



STIWK3024 SOFTWARE TESTING AND QUALITY ASSURANCE

GROUP A

PROJECT REPORT

**AIRLINE RESERVATION SYSTEM**

PREPARED FOR:

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PREPARED BY: GROUP 11

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## **1.0 Introduction**

The Airline Reservation System is designed to manage and streamline the complex booking and air travel process. This system allows passengers to search for available flights between a selected "Departure City" and "Arrival City" for their chosen date. The system displays all essential details about each flight, including flight number, airline name, and fare information, simplifying the booking process for users. If seats are available, the system enables passengers to book them; if not, it suggests alternative options.

Traditional airline reservation methods relied on manual entry, which often led to errors, slow processing times, and other inefficiencies. The TWC (Travel With Comfort) Airline Reservation System addresses these issues by automating booking operations, providing users with a faster, more reliable, and user-friendly experience.

By implementing the Airline Reservation System, airlines can reduce human error, save time, and improve customer satisfaction. The application simplifies administrative tasks and centralizes data storage, making it easier to access and manage essential information about flights, users, and bookings. Through automation, this system ensures efficient and accurate processing, making the airline reservation experience more convenient and accessible.

## **2.0 Test Plan**

### **2.1 Test Plan Identifier**

The version number of this test plan is generated to identify the plan, its testing level, and the corresponding software version. This test plan is for system testing, which evaluates the entire system. The software will be updated as errors are discovered and resolved.

#### **2.1.1 Type of Test Plan**

There is a master test plan, which is a high-level document that consolidates all individual test plans for a project or product. Additionally, there are testing level-specific and testing

type-specific test plans, created for each testing level and major type of testing. Test plans are categorized into three levels: system level, integration level, and unit level.

In this test plan, we will conduct a system-level test.

## **2.2 References**

The documents that support this test plan:

- Project Plan
- Requirement specifications
- System design document
- Detail implementation module

## **2.3 Introduction of Test Plan**

This document outlines a system-level test plan for the Airline Reservation System. To conduct the testing, the black-box testing technique will be used, specifically the equivalence partitioning method. This method ensures that both valid and invalid test cases and data are tested, verifying their correctness.

This test plan will identify which functionalities need to be tested and which do not, and it will evaluate both valid and invalid test cases. By testing all inputs, we can determine whether they pass or fail. The testing process will include both manual and automated testing using Selenium IDE.

## **2.4 Test items**

This system will be tested at the system level. It includes the front-end customer-facing website and the back-end admin-facing website in this airline reservation system. This system should be tested in the latest stable version of Google Chrome, Firefox, or Microsoft Edge. Windows machines will also be a must when testing.

## 2.5 Features To Be Tested

Features to be tested include the following:

As a User	As an Admin
Registration for new user	Registration for new admin
Log in to the system	Log in to the system
Update Password	Insert New Flights
Flight Search	Filter Search
View Available Flights	

## 2.6 Features Not To Be Tested

Only the functionality of the application on desktop web browsers will be tested.

## 2.7 Approach

Testing will be carried out in accordance with the documented test cases maintained within the browser automation framework. The test manager will be responsible for creating distinct test runs for each tester involved in the process. Each tester will execute the designated tests, categorizing each case as Pass, Fail, or Skip based on the outcomes. The testing approach is using one of the black box testing technique which is Equivalence Partitioning. It is essential that testers provide detailed notes regarding the actual results and any pertinent information when feasible.

Once testing is completed, the test manager will thoroughly review the test run reports generated and communicate the findings to the team, facilitating transparency and informed decision-making. This structured testing process not only ensures the validation of the application but also fosters collaboration among team members by keeping everyone informed of the testing outcomes and any necessary follow-up actions.

## 2.8 Pass/Fail Criteria

It is essential that all core functionalities of the systems operate seamlessly and in accordance with the specifications outlined in the individual test cases. This means that the system should demonstrate reliability and performance without any critical defects, ensuring that end-users can effortlessly complete the entire purchase cycle, including initiating refunds, without experiencing any errors. Furthermore, a minimum of 95% of all test cases should pass successfully, and it is imperative that any failures do not impede the fundamental tasks required for user interaction with the application. By following these guidelines, we can ensure that the system not only meets user expectations but also provides a reliable platform for all transactional processes.

## 2.9 Suspension Criteria

Testing should be immediately suspended if either system encounters login failures or any issues with core CRUD functionality. More broadly, testing will only be interrupted if the application becomes completely inaccessible or unusable. Any interruption in essential operations, such as user authentication or basic data management, will be treated as critical, and testing will not resume until these issues are resolved. This approach ensures the system remains functional and stable throughout the testing phase, maintaining the integrity of the evaluation process.

## 2.10 Test Deliverables

The following deliverables will be produced:

No	Deliverable
1	Test Plan
2	System Testing Results
3	Final Testing Report

The reports will deliver a full overview of the test cases and the outcomes of the testing operation. Any defects discovered during testing will be reported in the bug tracking system, with references to the time of discovery and the actions taken to replicate that issue.

## 2.11 Testing Tasks

The following tests must be completed.

### 2.11.1 Testing Process

- The tester must first download the code in GitHub via <https://github.com/iamashwinks/Airline-Reservation-System-/tree/master>
- Next, the tester must import the SQL file into the PHPMyAdmin
- Then, the tester needs to access the system and run all the fields that need to be tested to verify the validity and invalidity of the system so that it will meet the software standard.
- If there were any issues that the tester discovered during the testing processes they were documented.

#### Setup Selenium IDE:

- Install the Selenium IDE browser extension.
- Ensure the test environment is ready, including test data, browsers, and any necessary tools.

#### Record Test Cases:

- Open Selenium IDE and click the "Record" button.
- Navigate through the Airline Reservation System (ARS) website to perform test scenarios, such as **User Registration**, **Login**, or **Flight Search**.
- Selenium IDE records all interactions with the application, including field entries, button clicks, and navigation actions.

#### Define Validation Points:

- Add assertions to check whether the test is successful. For instance:
  - Verify if a successful login redirects the user to the correct dashboard.
  - Confirm that the flight search displays expected results based on input criteria.

#### Customize and Parameterize Test Cases:

- Modify recorded scripts to add dynamic inputs using the IDE's "Variables" feature.

- This allows testing with multiple valid and invalid data sets, as specified in your document's equivalence partitioning technique.

**Run Automated Tests:**

- Execute the recorded test cases using the "Play" button in Selenium IDE.
- Run the tests for all supported browsers to ensure cross-browser compatibility (e.g., Chrome, Firefox, Edge).

**Analyze Test Results:**

- Review the test case execution results displayed in Selenium IDE.
- If a test fails, analyze logs to determine the cause (e.g., a defect in the system, incorrect test setup).

**Report Defects:**

- Document any identified defects and log them in the bug-tracking system, including steps to reproduce the issue and relevant test data.

**Repeat for Regression Testing:**

- Saved test cases perform regression testing after fixes are applied to ensure no new issues are introduced.

**Maintain and Update Test Cases:**

- Update the recorded scripts to accommodate changes in the ARS application during the development lifecycle.

**2.11.2 Problem Resolution**

- Once any bug is discovered and documented, the bug will be addressed and will be resolved by following the defect reporting mechanism.

## 2.12 Environment Needs

The test website must contain the test data in the sql file including the variety of prices of the plane at different prices. Xampp, personal laptop, PHP, java JDK, and web browser are needed for the system to be tested. The test mode needed to be enabled for the backend of the airline's system platform.

