

## TestCases for FlyHigh UseCases & Requirements

## 1. Add an element UseCase

|  |            |                   |
|--|------------|-------------------|
| Scenario 1 – Successful adding an element      | Basic Flow |                   |
| Scenario 2 – Invalid entered flight data       | Basic Flow | Alternate Flow 1  |
| Scenario 3 – Flight already exists             | Basic Flow | Alternate Flow 2  |
| Scenario 4 – Doubled flight                    | Basic Flow | Alternate Flow 3  |
| Scenario 5 – Incorrect flight date             | Basic Flow | Alternate Flow 4  |
| Scenario 6 – Unchronological flight dates      | Basic Flow | Alternate Flow 5  |
| Scenario 7 – Flight data does not exist        | Basic Flow | Alternate Flow 6  |
| Scenario 8 – Invalid entered airport data      | Basic Flow | Alternate Flow 7  |
| Scenario 9 – Airport already exists            | Basic Flow | Alternate Flow 8  |
| Scenario 10 – Country does not exist           | Basic Flow | Alternate Flow 9  |
| Scenario 11 – Invalid entered airplane data    | Basic Flow | Alternate Flow 10 |
| Scenario 12 – Airplane already exists          | Basic Flow | Alternate Flow 11 |
| Scenario 13 – Invalid entered crew member data | Basic Flow | Alternate Flow 12 |
| Scenario 14 – Crew member already exists       | Basic Flow | Alternate Flow 13 |
| Scenario 15 – Incorrect birthday               | Basic Flow | Alternate Flow 14 |

|   |  |
|---|--|
| Basic Flow  | <ol style="list-style-type: none"> <li>1. Initiate Adding - Administrator chooses an option to add an element into the system.</li> <li>2. Choosing an Element - Administrator chooses what new element they want to add and then goes to: step 3 if it is a flight; step 4 if it is an airport; step 5 if it is a airplane; step 6 if it is a crew member.</li> <li>3. Adding a Flight - Administrator enters all the necessary data: number, departure time, arrival time, departure place, arrival place, airplane number, crew, price; System stores the data and the UseCase ends.</li> <li>4. Adding an Airport - Administrator enters all the necessary data: code, name, city, postal code, country, number of gates; System stores the data and the UseCase ends.</li> <li>5. Adding a Airplane - Administrator enters all the necessary data: number, model, number of seats; System stores the data and the UseCase ends.</li> <li>6. Adding a Crew Member - Administrator enters all the necessary data: name, position, address, birthdate, id, phone number, e-mail; System stores the data and the UseCase ends.</li> </ol> |
| Alternate Flow 1 – Invalid data for adding a flight | In Basic Flow Step 3 – Adding a Flight, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Adding a Flight.   |
| Alternate Flow 2 – Flight already exists            | In Basic Flow Step 3 – Adding a Flight, if there already exists a flight with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Adding a Flight.   |
| Alternate Flow 3 – Doubled flight                   | In Basic Flow Step 3 – Adding a Flight, if there already exists a flight that has the same departure place and arrival place and the departure time differs less than one hour, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Adding a Flight.   |
| Alternate Flow 4 – Incorrect flight date            | In Basic Flow Step 3 – Adding a Flight, if the departure date or the arrival date is already past, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Adding a Flight.  |

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| Alternate Flow 5 – Unchronological flight dates           | In Basic Flow Step 3 – Adding a Flight, if the departure date is after the arrival date, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Adding a Flight.  |
| Alternate Flow 6 – Flight data does not exist             | In Basic Flow Step 3 – Adding a Flight, if the entered airplane, arrival place, departure place or crew does not exist, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Adding a Flight.                   |
| Alternate Flow 7 – Invalid data for adding an airport     | In Basic Flow Step 4 – Adding an Airport, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Adding an Airport.       |
| Alternate Flow 8 – Airport already exists                 | In Basic Flow Step 4 – Adding an Airport, if there already exists an airport with the entered code, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Adding an Airport.                                     |
| Alternate Flow 9 – Country does not exist                 | In Basic Flow Step 4 – Adding an Airport, if the entered country does not exist, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Adding an Airport.  |
| Alternate Flow 10 – Invalid data for adding a airplane    | In Basic Flow Step 5 – Adding a Airplane, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Adding a Airplane.       |
| Alternate Flow 11 – Airplane already exists               | In Basic Flow Step 5 – Adding a Airplane, if there already exists a airplane with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Adding a Airplane.                                   |
| Alternate Flow 12 – Invalid data for adding a crew member | In Basic Flow Step 6 – Adding a Crew Member, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Adding a Crew Member. |
| Alternate Flow 13 – Crew member already exists            | In Basic Flow Step 6 – Adding a Crew Member, if there already exists a flight with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Adding a Crew Member.                               |
| Alternate Flow 14 – Incorrect birthday                    | In Basic Flow Step 6 – Adding a Crew Member, if the entered birthday is after the date exactly 18 years before today's date, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Adding a Crew Member.         |

