**GitHub URL : https://github.com/niguskidane/AirLine-Flight-Booking-System**

**Team members:**

1. Nigus Kidane (Id 986454)
2. Jean Charles Jean Chrisner (Id 986297)
3. Eshetu Alemu (Id 109186)
4. Yigermal Fantaye (Id 108972)

**Airline Flight Booking System: Use Case Description**

|  |  |  |  |
| --- | --- | --- | --- |
| **Use case Number: 1** | | | |
| **Name** | | Airline CRUD | |
| **Brief description** | | This use case allows the admin to Add airline in the system | |
| **Actors** | | Admin | |
|  | | | |
| **Preconditions: admin must have logged in to the system** | | | |
|  | | | |
| **Flows of events** | | | |
| 1. **Basic Flows** | | | |
| **1.1.0 Add Airline** | | | |
| Step | User Actions | | System Actions |
| 1 | The admin calls the add airline command. | | The system displays the airline form with the field airlineName. |
| 2 | The Admin fills out the form and requests the system to save the details | | The system verifies that there’s no other airline in the database with the same name and saves the airline and returns the success message on success, generate an ID automatically to the airline or a fail message in case of failure. In case another airline exists with the name, the system returns the message indicating a duplicate entry exists. |
| **Postconditions:** The airline is persisted in the system | | | |
|  | | | |
| **Business Rules:** No duplicate airline. A unique name is identified each airline. | | | |
|  | | | |
| **1.1.1 Read Airline** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airlines | | The system returns a list of all airlines. |
| 2 | The admin selects to view an airline of one of the airlines from the list of airlines | | The system returns the information concerns of the airline. |
| **1.1.1 Update Airline** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airlines | | The system returns a list of all airlines. |
| 2 | The admin selects the airline he wants to update | | The system displays an editable airline form pre-populated with the airline details |
| 3 | The admin updates the name of the airline they want to update and requests system to save the new name. | | The system updates the record and returns the success message or a fail message on exception |
|  | | | |
| **Postconditions:** The name of the airline will be updated. | | | |
|  | | | |
| **1.1.3 Delete Airline** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airlines | | The system returns a list of all airlines. |
| 2 | The admin selects the airline he wants to delete | | The system displays a confirmation dialogue window |
| 3 | The admin selects OK on the confirmation dialog window to confirm deleting the profile | | The system deletes the airline and returns message a success confirms. |
|  | | | |
| **Postconditions:** An airline will be deleted | | | |
|  |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use case Number: 2** | | | |
| **Name** | | Airport CRUD | |
| **Brief description** | | This use case allows the admin to Add airport in the system | |
| **Actors** | | Admin | |
|  | | | |
| **Preconditions: admin must have logged in to the system** | | | |
|  | | | |
| **Flows of events** | | | |
| **1.2.0 Add** Airport | | | |
| Step | User Actions | | System Actions |
| 1 | The admin calls the add airport command. | | The system displays the airport form with the fields airportCode, airportName, city and country. |
| 2 | The Admin fills out the form and requests the system to save the details | | The system generates an ID automatically for the airport and then saves the airport and returns a message of confirms. |
| **Postconditions:** The airport is persisted in the system | | | |
|  | | | |
| **Business Rules:** No duplicate airline. | | | |
|  | | | |
| **1.2.1 Read Airport** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airports | | The system returns a list of all airports. |
| 2 | The admin selects to view an airport of one of the airports from the list of airports | | The system returns the information concerns of the airport. |
| **1.2.1 Update Airline** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airports | | The system returns a list of all airports. |
| 2 | The admin selects the airport he wants to update | | The system displays an editable airport form pre-populated with the airport details |
| 3 | The admin updates the airportCode, airportName, city and country of the airport they want to update and requests system to save the new information. | | The system updates the record and returns a message of confirms. |
|  | | | |
| **Postconditions:** The information of an airport will be updated. | | | |
|  | | | |
| **1.2.3 Delete Airport** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airports | | The system returns a list of all airports. |
| 2 | The admin selects the airport he wants to delete | | The system displays a confirmation dialogue window |
| 3 | The admin selects OK on the confirmation dialog window to confirm deleting the airport | | The system deletes the airport and returns message of confirms. |
|  | | | |
| **Postconditions:** An airport will be deleted | | | |
|  |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use case Number: 3** | | | |
