Concordia University
Engineering and Computer Science

COEN - 6312

Model Driven Software Engineering

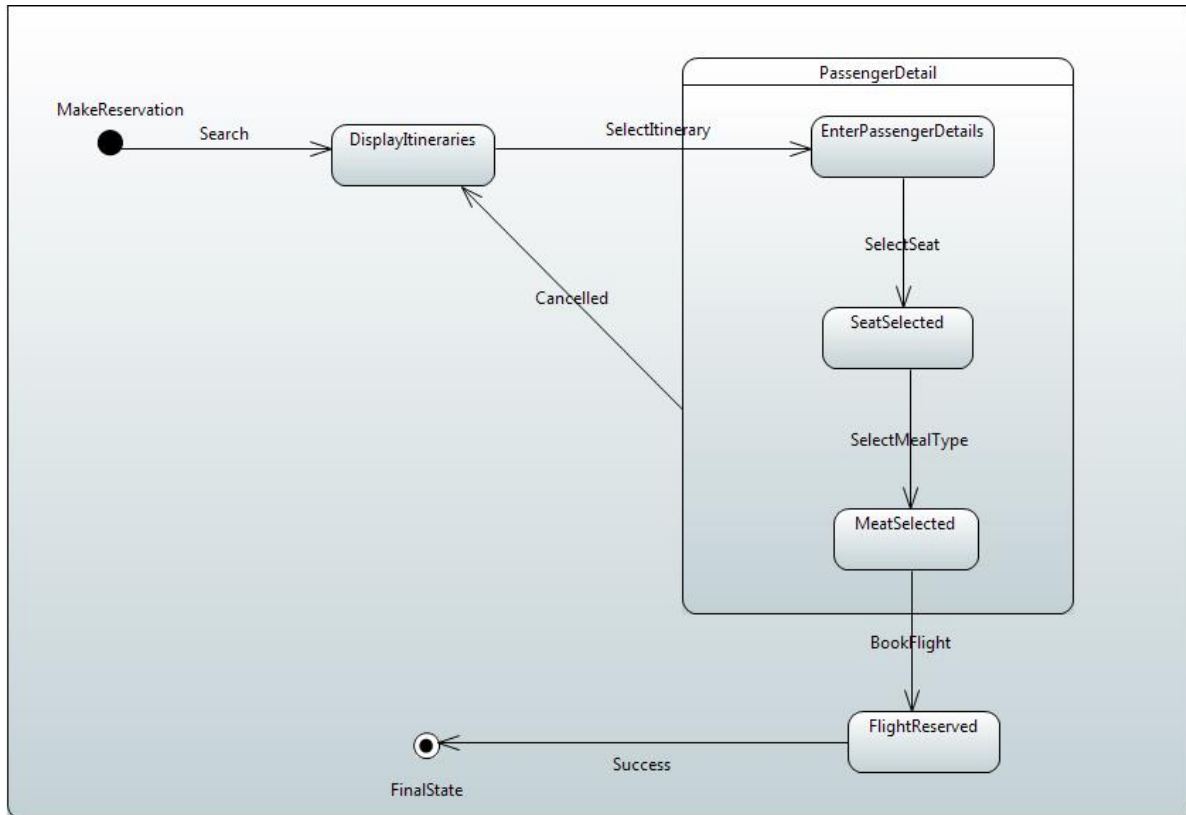## Deliverable 4

Student Name	Student ID
Ankit Chitlangia	27485573
Armaan Gill	27380003
Gurpreet Rehal	27632215
Mitesh Kaura	27284756
Simranjeet Singh	27376782

Contents

State Diagrams:

BookFlight:

Action Specification

```
public class BookFlight
        {
                public static bookFlight(String
member_name,passenger_name,phone_number//others)
                {
                        if(member_name!=null and passenger_name!=null and
phone_number!=null)
                        {


                        //here we code to book flights.
                        bookingDetails(details);//// this is to display booking details
like displaying id
                        }
                        else
                                generateAlert() // display error message

                }
```

```java
        public static bookingDetails(String details)
        {
                //display the ticket details once the flight is booked
        }
    }
public class Cancellation
{
        String cancel_status;

        public String cancelFlight(Long booking_id)
        {
                If (booking_id!=null)
                {

        cancel_status=flightCancellationConfirmation(booking_id)//code for canceling
flight
                                return(cancel_status);
}
                else generateAlert() // display error message
                return (message);

}
        public string flightCancellationConfirmation(Long booking_id)
        {
                return(status);//code for cancellation of flight
        }

}
```

:searchFlight (arrival_date, departure_date, departure_city, No_of_passenger, arival_city)

If This.arrival_date>=this.departure_date and This.arival_city!=this.departure_city and

No_of_passenger!=null and trip!=null

 Then

This.viewFlightInformation();

