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V 1.0

test plan for Travel Advisor System

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# **Introduction**

## **Purpose of the document**

The test plan describes the test approach and overall framework that will be used in testing. This document introduces:

* Test Strategy: rules the test will be based on, including the givens project (start /end, dates, assumptions) description of the process to set up a valid test.
* Execution Strategy: describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
* Test Management: process to handle the logistics of the test and all the events that come up during execution.

## **Project Overview**

The travel advisor system is a direction for everyone who wants to explore many joyful tours worldwide. The system allows the user to view any tour from the available tours and reserve it. The system provides heightened security which is check for authorization and authentication about the user that will be logged to the system. We have two users who are admin and users; The admin who someone can add tours to the system and check on the booked tours. The user can view any tour and book it.

## **Audience**

* Project team members perform tasks specified in this document, provide input and recommendations on this document.
* Project Manager Plans for the testing activities in the overall project schedule, reviews the document, tracks the performance of the test according to the task herein specified, approves the document and is accountable for the results.
* The stakeholders’ representatives and participants may take part in the user acceptance test to ensure the business is aligned with the results of the test.

# **Test Strategy**

## **Test Objectives**

The objective of the testing is to ensure that TVS (Travel Advisor system) is functioning as requested by the user and captured in the SRS document.

The test will execute and verify the test scripts, identify, fix, and retest all high and medium severity defects per the entrance criteria, and prioritize lower severity defects for future fixing via CR.

The final product of the test include:

* A production-Ready software.
* A set of stable test scripts that can be reused for functional test execution.

## **Test Assumptions**

### **Key Assumptions**

Production-like data is required and be available in the system prior to starting of Functional Testing.

### **General**

* Unit testing is not considered for this estimation.
* Performance testing is not considered for this estimation.
* API testing is not considered for this estimation.
* Exploratory Testing is not considered for this estimation.
* User acceptance testing is not considered for this estimation.
* All the defects would come along with a detailed description in the bug report and can have a snapshot of the error or the bug reported in the report.
* Defect fix plan should be included in this documentation.

## **Test Principles**

* Testing will be focused on meeting the business objectives, cost efficiency, and quality.
* Testing processes will be well defined, yet flexible, with the ability to change as needed.
* Testing activities will build upon previous stages to avoid redundancy or duplication of effort.
* Testing will be a repeatable, quantifiable, and measurable activity.

## **Testing Levels**

## **System Test**:

**Purpose**: The purpose of this test to test the system functionalities that the system provides against SRS functional requirements.

**Scope**: Testers team execute test cases against the system test and create bug report.

**Testers**: The testers team.

**Timing**: At the end of implementation and execution phase.

### **Re-test**

Purpose: The purpose of this testing is validating that bugs are fixed.

Scope: First level navigation, user modules.

Testers: Testing team.

Method: This test is carried out in the application test with manual tests.

Timing: After fixing bugs in testing cycle.

### **Regression Test**

Purpose: The purpose of this level is making sure that fixed bugs didn't affect any other modules of the system and the system is working correctly.

Scope: First level navigation, user modules.

Testers: Testing team.

Method: this test is carried out in the application test with automated test scripts and documentation.

Timing: at the end of testing cycle.

**TEST ACCPTANCE CRITERIA:**

1. Approved functional Specification document, Use Case diagram must be available.
2. Test cases should be approved before the Test execution
3. Development completed (passed).

**TEST DELIVERABLES:**

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Name | Author | Reviewer |
| Test\_deliver\_01 | Test Plan | Project Manager | Analyst |
| Test\_deliver\_02 | Functional Test Cases | Test Team | Project Manager |
| Test\_deliver\_03 | Bug Report | Test Team | Project Manager |
| Test\_deliver\_04 | Test Closure report | Test Team | Project Manager |

# **Execution strategy**

## **Entry and Exit Criteria**

• The entry criteria refer to the desirable conditions in order to start test execution; only the migration of the code and fixes need to be assessed at the end of each cycle.

