integration will be considered under suspension criteria

**4.1.2 System Testing:**

* System Testing is done after component and component Integration testing
* In System Testing we ensure functionality of system as whole (i.e., component + component Integration) is working as per expectation

4.2 Test Types:

1. Functional
2. Security Testing
3. UI Testing
4. Performance Testing

**4.2.1 Functional Testing**:

* Functional Testing is a type of software testing in which the system is tested against the functional requirements and specifications.
* Functional testing ensures that the requirements or specifications are properly satisfied by the application.
* In the GCR Shopping application from a functional point of view we will test the user flow points and ensure the components are working properly.
* As the site has already covered all different types of test levels our main motive will be to ensure the user flow features/components are functioning properly based on exploratory based approach.
* The feature/component should not break while accessing the feature / purchasing product.
* It should maintain reliability, availability and accessibility all time.
* Functional Testing will be done manually for GCR Application.
* Although after Manual testing is done we can create automation scripts for regression testing [i.e, only for user flow points/ features that are most commonly used].

**4.2.2 Security Testing:**

* Security / Pen testing has been done to identify the security loopholes or

vulnerabilities in early stages so that it could be fixed and should not allow unauthorized access to sensitive data of application.

* As GCR application is into live environment, might have already covered security / pentesting
* Our main role will be to scan or exploit with a basic payload, not all payload will be performed as a site is third party based and we are performing assessment, so 5 - 6 payloads will be executed.
* If that payload executes in any form then it will be reported as a vulnerable component / feature.
* Payload will be of two types:

1. SQL injection payload [Payload Data](https://github.com/payloadbox/sql-injection-payload-list)

2. XSS script payload [XSS Payload Data](https://github.com/payloadbox/xss-payload-list)

* This payload will be only executed on Forms [i.e, review form, login form, Registration form, Search filter, Drop Down, Checkout form, forget password].
* Our main lookout will be to ensure proper validations are put after applying payloads.

HTML Injection

XSS Injection

SQL Injection

OS Command Injection, Will be performed during security check.

**4.2.3 UI Testing:**

* User Interface Testing is most important from a user point of view.
* In UI Testing we will ensure there is no break into components or in between contents.
* From a quality point of view our main motive will be to ensure images are rendered properly, Ensure frontend is responsive on different screen resolutions.
* For responsive we can test on physical mobile device or we can test on third party cross browser tool [i.e, Browser Stack]

**4.2.4 Performance Testing:**

* Performance of site ensures the high time availability of site to user with no downtime.
* For the GCR Shopping application we will check the response of the site page should be quick.
* Every link redirection response should be less than or equal to 5000 ms

**5. Exit Criteria**

Following will be an exit criteria for GCR Application:

1. When all functional and non-functional test cases have met.
2. When high priority features are covered.
3. When there is no major break in Application.
4. When all forms are having proper validations.

**6. Suspension Criteria**

* When the site is completely down.
* When the site is not allowing users to authenticate.
* When major functional and non-functional test cases are failing.
* When site integration is not proper.
* When admin is not able to add Catalog items.
* When a user is not able to complete a transaction.

**7. Test Deliverables**

1. Test Cases
2. Bug Report

**8. Test Environment**

| **Sr.no** | **Resource** | **Purpose** |
| --- | --- | --- |
| 1. | Google Docs | Test Documentation |
| 2. | Google Excel | To Maintain Test Scenario, Test Cases & Bug Tracking |
| 3. | Google Drive | To Maintain Test Resources [Docs, Images] |
| 4. | Browser - [Chrome] | To Execute Test Case |
| 5. | Burp Suite | To perform application security Testing |

**9. Test Estimation**

| **Sr.no** | **Topic** | **Duration** | **Start Date** | **End Date**  **(estimated)** | **Status** | **Trace Link** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | Test Case Design | 7 Days | 21/08/2023 | 16/08/2023 |  | [Link1](https://docs.google.com/spreadsheets/d/13ReBE3wcs5fuBv44Xbbo76LfgOck7qrOPfzo10hH5NQ/edit#gid=0) |
| 2. | Test Case Execution & Bug Reporting | 5 Days | 17/08/2023 | 23/08/2023 |  |  |
|  | Test Bug Report Summary | 1 Day | 23/08/2023 |  |  |  |

**10. Reference Links:**

1. Project Understanding Link **:** [Link1](https://docs.google.com/document/d/17ciEfIalsLm5kCK8FUpWxa7liENJgIvMcQ2bREEJw1Y/edit)
2. Test Scenario Link: [Link2](https://docs.google.com/spreadsheets/d/16eV1yj5vMkjm5iLA0YSgzcncw6ZowSxop3BXMjgJRzA/edit#gid=0)