Use Case Specification

DMT/RM01/TMP

|  |  |
| --- | --- |
| Project Code | PRO\_AIRLINE\_RESERVATIONSYSTEM\_APPLICATION\_01 |
| Project Name | AIRLINE\_RESERVATIONSYSTEM\_ APPLICATION |

|  |  |  |
| --- | --- | --- |
| Prepared/Modified by | Role | Date of Preparation |
| TECHNOCRACTS | Test Engineer | 7/11/2018 |
| Reviewed by | Role | Date of Review |
|  |  |  |
| Approved by | Role | Date of Approval |
|  |  |  |
| Circulation List |  | Version Number of the template:1.1 |
| Version Number | 1.0 |  |

<<Customer>> REVIEW HISTORY

<<Customer comments on the Use case along with the signed off is tracked here>>

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Version | 1.0 |  |  |  |  |  |
| Date | <<Date of Review>> |  |  |  |  |  |
| Reviewed by | << Reviewer Name>> |  |  |  |  |  |
| Reviewed UI Specification doc | << Whether UI Specification doc is reviewed >> |  |  |  |  |  |
| All Open Queries/issues closed | << Whether all the open queries and issues resolved>> |  |  |  |  |  |
| Agreement on Assumptions | <<Whether all the assumptions have been agreed upon by the customer>> |  |  |  |  |  |
| Sign Off | <<Signature>> |  |  |  |  |  |

Disclaimer:

The scope of the project ‘**Airline Reservation Application’** is restricted to the contents of this signed off use case.

TABLE OF CONTENTS

[1.Use Case Name: <<Use Case Name>> 4](#_Toc302030199)

[2.Actor(s) 4](#_Toc302030200)

[3.Preconditions 4](#_Toc302030201)

[4.Flow of Events 4](#_Toc302030202)

[4.1 Basic Flow 4](#_Toc302030203)

[4.2 Alternative Flows 5](#_Toc302030204)

[4.2.1 Alternate Flow 1 5](#_Toc302030205)

[4.3 Sub Flows 6](#_Toc302030206)

[4.3.1 Sub Flow 1 6](#_Toc302030207)

[5.Post Conditions 6](#_Toc302030208)

[6.Special Requirements 7](#_Toc302030209)

[7.Extension Points 7](#_Toc302030210)

[<Name of extension point> 7](#_Toc302030211)

[8.Business Rules 7](#_Toc302030212)

[9.Diagrams 8](#_Toc302030213)

[Use Case Diagram 8](#_Toc302030214)

[Activity Diagram 9](#_Toc302030215)

[10.Scenarios 10](#_Toc302030216)

[Success Scenarios 10](#_Toc302030217)

[Failure Scenarios 10](#_Toc302030218)

[11.Issues 10](#_Toc302030219)

[12.UI Specifications 10](#_Toc302030220)

[13.Inter System Dependencies 11](#_Toc302030221)

[14.Integration with an already existing System of the <<Customer>> 11](#_Toc302030222)

[15.Assumptions 11](#_Toc302030223)

REVISION HISTORY OF THE WORK PRODUCT…………………………….. .. 12

Use Case Name: AIRLINE RESERVATION SYSTEM

**Use Case ID:**  PRO.AIRLINE\_RESERVATION\_APPLICATION\_001

**Brief Description:** This Use case here describes about the process by which customer can reserve flight

ticket, update and cancel reservation.

Actor(s)

1. CUSTOMER
2. AIRLINE EXECUTIVE
3. ADMINISTRATOR

Preconditions

1. The Airline Executive will be the registered user of the process.
2. Customer should access to Intranet.
3. Airline Executive has a valid user id and password.
4. Occupancy should be available for the customers before booking.

