Project Details

Project number	*2*
Project title	*Online Travel Reservation System*
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Deliverable	*1*

Team Details

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1. Use cases model:

1.1. Using Event Decomposition technique:

Table 1- Types of Events

1.1.1. Types of Events

Event	Type (External/State/temporal)
The passenger enters trip information.	External Event
The passenger asks for price quotes.	External Event
The system returns filtered list of quotes to the customer.	State Event
User selects the best of the quote	External Event
User selects detailed preference	External Event
User makes the initial reservation	External Event
Time for user to pay for the flight.	Temporal Event
The user cancels/changes hotel or car rental reservation.	External Event
The user enters his/her personal information.	External Event
The sales department checks if the ordered products are still available.	State Event
The sales department withdraws the product price from the customer credit card.	State Event
System updates user profile	State Event
System offers travel package	State Event
System offers additional discounts for frequent customers	State Event

1.1.2. Formalize events with use cases

Table 2- Formalizing Events to usecases

Event	Type (External/State/temporal)	Use case
The passenger enters trip information.	External Event	Entering trip information.
The passenger asks for price quotes.	External Event	Asking for price quotes.
The system returns filtered list of quotes to the customer.	State Event	Returning filtered list of quotes.
User selects the best of the quote	External Event	Selecting best quote
User selects detailed preference	External Event	Selecting detailed preferences
User makes the initial reservation	External Event	Creating initial reservation
Time for user to pay for the flight.	Temporal Event	Notifying user to pay
The user cancels/changes hotel or car rental reservation.	External Event	Cancelling/Changing reservation
The user enters his/her personal information.	External Event	Adding personal information
The sales department checks if the ordered products are still available.	State Event	Checking products availability

The sales department withdraws the product price from the customer credit card.	State Event	Withdrawing product price
System updates user profile	State Event	Updating user profile
System offers travel package	State Event	Offering travel package
System offers additional discounts for frequent customers	State Event	Offering additional discount

1.1.3. Use case Descriptions:

Table 3 - Use cases descriptions

Use case name	Actor	Description
Entering trip information.	Passenger	The passenger enters the trip information (Source and Destination, Class of hotel, Car type, and Maximum price) for (flight, hotel and car rental).
Asking for price quotes.	Passenger	The passenger asks the system to show him the filtered list of price quotes to choose from it.
Returning filtered list of quotes.	Travel agent	The system displays the price quotes list after filtering it to the passenger to choose from it.
Selecting best quote	Passenger	When the system returns the filtered list of quotes the customer/actor/user select the best for him.

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Selecting detailed preferences	Passenger	When the customer/actor/user selects the best quote, the system asks him to select preferences, meals, special assistance. In some cases, customer preferences, such as choosing aisle/window seat.
Creating initial reservation	Passenger	The customer/actor/user can make initial reservation of the flight for two days with the same quoted price without the need to pay or to enter credit card information.
Notifying user to pay	Travel Agent	Travel agent notifies the passenger to pay for the flight after two days from the initial reservation.
Cancelling/Changing reservation	Passenger	The customer/passenger/user can cancel/change the hotel/car rental reservation - with full refund - at least two days before the starting day, except for non-refundable quotes (Hotel/Car rental).

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Adding personal information	Passenger	Passenger adding his/her personal information and the system then creating a new account for that Passenger.
Checking products availability	Sales department	After Customer/User/Actor choose the products (Aspects of the package) his/her wants to buy/book and after system validation of fully and correctly data entered by customer, system then makes double-check for availability.
Withdrawing product price	Sales department	After system validation for entered data and availability, and the validation of credit card information, finally system withdrawing the total price from the passenger credit card.
Updating user profile	Sales department	In this case system updates user profile with the trip Information that has been reserved/booked after processing and checking order.

Offering travel package	Travel agent	In this case system will offer travel package based on destination and user history.
Offering additional discount	Travel agent	In this case system shows special offers for frequent users

1.1.4. Matrix that maps all domain classes to the set of use cases

Use case Vs. Domain Class	Passenger	Travel agent	Sales Department	Trip
Entering trip information.	C	U		
Asking for price quotes.	R (Report)			
Returning filtered list of quotes.		R (Report)		
Selecting best quote	R (Report)			C
Selecting detailed preferences	R (Report)			U
Creating initial reservation	C			C
Notifying user to pay		R (Report)		
Cancelling/Changing reservation	U	U		
Adding personal information	C		R (Read)	
Checking products availability			R (Read)	
Withdrawing product price			U	
Updating user profile		U	U	
Offering travel package		R (Report)		
Offering additional discount		R (Report)		

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1.1.5. Use case Diagram: