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**Phase Three: Task 3.3**
<u>**Scenario Analysis (Project No.9 Flight Booking)**</u>


**A scenario for a customer searching for a flight (UR:4; SR:4.2)**

**Initial assumption:** The customer enters the website and wants to consult a suitable flight for his next trip.


**Normal:** The customer first chooses from a checkbox if he/she wants this trip to be one way where he/she just travels to a place or a round-trip in which he/she chooses another flight to return as well (round-trip option is checked as default). Then, the customer will search from a search field input -which contains all cities- the city he/she wants to travel from, then from another search field input chooses the city where he/she wants to travel to. After that, the customer chooses from a date field input the date of the wanted flight. In case that the customer chose a round trip, he/she fills another date field input with the return date. Finally, the customer fills another two fields, first is a number-field input in which he/she chooses the number of passengers travelling. Second, chooses the cabin class from a combo field (first class, business class, economy class).
After successfully filling all of the above fields and choosing the find flight button, the system shows all flights from-to the designated cities in the indicated days and have available seats from the selected cabin class. The flights with tickets on sale will be listed first, the order of the remaining flights will be based on time/price correspondence.
When A flight is chosen to be consulted, All details of the flight will be displayed (Flight number, date & time of departure/arrival, Duration of flight, price of the ticket, number of seats available, meals). If the trip is a round-trip, then two flights will be displayed in full details as mentioned.


**Alternative:** No direct flights exist from-to the designated locations. Transit trips should be displayed if possible. The transit flights connect the city of departure to

the city of arrival. More than one transit flight may be applied, a single transit flight is indicated as a stop.

When the flight is chosen, the information about the transit flights will also be displayed in full details.

**Alternative:** The customer chooses to search by a filter (filters are located at the side of the screen):

*By price:* a checkbox input is selected whether to order flights by price from highest to lowest or from lowest to highest.

*By the time of departure:* A time interval input that can be selected and only the flights that departure at this time interval will appear.

*By the time of arrival:* A time interval input that can be selected and only the flights that arrive at this time interval will appear.

*By the duration of the trip:* A number-field input to select the maximum hours of the trip. Only the trips with a duration less than the selected hours will be displayed.

*By the number of stops:* A number-field input to select the maximum number of stops in the trip. Only the trips with stops less than the selected will be displayed.

*Combination of filters:* more than one filter of the filters mentioned above is used. Only the flights that meet all filters' conditions will be displayed.

**Error:** The customer missed out to fill a field or more in the searching for a flight procedure. The system should mark out these empty fields to the customer and ask him/her to fill it. Otherwise, the search will not be carried on.

**Error:** The customer chooses the return date -for a round-trip- before the date of the departure. The system should mark out this to the customer and not accept the search before correction.

**Error:** No flights exist from/to the designated location for the given dates. The system should indicate to the customer that no such flight is available at the moment.

**Other Activities:** The system must ask the customer to refresh the search after every five minutes to keep the integration in the system since prices/dates of flights change constantly.

**System state on completion:** A search record will be added to the database including the departure country, arrival country, date of departure, date of return if applicable, and the date of the search.