

Test Plan for Kushi Tours and Travels

1. Introduction:

This is the Test Plan document for Khushi Tours and Travels. This test plan consists of all the process and activities carried out throughout the testing phase.

2. Test Strategy:

Test Strategy is a set of guidelines that explain the test design and determine how testing needs to be done. Test Strategy includes Test Objectives, Scope of Testing, Type of Testing, Feature Coverage, etc. This will be created at the initial stage of every sprint/release.

2.1. Test Objective:

Test Objective defines the goal of the software application that needs to be tested. For example, if a sprint/release consists of 5 requirements, then the Test objective is to test the 5 requirements and release them to production with a bug free.

This test objective is to verify the functionalities of the Khushi Tours and Travels application and ensure the Smooth Onboarding and Taxi Booking for an End User.

2.2. Scope of Testing:

Scope of Testing will be determined after the analysis of business requirements.

In-Scope:

- The modules that are to be tested rigorously.
- Type of testing that is required for specific business requirement
 - Transportation type Selection
 - Vehicle type Selection
 - Bookings
 - Registering an account
 - Logging into a registered account
 - Edit Account details
 - Order status
 - Categories
 - Logout

Out Scope:

- The modules that are not to be tested rigorously.
- Type of testing that is not required for specific business requirement
 - User Communication post Taxi Booking
 - NA (Since this is an exploratory testing and there are no specific requirements I could not able to identify the functions beyond my explorations)

2.3. Testing Methodology:

Since the Software Development Methodology is Agile and Testing is a part of it, the Testing Methodology is also the same.

2.4. Levels of Testing:

- **Unit Testing:** Testing a small module or individual functionality in the software application.
- **Integration Testing:** Testing a group of individual modules/functionalities together.
- **System Testing:** Testing the entire application from Start to End.
- **User Acceptance Testing:** The developed software is tested by the business user to validate it is working as per the specifications defined.

2.5 Types of Testing:

- **UI Testing:** Testing the Graphical Interface of the software application
- **Functional Testing:** Testing the functionalities of software application.
- **Usability Testing:** Testing the functionality of a web application.
- **Compatibility Testing:** Testing the software application in different OS versions and different browsers to ensure the application is compatible.

3. Testing Approach:

3.1. Context Driven Testing / Exploratory Testing:

Context-driven testing is a model based on the context of the project rather than going by books methodology testing or some fixed notion of best. It includes Analysis, Test Design, Test Execution and Test Report.

- **Analysis:** Analysis of Business Requirements in terms of what, why, where, who and how.
- **Test Design:** Creating Mind maps, flow charts based on the Analysis. Creating Test Charters based on the Mind maps and Flowcharts
- **Test Execution:** Executing the developed features and bug fixes based on the Test Charters. Logging the defect if any feature is not meeting up the business requirements or behaving differently.
- **Test Report:** Based on the Test Execution, generate the Test Report which reflects the number of requirements that are passed or failed, and the number of defect fixes that are verified or re-opened.

3.2. Smoke Testing:

Once the Sprint features/bug fixes are DEV complete and deployed to QA environment, Smoke Testing will be performed to ensure the build is stable enough to do further enhanced feature testing.

3.3. Regression Testing:

Regression Testing is performed to ensure the new feature/bug fixes are not impacting the existing features of the application. This will be performed once the sprint features and bugs fixes are verified.

3.4. Sanity Testing:

When any Hot fix is provided or small feature is developed, instead of performing whole regression testing/system testing, Sanity Testing will be performed.

4. Test Deliverables:

4.1. Prior to the Testing Phase:

- **Test Strategy:** Includes Test Objectives, Scope of testing, etc.

- Test Design: Includes Test Design Documents; Mind maps, Flow Charts, Test Charters.
- Requirement Traceability Matrix.

4.2. During Testing Phase:

- Test Data.
- Execution Logs.
- Error Logs.

4.3 End of Testing Phase:

- Test Execution Report.
- Defect Reports.
- Installation/ Test procedures guidelines.
- Release notes.

5. Test Criteria:

5.1. Entry Criteria:

The set of conditions that should be met to start any new type of testing.

- User stories should be complete with all the questions raised by QA and DEV Teams and clarifications provided by the Product Owner.
- The Features that are targeted for the sprints must be DEV completed and must be prepared for QA Deployment.
- Test data should be ready.

5.2. Suspension Criteria:

If the suspension criteria are met during testing, the active test cycle will be suspended until the criteria are resolved.

- While performing Smoke Testing, if the build is not stable, then testing will be suspended until it is resolved.
- If QA team reports 40% of test cases failed, then we should suspend testing until the development team fixes all the failed cases.
- If any of the major functionalities are not functional or there is a block in executing a major functionality in the system, then testing should be suspended.

5.3. Exit Criteria:

The set of conditions that should be met to end any kind of testing.

- All the Requirements should be covered.
- All the Test cases should be executed
- Most test cases should be passed.
- There should not be any major bugs.

6. Defect Triaging:

Defect Triage is a process where the testers find out the bug and assign a degree of risk, re-occurrence, and severity to it. This degree prioritizes the bug to be treated first.

The main objective of this triage meeting is to categorize, prioritize, and track issues. Triage meetings are facilitated by the QA lead, and it is coordinated with Business analysts, Project Manager, or even the Product Manager.

7. Environmental Needs:

7.1. Hardware Requirements:

- Laptop with required configuration.
- Network with required bandwidth.

7.2. Software Requirement:

- Operating System; Windows/Mac/Linux
- List of Software application that needed for testing
- Access to different servers that needed for testing

7.3. Required Tools:

Specifications	Tools
Project Management	NA
Test Management	Google Sheet/Xmind
Defect Management	Google Sheet

7.4. Test Environments:

- Production Environment

8. Roles and Responsibilities:

Role	Responsibilities	Name
QA Engineer	Create Test Plan, Test Strategy, Prepare test cases, Set up test environment Execute test cases, Reports the issues	Murali Manohar

9. Risks and Mitigations:

Risk	Mitigation
Team members lack the required skills for website testing.	Plan training course to skill up your members
The project schedule is too tight; it is hard to complete this project on time	Set Test Priority for each of the test activities.
Test Manager has poor management skill	Plan leadership training for manager
A lack of cooperation negatively affects your employees' productivity	Encourage each team member in his task and inspire them to greater efforts.
Inability to complete tasks at the estimated time	Track the progress of individuals on daily basis Address any issues that are hindering the completion of tasks
No advanced technology available or the existing technology is in initial stages	Conduct trainings to build expertise Build a relationship of trust with client and prepare his mind for the technological risks Give time, effort and budget estimate keeping this point in mind
Complex product	Use experienced people for the job with the required skill set Break the problem into smaller parts
Difficult integration of project modules	Perform impact analysis Exhaustively perform regression testing
If any QA Team Member is on leave	The other QA Team Members should take care of the deliverables