



**COURSE NAME:**

Software Engineering 1

**SUPERVISED BY:**

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# AIRLINE RESERVATION INFORMATION SYSTEM

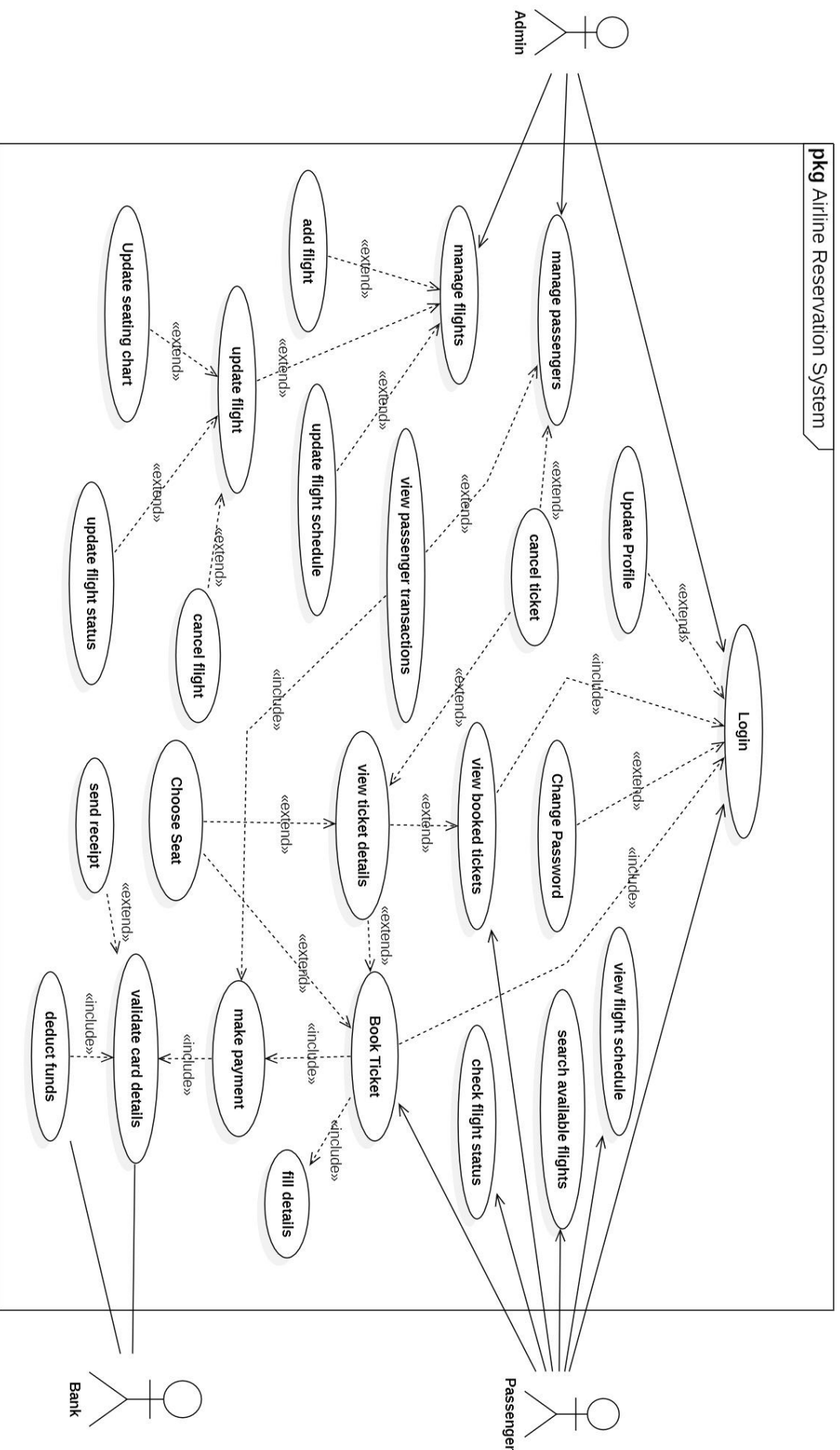
**PREPARED BY:**

Laila Haddad 202010537 - G21

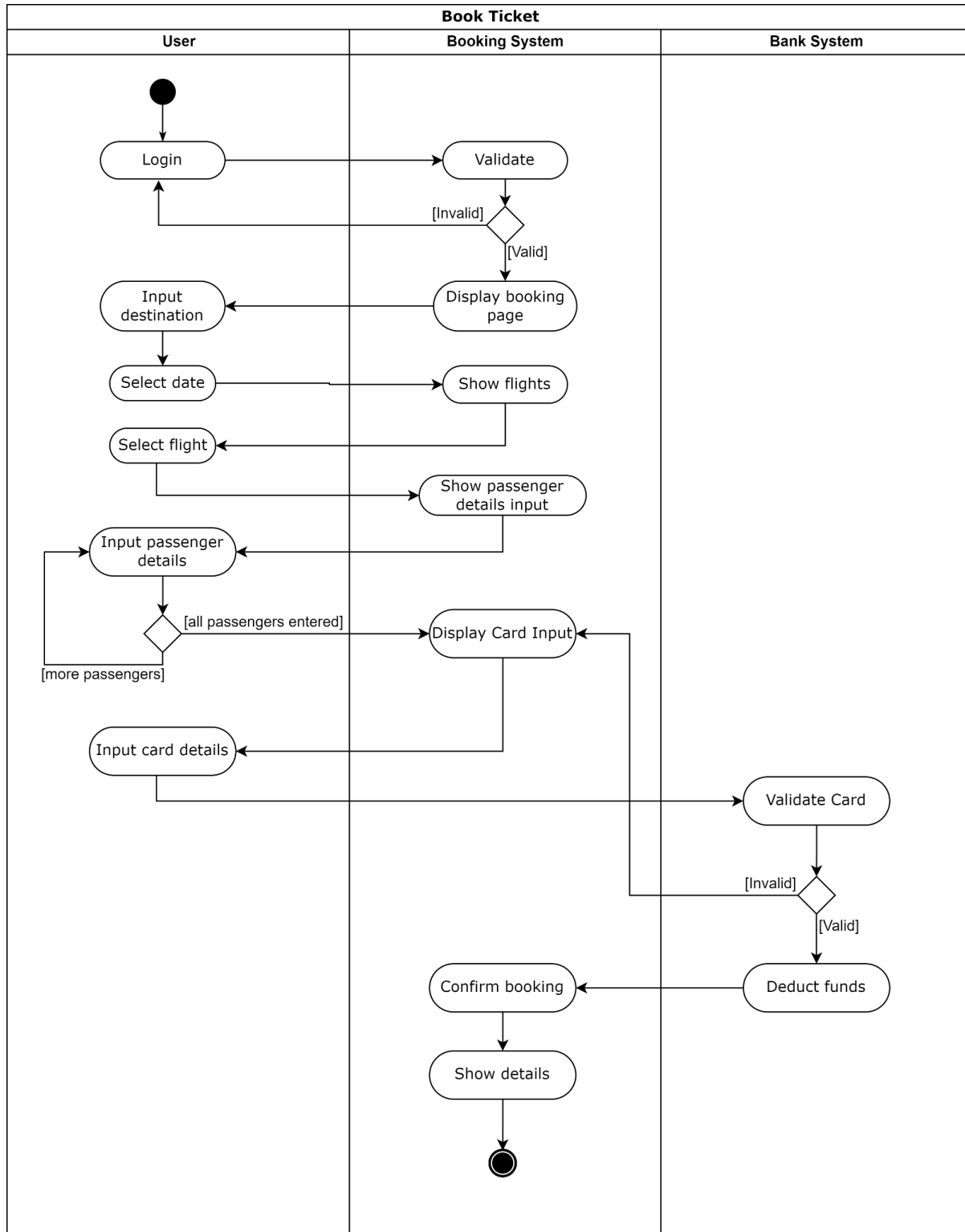
Nour Habra 202010515 - G21

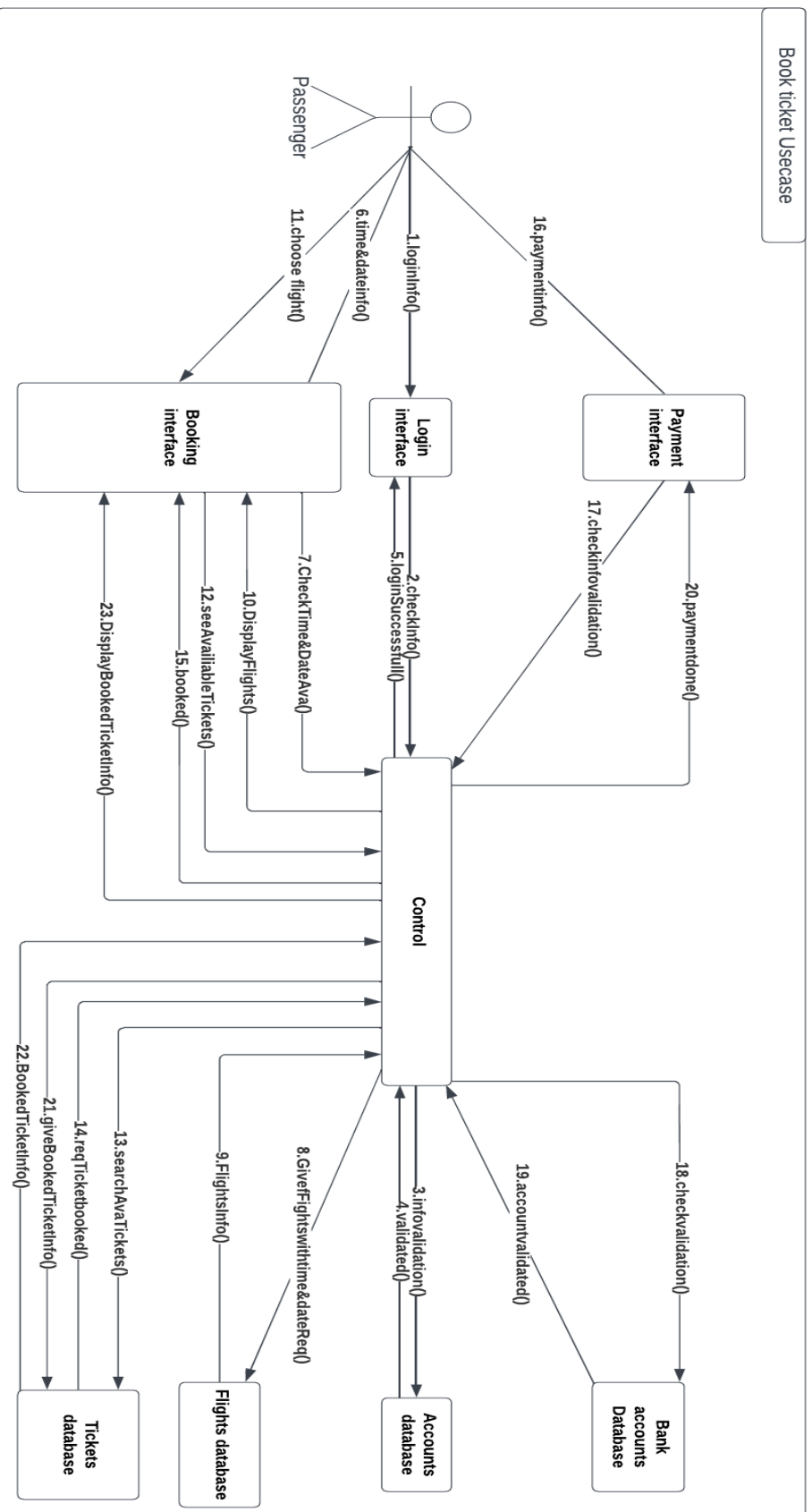
Haya Albaroudi 202010437 - G331

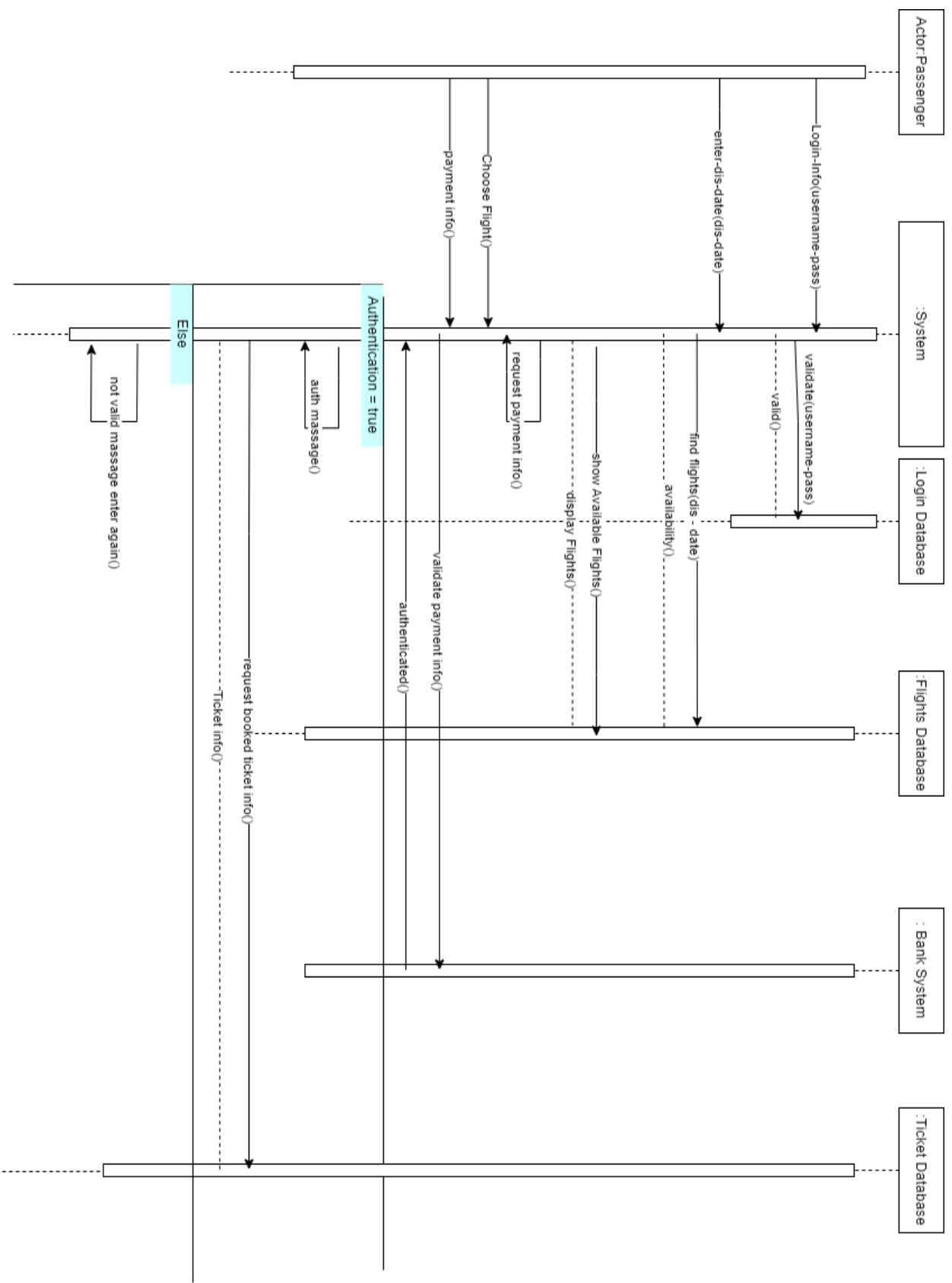




<b>Use Case Name:</b> Book Ticket	
<b>Primary Actor:</b> Passenger	
<b>Brief Description:</b> The passenger wishes to book a ticket or more through the airline's website.	
<b>Preconditions:</b> The passenger is logged in to their account, or is prompted to register and then log in in case they do not have an existing account.	
<b>Postconditions:</b> The passenger can now view the booked ticket details and choose their seat.	
<b>Normal Flow of Events:</b>	
<b>Actor Action:</b>	<b>System Response:</b>
1. Enters the desired date and destination.  3. Chooses desired flight.  5. Enters passenger(s) information.	2. Displays search results for corresponding flights.  4. Prompts to enter identification and payment information.  6. Verifies card details and payment through the bank system. 7. Sends confirmation email and displays ticket details.
<b>Alternative Flow:</b>	
2.1. No flights with the desired date and destination were found.	
3.1. The chosen flight conflicts with another flight that the passenger has already booked.	
5.1. Identification details are wrong or incomplete.	
6.1. Credit card is not valid.	
6.2. Credit card does not have enough funds.	