Flow of Events

4.1 Basic Flow 1

4.1.1 Name: SUCCESSFUL BOOKING OF FLIGHT

1. Customer accesses Intranet.
2. Customer clicks on View Flights.
3. Customer clicks on Book.
4. Customer navigates to the ‘Book a Flight’ web page
5. Customer enters the Number of Passengers.
6. Customer selects the class.
7. Customer clicks on Submit button.
8. System validates the details
9. Customer navigates to the ‘Your Journey Details’ web page
10. Customer clicks on Confirm button.
11. Customer navigates to the ‘Booking Information’ web page
12. Customer enters the Name.
13. Customer enters the Email id.
14. Customer clicks on Make Reservation Button.
15. System validates the details
16. On successful validation, customer navigates to the ‘Payment’ web page.
17. Customer selects the Net Banking or Debit/Credit.
18. Customer enters the card details.
19. Customer clicks on Make Payment Button
20. System validates the details
21. On successful payment, Customer gets the conformation Message.

4.1 Basic Flow 2

4.1.2 Name: successful login of airline executive (period)

1. Executive accesses Intranet.
2. Executive enters the Username.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. On successful validation, Executive navigates to the ‘Flight Details’ web page.
7. Executive selects the Flight based on period.
8. Executive navigates to the ‘Flights Between’ web page
9. Executive selects the From date.
10. Executive selects the To date.
11. Executive clicks on Search Button.
12. System validates the details.
13. On successful validation, Executive navigates to the Flight details display web page.
14. Executive clicks on the Logout Button.

Alternate Flow 1 :customer booking flight

1. Customer accesses Intranet.
2. Customer clicks on Book Flight
3. Customer navigates to “Book Flight” web page
4. Customer selects From place.
5. Customer selects To place.
6. Customer selects Departure date.
7. Customer selects Number of Travellers.
8. Customer selects the Class.
9. Customer clicks on search button.
10. System validates the details.
11. On successful validation, Customer navigates to the Flight available web page based on Customer details.

Alternate Flow 2: economy class

1. Customer accesses Intranet.
2. Customer clicks on View Flights.
3. Customer clicks on Book.
4. Customer navigates to the ‘Book a Flight’ web page
5. Customer enters the Number of Passengers.
6. Customer selects the class as Economy.
7. Customer clicks on Submit button.
8. System validates the details
9. Customer navigates to the ‘Your Journey Details’ web page
10. Customer clicks on Confirm button.
11. Customer navigates to the ‘Booking Information’ web page
12. Customer enters the Name.
13. Customer enters the Email id.
14. Customer clicks on Make Reservation Button.
15. System validates the details.
16. On successful validation, customer navigates to the ‘Payment’ web page.
17. Customer selects the Net Banking or Debit/Credit.
18. Customer enters the card details.
19. Customer clicks on Make Payment Button.
20. System validates the details.
21. On successful payment, customer gets the conformation message.

Alternate Flow 3: business class

1. Customer accesses Intranet.
2. Customer clicks on View Flights.
3. Customer clicks on Book.
4. Customer navigates to the ‘Book a Flight’ web page
5. Customer enters the Number of Passengers.
6. Customer selects the class as Business.
7. Customer clicks on Submit button.
8. System validates the details
9. Customer navigates to the ‘Your Journey Details’ web page
10. Customer clicks on Confirm button.
11. Customer navigates to the ‘Booking Information’ web page
12. Customer enters the Name.
13. Customer enters the Email id.
14. Customer clicks on Make Reservation Button.
15. System validates the details.
16. On successful validation, customer navigates to the ‘Payment’ web page.
17. Customer selects the Net Banking or Debit/Credit.
18. Customer enters the card details.
19. Customer clicks on Make Payment Button.
20. System validates the details.
21. On successful payment, customer gets the conformation message.

Alternate Flow 4: successful login of airline executive (place)

1. Executive accesses Intranet.
2. Executive enters the Username.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. On successful validation, Executive navigates to the ‘Flight Details’ web page.
7. Executive selects the Flight Based on Place.
8. Executive navigates to the ‘Flights Between’ web page
9. Executive selects the Source city.
10. Executive selects the Destination city.
11. Executive clicks on Go Button.
12. System validates the details.
13. On successful validation, Executive navigates to the Flight schedule Based on Place web page.
14. Executive clicks on the Logout Button.

