REPORT

by erangi wanniarachchi

Submission date: 08-Aug-2021 01:15PM (UTC+0800)
Submission ID: 1628942089
File name: report.docx (11.06M)
Word count: 926
Character count: 4846

Tasks

1.

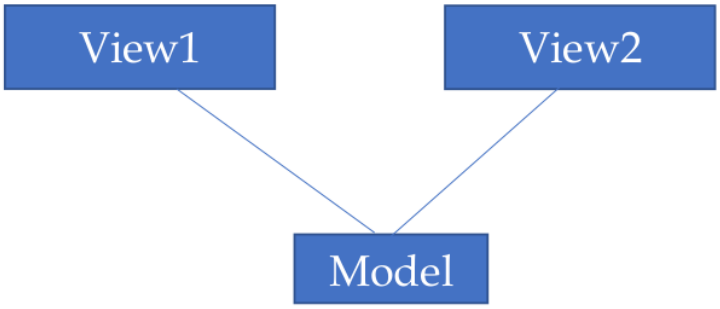
The model-view- controller pattern divides an application into a Model, a View, and a Controller. The Model has nothing to do with the View or the Controller. A Model Observer is the point of view.

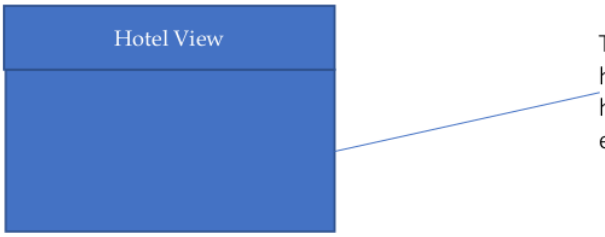
In this case study, there is model the state of the patient and the hotel, and the way the state changes. Patient-Number is auto generated. The model is independent of the view and the controller. None of the code in the model class makes any assumptions about the way that the model is displayed.

It is easy to add alternative views of the same model.

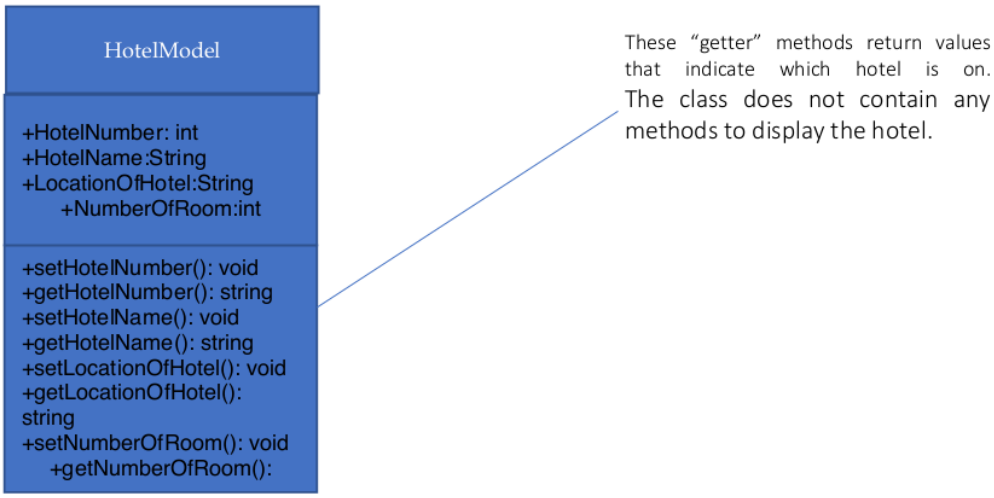
Although a view does depend on the model the views are independent of each other.

Then want to add, display, and exit.





The HotelView class displays the hotel, it must "observer" the hotelModel and update the display every time that the lights change.



• The model is unaffected by the viewpoint. No code in the model class makes any assumptions about how the model will be presented.
• It is simple to add more views of the same model.
• Although a view is dependent on the model the views are independent of one another.

CONTROLLER

In this case study, I want to divide the original problem into two sub problems. Those of modelling and viewing the data.

I need to figure out how to translate a patient's mouse click on the Add Hotel and add Patient button into a call to the model's Add Hotel and add Patient function. I'll delegate responsibility for this to a different class known as the controller.

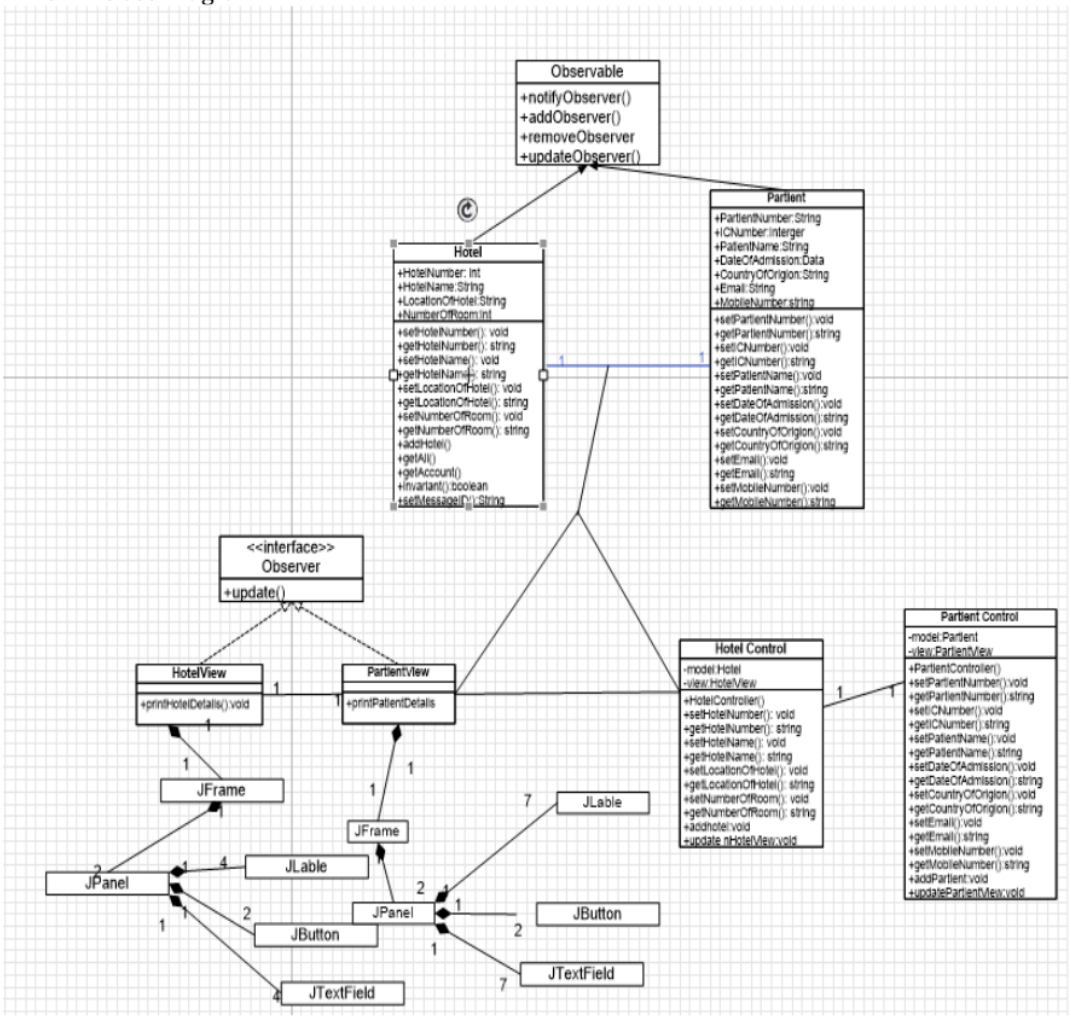
A controller, in general, is a class that analyses events like keystrokes or mouse clicks and turns them into suitable method calls.