### 2.12.1 Hardware

The system is tested by the following hardware resources:

Personal Computer	Dell Latitude 5420
Processor (CPU)	<b>Model:</b> Intel Core i7-1185G7 (11th Generation, Tiger Lake) <b>Architecture:</b> 10nm SuperFin <b>Cores / Threads:</b> 4 cores, 8 threads <b>Base Clock:</b> 3.0 GHz <b>Max Turbo Frequency:</b> 4.8 GHz <b>Cache:</b> 12 MB Intel Smart Cache <b>TDP:</b> 12W (Configurable up to 28W for better performance)
Graphics Card (GPU)	<b>Integrated GPU:</b> Intel Iris Xe Graphics <ul style="list-style-type: none"><li>• <b>Execution Units (EUs):</b> 96</li><li>• <b>Base Clock:</b> 400 MHz</li><li>• <b>Max Dynamic Frequency:</b> 1.35 GHz</li><li>• <b>Max Video Memory:</b> Shared with system RAM</li><li>• <b>DirectX Version:</b> 12.1</li><li>• <b>OpenGL Version:</b> 4.6</li><li>• <b>Maximum Display Resolution:</b> 4096 x 2304 @ 60Hz (via HDMI or DisplayPort)</li></ul>
RAM	16GB RAM single Channel 3200MHz



### 2.12.2 Software

Testing will be conducted in **Monzila Firefox** and Selenium IDE.

### 2.13 Responsibilities

The Test Manager is responsible for conducting the testing, the modules to be tested, and the schedule for all the testers. Each tester must meet the expectation of the requirement and a certain level of quality that is needed. The test manager is also responsible for communicating and is directly involved in the completion of the testing.

Responsible Tester	Egil Tan	Kh'ng Wei Xin	Nilam Muhammad Azrilluqman Bin Jaafar	Kirthika C.Krishnan
Module to be tested	User Registration and User Login	Admin Registration and Admin Login	Admin Registration and Admin Login	Insert New Flight and User Flight Search
Internal Due	17/10/2024	17/10/2024	17/10/2024	17/10/2024

### 2.14 Risk and Contingencies

If the first round of the testing was not completed by the internal due, it will cause a delay in the testing phases and also the final testing of the system. If this happens, the team will be pushed back and hopefully, it will not affect the due date of the final report. Finally, if the tester does not have a basic understanding of the system that needs to be tested the test also will be pushed back and eventually, the test will not meet the SOP and quality of the testing that we need.

### 2.15 Approvals

Both the test manager and product manager must agree on the quality of the completion test and determine whether the system could be pushed to the next step of the testing.

### 3.0 Test Case Design

No.	Fields	Types of fields	Valid Class	Test Data (Valid)	Invalid Class	Test Data (Invalid)
1.	User Registration Username	Alphanumeric characters	Letters, numbers, and symbols	User123!@#	{blankspace}	{blankspace}
2.	User Registration Email	Alphanumeric characters	Valid email format: example@email.com	user@gmail.com	Invalid email format  Missing .com  Starting or Ending with Invalid Characters  {blankspace}  Spacing Integer only Symbols only	usergmail.com  usergmail  user.@gmail.com  {blankspace}  user@ gmail. Com 123456@gmail.com !@#\$%@gmail.com
3.	User Registration Password	Alphanumeric characters	Letters, numbers, and symbols	pw123!@#	{blankspace}	{blankspace}



4.	User Registration Confirm Password	Alphanumeric characters	Letters, numbers, and symbols	pw123!@#	{blankspace}  Incorrect Password	{blankspace}  wp123!@#
5.	User Login Username	Alphanumeric characters	Letters, numbers, and symbols	User123!@#	{blankspace} Incorrect username	{blankspace} wrong!@#
6.	User Login Password	Alphanumeric characters	Letters, numbers, and symbols	pw123!@#	{blankspace} Incorrect Password	{blankspace} wp123!@#
7.	Update Password Current Password	Alphanumeric characters	Letters, numbers, and symbols	pw123!@#	{blankspace} Incorrect Password	{blankspace} wp123!@#
8.	Update Password New Password	Alphanumeric characters	Letters, numbers, and symbols	userpw123!@#	{blankspace}	{blankspace}
9.	Update Password Confirm Password	Alphanumeric characters	Letters, numbers, and symbols	userpw123!@#	{blankspace} Incorrect Password	{blankspace} wronguser123!@#

10.	Flight Search Departure	Alphanumeric characters	Letters, numbers, and symbols with spacing	Kolkata	{blankspace}	{blankspace}
11.	Flight Search Destination	Alphanumeric characters	Letters, numbers, and symbols with spacing	Chennai	{blankspace}	{blankspace}
12	Admin login: username	Alphanumeric characters	Exact match: "admin"	admin	blank, incorrect username,	{blankspace}, Admin123, P4z8hK9Lr2Qw1TtVb7XyJ, 123456, !@#\$\$%^
13	Admin login: password	Alphanumeric characters	Exact match: "admin"	admin	Blank, incorrect password	{blankspace}, Password123,
14	Admin Registration: Employee id	Integer	Unique number only	3	{blankspace}, Number sign {#} Dollar sign {\$} Percent sign {%} Circumflex accent {^} Ampersand {&}	{blankspace}, abc, 123@, \$123, 125%, >12,

					Asterisk {*} Plus sign {+} Equals sign {=} Alphabet {az,A-Z} Spacing	
15	Admin registration: Employee Name	Alphanumeric characters	Letters, numbers, and symbols	Nilam	{blankspace}	{blankspace}
16	Admin registration: Position	Alphanumeric characters	Letters, numbers, and symbols	Manager	{blankspace}	{blankspace}
17	Admin Registration: Password	Alphanumeric characters	Letters, numbers, and symbols	P@ssword123	{blankspace}, incorrect password, spacing	{blankspace}, P@ssword123
18	Admin registration: Confirm password	Alphanumeric characters	Letters, numbers, and symbols	P@ssword123	{blankspace}, incorrect password, spacing	{blankspace}, Password123, P@ssword123
19	Admin Enter flight details : Plane id	Integer	Unique number only	101	{blankspace} Spacing, Alphabet	{blankspace} 2 1 1 Kj213

20	Admin Enter flight details : Seats	Integer	Integer without spacing	147	{blankspace}  Spacing  Alphabet  Symbols only	{blankspace}  1 4 7  AmN23  !@#\$\$%^
21	Admin Enter flight details : Planename	Alphanu meri c and symbols	Letters, numbers , and symbols	Air Asia	{blankspace}    Integer only    Symbols only	{blankspace}    123456    !@#\$\$%
22	Admin Enter flight details : Pickup	Alphanu meri c and symbols	Letters, numbers , and symbols	Thailand	{blankspace}    Integer only    Symbols only	{blankspace}    123456    !@#\$\$%
23	Admin Enter flight details : Destination	Alphanu meri c and symbols	Letters, numbers , and symbols	Sydney	{blankspace}    Integer only    Symbols only	{blankspace}    123456    !@#\$\$%

## 4.0 Test Cases in IEEE

### 4.1 Manual Testing

<b>Module Name</b>	User Screen	<b>Test Case Description</b>	Test the functionalities of the user section in the system
<b>Tester Name</b>	Wei Xin	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	Nilam	<b>Prerequisites</b>	1. Download source code 2. Run in browser
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Manual

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS01	Check User Registration Username with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userlogin.php">http://localhost/Airline-Reservation-System/userlogin.php</a> 2. Enter Username	User123!@#	Test data can be entered	As expected	Pass
ARS02	Check User Registration Username with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userlogin.php">http://localhost/Airline-Reservation-System/userlogin.php</a>	{blankspace}	An error message should be displayed	As expected	Pass



		2. Enter Username				
ARS03	Check User Registration Email with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userregistration.php">http://localhost/Airline-Reservation-System/userregistration.php</a> 2. Enter Email	user@gmail.com	Test data can be entered	As expected	Pass
ARS04	Check User Registration Email with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userregistration.php">http://localhost/Airline-Reservation-System/userregistration.php</a> 2. Enter Email	1.usergmail.com 2.usergmail 3.user.@gmail.com 4.{blankspace} 5.user@gmail.com 6.123456@gmail.com 7.!@#\$%@gmail.com	An error message should be displayed	Error messages did not display	Fail
ARS05	Check User Registration Password with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userregistration.php">http://localhost/Airline-Reservation-System/userregistration.php</a> 2. Enter Password	pw123!@#	Test data can be entered	As expected	Pass