EXCEPTION FLOW 1: exceeding username character limit

1. Executive accesses Intranet.
2. Executive enters the Username more than 12 characters.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. System validation fails since Username character limit exceeds
7. System displays error message regarding Username.

EXCEPTION FLOW 2: invalid from date (more than to date)

1. Executive accesses Intranet.
2. Executive enters the Username.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. On successful validation, Executive navigates to the ‘Flight Details’ web page.
7. Executive selects the Flight based on period.
8. Executive navigates to the ‘Flights Between’ web page
9. Executive selects the From date more than To date
10. Executive selects the To date.
11. Executive clicks on Search Button.
12. System validates the details.
13. System validation fails since From Date is more than To Date.
14. System displays error message regarding From Date.

EXCEPTION FLOW 3: invalid from date(less than system date)

1. Executive accesses Intranet.
2. Executive enters the Username.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. On successful validation, Executive navigates to the ‘Flight Details’ web page.
7. Executive selects the Flight based on period.
8. Executive navigates to the ‘Flights Between’ web page
9. Executive selects the From date less than System Date.
10. Executive selects the To date.
11. Executive clicks on Search Button.
12. System validates the details.
13. System validation fails since From Date is less than System Date.
14. System displays error message regarding From Date.

EXCEPTION FLOW 4: invalid to date(less than system date)

1. Executive accesses Intranet.
2. Executive enters the Username.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. On successful validation, Executive navigates to the ‘Flight Details’ web page.
7. Executive selects the Flight based on period.
8. Executive navigates to the ‘Flights Between’ web page
9. Executive selects the From date.
10. Executive selects the To date less than System date.
11. Executive clicks on Search Button.
12. System validates the details.
13. System validation fails since To Date is less than System Date.
14. System displays error message regarding To Date.

EXCEPTION FLOW 5: same source and destination

1. Executive accesses Intranet.
2. Executive enters the Username.
3. Executive enters the Password.
4. Executive clicks on Login Button.
5. System validates the details.
6. On successful validation, Executive navigates to the ‘Flight Details’ web page.
7. Executive selects the Flight Based on Place.
8. Executive navigates to the ‘Flights Between’ web page
9. Executive selects the Source city.
10. Executive selects the Destination city same as Source city
11. Executive clicks on Go Button.
12. System validates the details.
13. System validation fails since Source city and Destination city are same.
14. System displays error message regarding Destination city.

EXCEPTION FLOW 6: negative number of passengers

1. Customer accesses Intranet.
2. Customer clicks on View Flights.
3. Customer clicks on Book.
4. Customer navigates to the ‘Book a Flight’ web page
5. Customer enters the Number of Passengers as Negative number
6. Customer selects the class.
7. Customer clicks on Submit button.
8. System validates the details.
9. System validation fails since Number of passengers is Negative number.

EXCEPTION FLOW 7: invalid number of digits for card number

1. Customer accesses Intranet.
2. Customer clicks on View Flights.
3. Customer clicks on Book.
4. Customer navigates to the ‘Book a Flight’ web page
5. Customer enters the Number of Passengers.
6. Customer selects the class.
7. Customer clicks on Submit button.
8. System validates the details
9. Customer navigates to the ‘Your Journey Details’ web page
10. Customer clicks on Confirm button.
11. Customer navigates to the ‘Booking Information’ web page
12. Customer enters the Name.
13. Customer enters the Email id.
14. Customer clicks on Make Reservation Button.
15. System validates the details
16. On successful validation, customer navigates to the ‘Payment’ web page.
17. Customer selects the Net Banking or Debit/Credit.
18. Customer enters the card details.
19. Customer clicks on Make Payment Button
20. System validates the details.
21. System validation fails since card number is incorrect.
22. System displays the error message regarding Card Number.