- The Observer pattern allows one class to respond to changes in the state of another without requiring the Subject to rely on its Observer.

There are some MVC Features,

i. Deploy the runtime and framework alongside the application.
ii. Dependency injection is incorporated into MVC.
iii. The application is designed as a component-based system, with Model, View, and Controller components. This allows developers to manage the complexities of large-scale projects while still working on specific components.
iv. There is no need to recompile for each modification. Simply save and reload the browser.
v. Compilation was completed using the new Roslyn real-time compiler.
vi. ASP.NET MVC and web API have been combined into a single application

2. UML Class Diagram



3. My patient number is auto generating.

a) Model Classes

This class serves as a link between the control and the view. The user activates a control, which calls a model method to instruct it to change state; once done, it notifies the view that its state has changed. The model does not initiate any activities; instead, it takes and executes orders from the controller.

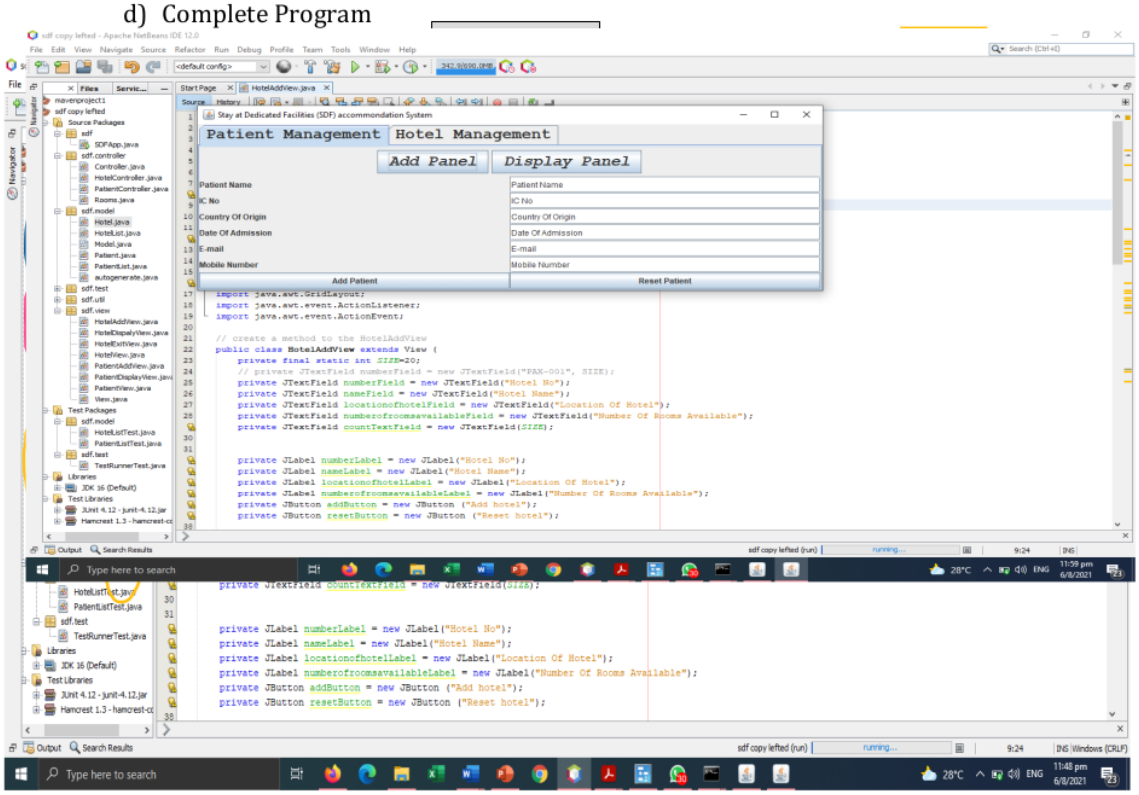
b) Controller Classes

This class contains all the controls in the GUI. When a control is activated by the user, it calls a method in the Model that instructs it to modify its state accordingly. The listeners defined in the Controller are complex (but tiny) pieces of Java code that detect a user action and call the method in the Model that handles that action.

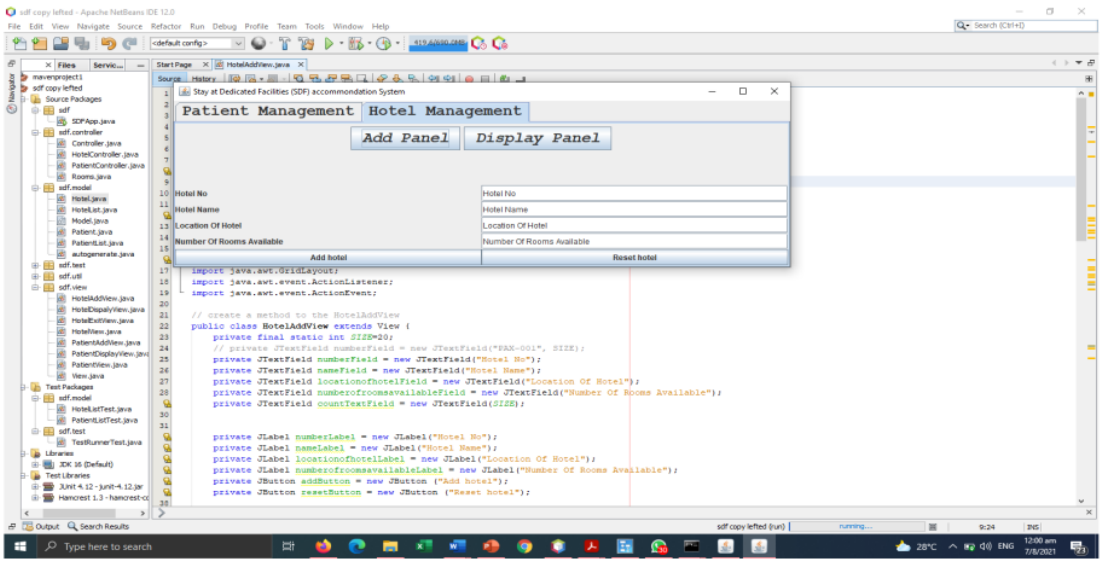
c) View Classes

This class is in charge of coordinating the look of the GUI. It determines the placement of all controls and displays. When the model notifies the view that the model's state has changed, the view re-displays itself by executing model methods that return all of the information that the view must display.

d) Complete Program



This is the system of the patient management system GUI for SDF.