| TC ID# | Scenario / Condition                      | Valid format | Valid values | Unique element | Expected Result  |
|--------|---|--------------|--------------|----------------|--|
| CW1.   | Scenario 1 - Successful adding an element | YES          | YES          | YES            | Successful adding an element                                   |
| CW2.   | Scenario 2 - Invalid entered flight data  | NO           | n/a          | n/a            | Warning message, return to Basic Flow Step 3 - Adding a Flight |
| CW3.   | Scenario 3 - Flight already exists        | YES          | YES          | NO             | Warning message, return to Basic Flow Step 3 - Adding a Flight |
| CW4.   | Scenario 4 - Doubled flight               | YES          | YES          | NO             | Warning message, return to Basic Flow Step 3 - Adding a Flight |
| CW5.   | Scenario 5 - Incorrect flight date        | YES          | NO           | n/a            | Warning message, return to Basic Flow Step 3 - Adding a Flight |
| CW6.   | Scenario 6 - Unchronological flight dates | YES          | NO           | n/a            | Warning message, return to Basic Flow Step 3 - Adding a Flight |
| CW7.   | Scenario 7 - Flight data does not exist   | YES          | NO           | n/a            | Warning message, return to Basic Flow Step 3 - Adding a Flight |

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|-------|--|-----|-----|-----|---|
| CW8.  | Scenario 8 - Invalid entered airport data      | NO  | n/a | n/a | Warning message, return to Basic Flow Step 4 - Adding an Airport    |
| CW9.  | Scenario 9 - Airport already exists            | YES | YES | NO  | Warning message, return to Basic Flow Step 4 - Adding an Airport    |
| CW10. | Scenario 10 - Country does not exist           | YES | NO  | n/a | Warning message, return to Basic Flow Step 4 - Adding an Airport    |
| CW11. | Scenario 11 - Invalid entered airplane data    | NO  | n/a | n/a | Warning message, return to Basic Flow Step 5 - Adding a Airplane    |
| CW12. | Scenario 12 - Airplane already exists          | YES | YES | NO  | Warning message, return to Basic Flow Step 5 - Adding a Airplane    |
| CW13. | Scenario 13 - Invalid entered crew member data | NO  | n/a | n/a | Warning message, return to Basic Flow Step 6 - Adding a Crew Member |
| CW14. | Scenario 14 - Crew member already exists       | YES | YES | NO  | Warning message, return to Basic Flow Step 6 - Adding a Crew Member |
| CW15. | Scenario 15 -Incorrect birthday                | YES | NO  | n/a | Warning message, return to Basic Flow Step 6 - Adding a Crew Member |

## 2. Find an element UseCase

|  |            |                   |
|--|------------|-------------------|
| Scenario 1 – Successful finding an element     | Basic Flow |                   |
| Scenario 2 – Invalid entered flight data       | Basic Flow | Alternate Flow 1  |
| Scenario 3 – Flight does not exist             | Basic Flow | Alternate Flow 2  |
| Scenario 4 – Unchronological flight dates      | Basic Flow | Alternate Flow 3  |
| Scenario 5 – Invalid entered airport data      | Basic Flow | Alternate Flow 4  |
| Scenario 6 – Airport does not exist            | Basic Flow | Alternate Flow 5  |
| Scenario 7 – Invalid entered airplane data     | Basic Flow | Alternate Flow 6  |
| Scenario 8 – Airplane does not exist           | Basic Flow | Alternate Flow 7  |
| Scenario 9 – Invalid entered crew member data  | Basic Flow | Alternate Flow 8  |
| Scenario 10 – Crew Member does not exist       | Basic Flow | Alternate Flow 9  |
| Scenario 11 – Invalid entered club member data | Basic Flow | Alternate Flow 10 |
| Scenario 12 – Club Member does not exist       | Basic Flow | Alternate Flow 11 |

