1. Scope of Testing for the Kushi Travels Website

The scope of testing includes validating all the functional and non-functional aspects of the website. This involves checking user interfaces, booking functionalities, payment integrations, travel packages, user login/signup, customer support features, and the overall user experience. Additionally, mobile responsiveness and compatibility across browsers and devices are in scope. Testing will be limited to the current features without introducing new ones.

Key Features to Test:

- User registration and login

- Search functionality for travel packages

- Booking process (selection, booking form, payment)

- Payment gateway integration

- Customer feedback or review system

- Responsive design and cross-browser compatibility

- Security aspects like data protection, encryption, and access controls

2. Testing Purpose and Objectives

The purpose of this test plan is to ensure that:

- The website functions as intended, providing seamless and error-free booking and browsing experiences for users.

- The website performs well under different loads and scenarios.

- The website is secure and complies with necessary security standards.

- To deliver a stable and reliable system in time for production, ensuring quality with minimal risks.

Objectives:

- Identify and eliminate critical bugs.

- Ensure a positive user experience.

- Verify payment and booking processes.

- Ensure the website is secure and protected against attacks (SQL Injection, XSS, etc.).

- Ensure the system performs well under different conditions (low and high traffic).

3. Testing Types

The following types of testing will be conducted:

1. Functional Testing:

- Test all functional requirements of the website including login, registration, searching for travel packages, booking, and payments.

- Validate the flow of each process (e.g., user login, booking a trip).

- Verify the proper functioning of all links and buttons.

2. Usability Testing:

- Assess the ease of use, navigation, and clarity of the UI.

- Evaluate the mobile responsiveness of the website and how it adapts to different screen sizes.

3. Performance Testing:

- Test the speed, responsiveness, and stability of the website under various conditions (e.g., high user load, multiple concurrent bookings).

- Check for potential bottlenecks that could slow down the user experience.

4. Security Testing:

- Ensure that sensitive data (user credentials, payment info) is secure.

- Verify that the website is not vulnerable to SQL Injection, Cross-site Scripting (XSS), or Cross-site Request Forgery (CSRF) attacks.

- Ensure the payment gateway is safe from malicious activities.

5. Compatibility Testing:

- Verify the website works correctly across different web browsers (Chrome, Firefox, Safari, etc.) and devices (PCs, tablets, smartphones).

4.Testing Environment and Tools

Environment Setup:

- Test Environment: The testing will be conducted in a controlled environment that replicates real-world usage. This will include different devices, operating systems, and browsers.

- Test Data: Mock test data will be used to simulate bookings, payments, and cancellations.

Tools to Be Used:

- Selenium WebDriver (for automation testing of web functionalities)

- Postman (for API testing)

- JMeter (for performance testing to simulate load)

- OWASP ZAP (for security testing)

- Browser Stack (for cross-browser testing)

- TestRail (for tracking test cases, defects, and reporting)