ARS06	Check User Registration Password with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userregistration.php">http://localhost/Airline-Reservation-System/userregistration.php</a> 2. Enter Password	{blankspace}	An error message should be displayed	As expected	Pass
ARS07	Check User Registration Confirm Password with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userregistration.php">http://localhost/Airline-Reservation-System/userregistration.php</a> 2. Enter Password	pw123!@#	Test data can be entered	As expected	Pass
ARS08	Check User Registration Confirm Password with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userregistration.php">http://localhost/Airline-Reservation-System/userregistration.php</a> 2. Enter Password	1. {blankspace} 2. wp123!@#	An error message should be displayed	As expected	Pass
ARS09	Check User Login Username with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userlogin.php">http://localhost/Airline-Reservation-System/userlogin.php</a> 2. Enter Username	User123!@#	Test data can be entered	As expected	Pass

ARS10	Check User Login Username with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userlogin.php">http://localhost/Airline-Reservation-System/userlogin.php</a> 2. Enter Username	{blankspace}	An error message should be displayed	As expected	Pass
ARS11	Check User Login Password with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userlogin.php">http://localhost/Airline-Reservation-System/userlogin.php</a> 2. Enter Password	pw123!@#	Test data can be entered	As expected	Pass
ARS12	Check User Login Password with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/userlogin.php">http://localhost/Airline-Reservation-System/userlogin.php</a> 2. Enter Password	1. {blankspace} 2. wp123!@#	An error message should be displayed	As expected	Pass
ARS13	Check Update Password Current Password with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/update_password.php">http://localhost/Airline-Reservation-System/update_password.php</a> 2. Enter Current Password	pw123!@#	Test data can be entered	As expected	Pass

ARS14	Check Update Password Current Password with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/update_password.php">http://localhost/Airline-Reservation-System/update_password.php</a> 2. Enter Current Password	1. {blankspace}  2. wp123!@#	An error message should be displayed	As expected	Pass
ARS15	Check Update Password New Password with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/update_password.php">http://localhost/Airline-Reservation-System/update_password.php</a> 2. Enter New Password	userpw123!@#	Test data can be entered	As expected	Pass
ARS16	Check Update Password New Password with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/update_password.php">http://localhost/Airline-Reservation-System/update_password.php</a> 2. Enter New Password	1. {blankspace}  2. wronguser123!@#	An error message should be displayed	Error messages did not display	Fail
ARS17	Check Update Password Confirm Password with valid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/update_password.php">http://localhost/Airline-Reservation-System/update_password.php</a>	userpw123!@#	Test data can be entered	As expected	Pass

		<a href="#">e_passwo rd.php</a> 2. Enter New Password				
ARS18	Check Update Password Confirm Password with invalid data	1. Go to site <a href="#">http://loca lhost/Airli ne-Reserv ation-Syst em/updat e_passwo rd.php</a> 2. Enter New Password	1. {blankspa ce}  2. wronguse r123!@#	An error message should be displayed	Error messages did not display	Fail
ARS19	Check Flight Search Departure with valid data	1. Go to site <a href="#">http://loca lhost/Airli ne-Reserv ation-Syst em/page1 .php</a> 2. Enter Departure Place	Kolkata	Test data can be entered	Test data cannot be entered	Fail
ARS20	Check Flight Search Departure with invalid data	1. Go to site <a href="#">http://loca lhost/Airli ne-Reserv ation-Syst em/page1 .php</a> 2. Enter Departure Place	{blankspace }	An error message should be displayed	As expected	Pass
ARS21	Check Flight Search	1. Go to site <a href="#">http://loca</a>	Chennai	Test data can be entered	Test data cannot be entered	Fail

	Destination with Valid data	<a href="http://localhost/Airline-Reservation-System/page1.php">localhost/Airline-Reservation-System/page1.php</a> 2. Enter Destination Place				
ARS22	Check Flight Search Destination with invalid data	1. Go to site <a href="http://localhost/Airline-Reservation-System/page1.php">http://localhost/Airline-Reservation-System/page1.php</a> 2. Enter Destinati	{blankspace }	An error message should be displayed	As expected	Pass

<b>Module Name</b>	Employee Login	<b>Test Case Description</b>	Test the functionalities employee register section in the system
<b>Tester Name</b>	Nilam	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	Egil	<b>Prerequisites</b>	3. Download source code 4. Run in browser
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Manual

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS23	Check username	1. Go to site <a href="http://localhost/airlines/employeelogin.php">http://localhost/airlines/employeelogin.php</a> 2. Enter Username	admin	Test data can be entered	As expected	Pass
ARS24	Check Username with invalid data	1. Go to site <a href="http://localhost/airlines/employeelogin.php">http://localhost/airlines/employeelogin.php</a> 2. Enter Username	1. blank 2.incorrect username	An error message should be displayed	As expected	Pass
ARS25	Check User password with valid	1. Go to site <a href="http://localhost/airlines/employeelogin.php">http://localhost/airlines/employeelogin.php</a>	admin	Test data can be entered	As expected	Pass

	data	<a href="http://localhost/airlines/employ.php">localhost/airlines/employ.php</a> 2. Enter password				
ARS26	Check User password with invalid data	1. Go to site <a href="http://localhost/airlines/employ.php">http://localhost/airlines/employ.php</a> 2. Enter password	1. Blank, 2. incorrect password	An error message should be displayed	As expected	Pass



<b>Module Name</b>	Employee Register	<b>Test Case Description</b>	Test the functionalities employee register section in the system
<b>Tester Name</b>	Nilam	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	Kirthika	<b>Prerequisites</b>	5. Download source code 6. Run in browser
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Manual

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS27	Check employee Registration id with valid data	1. Go to site <a href="http://localhost/airlines/employee/register.php">http://localhost/airlines/employee/register.php</a> 2. Enter employee id	3	Test data can be entered	As expected	pass
ARS28	Check employee Registration id with invalid data	1. Go to site <a href="http://localhost/airlines/employee/register.php">http://localhost/airlines/employee/register.php</a> 2. Enter employee id	{blankspace}, abc, 123@, \$123, 125%, >12, same ID	An error message should be displayed	Error message did not displayed	Fail
ARS29	Check employee Registration name with valid data	1. Go to site <a href="http://localhost/airlines/employee/register.php">http://localhost/airlines/employee/register.php</a> 2. Enter employee	Nilam	Test data can be entered	As expected	pass

		name				
ARS30	Check employee Registration name with invalid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee name	{blankspace}	An error message should be displayed	As expected	Pass
ARS31	Check employee Registration position with valid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee position	Manager	Test data can be entered	As expected	Pass
ARS32	Check employee Registration position with invalid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee position	{blankspace}	An error message should be displayed	As expected	pass
ARS33	Check User Registration Password with valid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee password	P@ssword123	Test data can be entered	As expected	pass
ARS34	Check User Registration Password with invalid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee password	1.{blankspace} 2.P@ssword123	An error message should be displayed	As expected	Pass

ARS35	Check employee Registration Password with valid data	1. Go to site <a href="http://localhost/airlines/employee/register.php">http://localhost/airlines/employee/register.php</a> 2. Enter employee Confirm Password	P@ssword123	Test data can be entered	As expected	Pass
ARS36	Check employee confirmation Registration Password with invalid data	1. Go to site <a href="http://localhost/airlines/employee/register.php">http://localhost/airlines/employee/register.php</a> 2. Enter employee Confirm Password	1.{blankspace} } 2.P@ssword123	An error message should be displayed	As expected	Pass

<b>Module Name</b>	Flight details	<b>Test Case Description</b>	Test the functionalities flight details section in the system
<b>Tester Name</b>	Kirthika	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	Wei Xin	<b>Prerequisites</b>	7. Download source code 8. Run in browser
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Manual

