**Spectra Hut – Web Application Test Strategy**

**Prepared By:** Rajesh T

**Date:** 11-03-2016

**Version:** Draft

**Document Control**

**Document location:**

**Stakeholders and other contributors**

|  |  |
| --- | --- |
| Position | Name |
|  |  |
|  |  |

**Revision history**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Issue Date | Description | Summary of Changes | Author |
| 0.1 | 11-03-2016 | Initial Draft |  | Rajesh T |
|  |  |  |  |  |
|  |  |  |  |  |

**Reviewed by**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Issue Date | Name | Position | Review Date |
| 0.1 | 11-03-2016 | Vinodh Srinivasan |  | 11-03-2016 |
|  |  |  |  |  |
|  |  |  |  |  |

**Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Issue Date | Name | Position | Approval Date |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Table of Contents

[1. Introduction 5](#_Toc445472857)

[1.1. Purpose 5](#_Toc445472858)

[1.2. Objective 5](#_Toc445472859)

[1.3. Scope 5](#_Toc445472860)

[2. Test Strategy 6](#_Toc445472861)

[2.1. Testing Methodology 6](#_Toc445472862)

[2.2. Test Plans 6](#_Toc445472863)

[2.3. Test Design & Preparation 6](#_Toc445472864)

[3. Testing Types 6](#_Toc445472865)

[3.1. Functional Testing 6](#_Toc445472866)

[3.2. Installation Testing 7](#_Toc445472867)

[3.3. Usability testing 7](#_Toc445472868)

[4. Testing Approach 7](#_Toc445472869)

[4.1. Testing Objectives 7](#_Toc445472870)

[4.2. Testing Framework 7](#_Toc445472871)

[4.3. Test Execution 8](#_Toc445472872)

[4.4. Testing Challenges 8](#_Toc445472873)

[5. Automated Testing Tools 8](#_Toc445472874)

[5.1. Test Management 8](#_Toc445472875)

[5.1.1. Test Management Tool 8](#_Toc445472876)

[5.1.2. Defect Management Tool 8](#_Toc445472877)

[5.2. Test Automation Tools 9](#_Toc445472878)

[5.2.1. Test Automation Tool 9](#_Toc445472879)

[5.3. Licensing and Installation 9](#_Toc445472880)

[6. Test Environment Strategy 9](#_Toc445472881)

[6.1. Testing Environments Provisioning Request Process 9](#_Toc445472882)

[6.1.1. Test Lab – Testing 9](#_Toc445472883)

[6.1.2. Test Environment Management 9](#_Toc445472884)

[7. Test Data Strategy 9](#_Toc445472885)

[7.1. Test Data Strategy Objectives 9](#_Toc445472886)

[7.2. Types of Test Data 10](#_Toc445472887)

[7.3. Test Data Sources 10](#_Toc445472888)

[7.4. Test Data Management 10](#_Toc445472889)

[8. Testing Controls & Procedures 10](#_Toc445472890)

[8.1. Testing Success Criteria 10](#_Toc445472891)

[8.2. Defect Management 10](#_Toc445472892)

[8.2.1. Defect Management Severity Definitions 10](#_Toc445472893)

[8.2.2. Bug Report 11](#_Toc445472894)

[8.3. Entry Criteria Risk Assessment 11](#_Toc445472895)

[8.4. Exit Criteria Risks Assessment 11](#_Toc445472896)

[8.5. Testing Requirements Traceability 11](#_Toc445472897)

[8.6. Exception Justification 11](#_Toc445472898)

[9. Key Roles, Accountabilities and Responsibilities 11](#_Toc445472899)

[9.1. Proposed Test Team Structure 11](#_Toc445472900)

[10. Staffing and Training Needs 12](#_Toc445472901)

[11. Milestones and Schedule 12](#_Toc445472902)

[11.1. High Level Schedule for Testing 12](#_Toc445472903)

[12. Risks and Contingencies 12](#_Toc445472904)

[13. Recommendation 12](#_Toc445472905)

[14. Definitions and Terms 12](#_Toc445472906)

# 1. Introduction

**Spectrahut** (Handicraft WebApplication) is designed and developed especially for Indian markets. The application helps the customer to search for the suitable wooden frames to decorate the Wall. The Customer can choose the wooden work which they need to buy and make a transaction online and buy the product.

# Purpose

The purpose of this Test Strategy is to create a understanding of the target, approach, tools and timing of test activities. The Test strategy guides us through the common obstacles with a clear view of how to evaluate the system.

# 1.2. Objective

Our objective is to identify appropriate tool, analyze the functionality of the tool and its usage on a defined application, and to test the application with the tool. Also to provide recommendations for the application betterment.

# 1.3. Scope

The scope of the project will consist of testing the UI of the web application .There will not be any testing on the backend systems.

The scope of testing is limited to the below functionalities

1. Check whether all the Navigation is working
2. Check whether the customer is able to buy product through the application by transaction.

The testing scope is limited to the below testing types

1. Functional
2. Smoke
3. Cross Browser
4. Automation

# Test Strategy

# 2.1. Testing Methodology

The methodology used for testing the application is automated UI testing and manual.

