**Test Plan for Clinic Management Application**

**1. Introduction**

**1.1 Purpose:**

This test plan outlines the strategy and approach for testing the Clinic Management Application to ensure its functionality, performance, usability, and security meet the defined requirements.

**1.2 Scope:**

The scope of testing includes the core functionalities of the Clinic Management Application, such as:

* Patient registration and appointment booking.
* Receptionist and doctor login and task management.
* Scheduling and modifying appointments.
* Patient records management.
* Billing and payment integration.

**1.3 Objectives:**

* Verify that all core functionalities meet defined business requirements.
* Ensure that critical defects are identified and resolved.
* Validate the application’s performance and security.
* Ensure compatibility across devices and browsers.

**2. Test Strategy**

**2.1 Types of Testing:**

* **Functional Testing:** To ensure all features are implemented as intended.
* **Regression Testing:** To confirm that changes do not disrupt existing functionalities.
* **Performance Testing:** To evaluate system performance under load (e.g., high appointment bookings).
* **Usability Testing:** To assess ease of use for patients, doctors, and receptionists.
* **Compatibility Testing:** To confirm the application works on different devices and browsers.
* **Security Testing:** To validate the secure handling of sensitive patient information.

**2.2 Testing Tools:**

* **Functional Testing:** Selenium, TestNG
* **Performance Testing:** JMeter
* **Security Testing:** OWASP ZAP
* **Compatibility Testing:** BrowserStack

**3. Test Scope**

**3.1 Features to be Tested:**

1. **Patient Module:**
   * Registration and OTP verification.
   * Login with valid and invalid credentials.
   * Booking, modifying, and canceling appointments.
   * Viewing medical history and prescriptions.
2. **Receptionist Module:**
   * Login functionality with OTP verification.
   * Managing doctor availability.
   * Scheduling, rescheduling, and canceling appointments.
   * Viewing patient and appointment details.
3. **Doctor Module:**
   * Login functionality with OTP verification.
   * Viewing daily/weekly schedule of appointments.
   * Adding and updating patient records.
   * Prescribing medicines and generating bills.
4. **Billing Module:**
   * Generating bills for services.
   * Integration with payment gateways.

**3.2 Features Not to be Tested:**

* Third-party API integrations not controlled by the clinic.

**4. Test Environment**

**4.1 Hardware:**

* **User Devices:**
  + Desktop: Windows 10/11, macOS Ventura.
  + Mobile: Android 12+, iOS 15+.
* **Servers:** Production-like server environment.

**4.2 Software:**

* **Operating Systems:** Windows, macOS, iOS, Android.
* **Browsers:** Chrome, Firefox, Safari, Edge.

**5. Test Schedule**

**5.1 Milestones:**

| **Phase** | **Start Date** | **End Date** |
| --- | --- | --- |
| Test Planning | 20-11-2024 | 21-11-2024 |
| Test Case Design | 21-11-2024 | 22-11-2024 |
| Test Environment Setup | 22-11-2024 | 23-11-2024 |
| Test Execution | 23-11-2024 | 24-11-2024 |
| Defect Reporting | Ongoing during test execution. |  |
| Test Closure | 25-11-2024 | 26-11-2024 |

**6. Test Deliverables**

**6.1 Test Artifacts:**

* Test Plan Document
* Test Cases and Test Scripts
* Test Data
* Test Execution Reports
* Defect Logs
* Final Test Summary Report

**7. Roles and Responsibilities**

**7.1 Roles:**

* **Test Manager:**
  + Plan testing activities.
  + Review test deliverables.
  + Communicate with stakeholders.
* **Test Engineers:**
  + Design and execute test cases.
  + Report defects and collaborate with developers.
* **Product Owner:**
  + Provide requirements.
  + Review and approve test results.

**8. Risk and Mitigation**

**8.1 Risks:**

* **Incomplete Requirements:** Conduct frequent review sessions with stakeholders.
* **Environment Issues:** Ensure stable and production-like environments are available for testing.
* **Testing Delays:** Prioritize critical functionality and allocate resources as needed.

**9. Approval**

* **Test Plan Prepared By:** Shahid Patel
* **Approved By:**
* **Date of Approval:**