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|--|---|
| Basic Flow   | <ol style="list-style-type: none"> <li>1. Initiate Finding - Administrator chooses an option to find an element in the system.</li> <li>2. Choosing an Element - Administrator chooses what element they want to find and then goes to: step 3 if it is a flight; step 4 if it is an airport; step 5 if it is a airplane; step 6 if it is a crew member; step 7 if it is a club member.</li> <li>3. Finding a Flight - Administrator enters the necessary data: number, departure time, arrival time, departure place, arrival place; System returns the flight and the UseCase ends.</li> <li>4. Finding an Airport - Administrator enters the necessary data: code, name, city, country; System returns the airport and the UseCase ends.</li> <li>5. Finding a Airplane - Administrator enters all the necessary data: number, model; System returns the airplane and the UseCase ends.</li> <li>6. Finding a Crew Member - Administrator enters all the necessary data: name, position; System returns the crew member and the UseCase ends.</li> <li>7. Finding a Club Member - Administrator enters all the necessary data: name, id; System returns the club member and the UseCase ends.</li> </ol> |
| Alternate Flow 1 – Invalid data for finding a flight   | In Basic Flow Step 3 – Finding a Flight, if any of the entered data is not in a valid format or no data is entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Finding a Flight.  |
| Alternate Flow 2 – Flight does not exist               | In Basic Flow Step 3 – Finding a Flight, if there does not exist any flight with the entered data, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Finding a Flight.  |
| Alternate Flow 3 – Unchronological flight dates        | In Basic Flow Step 3 – Finding a Flight, if the departure date is after the arrival date, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Finding a Flight.   |
| Alternate Flow 4 – Invalid data for finding an airport | In Basic Flow Step 4 – Finding an Airport, if any of the entered data is not in a valid format or no data is entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Finding an Airport.  |

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| Alternate Flow 5 – Airport does not exist                  | In Basic Flow Step 4 – Finding an Airport, if there does not exist any airport with the entered data, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Finding an Airport.                              |
| Alternate Flow 6 – Invalid data for finding a airplane     | In Basic Flow Step 5 – Finding a Airplane, if any of the entered data is not in a valid format or no data is entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Finding a Airplane.       |
| Alternate Flow 7 – Airplane does not exist                 | In Basic Flow Step 5 – Finding a Airplane, if there does not exists any airplane with the entered data, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Finding a Airplane.                            |
| Alternate Flow 8 – Invalid data for finding a crew member  | In Basic Flow Step 6 – Finding a Crew Member, if any of the entered data is not in a valid format or no data is entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Finding a Crew Member. |
| Alternate Flow 9 – Crew member does not exist              | In Basic Flow Step 6 – Finding a Crew Member, if there does not exists any flight with the entered data, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Finding a Crew Member.                        |
| Alternate Flow 10 – Invalid data for finding a club member | In Basic Flow Step 7 – Finding a Club Member, if any of the entered data is not in a valid format or no data is entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 7 – Finding a Club Member. |
| Alternate Flow 11 – Club member does not exist             | In Basic Flow Step 7 – Finding a Club Member, if there does not exists any flight with the entered data, an appropriate message appears and the system rejoins the Basic Flow Step 7 – Finding a Club Member.                        |