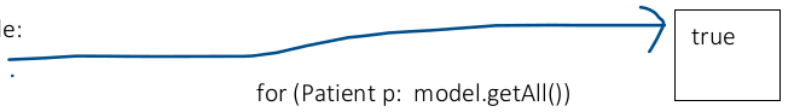
This is the system of the hotel management system GUI for SDF.

4. Pre-condition

A pre-condition is a Boolean statement that defines the state that a method must be in for it to operate properly. There are several methods to define the criteria for a function. Throughout this lesson and in the textbook, we will employ a pair of statements for each function, known as the function's precondition and postcondition.

A TRUE pre-condition indicates that there is no pre-condition. When TRUE is true, the process works.
A FALSE pre-condition would define a process that would never work. The process works only when FALSE is true, which is never satisfied.

Example:
Int i=0;




```
for (Patient p:  model.getAll())
{

        tf = new JTextField(SIZE);
```

```
i=i+1;
String s=String.valueOf(i);
                    tf.setText("PAX-"+s);
                    contents.add(tf);
```

if i=0 value is true, then go to in a for loop. Get a text value. The precondition statement specifies what must be true before calling the function.

Post-condition

post-condition : A post-condition gives a state that should be true when the procedure has finished.

A pre-condition and post-condition pair for a function f specifies that:

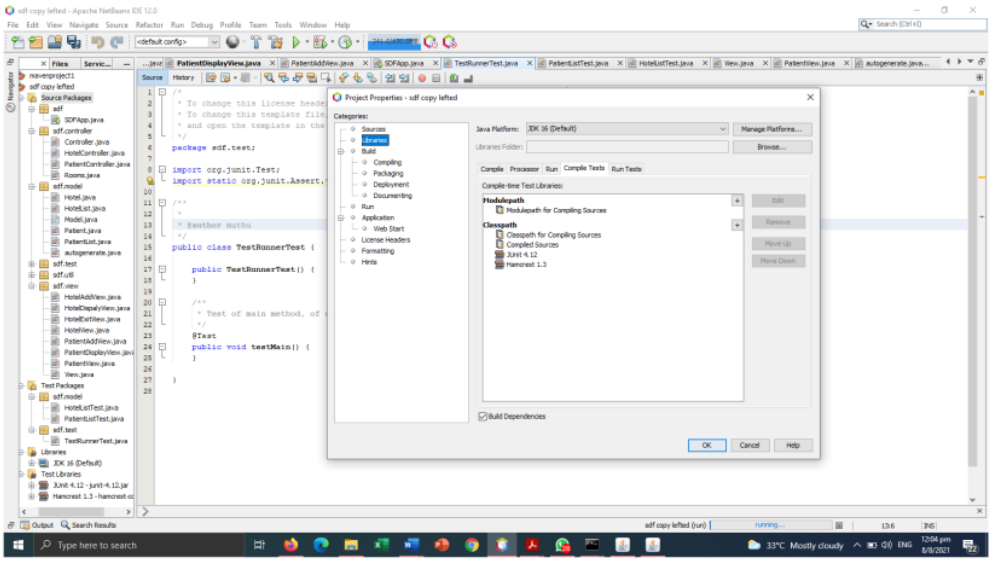
a correct implementation of function f must ensure that when f is called in any state that satisfies the pre-condition, then in any terminating state of f, the post condition is true

Example:

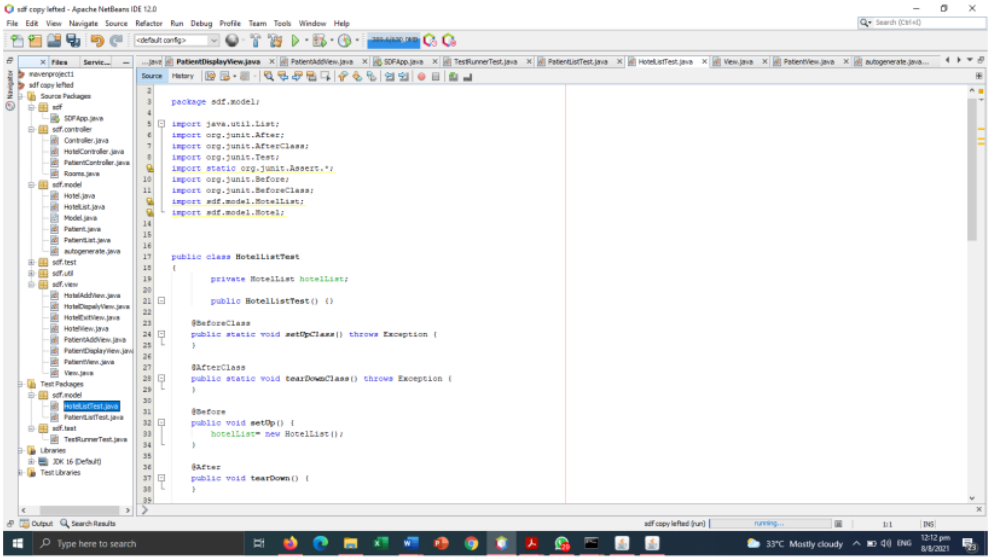
```
Int i=0;
                    for (Patient p:  model.getAll())
                    {

                        tf = new JTextField(SIZE);

i=i+1;
String s=String.valueOf(i);
                    tf.setText("PAX-"+s);
                    contents.add(tf);
```

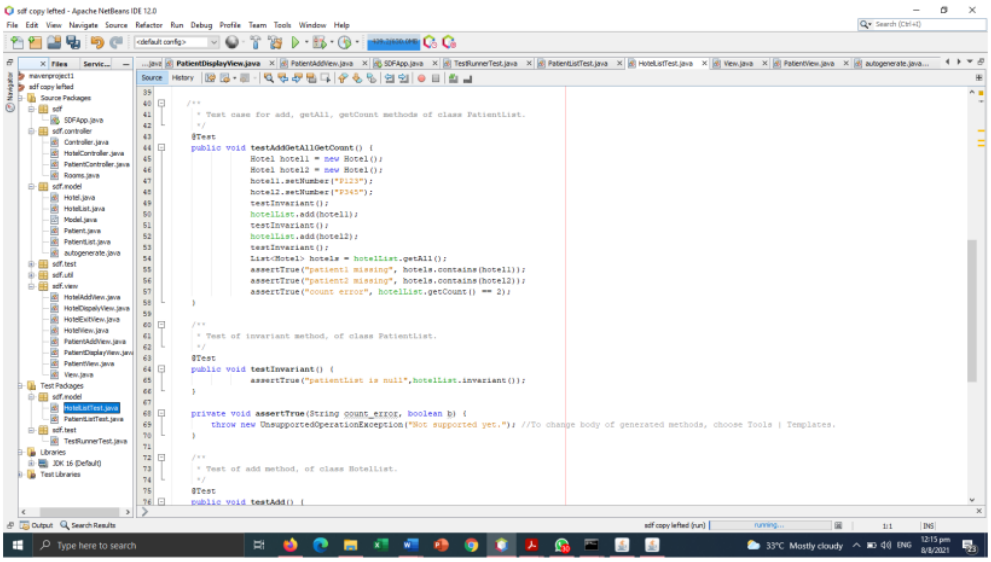
After that i=i+1, get string value and set as PAX-1. When a function completes its execution, it guarantees that the post-condition is true.