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS37	Check plane id with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter plane id	7	Test data can be entered	As expected	pass
ARS38	Check plane id with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter plane id	{blankspace} , same ID	An error message should be displayed	As expected	pass
ARS39	Check seats with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter seats	120	Test data can be entered	As expected	pass

ARS40	Check seats with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter seats	{blankspace}	An error message should be displayed	As expected	pass
ARS41	Check plane name with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter plane name	Air Asia	Test data can be entered	As expected	pass
ARS42	Check plane name with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter plane name	{blankspace}	An error message should be displayed	As expected	pass
ARS43	Check flight details pickup with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter pickup	Thailand	Test data can be entered	As expected	Pass
ARS44	Check flight details pickup with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter pickup	{blankspace}	An error message should be displayed	As expected	pass
ARS45	Check flight details destination with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter destination	Newyork	Test data can be entered	As expected	Pass

ARS46	Check flight details destination with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter destination	{blankspace}	An error message should be displayed	As expected	pass
ARS47	Check flight details class with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter class	Economy	Test data can be entered	As expected	pass
ARS48	Check flight details class with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter class	{blankspace}	An error message should be displayed	As expected	pass
ARS49	Check flight details fare with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter fare	4900	Test data can be entered	As expected	pass
ARS50	Check flight details fare with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter fare	1. {blankspace} 2. ABC, @123,	An error message should be displayed	1. As expected 2. Error message did not displayed	1. pass 2. Fail

<b>Module Name</b>	Filter Search	<b>Test Case Description</b>	Test the functionalities of filter search section in the system
<b>Tester Name</b>	Kirthika	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	Nilam	<b>Prerequisites</b>	9. Download source code 10. Run in browser
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Manual

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS51	Check 'From' with valid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter From to search	delhi	Test data can be entered	As expected	pass
ARS52	Check 'From' with invalid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter From to search	{blankspace}	An error message should be displayed	Error message did not displayed	Fail
ARS53	Check 'To' with valid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter To to search	chennai	Test data can be entered	As expected	pass

ARS54	Check 'To' with invalid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter To to search	{blankspace}	An error message should be displayed	Error message did not displayed	Fail
ARS55	Check 'Date After' with valid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter date to search	02/01/2025	Test data can be entered	As expected	Pass
ARS56	Check 'Date After' with invalid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter date to search	{blankspace}	An error message should be displayed	Error message did not displayed	Fail



## 4.2 Automated Testing by using Selenium IDE

### Automated Testing Module *Employee Register*

<b>Module Name</b>	Employee Register	<b>Test Case Description</b>	Test the functionalities employee register section in the system
<b>Tester Name</b>	Nilam	<b>Date Tested</b>	03/01/2025
<b>Reviewed By</b>	Kirthika C.Krishnan, Wei Xin	<b>Prerequisites</b>	1. Accessed to Mozilla Firefox 2. Download Selenium
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Automated

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
TU01	Check employee Registration id with valid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee id	3	Test data can be entered	As expected	pass
TU01	Check employee Registration id with invalid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee id	{blankspace }, abc, 123@, \$123, 125%, >12, same ID	An error message should be displayed	Error message did not displayed	Fail
TU02	Check employee	1. Go to site <a href="http://localhost">http://localhost</a>	Nilam	Test data can be	As expected	pass

	Registration name with valid data	<a href="http://localhost/airlines/emp/register.php">t/airlines/emp/register.php</a> 2. Enter employee name		entered		
TU02	Check employee Registration name with invalid data	1. Go to site <a href="http://localhost/airlines/emp/register.php">http://localhost/airlines/emp/register.php</a> 2. Enter employee name	{blankspace }	An error message should be displayed	As expected	Pass
TU03	Check employee Registration position with valid data	1. Go to site <a href="http://localhost/airlines/emp/register.php">http://localhost/airlines/emp/register.php</a> 2. Enter employee position	Manager	Test data can be entered	As expected	Pass
TU03	Check employee Registration position with invalid data	1. Go to site <a href="http://localhost/airlines/emp/register.php">http://localhost/airlines/emp/register.php</a> 2. Enter employee position	{blankspace }	An error message should be displayed	As expected	pass
TU04	Check User Registration Password with valid data	1. Go to site <a href="http://localhost/airlines/emp/register.php">http://localhost/airlines/emp/register.php</a> 2. Enter employee password	P@ssword123	Test data can be entered	As expected	pass
TU04	Check User Registration Password with invalid data	1. Go to site <a href="http://localhost/airlines/emp/register.php">http://localhost/airlines/emp/register.php</a> 2. Enter employee password	1. {blankspace} 2. P@ssword123	An error message should be displayed	As expected	Pass

TU05	Check employee Registration Password with valid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee Confirm Password	P@ssword123	Test data can be entered	As expected	Pass
TU05	Check employee confirmation Registration Password with invalid data	1. Go to site <a href="http://localhost/airlines/empregister.php">http://localhost/airlines/empregister.php</a> 2. Enter employee Confirm Password	1. {blankspace} 2. P@ssword123	An error message should be displayed	As expected	Pass

**Below are the results after performing the automated testing:**

Running 'module_employee_register'	18:50:08
1. open on /airlines/empregister.php OK	18:50:09
2. setWindowSize on 551x755 OK	18:50:09
3. click on name=empid OK	18:50:09
4. type on name=empid OK	18:50:09
5. click on name=emp OK	18:50:09
6. type on name=emp with value Nilam OK	18:50:09
7. click on name=position OK	18:50:10
8. type on name=position with value Manager OK	18:50:10
9. click on name=emppass OK	18:50:10
10. type on name=emppass with value P@ssword123 OK	18:50:10

4. type on name=empid with value 3 OK	18:50:33
5. click on name=emp OK	18:50:33
6. type on name=emp OK	18:50:33
7. click on name=position OK	18:50:34
8. type on name=position with value Manager OK	18:50:34
9. click on name=emppass OK	18:50:34
10. type on name=emppass with value P@ssword123 OK	18:50:34
11. click on name=empconf OK	18:50:34
12. type on name=empconf with value P@ssword123 OK	18:50:34
13. click on name=submit OK	18:50:35
<b>'module_employee_register' completed successfully</b>	18:50:35

4. type on name=empid with value 3 OK	18:51:00
5. click on name=emp OK	18:51:00
6. type on name=emp with value Nilam OK	18:51:01
7. click on name=position OK	18:51:01
8. type on name=position OK	18:51:01
9. click on name=emppass OK	18:51:01
10. type on name=emppass with value P@ssword123 OK	18:51:01
11. click on name=empconf OK	18:51:01
12. type on name=empconf with value P@ssword123 OK	18:51:02
13. click on name=submit OK	18:51:02
<b>'module_employee_register' completed successfully</b>	18:51:02

4. type on name=empid with value 3 OK	18:51:21
5. click on name=emp OK	18:51:21
6. type on name=emp with value Nilam OK	18:51:22
7. click on name=position OK	18:51:22
8. type on name=position with value Manager OK	18:51:22
9. click on name=emppass OK	18:51:22
10. type on name=emppass OK	18:51:22
11. click on name=empconf OK	18:51:22
12. type on name=empconf with value P@ssword123 OK	18:51:23
13. click on name=submit OK	18:51:23
<b>'module_employee_register' completed successfully</b>	18:51:23

4. type on name=empid with value 3 OK	18:51:43
5. click on name=emp OK	18:51:43
6. type on name=emp with value Nilam OK	18:51:43
7. click on name=position OK	18:51:43
8. type on name=position with value Manager OK	18:51:43
9. click on name=emppass OK	18:51:44
10. type on name=emppass with value P@ssword123 OK	18:51:44
11. click on name=empconf OK	18:51:44
12. type on name=empconf OK	18:51:44
13. click on name=submit OK	18:51:44
<b>'module employee register' completed successfully</b>	18:51:44

