**Name**: Ravi Jamanbhai Makwana

**Roll No**: 21BCP418

Div-6, G-12

**Assignment-11 (State Design Pattern)**

**Aim:**

To implement State Design Pattern using Accommodation management system.

**Code:**

**Service.java**

public interface Service{

    public void provideService(Room r);

}

**PremiumService.java**

public class PremiumService implements Service{

    @Override

    public void provideService(Room r) {

        System.out.println("Premium Service Applied to Room: "+r.name);

        r.setService(this);

    }

}

**GeneralService.java**

public class GeneralService implements Service{

    @Override

    public void provideService(Room r) {

        System.out.println("General Service Applied to Room: "+r.name);

        r.setService(this);

    }

}

**Room.java**

public class Room {

    private Service service;

    String name;

    public Room(String name){

        service = null;

        this.name = name;

    }

    public void setService(Service service){

        this.service = service;

    }

    public Service getService(){

        return service;

    }

}

**Test.java**

public class Test {

    public static void main(String args[]){

        Room r = new Room("Room-1");

        PremiumService s1 = new PremiumService();

        s1.provideService(r);

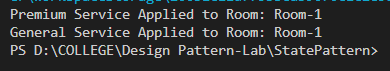
        GeneralService s2 = new GeneralService();

        s2.provideService(r);

    }

}

**Output:**



**Class Diagram:**

