**Test Plan for** **Conference** **Parking Management System (PMS)**  
**Version**: 1.0  
**Date**: 10th October 2024  
**Prepared By**: S M Abdul Wassae  
**Approved By**: [Approver’s Name]

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to specify the functional and non-functional requirements for a *Parking Management System (PMS)*. This system will provide a platform for Parking Attendants, Parking Facility Administrators and Customers to Manage parking tickets and payments, configure pricing, system settings management, pay for parking durations.

**1.2 Scope**

This Test Plan covers functional, non-functional, regression and security testing of the Parking Management System (PMS). It includes testing of user with functionalities (automate parking fee calculations, ticket management, and user billing based on parking type, and allow for lost ticket handling).

**2. Test Objectives**

* Verify that all functional requirements are met.
* Ensure that the system performs well under various conditions.
* Validate that the system is secure and user-friendly.
* Confirm that the system can handle expected user loads.
* Identify and resolve defects before deployment.
* Compliance with data protection regulations (e.g., GDPR, CCPA)

**3. Test Scope**

**3.1 In-Scope**

* User management (Parking Attendants, Parking Facility Administrators, Customers)
* ticket management.
* User billing Management
* Lost ticket handling
* User interfaces (web and mobile)
* Performance and load testing
* Security testing

**3.2 Out-of-Scope**

* Integration with third-party tools for payment system. (e.g., SSL e-commerce like digital banking services).
* Integration of real-time clock (e.g: RTC) functionality to track parking durations
* Non-functional requirements beyond those specified.

**4. Test Approach**

**4.1 Testing Levels**

* **Unit Testing**: Conducted by developers to verify individual components.
* **Integration Testing**: Ensures that different modules work together.
* **System Testing**: Validates the complete system against the requirements.
* **User Acceptance Testing (UAT)**: Performed by end users to ensure the system meets their needs.

**4.2 Types of Testing**

* **Functional Testing**: Validate all functional requirements.
* **Non-Functional Testing**: Includes performance, security, usability, and compatibility testing.
* **Regression Testing**: Verify that new changes do not adversely affect existing functionalities.

**5. Test Resources**

**5.1 Team Roles**

* **Test Manager**: S M Abdul Wassae
* **Test Engineers**: S M Abdul Wassae

**5.2 Tools**

* **Test Management Tool**: [e.g., JIRA, TestRail]
* **Automation Tools**: [e.g., Selenium, Postman]
* **Performance Testing Tools**: [e.g., JMeter, LoadRunner]
* **Security Testing Tools**: [e.g., OWASP ZAP, Burp Suite]

**6. Test Schedule**

| **Task** | **Start Date** | **End Date** | **Responsible** |
| --- | --- | --- | --- |
| Test Planning | [Date] | [Date] | Test Manager |
| Test Design | [Date] | [Date] | Test Engineers |
| Test Environment Setup | [Date] | [Date] | Test Engineers |
| Test Execution | [Date] | [Date] | Test Engineers |
| Defect Reporting & Tracking | [Date] | [Date] | Test Engineers |
| Test Closure | [Date] | [Date] | Test Manager |

**7. Test Deliverables**

* Test Plan Document
* Test Cases Document
* Test Scripts (for automation)
* Test Execution Reports
* Defect Reports
* UAT Feedback and Summary
* Test Closure Report

**8. Roles and Responsibilities**

* **Test Manager**: Oversee the testing process, manage resources, and communicate with stakeholders.
* **Test Engineers**: Develop test cases, execute tests, and report defects.
* **Developers**: Assist in defect resolution and provide technical support during testing.
* **UAT Participants**: End-users who will validate the system’s functionality and usability.

**9. Test Environment**

* **Hardware**:
* Servers: Cloud-based hosting with at least 8GB RAM, 4 vCPUs.
* Client machines: Desktop, smart watch, RTC, and mobile devices with various operating systems (Windows, macOS, iOS, Android).
* **Software**:
* Web browsers: Chrome, Firefox, Safari, Edge.
* Mobile devices: Latest versions of Android and iOS.
* **Network**: [Specify network configurations, if any]

**10. Risk Management**

* **Risk**: Delay in test case development due to incomplete requirements.
  + **Mitigation**: Engage business analysts for clarity on requirements early.
* **Risk**: Limited availability of test resources.
  + **Mitigation**: Cross-train team members on critical tasks.

**11. Approval**

| **Role** | **Name** | **Signature** | **Date** |
| --- | --- | --- | --- |
| Test Manager | [Name] | [Signature] | [Date] |
| Project Manager | [Name] | [Signature] | [Date] |
| QA Lead | [Name] | [Signature] | [Date] |