| TC ID# | Scenario / Condition                           | Valid format | Valid values | Existing element | Expected Result  |
|--------|--|--------------|--------------|------------------|--|
| CW1.   | Scenario 1 - Succesfull finding an element     | YES          | YES          | YES              | Succesfull finding an element  |
| CW2.   | Scenario 2 - Invalid entered flight data       | NO           | n/a          | n/a              | Warning message, return to Basic Flow Step 3 - Finding a Flight      |
| CW3.   | Scenario 3 - Flight does not exist             | YES          | YES          | NO               | Warning message, return to Basic Flow Step 3 - Finding a Flight      |
| CW4.   | Scenario 4 - Unchronological flight dates      | YES          | NO           | n/a              | Warning message, return to Basic Flow Step 3 - Finding a Flight      |
| CW5.   | Scenario 5 - Invalid entered airport data      | NO           | n/a          | n/a              | Warning message, return to Basic Flow Step 4 - Finding an Airport    |
| CW6.   | Scenario 6 - Airport does not exist            | YES          | YES          | NO               | Warning message, return to Basic Flow Step 4 - Finding an Airport    |
| CW7.   | Scenario 7 - Invalid entered airplane data     | NO           | n/a          | n/a              | Warning message, return to Basic Flow Step 5 - Finding a Airplane    |
| CW8.   | Scenario 8 - Airplane does not exist           | YES          | YES          | NO               | Warning message, return to Basic Flow Step 5 - Finding a Airplane    |
| CW9.   | Scenario 9 - Invalid entered crew member data  | NO           | n/a          | n/a              | Warning message, return to Basic Flow Step 6 - Finding a Crew Member |
| CW10.  | Scenario 10 - Crew Member does not exist       | YES          | YES          | NO               | Warning message, return to Basic Flow Step 6 - Finding a Crew Member |
| CW11.  | Scenario 11 - Invalid entered club member data | NO           | n/a          | n/a              | Warning message, return to Basic Flow Step 7 - Finding a Club Member |
| CW12.  | Scenario 12 - Club Member does not exist       | YES          | YES          | NO               | Warning message, return to Basic Flow Step 7 - Finding a Club Member |

### 3. Edit an element UseCase

|  |            |                   |
|--|------------|-------------------|
| Scenario 1 – Successful editing an element     | Basic Flow |                   |
| Scenario 2 – Invalid entered flight data       | Basic Flow | Alternate Flow 1  |
| Scenario 3 – Flight already exists             | Basic Flow | Alternate Flow 2  |
| Scenario 4 – Doubled flight                    | Basic Flow | Alternate Flow 3  |
| Scenario 5 – Incorrect flight date             | Basic Flow | Alternate Flow 4  |
| Scenario 6 – Unchronological flight dates      | Basic Flow | Alternate Flow 5  |
| Scenario 7 – Flight data does not exist        | Basic Flow | Alternate Flow 6  |
| Scenario 8 – Invalid entered airport data      | Basic Flow | Alternate Flow 7  |
| Scenario 9 – Airport already exists            | Basic Flow | Alternate Flow 8  |
| Scenario 10 – Country does not exist           | Basic Flow | Alternate Flow 9  |
| Scenario 11 – Invalid entered airplane data    | Basic Flow | Alternate Flow 10 |
| Scenario 12 – Airplane already exists          | Basic Flow | Alternate Flow 11 |
| Scenario 13 – Invalid entered crew member data | Basic Flow | Alternate Flow 12 |
| Scenario 14 – Crew member already exists       | Basic Flow | Alternate Flow 13 |
| Scenario 15 – Incorrect birthday               | Basic Flow | Alternate Flow 14 |

|  |   |
|--|---|
| Basic Flow   | <ol style="list-style-type: none"> <li>1. Finding the element - Administrator goes through the finding an element in the system UseCase.</li> <li>2. Initiate Editing – Administrator chooses an option to edit an element in the system.</li> <li>3. Choosing an Element - Administrator chooses what element they want to find and then goes to: step 4 if it is a flight; step 5 if it is an airport; step 6 if it is a airplane; step 7 if it is a crew member.</li> <li>4. Editing a Flight - Administrator enters the new data for given flight; System saves the changes and the UseCase ends.</li> <li>5. Editing an Airport - Administrator enters the new data for given airport; System saves the changes and the UseCase ends.</li> <li>6. Editing a Airplane - Administrator enters the new data for given airplane; System saves the changes and the UseCase ends.</li> <li>7. Editing a Crew Member - Administrator enters the new data for given crew member; System saves the changes and the UseCase ends.</li> </ol> |
| Alternate Flow 1 – Invalid data for editing a flight | In Basic Flow Step 4 – Editing a Flight, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Editing a Flight.  |
| Alternate Flow 2 – Flight already exists             | In Basic Flow Step 4 – Editing a Flight, if there already exists a flight with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Editing a Flight.  |
| Alternate Flow 3 – Doubled flight                    | In Basic Flow Step 4 – Editing a Flight, if there already exists a flight that has the same departure place and arrival place and the departure time differs less than one hour, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Editing a Flight.  |
| Alternate Flow 4 – Incorrect flight date             | In Basic Flow Step 4 – Editing a Flight, if the departure date or the arrival date is already past, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Editing a Flight.   |



