TestCases for FlyHigh Requirements & UseCases

1. Add an element UseCase

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| Scenario 1 – Succesfull 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 plane data | Basic Flow | Alternate Flow 10 |
| Scenario 12 – Plane 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 |

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| Basic Flow | 1. Initiate Adding - Administrator chooses an option to add an element into the system. 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 plane; step 6 if it is a crew member. 3. Adding a Flight - Administrator enters all the neccessary data: number, departure time, arrival time, departure place, arrival place, plane number, crew; System stores the data and the UseCase ends. 4. Adding an Airport - Administrator enters all the neccessary data: code, name, city, zipcode, country, number of gates; System stores the data and the UseCase ends. 5. Adding a Plane - Administrator enters all the neccessary data: number, model, number of seats; System stores the data and the UseCase ends. 6. Adding a Crew Member - Administrator enters all the neccessary data: name, position, address, birthdate, id, phone number, e-mail; System stores the data and the UseCase ends. |
| 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, 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. |
| 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 plane, 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, 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 plane | In Basic Flow Step 5 – Adding a Plane, if any of the entered data is not in a valid format, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Adding a Plane. |
| Alternate Flow 11 – Plane already exists | In Basic Flow Step 5 – Adding a Plane, if there already exists a plane with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Adding a Plane. |
| 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, 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. |

1. Find an element UseCase

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| Scenario 1 – Succesfull adding 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 plane data | Basic Flow | Alternate Flow 6 |
| Scenario 8 – Plane 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 | 1. Initiate Finding - Administrator chooses an option to find an element in the system. 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 plane; step 6 if it is a crew member; step 7 if it is a club member. 3. Finding a Flight - Administrator enters the neccessary data: number, departure time, arrival time, departure place, arrival place; System returns the flight and the UseCase ends. 4. Finding an Airport - Administrator enters the neccessary data: code, name, city, country; System returns the airport and the UseCase ends. 5. Finding a Plane - Administrator enters all the neccessary data: number, model; System returns the plane and the UseCase ends. 6. Finding a Crew Member - Administrator enters all the neccessary data: name, position; System returns the crew member and the UseCase ends. 7. Finding a Club Member - Administrator enters all the neccessary data: name, id; System returns the club member and the UseCase ends. |
| 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, 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, an appropriate message appears and the system rejoins the Basic Flow Step 4 – Adding an Finding. |
| 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 plane | In Basic Flow Step 5 – Finding a Plane, if any of the entered data is not in a valid format, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Finding a Plane. |
| Alternate Flow 7 – Plane does not exist | In Basic Flow Step 5 – Finding a Plane, if there does not exists any plane with the entered data, an appropriate message appears and the system rejoins the Basic Flow Step 5 – Finding a Plane. |
| 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, 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, 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. |

1. Edit an element UseCase

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| Scenario 1 – Succesfull 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 plane data | Basic Flow | Alternate Flow 10 |
| Scenario 12 – Plane 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 |

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| Basic Flow | 1. Finding the element - Administrator goes through the finding an element in the system UseCase. 2. Initiate Editing – Administrator chooses an option to edit an element in the system. 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 plane; step 7 if it is a crew member. 4. Editing a Flight - Administrator enters the new data for given flight; System saves the changes and the UseCase ends. 5. Editing an Airport - Administrator enters the new data for given aiport; System saves the changes and the UseCase ends. 6. Editing a Plane - Administrator enters the new data for given plane; System saves the changes and the UseCase ends. 7. Editing a Crew Member - Administrator enters the new data for given crew member; System saves the changes and the UseCase ends. |
| 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, 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. |
| 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 plane, 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, 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 plane | In Basic Flow Step 6 – Editing a Plane, if any of the entered data is not in a valid format, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Editing a Plane. |
| Alternate Flow 11 – Plane already exists | In Basic Flow Step 6 – Editing a Plane, if there already exists a plane with the entered number, an appropriate message appears and the system rejoins the Basic Flow Step 6 – Editing a Plane. |
| 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, 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. |

1. Delete an element UseCase

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| Scenario 1 – Succesfull adding an element | Basic Flow |  |
| Scenario 2 – Airport not found | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Plane 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 |

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| Basic Flow | 1. Finding the element – Head Administrator goes through the finding an element in the system UseCase. 2. Initiate Deleting – Head Administrator chooses an option to delete an element from the system. 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 plane; step 6 if it is a crew member; step 7 if it is a club member. 4. Deleting an Airport - Head Administrator deletes (after confirmation) given aiport; System deletes the airport and the UseCase ends. 5. Deleting a Plane - Head Administrator deletes (after confirmation) given plane; System deletes the plane and the UseCase ends. 6. Deleting a Crew Member - Head Administrator deletes (after confirmation) given crew member; System deletes the crew member and the UseCase ends. 7. Deleting a Club Member - Head Administrator deletes (after confirmation) given club member; System deletes the club member and the UseCase ends. |
| 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 – Plane not found | In Basic Flow Step 5 – Deleting a Plane, if another person have just deleted given plane, 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. |

1. Cancel a flight UseCase

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| Scenario 1 – Succesfull adding an element | Basic Flow |  |
| Scenario 2 – Flight not found | Basic Flow | Alternate Flow 1 |
| Scenario 3 – Flight already started/done | Basic Flow | Alternate Flow 2 |

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| Basic Flow | 1. Finding the element – Head Administrator goes through the finding a flight in the system UseCase. 2. Initiate Cancelling – Head Administrator chooses an option to cancel a flight from the system. 3. Cancelling a Flight - Head Administrator cancels (after confirmation) given flight; System saves the changes and the UseCase ends. |
| 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 |

1. Book a flight UseCase

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| Scenario 1 – Succesfull adding an element | 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 | 1. Finding the element – Customer goes through the finding a flight in the system UseCase. 2. Initiate Booking – Customer chooses an option to book a flight. 3. Filling the Data – Customer fills in all the required data: name, birthdate, nationality, type of ID, ID number, expiration date. 4. Booking a Flight – Customer books a flight; System addes a new passenger to the given flight. The UseCase ends. |
| 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, 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 and the system. |
| 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. |