**Name: Harshaprabha VS**

**Test Plan for Airline Application**

**1. Introduction**

This document defines the test strategy for the airline application which includes booking tickets, checking flight status, managing passenger information, handling payments, and other customer and admin functionalities.

**2. Objectives**

* Validate core functionalities like search, booking, payment, and cancellation.
* Ensure the application meets performance benchmarks.
* Verify usability and accessibility across devices.
* Confirm data security and compliance with regulations (e.g., PCI-DSS for payments).

**3. Scope of Testing**

**In Scope:**

* Flight search and booking
* Ticket cancellation and rescheduling
* Payment gateway integration
* User authentication and profile management
* Admin features (e.g., flight scheduling)
* Notifications (SMS/email)
* Mobile and web platforms

**Out of Scope:**

* Backend airline operations (e.g., crew scheduling)
* External partner systems (unless directly integrated)

**4. Test Items**

* User Registration & Login
* Flight Search
* Seat Selection
* Booking and Payment
* Ticket Generation
* Booking History
* Admin Panel
* Notification System

**5. Testing Types**

* Functional Testing
* Integration Testing
* System Testing
* UI/UX Testing
* Performance Testing
* Security Testing
* Compatibility Testing
* Regression Testing

**6. Test Environment**

* **Frontend:** Web (React/Angular), Mobile (iOS/Android)
* **Backend:** Java/.NET APIs
* **Database:** MySQL/PostgreSQL
* **Tools:** Selenium, Postman, JMeter, Jira, TestRail

**7. Roles and Responsibilities**

| **Role** | **Responsibility** |
| --- | --- |
| Test Manager | Define strategy, assign tasks |
| QA Engineers | Execute tests, log defects |
| Automation Tester | Develop and run automation scripts |
| Developers | Fix bugs and provide support |

**8. Deliverables**

* Test Plan Document
* Test Cases & Test Scripts
* Bug/Defect Reports
* Test Summary Report

**9. Schedule**

| **Phase** | **Start Date** | **End Date** |
| --- | --- | --- |
| Test Planning | May 1 | May 5 |
| Test Case Design | May 6 | May 12 |
| Test Execution | May 13 | May 25 |
| Regression Testing | May 26 | May 30 |
| Final Reporting | June 1 | June 2 |

**10. Risks and Mitigation**

| **Risk** | **Mitigation Strategy** |
| --- | --- |
| Incomplete Requirements | Frequent communication with stakeholders |
| Third-party API instability | Mock/stub services for testing |
| Limited test devices | Use cloud-based device farms |

**11. Exit Criteria**

* 95%+ test case execution
* No high-severity defects open
* All major functionalities tested