4. type on name=empid with value 3 OK	18:51:57
5. click on name=emp OK	18:51:57
6. type on name=emp with value Nilam OK	18:51:57
7. click on name=position OK	18:51:57
8. type on name=position with value Manager OK	18:51:57
9. click on name=emppass OK	18:51:58
10. type on name=emppass with value P@ssword123 OK	18:51:58
11. click on name=empconf OK	18:51:58
12. type on name=empconf with value P@ssword12 3 OK	18:51:58
13. click on name=submit OK	18:51:58
<b>'module employee register' completed successfully</b>	18:51:58

Automated Testing Module User Register

<b>Module Name</b>	User Registration	<b>Test Case Description</b>	Test the functionalities of the user section in the system
<b>Tester Name</b>	Egil	<b>Date Tested</b>	4/1/2025
<b>Reviewed By</b>	Kirthika C.Krishnan, Wei Xin	<b>Prerequisites</b>	1. Accessed to Mozilla Firefox 2. Download Selenium
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Automated

<b>Test Case ID</b>	<b>Test Scenario</b>	<b>Test Steps</b>	<b>Test Data</b>	<b>Expected Results</b>	<b>Actual Results</b>	<b>Pass/Fail</b>
TU06	Check User Registration Username with valid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Username	User123!@#	Test data can be entered	As expected	Pass
TU06	Check User Registration Username with invalid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Username	{blankspace}	An error message should be displayed	As expected	Pass
TU07	Check User Registration Email with valid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Email	user@gmail.com	Test data can be entered	As expected	Pass

TU07	Check User Registration Email with invalid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Email	1.usergmail.com 2.usergmail 3.user.@gmail.com 4.{blankspace} 5.user@gmail.com 6.123456@gmail.com 7.!@#\$%@gmail.com	An error message should be displayed	Error messages did not display	Fail
TU08	Check User Registration Password with valid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Password	pw123!@#	Test data can be entered	As expected	Pass
TU08	Check User Registration Password with invalid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Password	{blankspace}	An error message should be displayed	As expected	Pass
TU09	Check User Registration Confirm Password with valid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Password	pw123!@#	Test data can be entered	As expected	Pass
TU09	Check User Registration Confirm Password with invalid data	1. Go to site <a href="https://localhost/airline/userregister.php">https://localhost/airline/userregister.php</a> 2. Enter Password	1.{blankspace} 2.wp123!@#	An error message should be displayed	As expected	Pass

TU10	Check User Login Username with valid data	1. Go to site <a href="https://localhost/airline/userlogin.php">https://localhost/airline/userlogin.php</a> 2. Enter Username	User123!@#	Test data can be entered	As expected	Pass
TU10	Check User Login Username with invalid data	1. Go to site <a href="https://localhost/airline/userlogin.php">https://localhost/airline/userlogin.php</a> 2. Enter Username	{blankspace}	An error message should be displayed	As expected	Pass
TU11	Check User Login Password with valid data	1. Go to site <a href="https://localhost/airline/userlogin.php">https://localhost/airline/userlogin.php</a> 2. Enter Password	pw123!@#	Test data can be entered	As expected	Pass
TU11	Check User Login Password with invalid data	1. Go to site <a href="https://localhost/airline/userlogin.php">https://localhost/airline/userlogin.php</a> 2. Enter Password	1. {blankspace} 2. wp123!@#	An error message should be displayed	As expected	Pass
TU12	Check Update Password Current Password with valid data	1. Go to site <a href="https://localhost/airline/update_password.php">https://localhost/airline/update_password.php</a> 2. Enter Current Password	pw123!@#	Test data can be entered	As expected	Pass
TU12	Check Update Password Current Password with invalid data	1. Go to site <a href="https://localhost/airline/update_password.php">https://localhost/airline/update_password.php</a> 2. Enter Current Password	1. {blankspace} 2. wp123!@#	An error message should be displayed	As expected	Pass



TU13	Check Update Password New Password with valid data	1. Go to site <a href="https://localhost/airline/update_password.php">https://localhost/airline/update_password.php</a> 2. Enter New Password	userpw123!@#	Test data can be entered	As expected	Pass
TU13	Check Update Password New Password with invalid data	1. Go to site <a href="https://localhost/airline/update_password.php">https://localhost/airline/update_password.php</a> 2. Enter New Password	1. {blankspace}  2.wronguser123!@#	An error message should be displayed	Error messages did not display	Fail
TU14	Check Update Password Confirm Password with valid data	1. Go to site <a href="https://localhost/airline/update_password.php">https://localhost/airline/update_password.php</a> 2. Enter New Password	userpw123!@#	Test data can be entered	As expected	Pass
TU14	Check Update Password Confirm Password with invalid data	1. Go to site <a href="https://localhost/airline/update_password.php">https://localhost/airline/update_password.php</a> 2. Enter New Password	1. {blankspace}  2.wronguser123!@#	An error message should be displayed	Error messages did not display	Fail
TU15	Check Flight Search Departure with valid data	1. Go to site <a href="https://localhost/airline/page1.php">https://localhost/airline/page1.php</a> 2. Enter Departure Place	Kolkata	Test data can be entered	As expected	Pass
TU15	Check Flight Search Departure with invalid	1. Go to site <a href="http://localhost/Airline-Reservation-System/page1.php">http://localhost/Airline-Reservation-System/page1.php</a>	{blankspace}	An error message should be displayed	As expected	Pass

	data	2. Enter Departure Place				
TU16	Check Flight Search Destination with Valid data	1. Go to site <a href="https://localhost/airline/page1.php">https://localhost/airline/page1.php</a> 2. Enter Destination Place	Chennai	Test data can be entered	As expected	Pass
TU16	Check Flight Search Destination with invalid data	1. Go to site <a href="https://localhost/airline/page1.php">https://localhost/airline/page1.php</a> 2. Enter Destinati	{blankspace}	An error message should be displayed	As expected	Pass

Below are the results after performing the automated testing:

### User Registration

The screenshot displays the Selenium IDE interface within a Mozilla Firefox browser. The project is named 'Assignment2\_USER\*'. The test script 'UserRegister\*' is loaded, showing a series of commands and their targets. The log at the bottom indicates that all steps in the 'UserRegister' test were executed successfully (OK).

Command	Target	Value
1. open	/airline/userregister.php	
2. set window size	1536x824	
3. click	name=user	
4. type	name=user	TAN
5. click	css=fieldset	
6. click	name=email	
7. click	name=email	
8. type	name=email	egilbann@gmail.com

**Log:**

- Running 'UserRegister' 15:43:57
- 1. open on /airline/userregister.php OK 15:43:57
- 2. setWindowSize on 1536x824 OK 15:43:58
- 3. click on name=user OK 15:43:58
- 4. type on name=user with value TAN OK 15:43:58
- 5. click on css=fieldset OK 15:43:58
- 6. click on name=email OK 15:43:59
- 7. click on name=email OK 15:43:59
- 8. type on name=email with value egilbann@gmail.com OK 15:43:59

Extension: (Selenium IDE) - Selenium IDE - Assignment2\_USER\* — Mozilla Firefox

Project: Assignment2\_USER\*

Tests +

Search tests...

https://localhost

Command	Target	Value
✓ click	css=fieldset	
✓ click	name=cnum	
✓ type	name=cnum	-1
✓ type	name=cnum	-1
✓ send keys	name=cnum	\$(KEY_UP)
✓ type	name=cnum	0
✓ type	name=cnum	012223344
✓ click	name=age	

Command

Target

Value

Description

Log Reference

9. click on css=fieldset OK 15:43:59

10. click on name=cnum OK 15:43:59

11. type on name=cnum with value -1 OK 15:44:00

12. type on name=cnum with value -1 OK 15:44:00

13. sendKeys on name=cnum with value \$(KEY\_UP) OK 15:44:00

14. type on name=cnum with value 0 OK 15:44:00

15. type on name=cnum with value 012223344 OK 15:44:00

16. click on name=age OK 15:44:00

17. type on name=age with value 23 OK 15:44:00

Extension: (Selenium IDE) - Selenium IDE - Assignment2\_USER\* — Mozilla Firefox

Project: Assignment2\_USER\*

Tests +

Search tests...

