## 

|  |
| --- |
| **International School**  Đồ Án CDIO  **CMU-CS 447**    Testing Plan  Version 1.0  Date: 05- April - 2025  Airline Reservation System  Submitted by  Nguyen Pham Anh Huong  Cao Minh  Le Minh Hieu  Nguyen Thi Thanh Huong  **Approved by**  **Capstone Project 1 - Mentor:**  Name Signature Date  Tinh, Le Van \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_04 - April- 2025 |

Table Contents

**[PROJECT INFORMATION 1](#_Toc15989)**

**[DOCUMENT INFORMATION 2](#_Toc29992)**

**[REVISION HISTORY 3](#_Toc2459)**

**[1. QUALITY OBJECTIVES 4](#_Toc7758)**

**[2. SCOPE OF TEST 4](#_Toc14074)**

[2.1. FUNCTIONS 4](#_Toc16857)

[2.2. USER INTERFACE 5](#_Toc22277)

[2.3. Databases 5](#_Toc6360)

[2.4. RDF Data Cubes 5](#_Toc10063)

**[3. TEST STRATEGY 5](#_Toc14407)**

**[4. TEST CRITERIA 5](#_Toc26548)**

**[5. TEST MANAGEMENT 6](#_Toc11301)**

[5.1. COMMUNICATION TOOLS 6](#_Toc14746)

[5.2. TEST MANAGEMENT TOOLS 6](#_Toc18451)

**[6. RISKS & ASSUMPTIONS 6](#_Toc25231)**

[6.1. RISKS 6](#_Toc16915)

[6.2. ASSUMPTIONS 6](#_Toc21650)

**[7. TEST SCHEDULE 6](#_Toc4130)**

# PROJECT INFORMATION

Table 1 - Project Information

|  |  |  |  |
| --- | --- | --- | --- |
| **PROJECT INFORMATION** | | | |
| **Project Acronym** | ARS | | |
| **Project Title** | Airline Reservation System | | |
| **Project Web URL** |  | | |
| **Start Date** | 5-Apr - 2025 | | |
| **End Date:** | 24 - May - 2025 | | |
| **Lead Institution** | International School, Duy Tan University | | |
| **Project Mentor** | M.Sc Tinh, Le Van | | |
| **Scrum Master** | Minh, Cao | Minhcao05092004@gmail.com | 0905575080 |
| **Team Members** | Huong, Nguyen Thi Thanh | nguyennguyenkhanhquynh@gmail.com | 0358692336 |
| Huong, Nguyen Pham Anh | ahhuong312@gmail.com | 0774442236 |
| Hieu, Le Minh | lhieu20231@gmail.com | 0901942400 |

# DOCUMENT INFORMATION

|  |  |  |  |
| --- | --- | --- | --- |
| **DOCUMENT INFORMATION** | | | |
| **Document Title** | Test Plan | | |
| **Author(s)** | Group 3 | | |
| **Role** | Test Plan\_v1.0 | | |
| **Date** | 5-Apr - 2025 | File name | Test Plan\_v1.0 |
| **URL** | https://github.com/nnkq/myproject.git | | |
| **Access** | Project and CMU Program | | |

Table 2 - Document Information

## 

# REVISION HISTORY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Person(s)** | **Date** | **Description** | **Approval** |
| 1.0 | All members | 12-Apr - 2025 | Complete contents of test plan document | x |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Table 3 - Revision History

# QUALITY OBJECTIVES

To ensure comprehensive testing of the Airline Ticket Booking System, verifying all functional requirements, user interface components, database operations, and third-party integration to deliver a reliable and user-friendly platform.

# SCOPE OF TEST

## FUNCTIONS

* User Registration & Authentication
* New user registration
* Login/logout functionality
* Password recovery
* Flight Search & Booking
* Search flights by date, destination, etc.
* Filter results (price, airlines, stops)
* Seat selection
* Booking confirmation
* Payment Processing
* Credit card validation
* Payment gateway integration
* Booking confirmation emails
* User Management
* Profile updates
* Booking history
* Cancellation requests

## USER INTERFACE

* Homepage
* Search widget functionality
* Promotional banners
* Responsive design
* Booking Flow
* Flight selection page
* Passenger details form
* Payment page
* Confirmation page
* Admin Dashboard
* Flight management
* User management
* Reporting

## Databases

* User Database
* Data integrity for user profiles
* Booking history records
* Flight Database
* Flight schedule accuracy
* Seat availability updates
* Transaction Database
* Payment record integrity
* Booking reference generation

## RDF Data Cubes

* Payment Gateways
* Successful transaction processing
* Failed transaction handling
* Airline APIs
* Real-time flight data accuracy
* Availability synchronization

# TEST STRATEGY

* Black Box Testing: Functional and UI testing without internal knowledge
* Regression Testing: After each development sprint
* Performance Testing: Load testing for peak booking periods
* Security Testing: Payment processing and data protection

# TEST CRITERIA

* Testing complete when 95% of test cases pass
* All critical functionality must pass 100%
* Documentation delivered with each sprint release

# TEST MANAGEMENT

## COMMUNICATION TOOLS

* JIRA for bug tracking
* Weekly Zoom meetings
* Slack for daily update

## TEST MANAGEMENT TOOLS

* Selenium for automated UI tests
* Postman for API testing
* JMeter for performance testing

# RISKS & ASSUMPTIONS

## RISKS

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk** | **Probability** | **Severity** | **Mitigation** |
| Payment gateway failure | M | H | Alternative payment options |
| High traffic load | M | H | Load balancing implementation |
| Data synchronization | H | M | Regular integrity checks |

## ASSUMPTIONS

* **Stable internet connection during testing**
* **Test data will resemble production data**
* **Third-party APIs will be available during testing**

# TEST SCHEDULE

|  |  |  |
| --- | --- | --- |
| Sprint | Task | Duration |
| 1 | User authentication testing | 20 hours |
| 2 | Flight search functionality | 30 hours |
| 3 | Booking flow and UI | 40 hours |
| 4 | Payment processing | 35 hours |
| 5 | Performance and security testing | 50 hours |