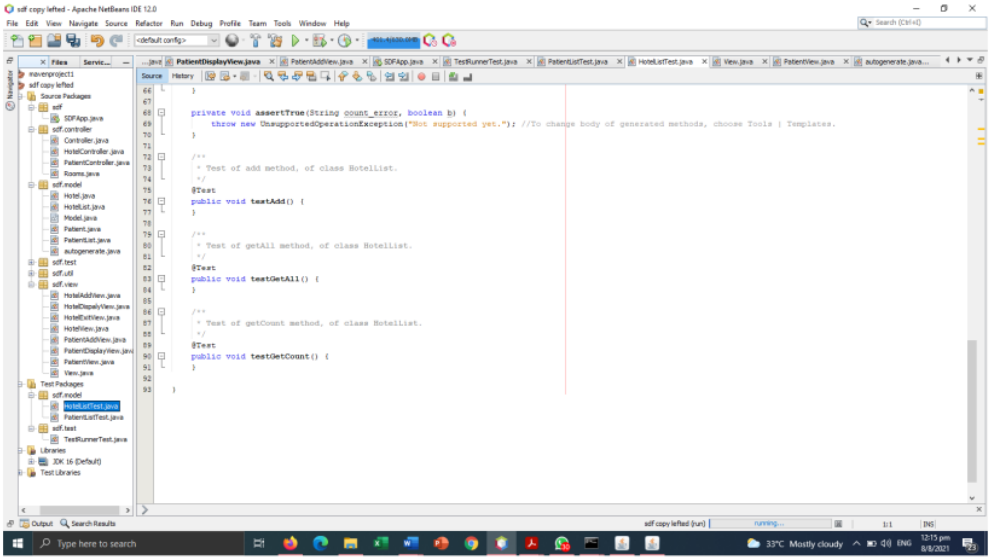
5. Any JUnit libraries were listed in the "Add Library..." box in my Project Properties window.



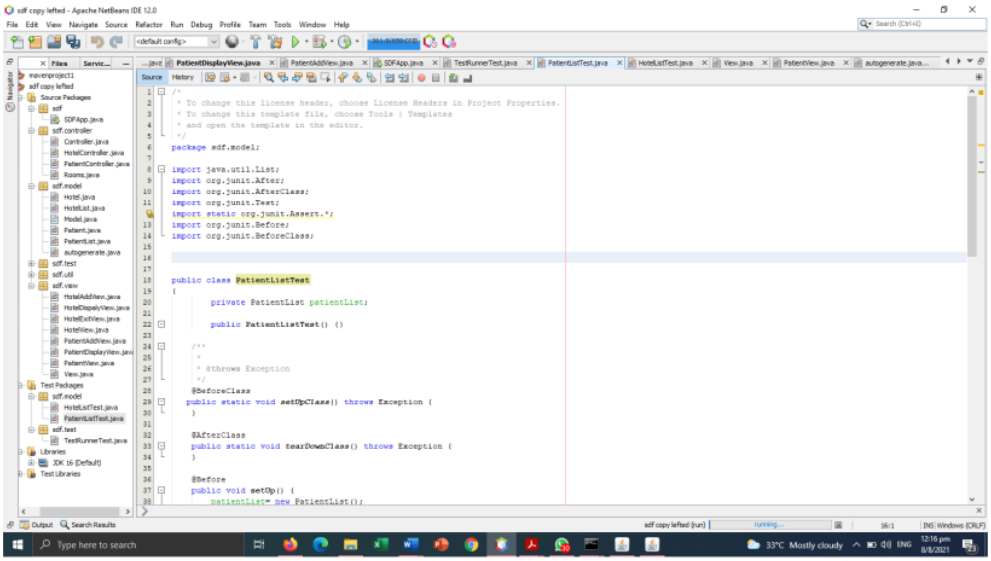
HotelListTest.java

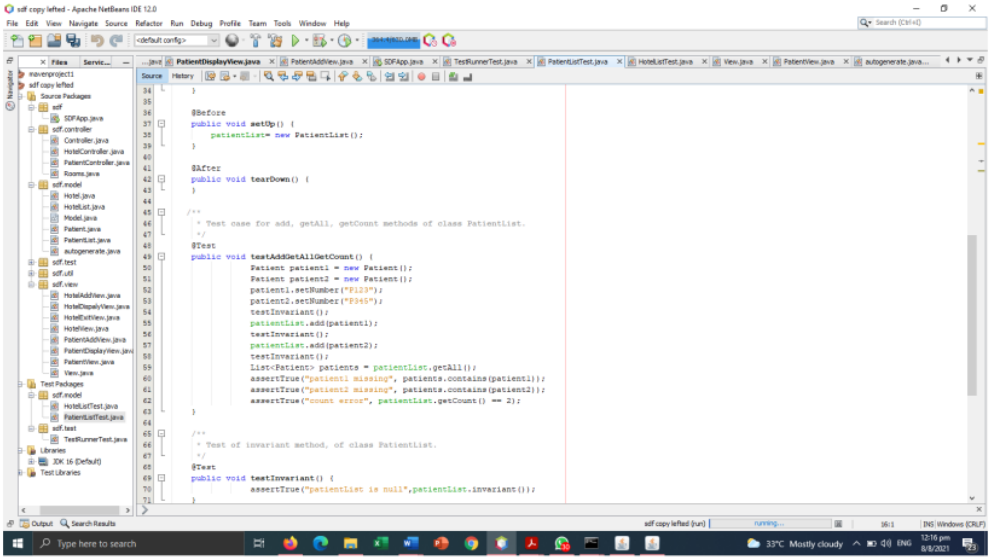

sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Source History
package sdf.model;
import java.util.List;
import org.junit.After;
import org.junit.AfterClass;
import org.junit.Test;
import static org.junit.Assert.*;
import org.junit.Before;
import org.junit.BeforeClass;
import sdf.model.HotelList;
import sdf.model.Hotel;
public class HotelListTest
{
private HotelList hotelList;
public HotelListTest() {}
@BeforeClass
public static void setUpClass() throws Exception {
}
@AfterClass
public static void tearDownClass() throws Exception {
}
@Before
public void setUp() {
hotelList= new HotelList();
}
@After
public void tearDown() {
}
Type here to search
33°C Mostly cloudy
ENG
12:12 pm
8/8/2021