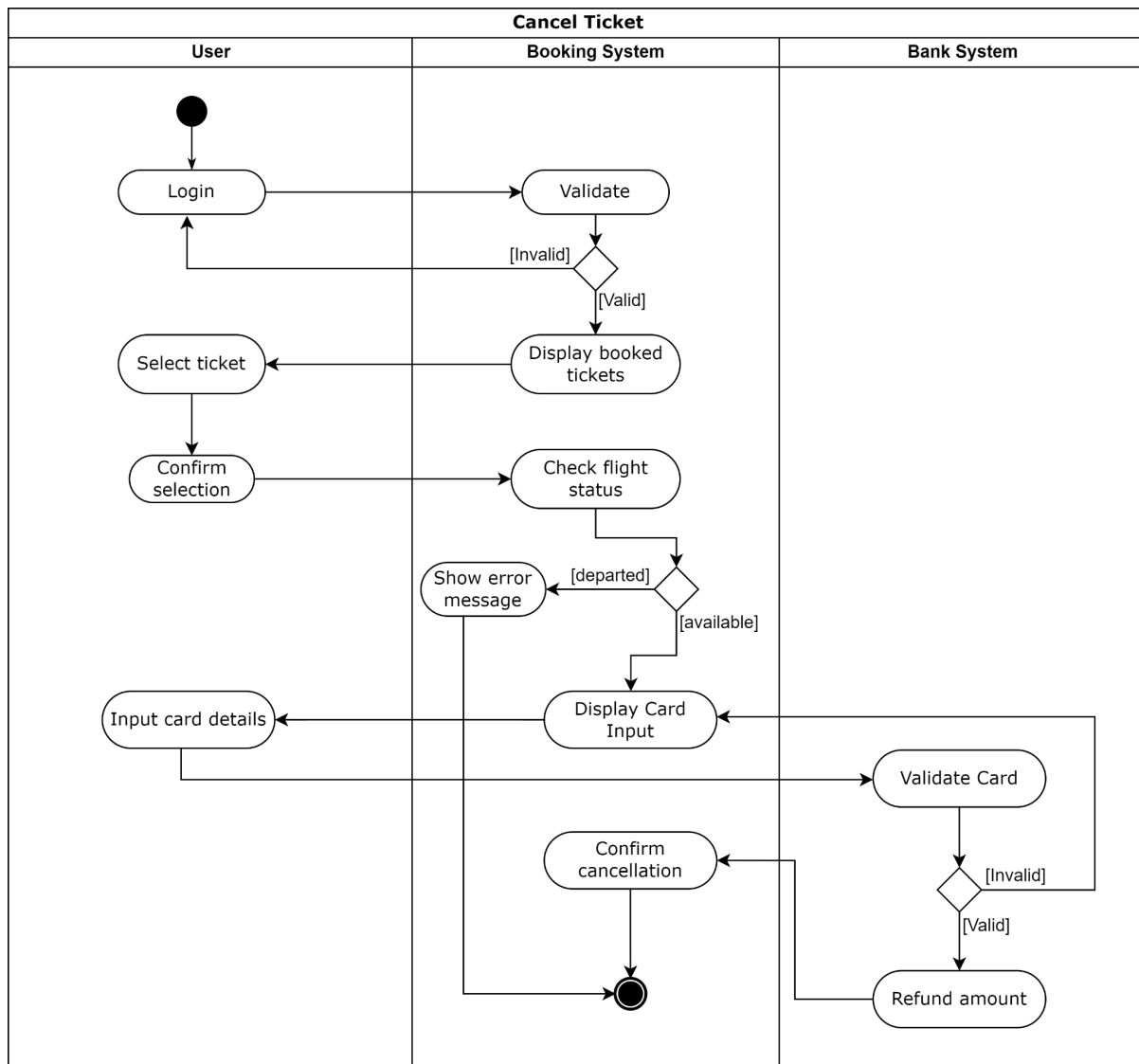


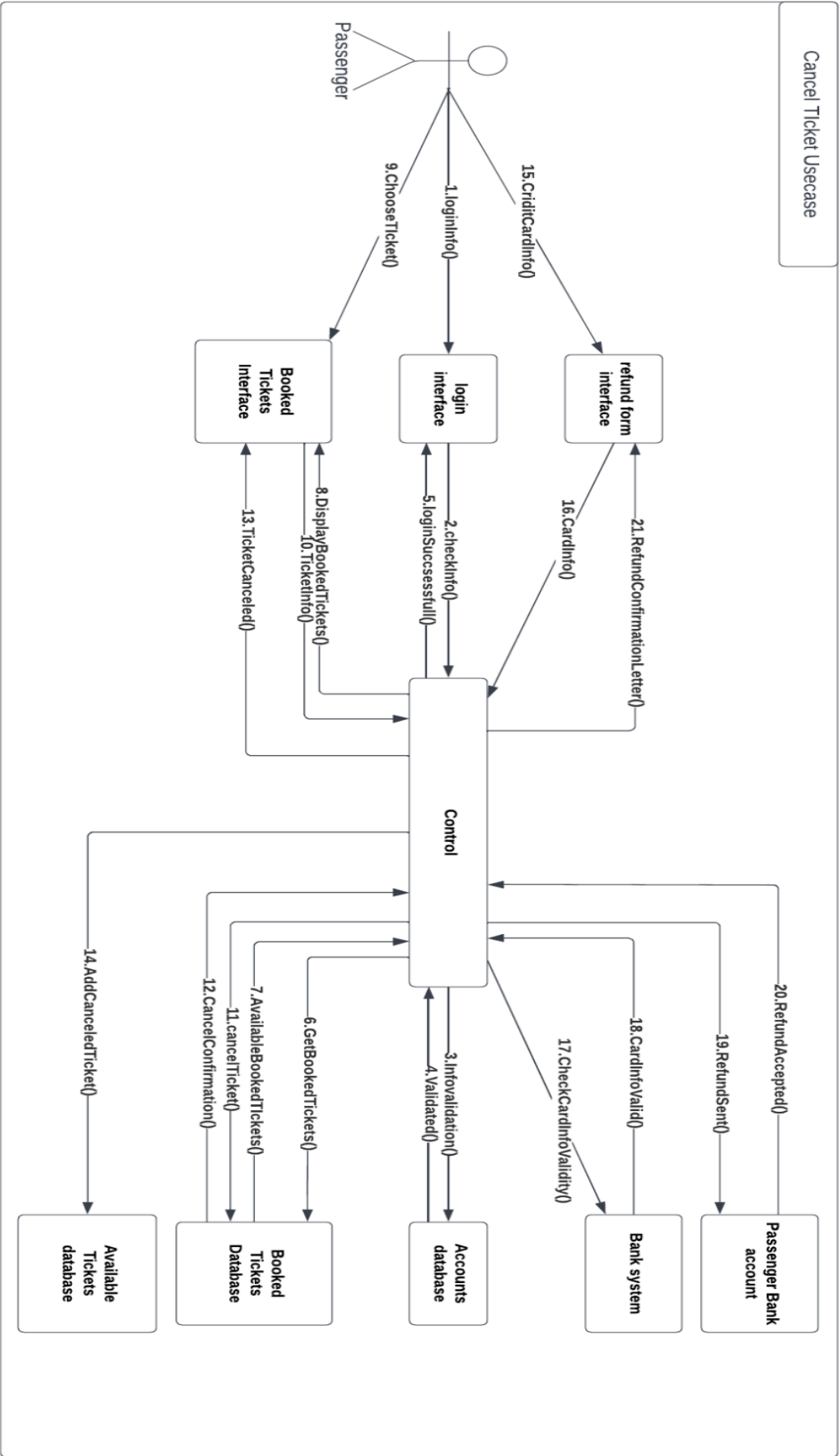


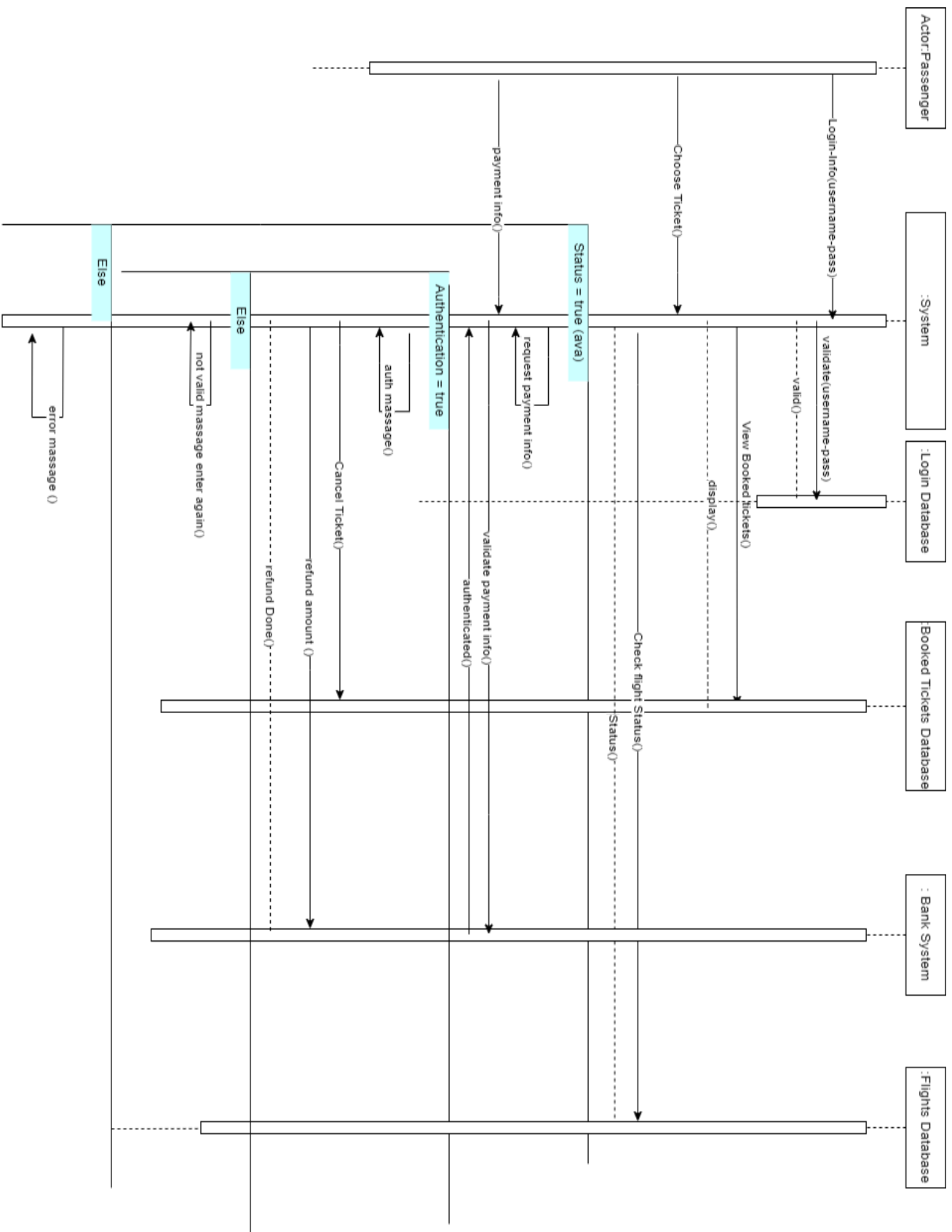


<b>Use Case Name:</b> Cancel Ticket	
<b>Primary Actor:</b> Passenger	
<b>Brief Description:</b> The passenger wishes to cancel a ticket they booked through the airline's website.	
<b>Preconditions:</b> The passenger is logged in to their account, and has already booked a ticket or more.	
<b>Postconditions:</b> The ticket has been cancelled successfully. The seat that was reserved is now free and the seating chart is updated.	
<b>Normal Flow of Events:</b>	
Actor Action:	System Response:
1. Selects the desired ticket from the 'view booked tickets' tab.  4. Enters card details.	2. Checks if the flight has departed.  3. Prompts passenger to enter credit card details to receive the refund.  5. Verifies card details through the bank system and refunds the ticket.  6. Removes ticket details from the passenger's account and marks it as available for booking.
<b>Alternative Flow:</b>	
2.1. The chosen ticket corresponds to a flight that has already taken off or has just been cancelled.	
5.1.Credit card is not valid.	