Post Conditions

| Flow Name | Post Condition |
| --- | --- |
| Successful Booking for Economy Class | The Booking is done. |
| Successful Booking for Business Class | The Booking is done. |
| Successful Cancellation of Booking | The system cancels the Booking |
| Negative number of passengers | System displays an error message regarding the Number of passengers |
| From date exceeds To date | System displays an error message regarding the From date  Booking request is not accepted |
| From date below system date | System displays an error message regarding the From date  Booking is not accepted |
| To date below System date | System displays an error message regarding the To date  Booking is not accepted |
| Same From date and To date | System displays an error message regarding the End date  Booking is not accepted |
| Negative number of passengers | System d isplays an error message regarding the Number of Travellers. |
| Departure date less than System date | System displays an error message regarding the Departure date selection |

# 6. SPECIAL REQUIREMENTS

# 7. PERFORMANCE

1. The visibility of the date on clicking the “From Date” (Calendar Option) shall be displayed within 15 seconds of customer request.

# AVAILABILITY

1. The user can book on the “Airline Reservation System” portal on all working days 24\*7 but cannot register on national holidays.

# USER INTERFACE

1. The letters on Menus shall be bold and red in color.

2. The active links should be displayed in blue color.

3. The note field related to the rules to be followed should appear on the top of the application portal.

4. The calendar field for entering the dates should be present on the right side of date option.

# SECURITY

1. The system shall not allow the Customer to book the ticket for the future dates.

2. The system does not allow the customer to book the Ticket when the booking is already marked.

1. EXTENSION POINTS

EXTENSION IN: EXCEPTION flow1

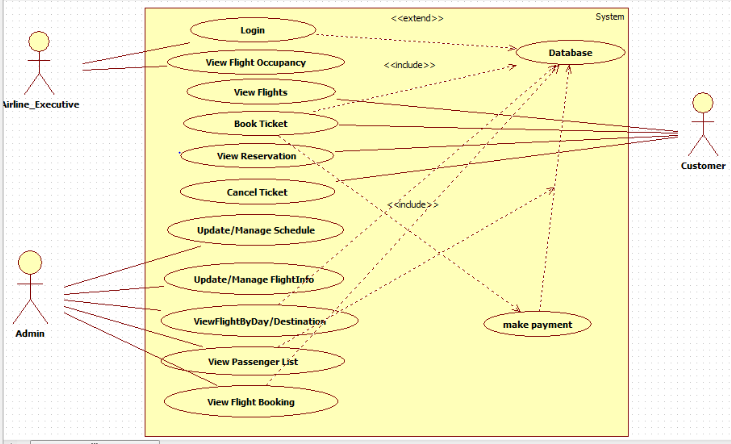
In step 2. If the user has entered wrong end date

* 1. The system prompts the user to re-enter the data.
  2. The system takes the user to the step2.
  3. User enters the correct data.
  4. The system allows the Customer to submit.

Business Rules:

|  |  |  |
| --- | --- | --- |
| Business Name | Business rules Description | Response of the Business Rules |
| BR01 | Booking Cannot be cancelled once done | System displays error message that Booking cannot be cancelled. |
| BR02 | Booking cannot be applied for future dates(Dates in the next Year) | System displays error message that  Please select valid dates |
| BR03 | Booking cannot be applied for the dates already booking is completed. | System displays error message that booking is already done for selected date. |

USECASE DIAGRAMS:



# 11. Scenarios

Success Scenarios

* Successful login for Airline-Executive.
* Successful Booking of ticket.

Failure Scenarios

* From date more than To date.
* From date less than system date.
* To date less than system date.
* Negative number of passengers.

# 12. ISSUES

* What if the customer marked the wrong option in the session section.
* What if the customer wants to book the ticket where booking is already closed.

# 13. INTER SYSTEM DEPENDENCIES

**Module**: To Date gets impacted due to:

Use case name : Alternate Flow 1

**Impact:** If the Customer tries to enter the date without entering the from calendar option given the Booking is not accepted.

# 14. ASSUMPTIONS

1. Customer is having access to internet.
2. The Booking form is available within 15 sec on entering the URL.
3. All the modules in the application are visible and functional.

REVISION HISTORY OF THE WORK PRODUCT

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Date | Version # | Section Changed | Details of changes made | Approved By |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |