

**Test Plan for Homestay Website**

**Introduction**

* **Project Name:** HomeStay Booking System
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* **Date:** 19-11-2024
* **Version:** Web Application

**1. Objective**

To validate the functionality, usability, performance, and security of the Homestay Website. The goal is to ensure that the system meets user requirements and provides a seamless experience for guests, the caretaker, and the house owner.

**2. Scope**

* **Functional Testing:** Guest booking, caretaker management, and owner oversight functionalities.
* **Usability Testing:** Ensure intuitive and user-friendly navigation.
* **Performance Testing:** Validate system performance under varying load conditions.
* **Compatibility Testing:** Cross-browser and cross-device compatibility.
* **Security Testing:** Protection of sensitive user data and prevention of unauthorized access.

**3. Test Methodology**

* **Manual Testing:** Exploratory testing for functional and usability validation.
* **Automated Testing:** Regression testing for booking workflows and data handling.
* **Security Testing:** Check for vulnerabilities in login, OTP validation, and data access.

**4. Test Approach**

* **Functional Testing:** Verify all core functionalities (e.g., booking, notifications, user authentication).
* **Usability Testing:** Ensure users can navigate and perform actions without confusion.
* **Performance Testing:** Test the load capacity for concurrent guest bookings.
* **Compatibility Testing:** Validate across major browsers (Chrome, Firefox, Safari) and devices (desktops, tablets, smartphones).
* **Security Testing:** Confirm secure data handling (e.g., OTP generation, payment info).

**5. Assumptions**

* Test data for guest bookings and user roles will be provided.
* Test environment replicates real-world conditions.
* APIs for OTP generation and SMS notifications are functional.

**6. Risks and Mitigation Plan**

* **Risk:** Server downtime during testing. **Mitigation:** Schedule tests during off-peak hours with backups.
* **Risk:** Changes in business requirements. **Mitigation:** Regularly review requirements with stakeholders.
* **Risk:** Browser or device inconsistencies. **Mitigation:** Extensive cross-browser/device testing.

**7. Roles and Responsibilities**

* **Test Lead:** Coordinate testing activities and manage deliverables.
* **Test Engineers:** Execute test cases, report issues, and validate fixes.

**8. Scheduling**

* Test Planning: [Insert Date]
* Test Case Development: [Insert Date]
* Test Execution: [Insert Date]
* Bug Reporting and Retesting: [Insert Date]
* Test Closure: [Insert Date]

**9. Test Environment**

* **Browsers:** Chrome, Firefox, Safari, Edge.
* **Devices:** Desktops, Android/iOS smartphones, tablets.
* **Network:** Simulate high/low bandwidth conditions.

**10. Entry and Exit Criteria**

**Entry Criteria:**

* Test environment setup is complete.
* Test data is prepared.
* Test cases are approved.

**Exit Criteria:**

* All test cases executed.
* Critical defects resolved.
* Test summary report approved.

**11. Deliverables**

* Test Plan Document.
* Test Scenarios and Test Cases.
* Defect Reports with severity levels.
* Final Test Summary Report.

**12. Automation Testing**

* **Tools:** Selenium WebDriver.
* **Scope:** Automate repetitive workflows (e.g., booking process, OTP validation).

**13. Templates**

* **Test Case Template:** Include test ID, description, steps, expected/actual results.
* **Defect Template:** Include defect ID, description, severity, and resolution.

**Conclusion**

* This test plan establishes a comprehensive framework to thoroughly evaluate the Homestay Booking System, ensuring that the website meets both functional and non-functional requirements. The approach outlined in this document aims to deliver a seamless and user-friendly experience for all stakeholders, including guests, caretakers, and the house owner.
* By conducting detailed functional testing, we ensure that critical features like guest registration, homestay booking, and caretaker management operate smoothly. Usability testing ensures that the platform is intuitive and accessible to users with varying technical expertise, minimizing confusion and enhancing user satisfaction. Performance testing validates that the system can handle concurrent bookings and usage under peak conditions without degradation. Additionally, rigorous security testing will confirm that sensitive information, such as guest identity and payment details, remains protected against unauthorized access and potential vulnerabilities.
* The test plan also emphasizes cross-browser and cross-device compatibility to ensure a consistent user experience, regardless of the platform used. Risks have been identified, with clear mitigation strategies in place to address challenges that may arise during the testing phase. Furthermore, the adoption of automation for repetitive workflows will streamline the testing process and reduce human error, increasing overall efficiency.