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| Alternate Flow 5 – Unchronological flight dates            | In Basic Flow Step 4 – Editing a Flight, if the departure date is after the arrival date, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Editing a Flight.  |
| Alternate Flow 6 – Flight data does not exist              | In Basic Flow Step 4 – Editing a Flight, if the entered airplane, arrival place, departure place or crew does not exist, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Editing a Flight.                   |
| Alternate Flow 7 – Invalid data for editing an airport     | In Basic Flow Step 5 – Editing an Airport, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Editing an Airport.       |
| Alternate Flow 8 – Airport already exists                  | In Basic Flow Step 5 – Editing an Airport, if there already exists an airport with the entered code, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Editing an Airport.                                     |
| Alternate Flow 9 – Country does not exist                  | In Basic Flow Step 5 – Editing an Airport, if the entered country does not exist, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Editing an Airport.  |
| Alternate Flow 10 – Invalid data for editing a airplane    | In Basic Flow Step 6 – Editing a Airplane, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Editing a Airplane.       |
| Alternate Flow 11 – Airplane already exists                | In Basic Flow Step 6 – Editing a Airplane, if there already exists a airplane with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Editing a Airplane.                                   |
| Alternate Flow 12 – Invalid data for editing a crew member | In Basic Flow Step 7 – Editing a Crew Member, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 7 – Editing a Crew Member. |
| Alternate Flow 13 – Crew member already exists             | In Basic Flow Step 7 – Editing a Crew Member, if there already exists a flight with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 7 – Editing a Crew Member.                               |
| Alternate Flow 14 – Incorrect birthday                     | In Basic Flow Step 7 – Editing a Crew Member, if the entered birthday is after the date exactly 18 years before today's date, an appropriate message appears and the system rejoins the Basic Flow Step 7 – Editing a Crew Member.         |

| TC ID# | Scenario / Condition                       | Valid format | Valid values | Unique element | Expected Result   |
|--------|--|--------------|--------------|----------------|---|
| CW1.   | Scenario 1 - Successful editing an element | YES          | YES          | YES            | Successful editing an element                                   |
| CW2.   | Scenario 2 - Invalid entered flight data   | NO           | n/a          | n/a            | Warning message, return to Basic Flow Step 4 - Editing a Flight |
| CW3.   | Scenario 3 - Flight already exists         | YES          | YES          | NO             | Warning message, return to Basic Flow Step 4 - Editing a Flight |
| CW4.   | Scenario 4 - Doubled flight                | YES          | YES          | NO             | Warning message, return to Basic Flow Step 4 - Editing a Flight |
| CW5.   | Scenario 5 - Incorrect flight date         | YES          | NO           | n/a            | Warning message, return to Basic Flow Step 4 - Editing a Flight |
| CW6.   | Scenario 6 - Unchronological flight dates  | YES          | NO           | n/a            | Warning message, return to Basic Flow Step 4 - Editing a Flight |
| CW7.   | Scenario 7 - Flight data does not exist    | YES          | NO           | n/a            | Warning message, return to Basic Flow Step 4 - Editing a Flight |



|       |  |     |     |     |  |
|-------|--|-----|-----|-----|--|
| CW8.  | Scenario 8 - Invalid entered airport data      | NO  | n/a | n/a | Warning message, return to Basic Flow Step 5 - Editing an Airport    |
| CW9.  | Scenario 9 - Airport already exists            | YES | YES | NO  | Warning message, return to Basic Flow Step 5 - Editing an Airport    |
| CW10. | Scenario 10 - Country does not exist           | YES | NO  | n/a | Warning message, return to Basic Flow Step 5 - Editing an Airport    |
| CW11. | Scenario 11 - Invalid entered airplane data    | NO  | n/a | n/a | Warning message, return to Basic Flow Step 6 - Editing a Airplane    |
| CW12. | Scenario 12 - Airplane already exists          | YES | YES | NO  | Warning message, return to Basic Flow Step 6 - Editing a Airplane    |
| CW13. | Scenario 13 - Invalid entered crew member data | NO  | n/a | n/a | Warning message, return to Basic Flow Step 7 - Editing a Crew Member |
| CW14. | Scenario 14 - Crew member already exists       | YES | YES | NO  | Warning message, return to Basic Flow Step 7 - Editing a Crew Member |
| CW15. | Scenario 15 -Incorrect birthday                | YES | NO  | n/a | Warning message, return to Basic Flow Step 7 - Editing a Crew Member |