https://localhost

Command	Target	Value
✓ type	name=age	23
✓ click	name=pass	
✓ type	name=pass	1234
✓ click	name=conf	
✓ type	name=conf	123456
✓ click	name=pass	
✓ type	name=pass	123456
✓ click	name=submit	
✓ click	name=submit	
✓ type	name=email	egitann@gmail.com
✓ click	name=submit	

Command

Target

Value

Description

Log Reference

24. click on name=submit OK 15:44:02

25. click on name=submit OK 15:44:02

26. type on name=email with value egitann@gmail.com OK 15:44:02

27. click on name=submit OK 15:44:02

'UserRegister' completed successfully 15:44:02

## User Login

Extension: (Selenium IDE) - Selenium IDE - UserLogin\* — Mozilla Firefox

Project: UserLogin\*

Tests +

Search tests...

https://localhost

Command	Target	Value
1 ✓ open	/airline/userlogin.php	
2 ✓ set window size	1536x824	
3 ✓ click	name=user	
4 ✓ type	name=user	TAN
5 ✓ click	name=pass	
6 ✓ type	name=pass	123456
7 ✓ click	name=submit	

Command

Target

Value

Description

Log Reference

Running 'UserLogin'

1. open on /airline/userlogin.php OK	15:49:21
2. setWindowSize on 1536x824 OK	15:49:21
3. click on name=user OK	15:49:22
4. type on name=user with value TAN OK	15:49:22
5. click on name=pass OK	15:49:22
6. type on name=pass with value 123456 OK	15:49:22
7. click on name=submit OK	15:49:22
'UserLogin' completed successfully	15:49:23

## User Update Password

Project: UserUpdatePassword\_\*

Tests +

Search tests...

https://localhost

Command	Target	Value
1 ✓ open	/airline/update_password.php	
2 ✓ set window size	1536x824	
3 ✓ click	name=C_Password	
4 ✓ type	name=C_Password	123456
5 ✓ click	name=Password_1	
6 ✓ type	name=Password_1	123456789
7 ✓ click	name=Password_2	
8 ✓ type	name=Password_2	123456789
9 ✓ click	name=submit1	

Command

Target

Value

Description

Log Reference

Running 'UserUpdatePassword\_'

1. open on /airline/update_password.php OK	16:00:10
2. setWindowSize on 1536x824 OK	16:00:10
3. click on name=C_Password OK	16:00:10
4. type on name=C_Password with value 123456 OK	16:00:11
5. click on name=Password_1 OK	16:00:11
6. type on name=Password_1 with value 123456789 OK	16:00:11
7. click on name=Password_2 OK	16:00:11

Project: UserUpdatePassword\_\*

Tests + | Search tests... | https://localhost

Command	Target	Value
7 ✓ click	name=Password_2	
8 ✓ type	name=Password_2	123456789
9 ✓ click	name=submit1	
10 ✓ click	name=user	
11 ✓ type	name=user	TAN
12 ✓ click	name=pass	
13 ✓ type	name=pass	123456789
14 ✓ click	name=submit	

Command: [ ] # [ ] [ ]

Target: [ ] [ ] [ ]

Value: [ ]

Description: [ ]

Log Reference

8. type on name=Password\_2 with value 123456789 OK 16:00:12

9. click on name=submit1 OK 16:00:12

10. click on name=user OK 16:00:12

11. type on name=user with value TAN OK 16:00:37

12. click on name=pass OK 16:00:37

13. type on name=pass with value 123456789 OK 16:00:38

14. click on name=submit OK 16:00:38

'UserUpdatePassword\_\*' completed successfully 16:00:38

## Check Flight Search Departure and Destination

Extension: (Selenium IDE) - Selenium IDE - UserFlightSearch\_\* — Mozilla Firefox

Project: UserFlightSearch\_\*

Tests + | Search tests... | https://localhost

Command	Target	Value
1 ✓ open	/airline/page1.php	
2 ✓ set window size	1536x924	
3 ✓ click	name=depdate	
4 ✓ type	name=depdate	2025-01-10
5 ✓ click	name=from1	
6 ✓ type	name=from1	Kedah
7 ✓ click	name=to1	
8 ✓ type	name=to1	Johor
9 ✓ click	name=proceed	
10 ✓ click	name=pid	
11 ✓ type	name=pid	333
12 ✓ click	name=book	

Command: [ ] # [ ] [ ]

Target: [ ] [ ] [ ]

Value: [ ]

Description: [ ]

Log Reference

10. click on name=pid OK 15:18:55

11. type on name=pid with value 333 OK 15:18:55

12. click on name=book OK 15:18:56

'UserFlightSearch\_\*' completed successfully 15:18:56

Automated Testing Module *User Register*

<b>Module Name</b>	Employee Login	<b>Test Case Description</b>	Test the functionalities employee register section in the system
<b>Tester Name</b>	Nilam	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	Egil	<b>Prerequisites</b>	1. Download source code 2. Run in browser
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Automated

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS23	Check username	1. Go to site <a href="http://localhost/airlines/employee_login.php">http://localhost/airlines/employee_login.php</a> 2. Enter Username	admin	Test data can be entered	As expected	Pass
ARS24	Check Username with invalid data	1. Go to site <a href="http://localhost/airlines/employee_login.php">http://localhost/airlines/employee_login.php</a> 2. Enter Username	1. blank 2. incorrect username	An error message should be displayed	As expected	Pass
ARS25	Check User password with valid	1. Go to site <a href="http://localhost">http://localhost</a>	admin	Test data can be entered	As expected	Pass

	data	<a href="http://localhost/airlines/employlogin.php">localhost/airlines/employlogin.php</a> 2. Enter password				
ARS26	Check User password with invalid data	1. Go to site <a href="http://localhost/airlines/employlogin.php">http://localhost/airlines/employlogin.php</a> 2. Enter password	1. Blank, 2. incorrect password	An error message should be displayed	As expected	Pass

**Running 'adminlogin'** 15:47:16

1. open on /airline/employlogin.php OK 15:47:17
2. setWindowSize on 668x809 OK 15:47:17
3. click on name=empname OK 15:47:17
4. type on name=empname OK 15:47:17
5. click on name=emppass OK 15:47:17
6. type on name=emppass with value admin OK 15:47:17
7. click on name=submit OK 15:47:18

**'adminlogin' completed successfully** 15:47:18

**Running 'adminlogin'** 15:47:36

1. open on /airline/employlogin.php OK 15:47:37
2. setWindowSize on 668x809 OK 15:47:37
3. click on name=empname OK 15:47:37
4. type on name=empname with value admin1 OK 15:47:37
5. click on name=emppass OK 15:47:37
6. type on name=emppass with value admin OK 15:47:38
7. click on name=submit OK 15:47:38

**'adminlogin' completed successfully** 15:47:38

<b>Running 'adminlogin'</b>	15:47:58
1. open on /airline/emplogin.php OK	15:47:58
2. setWindowSize on 668x809 OK	15:47:58
3. click on name=empname OK	15:47:58
4. type on name=empname with value admin OK	15:47:59
5. click on name=emppass OK	15:47:59
6. type on name=emppass OK	15:47:59
7. click on name=submit OK	15:47:59

<b>Running 'adminlogin'</b>	15:48:12
1. open on /airline/emplogin.php OK	15:48:12
2. setWindowSize on 668x809 OK	15:48:12
3. click on name=empname OK	15:48:13
4. type on name=empname with value admin OK	15:48:13
5. click on name=emppass OK	15:48:13
6. type on name=emppass with value admin12 OK	15:48:13
7. click on name=submit OK	15:48:13
<b>'adminlogin' completed successfully</b>	15:48:13