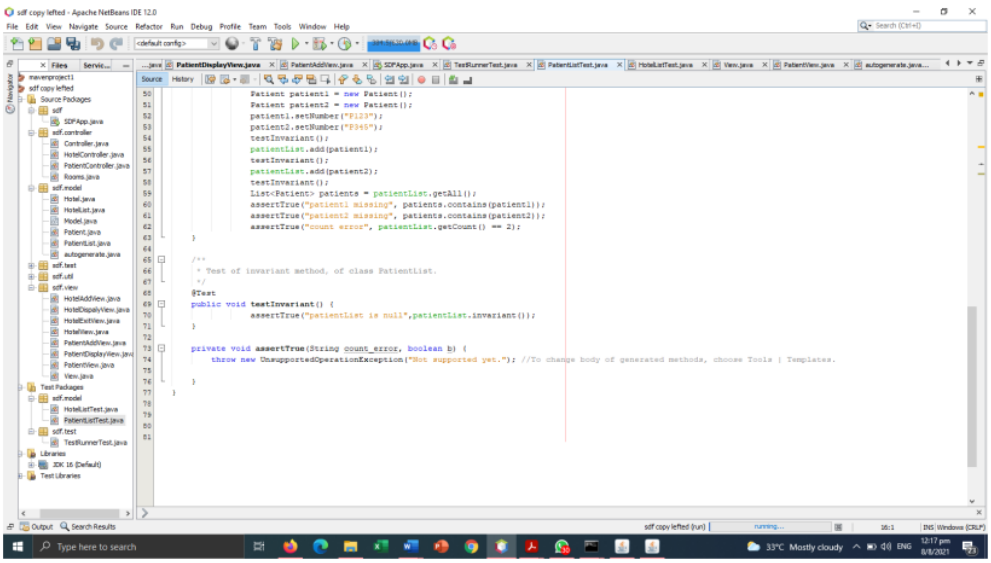

sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Source History
/**
* Test case for add, getAll, getCount methods of class PatientList.
*/
@Test
public void testAddGetAllGetCount() {
Hotel hotel1 = new Hotel();
Hotel hotel2 = new Hotel();
hotel1.setNumber("P123");
hotel2.setNumber("P345");
testInvariant();
hotelList.add(hotel1);
testInvariant();
hotelList.add(hotel2);
testInvariant();
List<Hotel> hotels = hotelList.getAll();
assertTrue("patient1 missing", hotels.contains(hotel1));
assertTrue("patient2 missing", hotels.contains(hotel2));
assertTrue("count error", hotelList.getCount() == 2);
}
/**
* Test of invariant method, of class PatientList.
*/
@Test
public void testInvariant() {
assertTrue("patientList is null",hotelList.invariant());
}
private void assertTrue(String count_error, boolean b) {
throw new UnsupportedOperationException("Not supported yet."); //To change body of generated methods, choose Tools | Templates.
}
/**
* Test of add method, of class HotelList.
*/
@Test
public void testAdd() {
Type here to search
33°C Mostly cloudy
ENG
12:15 pm
8/8/2021



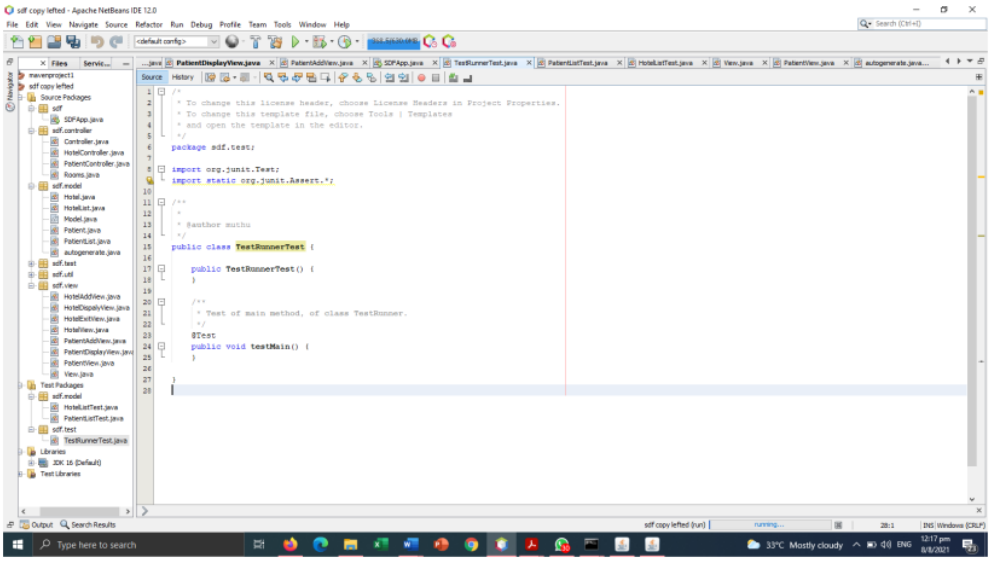
PatientListTest




sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
@Before
public void setUp() {
patientList= new PatientList();
}
@After
public void tearDown() {
}
/**
* Test case for add, getAll, getCount methods of class PatientList.
*/
@Test
public void testAddSetAllGetCount() {
Patient patient1 = new Patient();
Patient patient2 = new Patient();
patient1.setNumber("P123");
patient2.setNumber("P345");
testInvariant();
patientList.add(patient1);
testInvariant();
patientList.add(patient2);
testInvariant();
List<Patient> patients = patientList.getAll();
assertTrue("patient1 missing", patients.contains(patient1));
assertTrue("patient2 missing", patients.contains(patient2));
assertTrue("count error", patientList.getCount() == 2);
}
/**
* Test of invariant method, of class PatientList.
*/
@Test
public void testInvariant() {
assertTrue("patientList is null",patientList.invariant());
}
Type here to search
33°C Mostly cloudy
ENG
12:16 pm
8/8/2021


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Patient patient1 = new Patient();
Patient patient2 = new Patient();
patient1.setNumber("P123");
patient2.setNumber("P345");
testInvariant();
patientList.add(patient1);
testInvariant();
patientList.add(patient2);
testInvariant();
List<Patient> patients = patientList.getAll();
assertTrue("patient1 missing", patients.contains(patient1));
assertTrue("patient2 missing", patients.contains(patient2));
assertTrue("count error", patientList.getCount() == 2);
}
/**
* Test of invariant method, of class PatientList.
*/
@Test
public void testInvariant() {
assertTrue("patientList is null",patientList.invariant());
}
private void assertTrue(String count_error, boolean b) {
throw new UnsupportedOperationException("Not supported yet."); //To change body of generated methods, choose Tools | Templates.
}
}
Type here to search
33°C Mostly cloudy
ENG
12:17 pm
8/8/2021