#### 4. Delete an element UseCase

|   |            |                  |
|---|------------|------------------|
| Scenario 1 – Successful deleting an element | Basic Flow |                  |
| Scenario 2 – Airport not found              | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Airplane not found             | Basic Flow | Alternate Flow 2 |
| Scenario 4 – Crew Member not found          | Basic Flow | Alternate Flow 3 |
| Scenario 5 – Club Member not found          | Basic Flow | Alternate Flow 4 |

|  |   |
|--|---|
| Basic Flow                               | <ol style="list-style-type: none"> <li>1. Finding the element – Head Administrator goes through the finding an element in the system UseCase.</li> <li>2. Initiate Deleting – Head Administrator chooses an option to delete an element from the system.</li> <li>3. Choosing an Element - Head Administrator chooses what element they want to find and then goes to; step 4 if it is an airport; step 5 if it is a airplane; step 6 if it is a crew member; step 7 if it is a club member.</li> <li>4. Deleting an Airport - Head Administrator deletes (after confirmation) given airport; System deletes the airport and the UseCase ends.</li> <li>5. Deleting a Airplane - Head Administrator deletes (after confirmation) given airplane; System deletes the airplane and the UseCase ends.</li> <li>6. Deleting a Crew Member - Head Administrator deletes (after confirmation) given crew member; System deletes the crew member and the UseCase ends.</li> <li>7. Deleting a Club Member - Head Administrator deletes (after confirmation) given club member; System deletes the club member and the UseCase ends.</li> </ol> |
| Alternate Flow 1 – Airport not found     | In Basic Flow Step 4 – Deleting an Airport, if another person have just deleted given airport, an appropriate message appears.  |
| Alternate Flow 2 – Airplane not found    | In Basic Flow Step 5 – Deleting a Airplane, if another person have just deleted given airplane, an appropriate message appears.   |
| Alternate Flow 3 – Crew Member not found | In Basic Flow Step 6 – Deleting a Crew Member, if another person have just deleted given crew member, an appropriate message appears.   |
| Alternate Flow 4 – Club Member not found | In Basic Flow Step 7 – Deleting a Club Member, if another person have just deleted given club member, an appropriate message appears.   |

| TC ID# | Scenario / Condition                        | Element found | Expected Result                |
|--------|---|---------------|--------------------------------|
| CW1.   | Scenario 1 - Successful deleting an element | YES           | Successful deleting an element |
| CW2.   | Scenario 2 - Airport not found              | NO            | Warning message                |
| CW3.   | Scenario 3 - Airplane not found             | NO            | Warning message                |
| CW4.   | Scenario 4 - Crew Member not found          | NO            | Warning message                |
| CW5.   | Scenario 5 - Club Member not found          | NO            | Warning message                |

## 5. Cancel a flight UseCase

|   |            |                  |
|---|------------|------------------|
| Scenario 1 – Successful cancelling a flight | Basic Flow |                  |
| Scenario 2 – Flight not found               | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Flight already started/done    | Basic Flow | Alternate Flow 2 |

|  |  |
|--|--|
| Basic Flow                                     | <ol style="list-style-type: none"> <li>1. Finding the element – Head Administrator goes through the finding a flight in the system UseCase.</li> <li>2. Initiate Cancelling – Head Administrator chooses an option to cancel a flight from the system.</li> <li>3. Cancelling a Flight - Head Administrator cancels (after confirmation) given flight; System saves the changes and the UseCase ends.</li> </ol> |
| Alternate Flow 1 – Flight not found            | In Basic Flow Step 3 – Cancelling a Flight, if another person have just cancelled given flight, an appropriate message appears.  |
| Alternate Flow 2 – Flight already started/done | In Basic Flow Step 3 – Cancelling a Flight, if the departure date is already past, an appropriate message appears  |

| TC ID# | Scenario / Condition                        | Element found | Valid values | Expected Result                |
|--------|---|---------------|--------------|--------------------------------|
| CW1.   | Scenario 1 - Successful cancelling a flight | YES           | YES          | Successful cancelling a flight |
| CW2.   | Scenario 2 - Flight not found               | NO            | n/a          | Warning message                |
| CW3.   | Scenario 3 - Flight already started/done    | YES           | NO           | Warning message                |