<b>Module Name</b>	Flight details	<b>Test Case Description</b>	Test the functionalities flight details section in the system
<b>Tester Name</b>	Kirthika	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	<b>Nilam</b>	<b>Prerequisites</b>	<ol style="list-style-type: none"> <li>1. Download source code</li> <li>2. Run in browser</li> </ol>
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Automated

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS37	Check plane id with valid data	<ol style="list-style-type: none"> <li>1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a></li> <li>2. Enter plane id</li> </ol>	7	Test data can be entered	As expected	pass
ARS38	Check plane id with invalid data	<ol style="list-style-type: none"> <li>1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a></li> <li>2. Enter plane id</li> </ol>	{blankspace} , same ID	An error message should be displayed	As expected	pass
ARS39	Check seats with valid data	<ol style="list-style-type: none"> <li>1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a></li> <li>2. Enter seats</li> </ol>	120	Test data can be entered	As expected	pass

ARS40	Check seats with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter seats	{blankspace}	An error message should be displayed	As expected	pass
ARS41	Check plane name with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter plane name	Air Asia	Test data can be entered	As expected	pass
ARS42	Check plane name with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter plane name	{blankspace}	An error message should be displayed	As expected	pass
ARS43	Check flight details pickup with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter pickup	Thailand	Test data can be entered	As expected	Pass
ARS44	Check flight details pickup with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter pickup	{blankspace}	An error message should be displayed	As expected	pass
ARS45	Check flight details destination with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter destination	Newyork	Test data can be entered	As expected	Pass

ARS46	Check flight details destination with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter destination	{blankspace}	An error message should be displayed	As expected	pass
ARS47	Check flight details class with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter class	Economy	Test data can be entered	As expected	pass
ARS48	Check flight details class with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter class	{blankspace}	An error message should be displayed	As expected	pass
ARS49	Check flight details fare with valid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter fare	4900	Test data can be entered	As expected	pass
ARS50	Check flight details fare with invalid data	1. Go to site <a href="http://localhost/airlines/enter.php">http://localhost/airlines/enter.php</a> 2. Enter fare	1. {blankspace} 2. ABC, @123,	An error message should be displayed	1. As expected 2. Error message did not displayed	1. pass 2. Fail

4. type on name=pid with value 7 OK	16:42:58
5. click on name=seats OK	16:42:58
6. type on name=seats with value 120 OK	16:42:58
7. click on name=planename OK	16:42:58
8. type on name=planename with value Air Asia OK	16:42:59
9. click on name=from OK	16:42:59
10. type on name=from with value Thailand OK	16:42:59
11. click on name=to OK	16:42:59
12. type on name=to with value Newyork OK	16:42:59
13. click on name=class OK	16:42:59
14. type on name=class with value Economy OK	16:43:00
15. click on name=fare OK	16:43:00
16. type on name=fare with value 4900 OK	16:43:00
17. click on name=insert OK	16:43:00
18. click on css=html OK	16:43:00
<b>'flight detail' completed successfully</b>	16:43:00
<b>Runnina 'fliaht detail'</b>	16:43:23

3. click on name=pid OK	16:43:24
4. type on name=pid OK	16:43:24
5. click on name=seats OK	16:43:24
6. type on name=seats with value 120 OK	16:43:24
7. click on name=planename OK	16:43:24
8. type on name=planename with value Air Asia OK	16:43:25
9. click on name=from OK	16:43:25
10. type on name=from with value Thailand OK	16:43:25
11. click on name=to OK	16:43:25

Log	Reference	
12. type on name=to with value Newyork OK		16:43:25
13. click on name=class OK		16:43:25
14. type on name=class with value Economy OK		16:43:26
15. click on name=fare OK		16:43:26
16. type on name=fare with value 4900 OK		16:43:26
17. click on name=insert OK		16:43:26
18. click on css=html OK		16:43:26
<b>'flight detail' completed successfully</b>		16:43:27

3. click on name=pid OK		16:43:43
4. type on name=pid with value 7 OK		16:43:44
5. click on name=seats OK		16:43:44
6. type on name=seats OK		16:43:44
7. click on name=planename OK		16:43:44
8. type on name=planename with value Air Asia OK		16:43:44
9. click on name=from OK		16:43:45
10. type on name=from with value Thailand OK		16:43:45
11. click on name=to OK		16:43:45

12. type on name=to with value Newyork OK		16:43:45
13. click on name=class OK		16:43:45
14. type on name=class with value Economy OK		16:43:45
15. click on name=fare OK		16:43:46
16. type on name=fare with value 4900 OK		16:43:46
17. click on name=insert OK		16:43:46
18. click on css=html OK		16:43:46
<b>'flight detail' completed successfully</b>		16:43:46

3. <u>click on name=pid</u> OK	16:44:10
4. type on name=pid with value 7 OK	16:44:10
5. click on name=seats OK	16:44:11
6. type on name=seats with value 120 OK	16:44:11
7. click on name=planename OK	16:44:11
8. type on name=planename OK	16:44:11
9. click on name=from OK	16:44:11
10. type on name=from with value Thailand OK	16:44:11
11. click on name=to OK	16:44:12
12. type on name=to with value Newyork OK	16:44:12
13. click on name=class OK	16:44:12
14. type on name=class with value Economy OK	16:44:12
15. click on name=fare OK	16:44:12
16. type on name=fare with value 4900 OK	16:44:12
17. click on name=insert OK	16:44:13
18. click on css=html OK	16:44:13
<b>'flight detail' completed successfully</b>	16:44:13

3. <u>click on name=pid</u> OK	16:44:35
4. type on name=pid with value 7 OK	16:44:36
5. click on name=seats OK	16:44:36
6. type on name=seats with value 120 OK	16:44:36
7. click on name=planename OK	16:44:36
8. type on name=planename with value Air Asia OK	16:44:36
9. click on name=from OK	16:44:37
10. type on name=from OK	16:44:37
11. click on name=to OK	16:44:37

12. type on name=to with value Newyork OK	16:44:37
13. click on name=class OK	16:44:37
14. type on name=class with value Economy OK	16:44:37
15. click on name=fare OK	16:44:38
16. type on name=fare with value 4900 OK	16:44:38
17. click on name=insert OK	16:44:38
18. click on css=html OK	16:44:38
<b>'flight detail' completed successfully</b>	16:44:38

3. click on name=pid OK	16:44:56
4. type on name=pid with value 7 OK	16:44:56
5. click on name=seats OK	16:44:56
6. type on name=seats with value 120 OK	16:44:56
7. click on name=planename OK	16:44:56
8. type on name=planename with value Air Asia OK	16:44:56
9. click on name=from OK	16:44:57
10. type on name=from with value Thailand OK	16:44:57
11. click on name=to OK	16:44:57

12. type on name=to OK	16:44:57
13. click on name=class OK	16:44:57
14. type on name=class with value Economy OK	16:44:57
15. click on name=fare OK	16:44:58
16. type on name=fare with value 4900 OK	16:44:58
17. click on name=insert OK	16:44:58
18. click on css=html OK	16:44:58
<b>'flight detail' completed successfully</b>	16:44:58

3. click on name=pid OK	16:45:11
4. type on name=pid with value 7 OK	16:45:12
5. click on name=seats OK	16:45:12
6. type on name=seats with value 120 OK	16:45:12
7. click on name=planename OK	16:45:12
8. type on name=planename with value Air Asia OK	16:45:12
9. click on name=from OK	16:45:13
10. type on name=from with value Thailand OK	16:45:13
11. click on name=to OK	16:45:13
12. type on name=to with value Newyork OK	16:45:13
13. click on name=class OK	16:45:13
14. type on name=class OK	16:45:13
15. click on name=fare OK	16:45:14
16. type on name=fare with value 4900 OK	16:45:14
17. click on name=insert OK	16:45:14
18. click on css=html OK	16:45:14
<b>'flight detail' completed successfully</b>	16:45:14