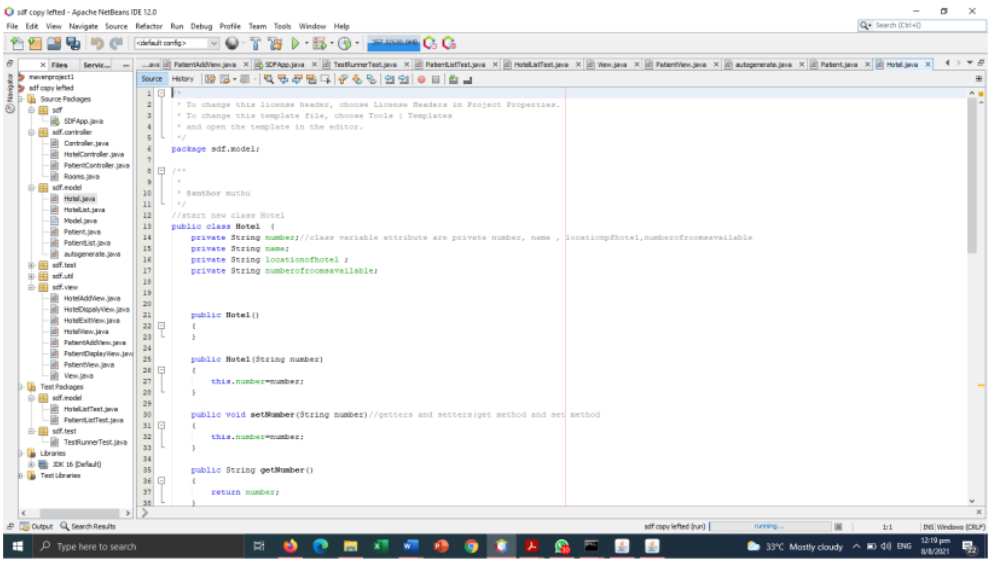
TestRunnerTest

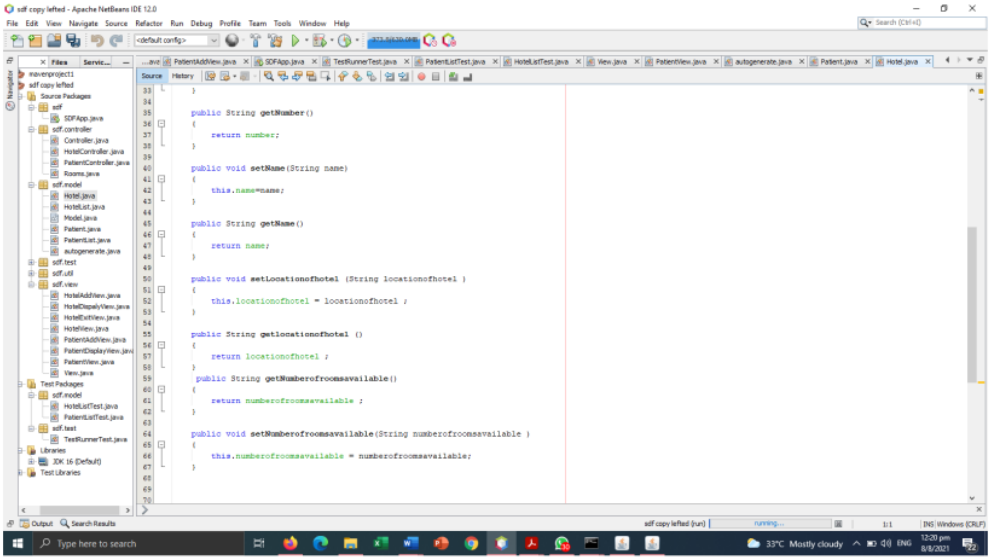


7.

MODEL

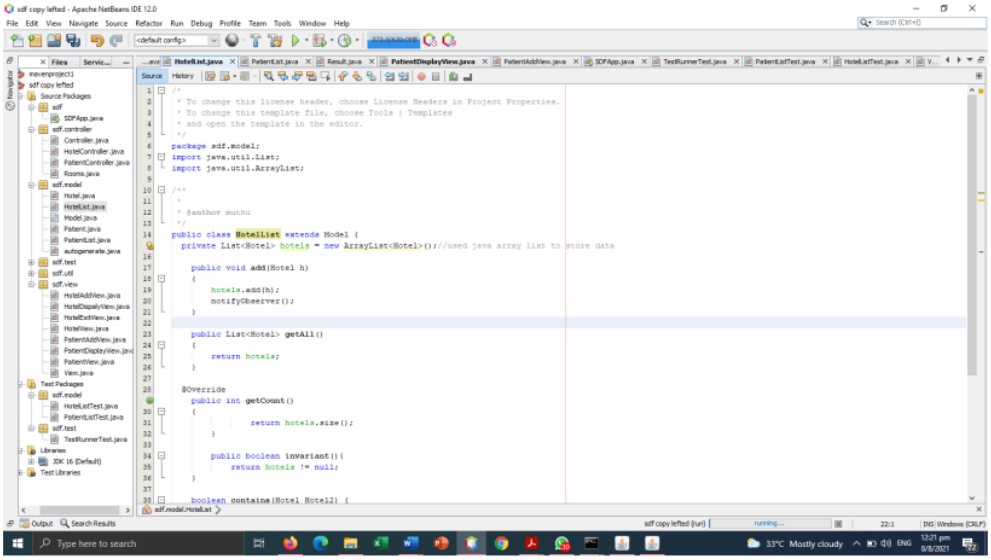
Hotel.java



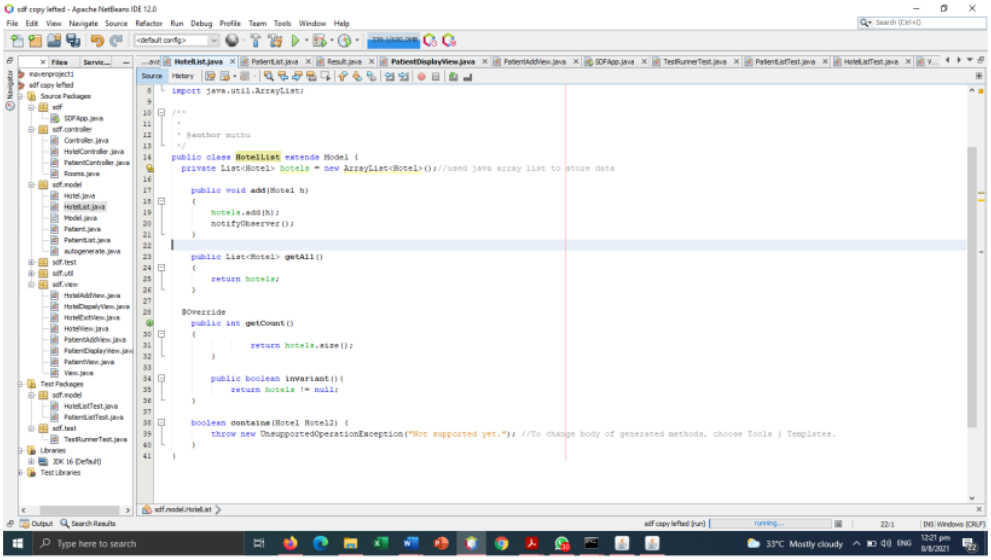


```
    }

    public String getNumber()
    {
        return number;
    }

    public void setName(String name)
    {
        this.name=name;
    }

    public String getName()
    {
        return name;
    }

    public void setLocationofhotel (String locationofhotel )
    {
        this.locationofhotel = locationofhotel ;
    }

    public String getlocationofhotel ()
    {
        return locationofhotel ;
    }
     public String getNumberofroomsavailable()
    {
        return numberofroomsavailable ;
    }

    public void setNumberofroomsavailable(String numberofroomsavailable )
    {
        this.numberofroomsavailable = numberofroomsavailable;
    }
```