## 6. Book a flight UseCase

|  |            |                  |
|--|------------|------------------|
| Scenario 1 – Successful booking a flight   | Basic Flow |                  |
| Scenario 2 – Invalid entered customer data | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Doubled flight                | Basic Flow | Alternate Flow 2 |
| Scenario 4 – Incorrect birthday            | Basic Flow | Alternate Flow 3 |
| Scenario 5 – Expired document              | Basic Flow | Alternate Flow 4 |
| Scenario 6 – No tickets available          | Basic Flow | Alternate Flow 5 |

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|--|--|
| Basic Flow   | <ol style="list-style-type: none"> <li>1. Finding the element – Customer goes through the finding a flight in the system UseCase.</li> <li>2. Initiate Booking – Customer chooses an option to book a flight.</li> <li>3. Filling the Data – Customer fills in all the required data: name, birthdate, nationality, type of ID, ID number, expiration date, seat number, luggage size, payment method.</li> <li>4. Booking a Flight – Customer books a flight; System adds a new passenger to the given flight. The UseCase ends.</li> </ol> |
| Alternate Flow 1 – Invalid data for booking a flight | In Basic Flow Step 3 –Filling the Data, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Filling the Data.  |
| Alternate Flow 2 – Doubled flight                    | In Basic Flow Step 3 – Filling the Data, if there already exists a booking for the same flight made by person with the same name and ID number, appropriate message appears and the system rejoins the Basic Flow Step 3 – Filling the Data.   |
| Alternate Flow 3 – Incorrect birthday                | In Basic Flow Step 3 – Filling the Data, if the entered birthday is after the date exactly 16 years before today's date, an appropriate message appears and the system rejoins the Basic Flow Step 3 – Filling the Data.   |
| Alternate Flow 4 – Expired Document                  | In Basic Flow Step 3 – Filling the Data, if the expiration date is before the today's date, an appropriate message appears.  |
| Alternate Flow 5 – No tickets available              | In Basic Flow Step 4 – Booking a Flight, if another person have just booked the last ticket for given flight, an appropriate message appears.  |

| TC ID# | Scenario / Condition                       | Valid format | Valid values | Unique element | Element found | Expected Result   |
|--------|--|--------------|--------------|----------------|---------------|---|
| CW1.   | Scenario 1 – Successful booking a flight   | YES          | YES          | YES            | YES           | Successful booking a flight                                     |
| CW2.   | Scenario 2 – Invalid entered customer data | NO           | n/a          | n/a            | n/a           | Warning message, return to Basic Flow Step 3 – Filling the Data |
| CW3.   | Scenario 3 – Doubled flight                | YES          | YES          | NO             | n/a           | Warning message, return to Basic Flow Step 3 – Filling the Data |
| CW4.   | Scenario 4 - Incorrect birthday            | YES          | NO           | n/a            | n/a           | Warning message, return to Basic Flow Step 3 - Filling the Data |
| CW5.   | Scenario 5 - Expired document              | YES          | NO           | n/a            | n/a           | Warning message   |
| CW6.   | Scenario 6 - No tickets available          | YES          | YES          | YES            | NO            | Warning message   |

## 7. Log in Requirement

|                                    |            |                  |
|------------------------------------|------------|------------------|
| Scenario 1 – Successful logging in | Basic Flow |                  |
| Scenario 2 – Forbidden characters  | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Empty field           | Basic Flow | Alternate Flow 2 |
| Scenario 4 – Incorrect data        | Basic Flow | Alternate Flow 3 |

|   |   |
|---|---|
| Basic Flow                              | <ol style="list-style-type: none"> <li>1. Initiate Logging – User enters the login and password.</li> <li>2. Logging In – User logs into the system and gets one of the following views: head administrator, administrator, club member.</li> </ol> |
| Alternate Flow 1 – Forbidden characters | In Basic Flow Step 1 – Logging In, if any of the entered characters is not allowed to be used, an appropriate message appears and the system rejoins the Basic Flow Step 1 – Logging In.  |
| Alternate Flow 2 – Empty field          | In Basic Flow Step 1 – Logging In, if either login or password is not entered, an appropriate message appears and the system rejoins the Basic Flow Step 1 – Logging In.  |
| Alternate Flow 3 – Incorrect data       | In Basic Flow Step 1 – Logging In, if either login or password is not correct, an appropriate message appears and the system rejoins the Basic Flow Step 1 – Logging In.  |

