Spicejet - Test Plan

Revision History

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Reviewed By			
Approved by			

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Introduction

The Test Plan has been created to communicate the test *approach* to client and team members. It includes the objectives, scope, schedule, risks and approach. This document will clearly identify what the test deliverables will be and what is deemed in and out of scope.

1. Objective

The primary objective of this document is to establish a Test Plan for the activities that will verify SPICEJET as a high quality product that meets the needs of the SPICEJET business community. These activities will focus upon identifying the following:

- ⇨ Items to be tested
- ⇨ Testing approach / Strategy adopted
- ⇨ Resource Requirements
- ⇨ Roles and Responsibilities
- ⇨ Milestones
- ⇨ Risks and contingencies
- ⇨ Test deliverables

1.1. Scope

This document is a very high level vision of how SPICEJET applications will be tested and will not aim at providing any details about each testing engaged at various levels of testing.

Scope of Testing

1. Test cases identification and documentation for the new features/use cases and NFR
2. Creation of new test cases and updating existing test cases for all modules
3. Functional Testing for the new functionalities(New Features)
4. Non Functional Requirement(NFR) testing(Performance testing)
5. Regression testing for the SPICEJET functionalities
6. Complete SPICEJET Application testing
7. Recording of bugs and verification of resolved bugs for each build

2. Reference Documents

The table below identifies the documents and their availability, used for developing the test plan

Document (Version / Date)	Created / Available	Received / Reviewed	Author / Resource	Remarks
Homepage SRS doc			BA	
Book a flight SRS doc			BA	
1		2	3	

3. Test Items

3.1 . Features to be tested

All change requests / enhancements / bug fixes on above listed applications will be tested on need-

Basis:

Test cases will be prepared based on the following documents:

- Understanding Use Case documents
- Software design documents
- Data Validation documents

Business Requirements	Ref. No.	Feature	Functional Specification

3.2 . Features not to be tested

Security Testing and performance testing are not part of the project delivery

4. Test Strategy

The SPICEJET modules and sub modules testing will be performed with below testing types

4.1. Testing Types

4.1.1 Functional Testing

The primary functional areas in various SPICEJET modules will be thoroughly tested according to the functional specification document or understanding document or software requirement specification document. During the testing phase, complete functionality will be tested at least two to three times based on the complication involved in the application.

Test Objective	Ensure that each function specified in the functional document and SRS works correctly while passing/retrieving parameters without data corruption.
Technique	Test the each function by providing the valid and invalid input values and inspect the input data has been operated by the function, also inspect the output data as intended, and ensure that all implemented functions are processing the data properly or review the output data to ensure that the correct data was retrieved.
Completion Criteria	Both interfaces (back-end application and end user site) should process data correctly without any mismatch. Error handling cases should also be checked.
Special Considerations	Testing may require the huge test inputs to test the functionality of sending test SMS or test e-mails.

5. Test Environment

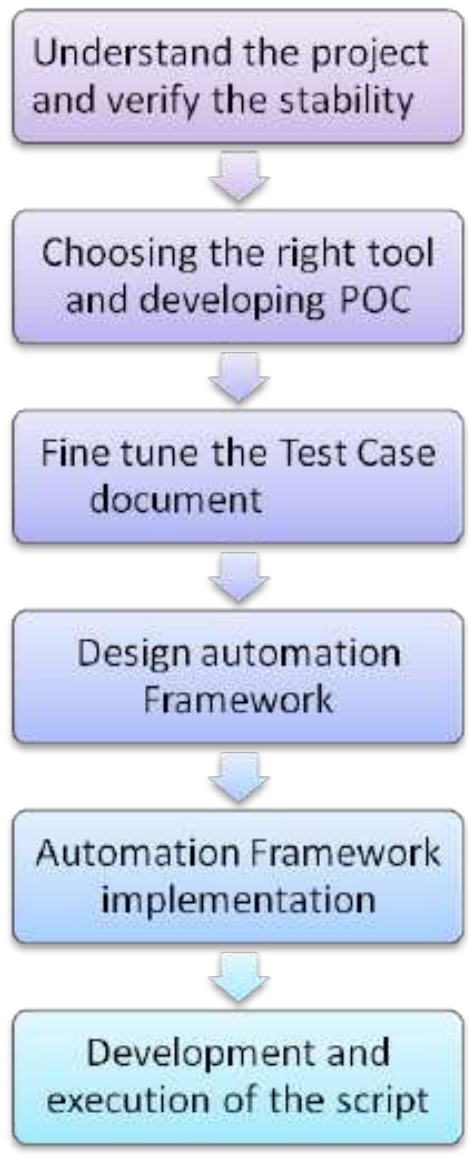
The test environment preparation step will ensure that hardware, software, and tools required for testing will be available to the testing team when they are needed. This would involve co-ordination with IT infrastructure team and other providers in regard to Equipment, Operating systems, networks, etc.