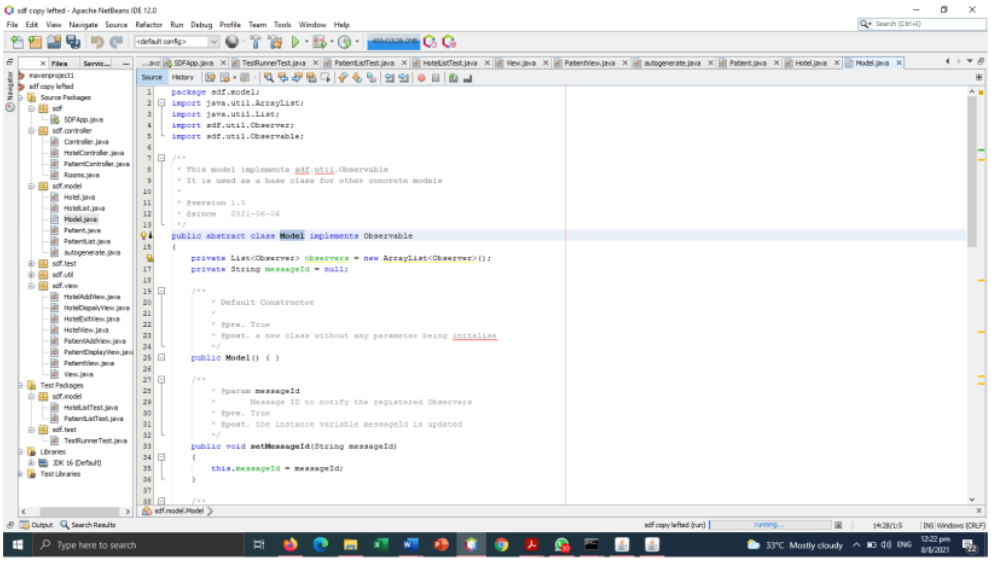
HotelList.java

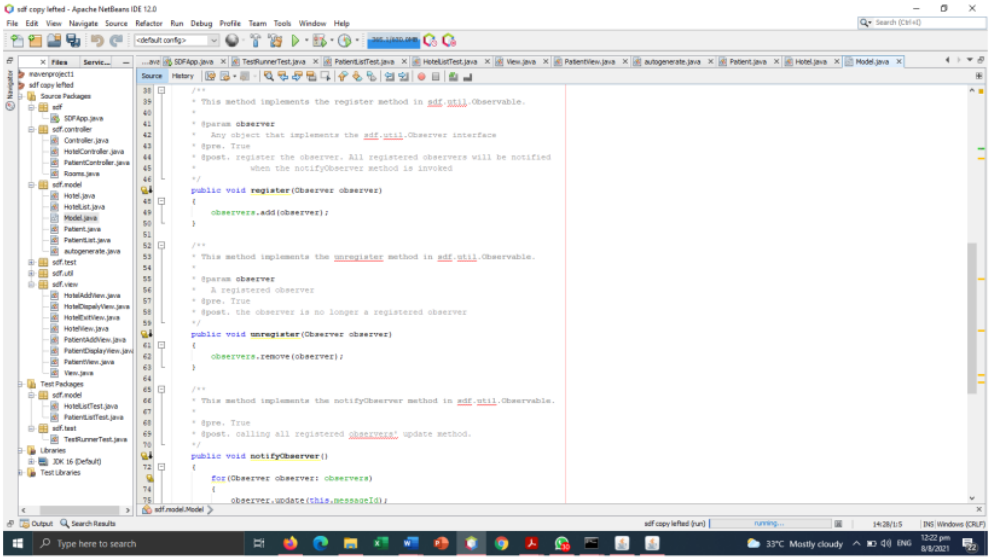


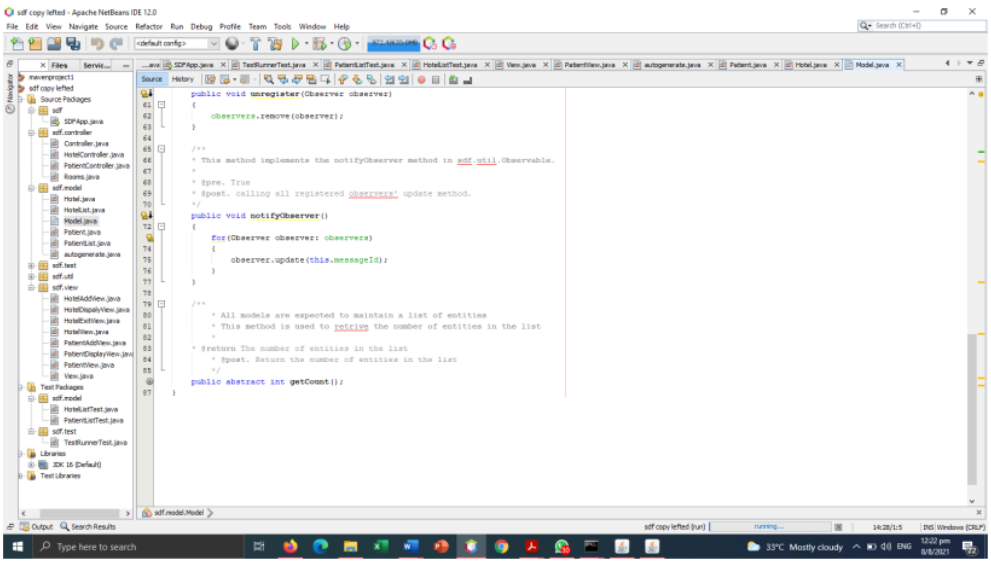
```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package sdf.model;
import java.util.List;
import java.util.ArrayList;

/**
 *
 * @author muthu
 */
public class HotelList extends Model {
  private List<Hotel> hotels = new ArrayList<Hotel>();//used java array list to store data

    public void add(Hotel h)
    {
        hotels.add(h);
        notifyObserver();
    }

    public List<Hotel> getAll()
    {
        return hotels;
    }

  @Override
    public int getCount()
    {
            return hotels.size();
        }

        public boolean invariant(){
            return hotels != null;
    }

    boolean containe(Hotel Hotel2) {
```


