**Introduction:**

This test plan document describes the testing of architectural prototype of Health Service web application.

The test plan document objectives are to

1. Identify the objective of the project and list out the requirements and resources needed for the software.
2. Testing the software features.
3. Describe the testing strategies to be worked on.
4. Identifying the resources and provide the estimation for the test efforts.
5. Identify the risks associated with the plan.

**Scope:**

**In Scope:**

1. Database Testing
2. Performance (Load, Stress, Volume).
3. **Functional Testing**

|  |  |  |
| --- | --- | --- |
| **Module Name** | **Application Roles** | **Description** |
| Registration | Customer | 1. Customer can register themselves with the valid details. 2. Customer cannot book an ambulance   without registration. |
| Login | Customer/Employee | 1.Customer and Employee has to login with the valid username and password.  2.He/She can reset the password if he forgot the password. |
| Booking Page | Customer | Customer can view and book the ambulance by filling up all the required details with the timings for ambulance to pick up. |
| Payment | Customer | 1.Customer can be paid through the credit/debit and cod is available.  2.For the prepaid the customers are transferred to the credit/debit page for the secure transfer.  3.He/She should fill the information for secure billing.  4.He/She can also skip the minimum payment and pay at the end. |
| Booking Confirmation | Customer | Once the ambulance has booked the customer has to get booking confirmation with the Booking Id and Tracking number. |
| Tracking page | Customer | Customer should be able to track the ambulance by using the tracking number. |
| About Us | Customer | Customer can search for the additional information in this page. |

**Out of Scope:**

1. Hardware Interfaces.
2. Software Interfaces.
3. User Interfaces.
4. Security and Recovery of the website.
5. Sanitation Testing.

**Quality Objective:**

The test objective is to verify the functionality of the online Fresh Food website. The project should focus on testing online grocery store such as purchasing grocery online, adding and removing products, online payment that can operate easily for the customers and vendors in the real business environment.

**Roles and Responsibilities:**

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| Test Manager | 1. Provides technical directions. 2. Management reporting 3. Acquire appropriate resources. |
| Test Designer | 1. Generate test plan. 2. Evaluate test efforts. |
| System Tester | 1. Execute tests. 2. Log results. 3. Document defects. |
| Test system administrator | 1. Ensure test data environment and asserts are maintained. 2. Checks the Quality |
| SQA Members | Checks whether the testing process is meeting the specified requirements or not. |

**2 Test Methodology**

**2.1 Overview**

The purpose of the Test Plan is to achieve the following:

1. Define testing strategies for each area and sub-area to include all the functional and non-functional requirements.
2. Divide Design Spec into testable areas and sub-areas (do not confuse with more detailed test spec). Be sure to also identify and include areas that are to be omitted (not tested) also.
3. Define bug-tracking procedures.
4. Identify testing risks.
5. Identify required resources and related information.
6. Provide testing Schedule.

**2.2 Test Levels**

In the project **FreshFood**, there're 8 types of testing should be conducted.

**Functional Testing:**

* **Unit Testing:** Unit Testing is conducted by the Developer during code development process to ensure that proper functionality and code coverage have been achieved by each developer both during coding and in preparation for acceptance into iterations testing.
* **Integration** **Testing**: Is the phase in software testing in which individual software modules are combined and tested as a group. Integration testing is conducted to evaluate the compliance of a system or component with specified functional requirements
* **System Testing:** Conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements
* **Regression Testing:** Testing an application as a whole for the modification in any module or functionality is termed as Regression Testing. It is difficult to cover all the system in [Regression Testing](https://www.softwaretestinghelp.com/regression-testing-tools-and-methods/), so typically [Automation Testing Tools](https://www.softwaretestinghelp.com/automation-testing-tutorial-1/) are used for these types of testing.

During the repeated cycles of identifying bugs and taking receipt of new builds (containing bug fix code changes), there are several processes which are common to this phase across all projects. These include the various types of tests: functionality, performance, stress, configuration, etc. There is also the process of communicating results from testing and ensuring that new drops/iterations contain stable fixes (regression). The project should plan for a minimum of 2-3 cycles of testing (drops/iterations of new builds).

* **User Acceptance Testing:** Testing team with end-users participates in this milestone process as well by providing confirmation feedback on new issues uncovered, and input based on identical or similar issues detected earlier. The intention is to verify that the product is ready for distribution, acceptable to the customer and iron out potential operational issues.

**Non-functional Testing:**

* **Performance Testing:** This testing is done when a system is stressed beyond its specifications in order to check how and when it fails. This is performed under heavy load like putting large number beyond storage capacity, complex database queries, continuous input to the system or database load.
* **Security Testing:** is a type of software testing that intends to uncover vulnerabilities of the system and determine that its data and resources are protected from possible intruders.

**2.3 Suspension Criteria and Resumption Requirements**

Suspension criteria assumes that testing cannot go forward and that going backward is also not possible. A failed build would not suffice as you could generally continue to use the previous build. Most major or critical defects would also not constitute suspension criteria as other areas of the system could continue to be tested.

If the team reports that there are 35% of test cases failed, suspend testing until the development team fixes all the failed cases.

**3. Test Completeness:**

* Specifies the criteria that denote a successful completion of a test phase.
* Run rate is mandatory to be 100% unless a clear reason is given.
* Pass rate is 80%, achieving the pass rate is mandatory.

**Project task and estimation and schedule**

Task Members Estimate effort

Create the test specification Test Designer 170man-hour

Perform Test Execution Tester, Test Administrator 80man-hour

Test Report Tester 10man-hour

Test Delivery 20man-hour

Total 280 man-hour

**3. TEST DELIVERABLES:**

**Before testing phase**

We need to have the following requirements

1. Test plan document
2. Test case document
3. Test design specifications
4. Environment setup

**During the testing**

1. Test Tool Simulators
2. Test Data
3. Test Trace-ability Matrix - Error logs and execution logs.
4. Defect Tracking tool

**After the testing cycles is over**

1. Test Results/reports
2. Defect Report
3. Installation/ Test procedures guidelines
4. Release notes

**4 Resource & Environment Needs:**

**Testing tools**

**Server**: - MySQL server.

**Test tool**: - Develop a test tool which can auto generate the test result to the predefined form and automated test execution.

**Network**: - Internet connection with internet speed 50mbps.

**Computer**: - A computer runs Windows 10, Ram 4GB, CPU 3.4GHZ.

**Browser**: -Google Chrome, Internet explorer, Mozilla Firefox.

**Test Environment:** Minimum hardware requirements that will be used to test the application.

1. System and applications.
2. Test data.
3. Database server.
4. Client operating system.
5. Browser.
6. Hardware includes Server Operating system.
7. Network.