3. click on name=pid OK	16:45:33
4. type on name=pid with value 7 OK	16:45:34
5. click on name=seats OK	16:45:34
6. type on name=seats with value 120 OK	16:45:34
7. click on name=planename OK	16:45:34
8. type on name=planename with value Air Asia OK	16:45:35
9. click on name=from OK	16:45:35
10. type on name=from with value Thailand OK	16:45:35
11. click on name=to OK	16:45:35



3. click on name=pid OK	16:45:48
4. type on name=pid with value 7 OK	16:45:48
5. click on name=seats OK	16:45:48
6. type on name=seats with value 120 OK	16:45:49
7. click on name=planename OK	16:45:49
8. type on name=planename with value Air Asia OK	16:45:49
9. click on name=from OK	16:45:49
10. type on name=from with value Thailand OK	16:45:49
11. click on name=to OK	16:45:50
<hr/>	
12. type on name=to with value Newyork OK	16:45:35
13. click on name=class OK	16:45:35
14. type on name=class with value Economy OK	16:45:36
15. click on name=fare OK	16:45:36
16. type on name=fare OK	16:45:36
17. click on name=insert OK	16:45:36
18. click on css=html OK	16:45:36
<b>'flight detail' completed successfully</b>	16:45:37
12. type on name=to with value Newyork OK	16:45:50
13. click on name=class OK	16:45:50
14. type on name=class with value Economy OK	16:45:50
15. click on name=fare OK	16:45:50
16. type on name=fare with value ABC OK	16:45:50
17. click on name=insert OK	16:45:51
18. click on css=html OK	16:45:51
<b>'flight detail' completed successfully</b>	16:45:51

<b>Module Name</b>	Filter Search	<b>Test Case Description</b>	Test the functionalities of filter search section in the system
<b>Tester Name</b>	Kirthika	<b>Date Tested</b>	2/1/2025
<b>Reviewed By</b>	<b>Nilam</b>	<b>Prerequisites</b>	<ol style="list-style-type: none"> <li>1. Download source code</li> <li>2. Run in browser</li> </ol>
<b>Test Priority</b>	Medium	<b>Post Requisites</b>	N/A
<b>Version</b>	1.0	<b>Test Type</b>	Manual

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
ARS51	Check 'From' with valid data	<ol style="list-style-type: none"> <li>1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a></li> <li>2. Enter From to search</li> </ol>	delhi	Test data can be entered	As expected	pass
ARS52	Check 'From' with invalid data	<ol style="list-style-type: none"> <li>1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a></li> <li>2. Enter From to search</li> </ol>	{blankspace}	An error message should be displayed	Error message did not displayed	Fail
ARS53	Check 'To' with valid data	<ol style="list-style-type: none"> <li>1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a></li> <li>2. Enter To to search</li> </ol>	chennai	Test data can be entered	As expected	pass

ARS54	Check 'To' with invalid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter To to search	{blankspace}	An error message should be displayed	Error message did not displayed	Fail
ARS55	Check 'Date After' with valid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter date to search	02/01/2025	Test data an be entered	As expected	Pass
ARS56	Check 'Date After' with invalid data	1. Go to site <a href="http://localhost/airlines/filter.php">http://localhost/airlines/filter.php</a> 2. Enter date to search	{blankspace}	An error message should be displayed	Error message did not displayed	Fail

2. setWindowSize on 778x869 OK 16:32:34
3. click on name=from OK 16:32:34
4. type on name=from with value delhi OK 16:32:35
5. click on name=to OK 16:32:35
6. type on name=to with value chennai OK 16:32:35
7. click on name=date OK 16:32:35
8. type on name=date with value 2025-01-02 OK 16:32:35
9. click on name=filterdate OK 16:32:36
10. click on name=from OK 16:32:36

2. setWindowSize on 778x869 OK	16:32:46
3. click on name=from OK	16:32:46
4. type on name=from OK	16:32:47
5. click on name=to OK	16:32:47
6. type on name=to with value chennai OK	16:32:47
7. click on name=date OK	16:32:47
8. type on name=date with value 2025-01-02 OK	16:32:47
9. click on name=filterdate OK	16:32:47
10. click on name=from OK	16:32:47
1. open on /airline/filter.php OK	16:33:13
2. setWindowSize on 778x869 OK	16:33:13
3. click on name=from OK	16:33:13
4. type on name=from with value delhi OK	16:33:13
5. click on name=to OK	16:33:13
6. type on name=to OK	16:33:13
7. click on name=date OK	16:33:14
8. type on name=date with value 2025-01-02 OK	16:33:14
9. click on name=filterdate OK	16:33:14
3. click on name=from OK	16:33:44
4. type on name=from with value delhi OK	16:33:44
5. click on name=to OK	16:33:45
6. type on name=to with value chennai OK	16:33:45
7. click on name=date OK	16:33:45
8. type on name=date OK	16:33:45
9. click on name=filterdate OK	16:33:45
10. click on name=from OK	16:33:45
<b>'flight filter' completed successfully</b>	16:33:45

## **Suggestion for Improvement**

In this automated testing evaluation using Selenium IDE, three key functionalities were tested: user registration, admin registration, and the flight search feature. The results highlighted three failed test cases that need attention.

On the admin registration page, when testing the employee registration ID field with invalid data, such as letters and spaces, the expected error message did not appear, leading to a test failure due to insufficient validation feedback. Similarly, two issues were identified on the user password update page. The "New Password" and "Confirm Password" fields failed to display error messages when only blank spaces were entered, indicating a lack of proper input validation for these fields. Additionally, the lack of immediate feedback or visually distinct error notifications could lead to user frustration and reduce the system's usability.

It is recommended to adopt a more prominent error notification approach to enhance the system's usability and improve feedback. Instead of displaying error messages below the input fields—where users may overlook them—a pop-up alert or a more visually distinct message would make error notifications clearer and more noticeable. For example, using bold text with contrasting colors, such as red, or adding an error icon can draw user attention effectively. Furthermore, input validation should be enhanced to provide real-time feedback for incorrect entries. Employing both client-side and server-side validation will ensure comprehensive error checking, reducing the risk of submitting invalid data.

Implementing these changes would provide immediate and actionable feedback, improve user experience, and ensure alignment with usability best practices. Post-implementation, regression testing and user feedback sessions should be conducted to verify the effectiveness of these improvements and ensure that no new issues are introduced.

## Conclusion

By completing this test plan report, we aim to determine whether the Airline Reservation System meets the exit criteria by satisfying all specified requirements. This proposal includes key components such as test plan identification, testing approaches, pass/fail and suspension criteria, test items and deliverables, and responsibilities. Through testing processes, we aim to identify any unresolved defects and assess the system's readiness for deployment. The insights gained will guide our decision on whether the Airline Reservation System meets quality and functionality standards for a smooth and reliable user experience.

We will assess whether the system is ready for deployment after executing all planned test cases. However, despite the comprehensive testing effort, some defects and issues of varying severity may remain unresolved. This report will provide insights into the system's functionality, reliability, and readiness, allowing us to decide whether the system meets the required standards for successful implementation.

This Selenium IDE-based automated testing project successfully demonstrated the value of automation in verifying the key functionalities of an online airline reservation system. By focusing on critical features such as flight search, employee registration, and user registration, the tests evaluated the system's capacity to handle both valid and invalid inputs. The results revealed a mix of successful and unsuccessful test cases. Successful tests confirmed that valid data was processed as expected, thereby improving the system's reliability and dependability.

However, some unsuccessful test cases highlighted areas for improvement, particularly in managing invalid inputs. The lack of error messages for the employee registration ID, password update, and confirm password fields underscored the need for enhanced validation procedures and more user-friendly error alerts. Addressing these gaps is essential to ensure robust system performance, comprehensive input validation, and effective error feedback mechanisms.

Overall, this project underscored the critical role of automated testing in identifying defects early in the development cycle, reducing reliance on manual testing, and enhancing software quality. By implementing the proposed improvements, the system can adhere to

standard input validation practices while offering a better user experience. Future testing should expand to include additional features and scenarios, further strengthening the system's reliability, usability, and maintainability.