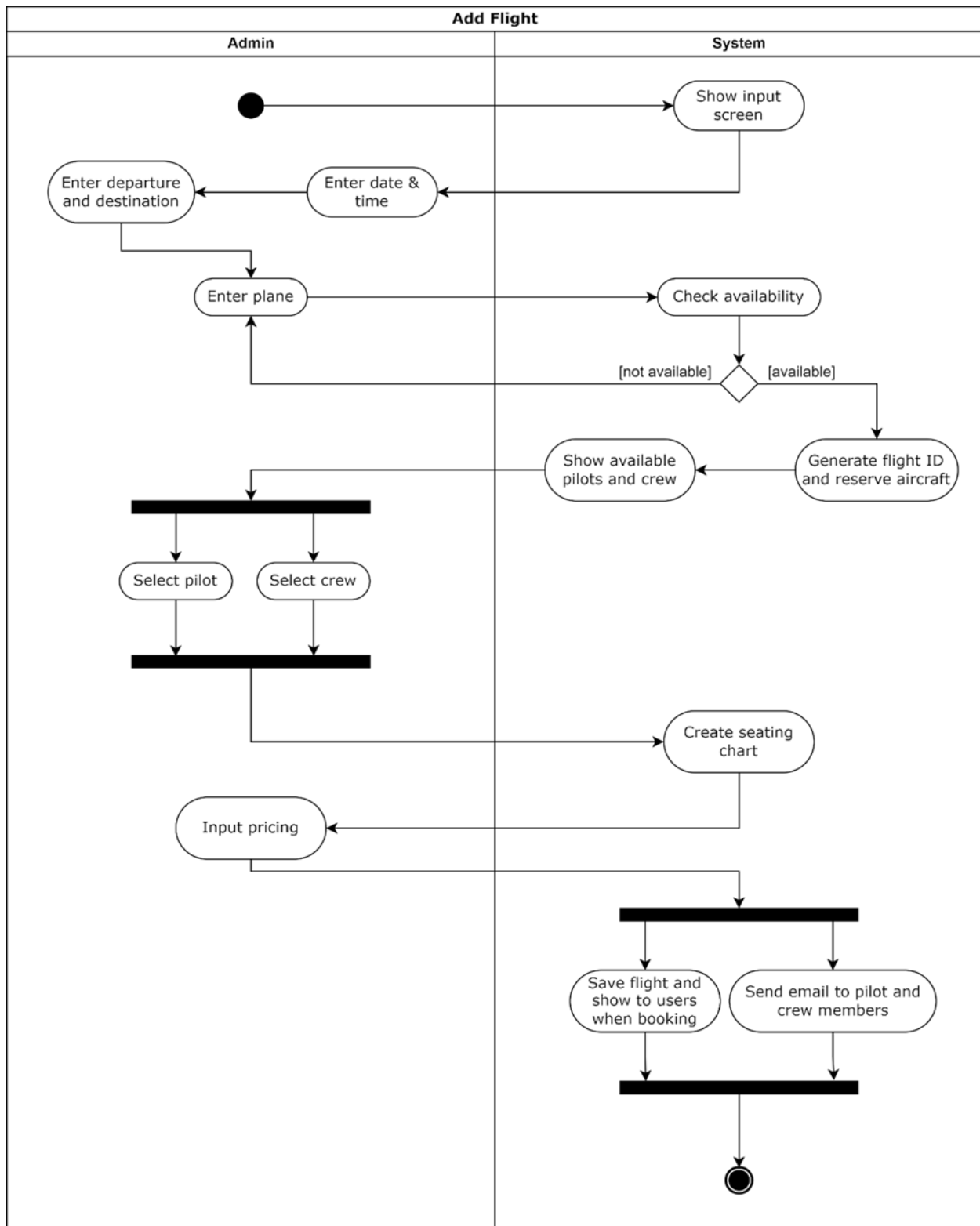






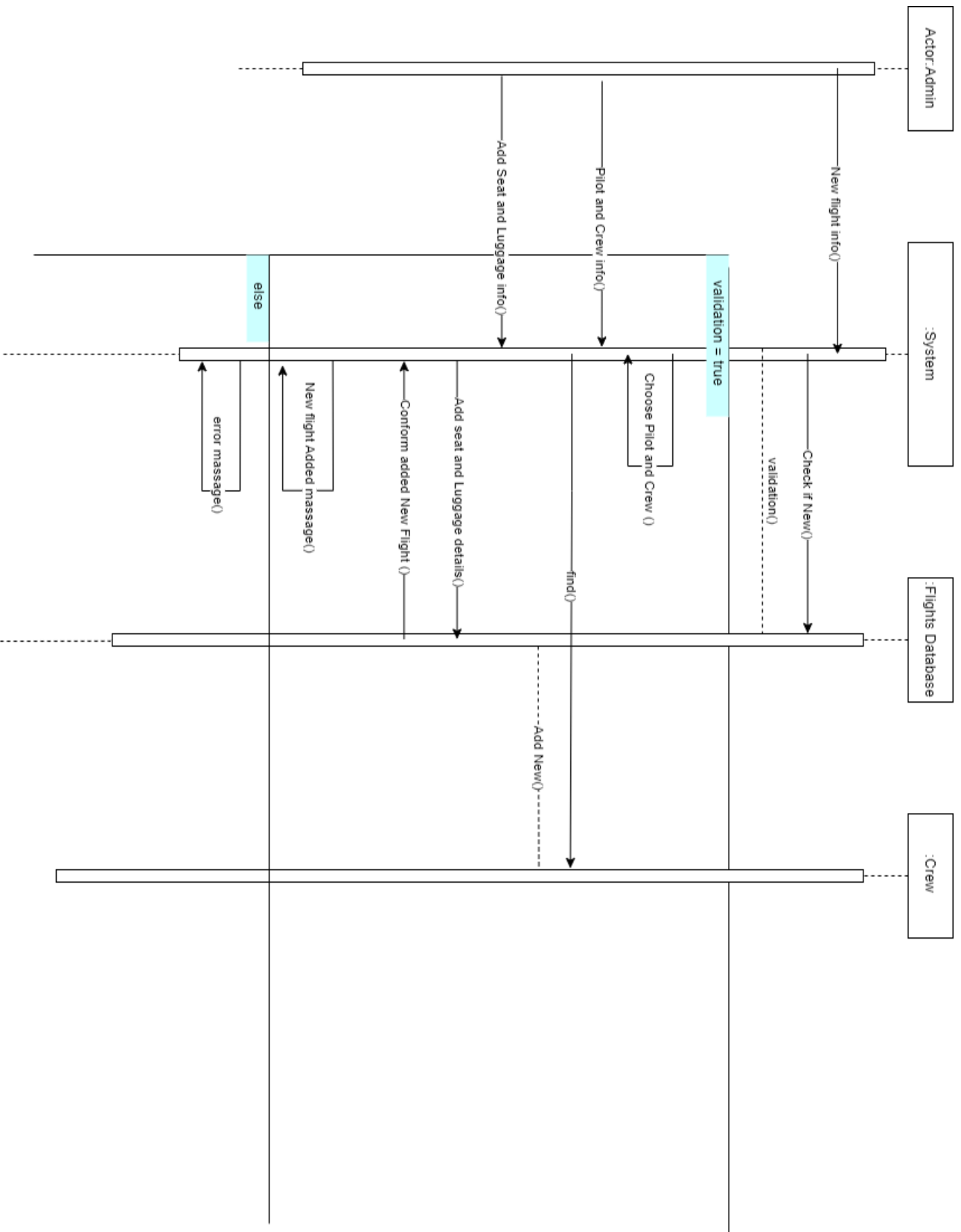


<b>Use Case Name:</b> Add Flight	
<b>Primary Actor:</b> Admin	
<b>Brief Description:</b> The admin wishes to add a new flight to the system.	
<b>Preconditions:</b> The admin is logged in to their account. There are available slots in the flight schedule.	
<b>Postconditions:</b> The flight is now displayed in the flight schedule and is available to be booked, searched and checked by passengers. The admin can update its details if needed.	
<b>Normal Flow of Events:</b>	
<b>Actor Action:</b>	<b>System Response:</b>
1. Enters the date, destination, and aircraft ID.  4. Assigns pilot and crew members to the flight.  7. Adds seat pricing and luggage allowance.	2. Validates information, books aircraft and generates a flight ID. 3. Prompts admin to choose pilot and crew.  5. Generates seating chart. 6. Requires additional details.  8. Reserves a slot for the new flight in the flight schedule. Crew members are notified by email.
