# **Chapter 5: Testing**

## **Introduction to Testing**

Testing is perform on system to determine the whether the objective are being met or not for checking whether the actual results are as expected results. Testing help in making system error free. Testing can be done manually or by an automated tool where Manual Testing is performed by human that debug codes and errors in software. In other hand, automated testing means using computer programs to execute a system. The testing mainly performed to be ensure that the user wouldn’t face any kind of error.

Testing are of three types listed below:

1. Functional Testing
2. Non-Functional Testing
3. Maintenance

**Types of Testing**

There are various types of testing. Some of them are Unit testing, Integration testing, Acceptance testing, Reliability testing, White box testing, Black box testing, etc. Among these all other types of testing I choose Unit testing and Black box testing for my project.

### **Unit Testing**

Unit testing is a software testing in which individual components/units of a software are tested to validate or determine the software unit works as it is designed. It helps find out the errors while changing of the code. This testing is mainly performed automically.

### **Black Box Testing**

It is a technique of software testing that examines functionality of an application based on the specification. But in this testing the internal structure, design that are being tested is not known to the tester. It supports in deterring the defect earlier during development phase. End User performs this testing by comparing the actual result and expected result.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Title: Airline Reservation System** | | | | | |
| Test Case ID: T-1 to T-4 | | | Designed By: Sumina Maharjan | | |
| Test Name: Registration and Login | | | Date of Design: 14th June, 2019 | | |
| Test Description: Registration and Login Validation. | | | Executed By: Sumina Maharjan | | |
| Date of Execution: 24th June, 2019 | | |
| **Test ID** | **Test Scenario** | **Text Data** | **Expected Result** | **Actual Result** | **Result** |
| T-1 | Registration input Validation | First Name, Last Name, Address, Phone Number, Email, Username, Password. | If any field is blank then error message seems. | Error Message seemed. | Pass |
|  | | | | | |
| T-2 | Registration | First Name, Last Name, Address, Phone Number, Email, Username, Password. | User must be register Successfully. | User Registered Successfully. | Pass |
|  | | | | | |
| T-3 | Username and Password | Username and Password | If the data is missing or username and password is invalid then message is seem. | Error message seemed. | Pass |
|  | | | | | |
| T-4 | Login | Username and Password | User/Admin should be valid and forwarded to respective dashboard. | User/Admin Login successfully forwarded to respective dashboard. | Pass |
| Admin Dashboard | | | User Dahboard | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Title: Airline Reservation System** | | | | | | |
| Test Case ID: T-5 | | | Designed By: Sumina Maharjan | | | |
| Test Name: Logout | | | Date of Design: 14th June, 2019 | | | |
| Test Description: Logout Validation | | | Executed By: Sumina Maharjan | | | |
| Date of Execution: 24th June, 2019 | | | |
| **Test ID** | **Test Scenario** | **Test Data** | | **Expected Result** | **Actual Result** | **Result** |
| T-5 | If user/admin logout of the system. | Username and Password | | User/Admin must be logout of the system. | Logout successfully out of the system. | Pass |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Title: Airline Reservation System** | | | | | | |
| Test Case ID: T-6 to T-9 | | | Designed By: Sumina Maharjan | | | |
| Test Name: Add, Update, Delete and View Flight by admin | | | Date of Design: 14th June, 2019 | | | |
| Test Description: Add, Update, Delete and View Flight Validation. | | | Executed By: Sumina Maharjan | | | |
| Date of Execution: 24th June, 2019 | | | |
| **Test ID** | **Test Scenario** | **Test Data** | | **Expected Result** | **Actual Result** | **Result** |
| T-6 | Add Flight | Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | All the field must be filled and should be added successfully. | Flight added successfully. | Pass |
|  | | | | | | |
| T-7 | Update Flight | Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | Changes in any data must be updated in database and view flight. | Flight update successfully. | Pass |
|  | | | | | | |
| T-8 | Delete Flight | Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | Data of flight must be deleted from database and view flight. | Flight Deleted successfully. | Pass |
|  | | | | | | |
| T-9 | View Flight | Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | All the details of flight must be display. | All the flight details viewed successfully. | Pass |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Title: Airline Reservation System** | | | | | | |
| Test Case ID: T-10 to T-11 | | | Designed By: Sumina Maharjan | | | |
| Test Name: Feedback and View Feedback | | | Date of Design: 14th June, 2019 | | | |
| Test Description: Feedback and View Feedback Validation. | | | Executed By: Sumina Maharjan | | | |
| Date of Execution: 24th June, 2019 | | | |
| **Test ID** | **Test Scenario** | **Test Data** | | **Expected Result** | **Actual Result** | **Result** |
| T-10 | Feedback | Name and Description | | All the field must be filled and should be added successfully. | Feedback added successfully. | Pass |
|  | | | | | | |
| T-11 | View Feedback | Name and Description | | All the details of feedback must be display. | All the feedback details viewed successfully | Pass |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Title: Airline Reservation System** | | | | | | |
| Test Case ID: T-12 to T-13 | | | Designed By: Sumina Maharjan | | | |
| Test Name: Subscribe and View Subscribe | | | Date of Design: 14th June, 2019 | | | |
| Test Description: Subscribe and View Subscribe Validation. | | | Executed By: Sumina Maharjan | | | |
| Date of Execution: 24th June, 2019 | | | |
| **Test ID** | **Test Scenario** | **Test Data** | | **Expected Result** | **Actual Result** | **Result** |
| T-12 | Subscribe | Email | | Email field must be filled and should be added successfully. | Email added successfully. | Pass |
|  | | | | | | |
| T-13 | View Subscribe | Email | | Details of email must be display. | All the subscribe details viewed successfully | Pass |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Title: Airline Reservation System** | | | | | | |
| Test Case ID: T-14 to T-16 | | | Designed By: Sumina Maharjan | | | |
| Test Name: Book Flight and View Booking Detail | | | Date of Design: 14th June, 2019 | | | |
| Test Description: Book Flight and View Booking Detail Validation. | | | Executed By: Sumina Maharjan | | | |
| Date of Execution: 24th June, 2019 | | | |
| **Test ID** | **Test Scenario** | **Test Data** | | **Expected Result** | **Actual Result** | **Result** |
| T-14 | Flight Detail | Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | All the details of flight must be display. | All the flight details viewed successfully. | Pass |
|  | | | | | | |
| T-15 | Book Flight | Name, Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | The flight must be book successfully. | Flight book successfully. | Pass |
|  | | | | | | |
| T-16 | View Booking Detail | Name, Flight From, Flight To, Flight Number, Flight Time, Arrival Time | | All the details of booking must be display. | All the flight details viewed successfully. | Pass |
|  | | | | | | |