# 2.2. Test Plans

2.2.1. Master Test Plan

# 2.3. Test Design & Preparation

The attached excel sheet contains detailed functional test cases and usability test cases

# Testing Types

There are various testing that can be done on the mobile app. Only the ones marked in scope are conducted or now.

|  |  |  |
| --- | --- | --- |
| **Sno** | **Testing Mode** | **Scope** |
| 1 | Functional smoke testing | In Scope |
| 2 | Smoke testing | In Scope |
| 3 | Cross Browser testing | In Scope |
| 4 | Automation feasibility testing | In Scope |
| 5 | Interrupt testing | Out of scope |
| 6 | Performance testing | Out o Scope |
| 7 | Laboratory testing | Out of scope |

# 3.1. Functional Testing

• To identify 2 test scenarios and develop the test cases.

# 3.2. Installation Testing

• Assumption1: To check if automatic installation can be done on the simulator/hardware using the tool. Otherwise will be tested manually

# 3.3. Usability testing

• Assumption 1: To check if the tool allows for usability testing or to search for a tool that does usability testing or will test usability with predefined/identified criteria manually

# 4. Testing Approach

A well-defined testing approach will help to minimize major risks.

# 4.1. Testing Objectives

The objectives for testing are;

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Objective | Measure and Target | Measure |
| 1 | Functional– Features and functions to work as expected | To test atleast 2 functionality’s are adhering to the requirement | The tests should pass/fail satisfying the requirement |
| 2 | Usability | To test if the application can be used without any issues | Application should be easy to navigate and to verify if the information provided to the user is clear |
| 3 | Installation | To test if the application can be installed /uninstalled without any issues | Application should be installed /uninstalled properly on an android device |

# 4.2. Testing Framework

A data driven framework will be used to conduct functional testing.

*Assumption1: Will verify if the tool also encompasses the usability feature*

*Assumption2: Will verify if the application can be installed/uninstalled programmatically using the tool.*

# 4.3. Test Execution

* The test cases will be independent of each other.
* The Focus of Test execution will be on exploratory testing
* The failed test cases will be attached to defects
* The test execution will be performed in both automation an in manual mode

# 4.4. Testing Challenges

* Testers are new to automate Web application systems
* Testers are not familiar with the tools and frameworks
* Testers are not familiar with setting up test environments

# 5. Automated Testing Tools

# 5.1. Test Management

Test cases will be stored locally on the excel sheet.

# 5.1.1. Test Management Tool

Test cases will be stored locally on the excel sheet.

# 5.1.2. Defect Management Tool

The defects found are logged in excel against the test case id’s.The below attached are the defects found after testing the application.

# 5.2. Test Automation Tools

# 5.2.1. Test Automation Tool

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Tool | Version | Purpose |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 5.3. Licensing and Installation

|  |  |  |
| --- | --- | --- |
| S.No | Tool | License |
|  |  |  |
|  |  |  |

# 6. Test Environment Strategy

# 6.1. Testing Environments Provisioning Request Process

This section details the approach and processes that need to be followed for requesting environment builds and/or refreshes.

# 6.1.1. Test Lab – Testing

The test lab should have the below minimum required environment for the testing to progress

# 6.1.2. Test Environment Management

|  |  |
| --- | --- |
| S.No | Hardware/Software |
|  |  |
|  |  |
|  |  |

# 7. Test Data Strategy

# 7.1. Test Data Strategy Objectives

* Will use existing test data from the mobile application to test multiple scenarios.

# 7.2. Types of Test Data

Only manually created static Test data will be used to test the mobile application.

# 7.3. Test Data Sources

|  |  |  |
| --- | --- | --- |
| S.No | Source | Scope |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# 7.4. Test Data Management

A sample set of test data will be created and populated in the excel which will be used to test the application

For example : Product names, prices etc

# 8. Testing Controls & Procedures

This section documents the proposed process and governance of key processes.

# 8.1. Testing Success Criteria

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Number of Test Case | Pass Percentage | Success Criteria |
|  |  |  |  |
|  |  |  |  |

# 8.2. Defect Management

# 8.2.1. Defect Management Severity Definitions

|  |  |  |
| --- | --- | --- |
| S.No | Severity | Measure Defects |
|  |  |  |
|  |  |  |
|  |  |  |

# 8.2.2. Bug Report

# 8.3. Entry Criteria Risk Assessment

The testing will commence if :

* The application is stable.
* The connectivity between the application and the device is established
* The tool should run without any issues

# 8.4. Exit Criteria Risks Assessment

The purpose of the Exit Criteria Risk Assessment process is to evaluate the finalization and completeness of a testing Release.

# 8.5. Testing Requirements Traceability

# 8.6. Exception Justification

No Exceptions

# 9. Key Roles, Accountabilities and Responsibilities

# 9.1. Proposed Test Team Structure

The team will be comprised of 3 members to test the Web application –SpectraHut

|  |  |  |
| --- | --- | --- |
| S.No | ResourceName | Work Area Responsibility |
|  |  |  |
|  |  |  |
|  |  |  |

# 10. Staffing and Training Needs

|  |  |  |
| --- | --- | --- |
| S.No | Resource Name | Training Needs |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

# 11. Milestones and Schedule

# 11.1. High Level Schedule for Testing

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Checkpoint** | **Date and Time** | **Taskby** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 12. Risks and Contingencies

|  |  |  |
| --- | --- | --- |
| S.No | Risk | Contingency Plan |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# 13. Recommendation

The recommendations for the tool and for the application is provided in the attached sheet.

# 14. Definitions and Terms

Ranorex – Tool used to automate Web applications