Else

Alert:= [Alert] = A1 : generateAlert [] on searchFlight

generateAlert()

endif

:bookingFlight(passenger_name, seat_preference, meal_preference, phone_number, email_id)

If This. passenger_name!=null and This. seat_preference!=null and this. meal_preference!=null and this. phone_number!=null and this. email_id!=null

Then

this.makePayment();

Else

Alert:= [Alert] = A1 : generateAlert [] on bookingFlight

generateAlert()
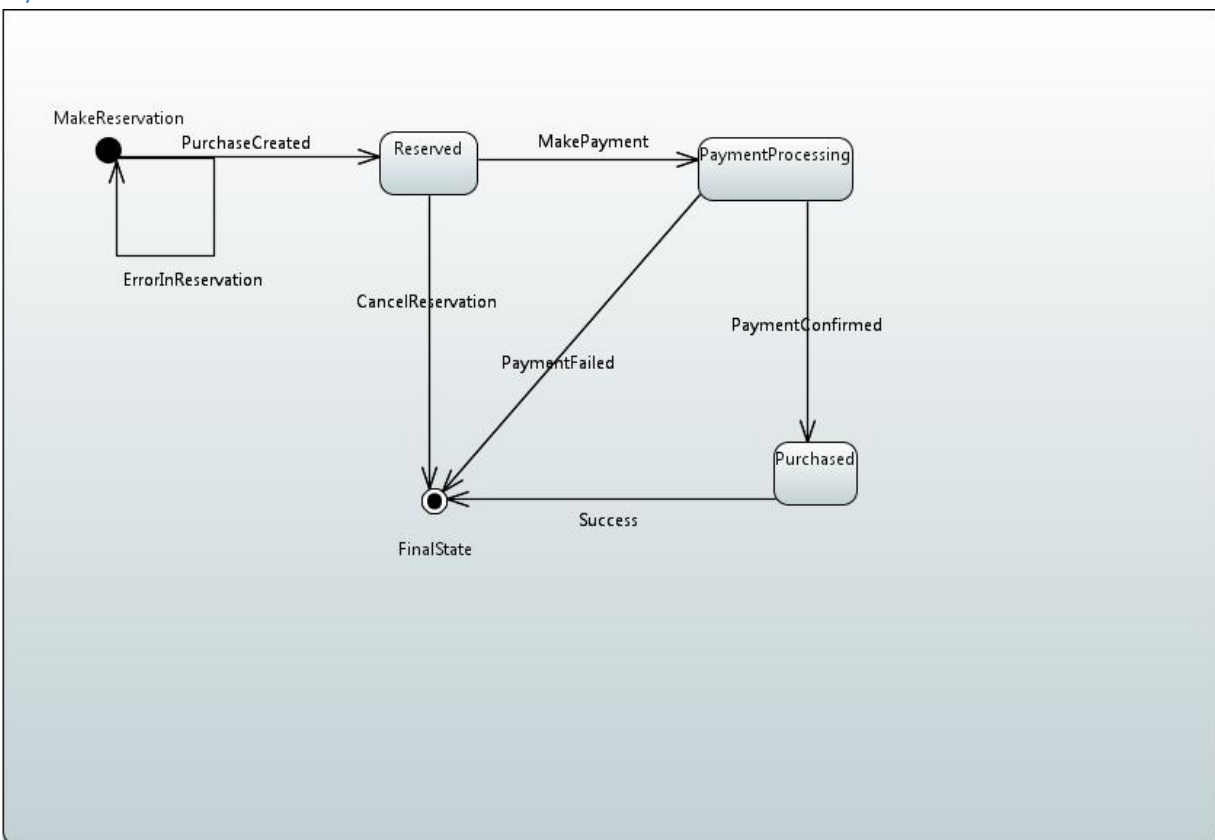
endif;

:cancelFlight(booking_id, cancel_status)

If this.booking_id!=null

Then this.cancel_status =this.

flightCancellationConfirmation()

Alert(cancel_status);

endif;

Payment

Action Specification

```java
public class Payment
{
      String payment_status;

      public static makePayment(int amount,int card_number, String card_holder_name)
      {
            if (validateDetails(card_number,card_holder_name)==true
                        and sufficientAmount(amount)==true)
            {
                  payment_status=paymentConfirm();//display the status about
payment
                  System.out.println(payment_status)
            }
            else generateAlert() // display error message
      }

      public String validateDetails(int card_number, String card_holder_name )
      {
            //validate card information
            return status;// status will be local variable which confirm the card
details
      }

      public int sufficientAmount(int amount )
      {
            //validate sufficient balance
            return status;// status will be local variable which display the
sufficient amount
      }
      public String paymentConfirm()
      {
            //display message
            return status;// status will be local variable which display the payment
status
      }

}


public class Cancellation
{
      String cancel_status;

      public String cancelFlight(Long booking_id)
      {
            If (booking_id!=null)
            {

      cancel_status=flightCancellationConfirmation(booking_id)//code for canceling
flight
                        return(cancel_status);
}
```

```
            else generateAlert() // display error message
            return (message);

}
      public string flightCancellationConfirmation(Long booking_id)
      {
            return(status);//code for cancellation of flight
      }

}
```