| **Name** | | Airplane CRUD | |
| **Brief description** | | This use case allows the admin to Add airplane in the system | |
| **Actors** | | Admin | |
|  | | | |
| **Preconditions: admin must have logged in to the system** | | | |
|  | | | |
| **Flows of events** | | | |
| **1.3.0 Add Airplane** | | | |
| Step | User Actions | | System Actions |
| 1 | The admin calls the add airplane command. | | The system displays the airport form with the fields serialNumber, model, and capacity. |
| 2 | The Admin fills out the form and requests the system to save the details | | The system generates an ID automatically for the airplane and then saves the airplane and returns a message of confirms. |
| **Postconditions:** The airplane is persisted in the system | | | |
|  | | | |
| **Business Rules:** No duplicate airplane. | | | |
|  | | | |
| **1.3.1 Read Airplane** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airplanes | | The system returns a list of all airplanes. |
| 2 | The admin selects to view an airplane of one of the airplanes from the list of airports | | The system returns the information concerns of the airplane. |
| **1.3.1 Update Airplane** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airplanes | | The system returns a list of all airplanes. |
| 2 | The admin selects the airplane he wants to update | | The system displays an editable airplane form pre-populated with the airplane details |
| 3 | The admin updates the serialNumber, model, and capacity of the airplane they want to update and requests system to save the new information. | | The system updates the record and returns a message of confirms. |
|  | | | |
| **Postconditions:** The information of an airplane will be updated. | | | |
|  | | | |
| **1.2.3 Delete Airplane** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of airplanes | | The system returns a list of all airplanes. |
| 2 | The admin selects the airplane he wants to delete | | The system displays a confirmation dialogue window |
| 3 | The admin selects OK on the confirmation dialog window to confirm deleting the airplane | | The system deletes the airplane and returns message of confirms. |
|  | | | |
| **Postconditions:** An airplane will be deleted | | | |
|  |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use case Number: 4** | | | |
| **Name** | | Planning of a flight CRUD | |
| **Brief description** | | This use case allows the admin to planning of a flight in the system | |
| **Actors** | | Admin | |
|  | | | |
| **Preconditions: admin must have logged in to the system** | | | |
|  | | | |
| **Flows of events** | | | |
| **1.4.0** Planning of a flight | | | |
| Step | User Actions | | System Actions |
| 1 | The admin calls the planning of a flight command. | | The system Planning of a flight form with the fields flightNumber, departureDate, departureTime, arrivalDate, arrivalTime, etc.. |
| 2 | The Admin fills out the form and requests the system to save the details | | The system generates an ID automatically for the planning of a flight and then saves the planning of a flight and returns a message of confirms. |
| **Postconditions:** The planning of a flight is persisted in the system | | | |
|  | | | |
| **Business Rules:** No duplicate planning of a flight. | | | |
|  | | | |
| **1.4.1 Update Airplane** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The admin selects to view a list of the planning of a flight | | The system returns a list of all planning of a flight. |
| 2 | The admin selects the planning of a flight he wants to update | | The system displays an editable the planning of a flight from pre-populated with the planning of a flight details |
| 3 | The admin updates fields flightNumber, departureDate, departureTime, arrivalDate, arrivalTime, etc.. of the planning of a flight they want to update and requests system to save the new information. | | The system updates the record and returns a message of confirms. |
|  | | | |
| **Postconditions:** The information of a planning of a flight will be updated. | | | |
|  | | | |
|  | | | |
| **Postconditions:** A planning of a flight will be deleted | | | |
|  |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use case Number: 5** | | | |
| **Name** | | Reservation CRUD | |
| **Brief description** | | This use case allows the user to view a list of flights | |
| **Actors** | | User | |
|  | | | |
| **Preconditions:** | | | |
|  | | | |
| **Flows of events** | | | |
| **Basic Flows** | | | |
| **1.5.0 View Flights** | | | |
| Step | User Actions | | System Actions |
| 1 | The user selects to view a list of flights | | The system displays the list of available flights |
| **Postconditions:** | | | |
|  | | | |
| **Business Rules:** | | | |
|  | | | |
| **1.5.1 Book Flight** | | | |
| **step** | **User Actions** | | **System Action** |
| 1 | The user selects to view a list of flights | | The system displays the list of available flights |
| 2 | The user selects a specific flight to book | | The system returns a form to be filled by the user |
| 3 | The user then fills the form and submit | | The system then generates a confirmation number and return a success message |
| **Postconditions:** | | | |

**Use case Diagrams**