| TC ID# | Scenario / Condition               | Allowed character | Valid value | Expected Result   |
|--------|------------------------------------|-------------------|-------------|---|
| CW1.   | Scenario 1 - Successful logging in | YES               | YES         | Successful logging in                                     |
| CW2.   | Scenario 2 - Forbidden characters  | NO                | n/a         | Warning message, return to Basic Flow Step 1 – Logging In |
| CW3.   | Scenario 3 - Empty field           | YES               | NO          | Warning message, return to Basic Flow Step 1 – Logging In |
| CW4.   | Scenario 4 - Incorrect data        | YES               | NO          | Warning message, return to Basic Flow Step 1 – Logging In |

## 8. Becoming a club member (registration) Requirement

|  |            |                  |
|--|------------|------------------|
| Scenario 1 – Successful registration           | Basic Flow |                  |
| Scenario 2 – Invalid entered registration data | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Club member already exists        | Basic Flow | Alternate Flow 2 |
| Scenario 4 – Country does not exist            | Basic Flow | Alternate Flow 3 |
| Scenario 5 – Incorrect birthday                | Basic Flow | Alternate Flow 4 |
| Scenario 6 – Expired document                  | Basic Flow | Alternate Flow 5 |

|  |  |
|--|--|
| Basic Flow                                       | <ol style="list-style-type: none"> <li>1. Initiate Registration – User chooses an option to become a club member.</li> <li>2. Filling the Data – User enters all the required data: name, login, password, id type, id number, id expiration date, nationality, birthday, email, phone number, address; System saves the data and the user becomes a club member.</li> </ol> |
| Alternate Flow 1 – Invalid data for registration | In Basic Flow Step 2 – Filling the Data, if any of the entered data is not in a valid format or some data is not entered at all, an appropriate message appears and the system rejoins the Basic Flow Step 2 – Filling the Data.   |
| Alternate Flow 2 – Club member already exists    | In Basic Flow Step 2 – Filling the Data, if there already exists a club member with the entered id number, an appropriate message appears and the system rejoins the Basic Flow Step 2 – Filling the Data.   |
| Alternate Flow 3 – Country does not exist        | In Basic Flow Step 2 – Filling the Data, if the entered country does not exist, an appropriate message appears and the system rejoins the Basic Flow Step 2 – Filling the Data.  |
| Alternate Flow 4 – Incorrect birthday            | In Basic Flow Step 2 – Filling the Data, if the entered birthday is after the date exactly 18 years before today's date, an appropriate message appears and the system rejoins the Basic Flow Step 2 – Filling the Data.   |
| Alternate Flow 5 – Expired Document              | In Basic Flow Step 2 – Filling the Data, if the expiration date is before the today's date, an appropriate message appears and the system rejoins the Basic Flow Step 2 – Filling the Data.  |

| TC ID# | Scenario / Condition                           | Valid format | Valid value | Unique element | Expected Result   |
|--------|--|--------------|-------------|----------------|---|
| CW1.   | Scenario 1 - Successful registration           | YES          | YES         | YES            | Successful registration   |
| CW2.   | Scenario 2 - Invalid entered registration data | NO           | n/a         | n/a            | Warning message, return to Basic Flow Step 2 - Filling the Data |
| CW3.   | Scenario 3 - Club member already exists        | YES          | YES         | NO             | Warning message, return to Basic Flow Step 2 - Filling the Data |
| CW4.   | Scenario 4 - Country does not exist            | YES          | NO          | n/a            | Warning message, return to Basic Flow Step 2 - Filling the Data |
| CW5.   | Scenario 5 - Incorrect birthday                | YES          | NO          | n/a            | Warning message, return to Basic Flow Step 2 - Filling the Data |
| CW6.   | Scenario 6 - Expired document                  | YES          | NO          | n/a            | Warning message, return to Basic Flow Step 2 - Filling the Data |