• The exit criteria are the desirable conditions that need to be met in order proceed with the implementation.

• Entry and exit criteria are flexible benchmarks. If they are not met, the test team will assess the risk, identify mitigation actions and provide a recommendation. All this is input to the project manager for a final “go-no go” decision.

|  |  |  |  |
| --- | --- | --- | --- |
| Exit Criteria | Test Team | Technical Team | Notes |
| 100% Test Scripts executed |  |  |  |
| 95% pass rate of Test Scripts |  |  |  |
| No open Critical and High severity defects |  |  |  |
| 95% of medium severity defects have been closed |  |  |  |
| All remaining defects are either cancelled or documented as change requests for a future release |  |  |  |
| All expected and actual results are captured and documented with test script |  |  |  |
| Test Closer Memo Completed |  |  |  |

## **Validation and Defect Management**

* It is expected that the testers execute all the scripts. However, it is recognized that the testers could also do additional testing if they identify a possible gap in the scripts. If a gap is identified, the scripts and traceability matrix will be updated and then a defect logged against the scripts.
* The defects will be tracked through Traceability matrix and Trello. The technical team will gather information on a daily basis from Trello.
* It is the responsibility of the tester to open the defects, link them to the corresponding script, assign an initial severity and status, retest and close the defect; it is the responsibility of the Defect Manager to review the severity of the defects and facilitate with the technical team the fix and its implementation, communicate with testers when the test can continue or should be halt, request the tester to retest, and modify status as the defect progresses through the cycle.

Categories of Defects found during the Testing:

|  |  |
| --- | --- |
| Severity | Impact |
| 1 (Critical) | * This bug is critical enough to crash the system, cause file corruption, or cause potential data loss * It causes an abnormal return to the operating system (crash or a system failure message appears). * It causes the application to hang and requires re-booting the system |
| 2 (High) | * It causes a lack of vital program functionality with workaround. |
| 3 (Medium) | * This Bug will degrade the quality of the System. However, there is an intelligent workaround for achieving the desired functionality - for example through another screen. * This bug prevents other areas of the product from being tested. However other areas can be independently tested. |
| 4 (Low) | * There is an insufficient or unclear error message, which has minimum impact on product use. |

### **Defect Tracking & Reporting**

Close

Approved

Tester: Retest the product

Developer: validate and fix the bug

Tester: Report Defect

Yes

No

# **Test Management process**

## **Test Management tool**

Tasks: As every task in the project the tasks will be assigned to a member and to a specific deadline on TRELLO management tool.

Test Cases: The test cases are written in the test case template provided by the team and approved by the project manager by Excel Sheets.

Defects: The defect management system is done by writing a bug report with specific details that will be provided by the team by Excel Sheets.

## **Test Design process**

* The tester will understand each requirement and prepare corresponding test case to ensure all requirements are covered.
* During the preparation phase, tester will use the prototype, use case and functional specification to write step by step test cases.
* Each of the Test cases will undergo review a peer and the review defects are captured and shared to the Test team
* Each Test case will be mapped to Requirements as part of Traceability matrix.

## **Test execution process**

* Once all Test cases are approved, tester will start an exploratory test of the application to ensure the application is stable for testing
* Each Tester is assigned Test cases directly
* If any showstopper during exploratory testing will be escalated to the respective development team member to fix
* Each tester performs step by step execution and updates the executions status. The tester enters Pass or Fail Status for each test case directly
* If any failures, defect will be raised as per severity guidelines detailing steps to simulate along with screenshots if appropriate.
* If there are any defects that are not part of steps but could be outside the test steps, such defects need to be captured in Traceability matrix and map it against the test case level or at the specific step that issue was encountered after confirming with Test team
* This process is repeated until all test cases are executed fully with Pass/Fail status
* During the subsequent cycle, any defects fixed applied will be tested and results will be updated

**Revision History**

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| --- | --- | --- | --- | --- |
| **Owner Name** | **Date** | **Status** | **Approved by** | **Version** |
| Nada | 25/5/2022 | Draft | Osama | 1.0 |
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