<b>Alternative Flow:</b>	
2.1. The aircraft is already booked for another flight on the same date and time.	



# Add Flight Usecase





<b>Use Case Name:</b> Update flight	
<b>Primary Actor:</b> Admin	
<b>Brief Description:</b> An admin wishes to edit one or more of a flight's parameters (time, crew, etc...)	
<b>Preconditions:</b> Admin is logged in, flight exists, and it hasn't departed yet.	
<b>Postconditions:</b> Flight information is updated for new bookings, booked ticket holders are notified of the changes.	
<b>Normal Flow of Events:</b>	
<b>Actor Action:</b>	<b>System Response:</b>
1. Selects flight to be updated.	2. Checks if the flight has departed. 3. Displays current flight parameters with the ability to edit.
4. Updates selected parameters.	5. Changes are saved and displayed for new bookings. 6. Existing ticket holders are notified by email. 7. New crew members are notified by email.
<b>Alternative Flow:</b>	
2.1. Flight has already departed.	
4.1. Captain or crew member is already booked for another trip.	



**Use Case Name:** Log in

**Primary Actor:** Passenger or Admin

**Brief Description:** The passenger or the admin wants to login to the website.

**Preconditions:** The admin or passenger already has an existing account in the airplane system.

**Postconditions:** The admin or passenger is authenticated and can access their account.

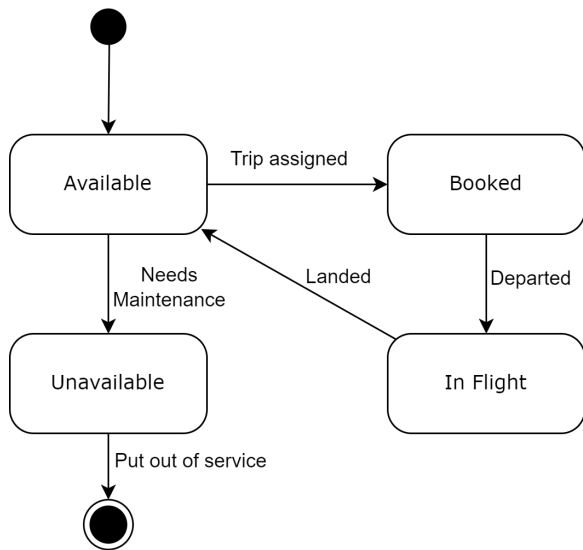
**Normal Flow of Events:**

<b>Actor Action:</b>	<b>System Response:</b>
1. The admin or passenger enters their username.	
2. Enters their password.	3. Checks if the entered information is correct by searching for them in the accounts database.
	4. Allows the admin or passenger to enter their account.

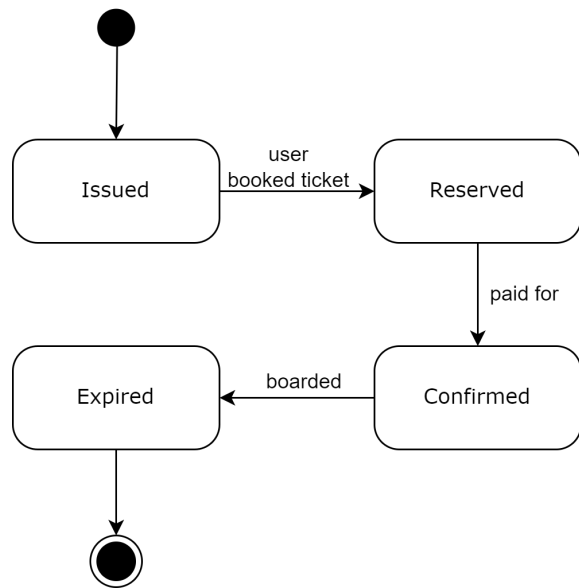
**Alternative Flow:**

4.1 If the username or password is invalid the system will show a message informing the user of the unsuccessful operation and returns them to the login form.

### Plane State Diagram



### Ticket State Diagram



### Passenger State Diagram