:makePayment(amount, payment_status ,card_number,card_hoder_name)

If this.validateCard(card_number,card_hoder_name)==true and this.sufficientAmount(amount)==true

Then This.payment_status= This.paymentConfirm()

Alert(payment_status);

endif;

:cancelFlight(booking_id, cancel_status)
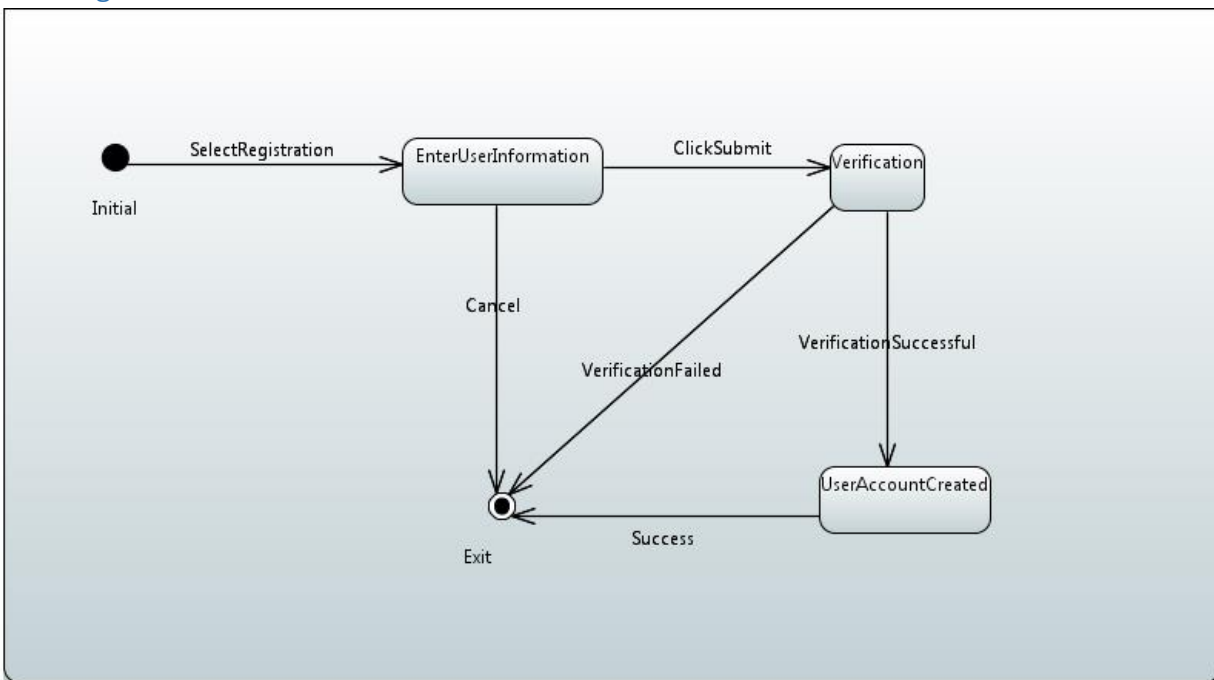
If this.booking_id!=null

Then this.cancel_status =this.

flightCancellationConfirmation()

Alert(cancel_status);

endif;

Action Specification

```java
public class RegisterUser {

public static void saveUser(String user_name, int password,String first_name,String last_name,//others)
     {
          //code to register user by using all the parameters


     }


}

public class Flight{

     Public static void searchFlight(String arrival_city,departure_city,arrival_date,departure_date
               number_of_passenger)
     {
     if(arrival_city!=null and departure_city!=null and arrival_date!=null and departure_date!=null)
     {// here we code for search flights

          // String result is local vairable to store search result.
          ViewFlightInformation( result); // this is for displaying search result
```

```
        }
        else
                generateAlert() // display error message
        }
}
        public static ViewFlightInformation(String result)
        { // display search result

                // System.out.print(result)   to display search}


}
        }
```

:saveUser(String user_name, int password,String first_name,String last_name)

If this. user_name!=null and this.password!=null and this. first_name!=null and this. last_name!=null

Then This.userSaved = This.saveUser ()

Alert(userSaved);

endif;

:searchFlight(String arrival_city,departure_city,arrival_date,departure_date,number_of_passenger)

If this.arrival_city!=null and this.departure_city!=null and this.arrival_date!=null and this.departure_date!=null

Then This.ViewFlightInformation = This.FlightInformationViewed()

Alert(ViewFlightInformation);

endif;