Machine type : Windows server Enterprise
OS : Windows
Processor : Intel® xeon® CPU
Memory : 4 GB / 2.13 GHZ
Hard disk : 150 GB
Database : Microsoft SQL Server 2008 Standard Edition
Web server : IIS 7.0

Client (Browser) : Microsoft Internet Explorer 8.0, Firefox, GoogleChrome

6. Automation Testing

This section describes the strategy and the activities performed as part of the planned strategy for implementing the automation of test scenarios. The following steps should be adopted as a part of strategy of implementing the test automation



Understanding the product and verify the stability of the product:

First analyze the product and assess the feasibility of automating the test scenarios identified for application. It i also ascertain that the future releases of the product would not undergo major changes.

Design Automation Framework:

Based on the product , evaluation of various test automation tools with an objective to suggest a suitable automation tool in all respects should undertaken.

Developing proof of concept:

A proof of concept developed to show the capabilities and computability of the tool with the application. In the POC we have taken AOA and BBM scenarios by covering the various verification points and actions.

Design the Automation Frame work:

To design the Frame Work we use the Data Driven Approach as the applications are stable and no GUI changes are identified and which would also cover AUT(Application Under Test).This also identifies the various reusable action and common steps.

Automation Frame work implementation:

In this all the identified reusable function are implemented followed by coding convention.

Development and Execution of the Script:

The test scripts are developed based on design. Finally, a clear log report is produced covering all the verification points. Adherence to the define coding conventions and elimination of common coding.

Automation – Phases	ACTIVITIES	DELIVERABLES
Automation Assessment	• Walkthrough of requirements. • Walkthrough of systems. • Analyze requirements from automation perspective. • Focused discussions - Preparing test cases - Test data requirement - Test data	• Plan for Framework phases.

	conditioning - Technical aspects - Priorities - Workarounds	
Framework Design	• Identification of test scenarios for automation. • Identification of Reusable components. • Preparing Design document.	• Detailed design document • Test Scenarios with coverage's to be automated.
Framework Development	• Prepare framework code • Code reviews • Testing framework	• Baseline Design document • Framework code
Test scenarios Automation	• Develop automated script based on the framework developed • Test data conditioning input file preparation • Testing of the automated script. • Peer review of the scripts for adherence to standards. • Prepare User manual guide. • Package the automated scripts for release	• Automated Test scripts • Automate Manual User Guide.

Testing Tool: Selenium

7. Item Pass / Fail Criteria

Defects will be classified as follows according to severity of the impact on the system:

***Severity Level**	**Description**
Sev 1 - Blocker	Calico Software is not operational in production and a work-around is not available. Critical Errors include the following: • Calico Software may cause corruption or destruction of data • The System fails catastrophically (50% or greater reduction of service) • Two or more reboots of the System per day

Sev 2 - Major	A major function in the Calico Software is not operational and no acceptable work-around is available, but Customer is able to do some production work. High Errors include the following: • System is usable but incomplete (one or more documented commands/functions are inoperable/missing) • System fails catastrophically (10-50% reduction of service) • One reboot per day of the System
Sev 3 - Minor	There is a loss of a function or resource in Calico Software that does not seriously affect the Customer's operation or schedules. Medium Errors include the following: • Issues associated with the installation of Calico Software • Any "Critical" or "High" Error that has been temporarily solved with a work-around
Sev 4 - Suggestion	All other issues with Calico Software. Low Errors include the following: • Errors in Documentation • Calico Software does not operate strictly according to specifications

8. Defect Analysis and closure

Following are the defect tracking activities till its closure. It includes:

- Logging of defects
- Analysis of defects
- Fixing of defects
- Re-testing of fixes
- Regression testing to ensure that fixes have not impacted the original functionality.
- Defect tracking till closure

9. The Test Deliverables:

- Test strategy document
- Test cases for the new features, , NFR
- Test results of the above mentioned test cases(#2)
- Regression testplan/test case(Complete SPICEJET test cases)
- Regression test results of the above mentioned test cases(#4)
- Release notes with open issues(if any)

10. Risks and Contingencies

SNo	Risks	Contingencies
1	Person shortfall (ill, marriage leave	Maintain buffer resources
2	Continuous Requirement Changes	Analyze requirement
3	Lack of peer reviews	Monitor peer review

11. HARD WARE AND SOFTWARE REQUIREMENTS

12. RESOURCE PLAN

MANUAL TE'S – 10

AUTOMATION ENGG'S – 5

PERFORMANCE ENGG'S - 2