sdf copy lefted - Apache NetBeans IDE 12.0
HotelList.java
PatientList.java
Result.java
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
import java.util.ArrayList;
/**
*
* @author muthu
*/
public class HotelList extends Model {
private List<Hotel> hotels = new ArrayList<Hotel>();//used java array list to store data
public void add(Hotel h)
{
hotels.add(h);
notifyObserver();
}
public List<Hotel> getAll()
{
return hotels;
}
@Override
public int getCount()
{
return hotels.size();
}
public boolean invariant(){
return hotels != null;
}
boolean contains(Hotel Hotel2) {
throw new UnsupportedOperationException("Not supported yet."); //To change body of generated methods, choose Tools | Templates.
}
}
sdf.model.HotelList
Output
Search Results
sdf copy lefted (run)
running...
22:1
INS Windows (CRLF)
Type here to search
33°C Mostly cloudy
ENG
12:21 pm
8/8/2021

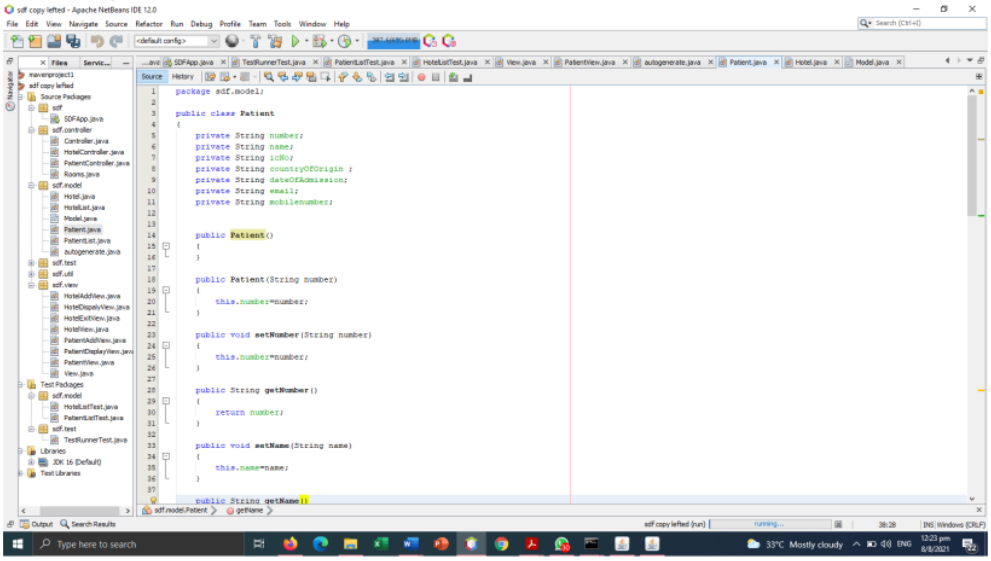
Model.java


sdf copy lefted - Apache NetBeans IDE 12.0
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Patient.java
Hotel.java
Model.java
package sdf.model;
import java.util.ArrayList;
import java.util.List;
import sdf.util.Observer;
import sdf.util.Observable;
/**
* This model implements sdf.util.Observable
* It is used as a base class for other concrete models
*
* @version 1.0
* @since 2021-06-06
*/
public abstract class Model implements Observable
{
private List<Observer> observers = new ArrayList<Observer>();
private String messageId = null;
/**
* Default Constructor
*
* @pre. True
* @post. a new class without any parameter being initalize
*/
public Model() { }
/**
* @param messageId
* Message ID to notify the registered Observers
* @pre. True
* @post. the instance variable messageId is updated
*/
public void setMessageId(String messageId)
{
this.messageId = messageId;
}
sdf.model.Model
Output
Search Results
sdf copy lefted (run)
running...
14:28/1:S
INS Windows (CRLF)
Type here to search
33°C Mostly cloudy
ENG
12:22 pm
8/8/2021

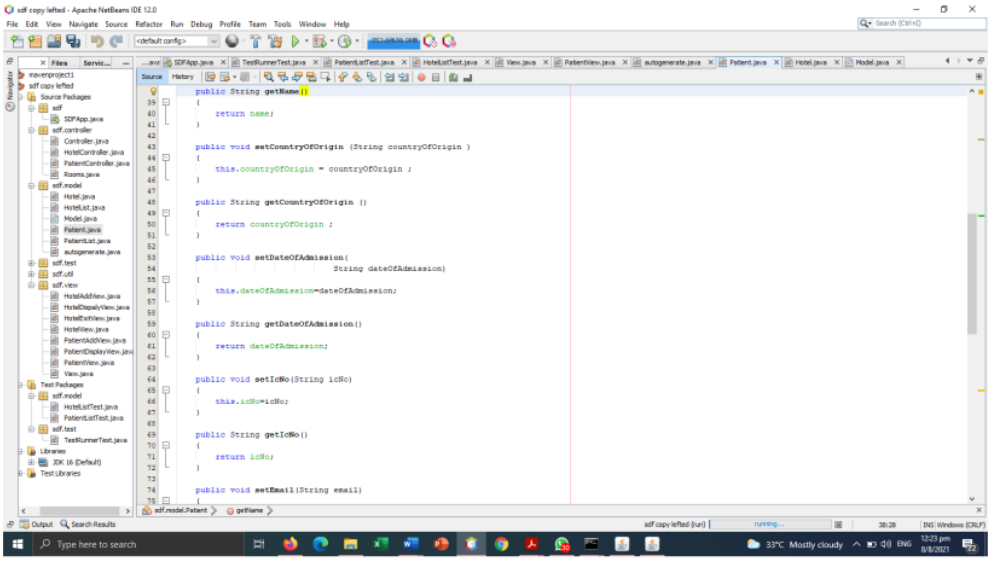

sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
Files Servic...
mavenproject1
sdf copy lefted
Source Packages
sdf
SDFApp.java
sdf.controller
Controller.java
HotelController.java
PatientController.java
Rooms.java
sdf.model
Hotel.java
HotelList.java
Model.java
Patient.java
PatientList.java
autogenerate.java
sdf.test
sdf.util
sdf.view
HotelAddView.java
HotelDispalyView.java
HotelExitView.java
HotelView.java
PatientAddView.java
PatientDisplayView.java
PatientView.java
View.java
Test Packages
sdf.model
HotelListTest.java
PatientListTest.java
sdf.test
TestRunnerTest.java
Libraries
JDK 16 (Default)
Test Libraries
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Patient.java
Hotel.java
Model.java
Source
History
/**
* This method implements the register method in sdf.util.Observable.
*
* @param observer
* Any object that implements the sdf.util.Observer interface
* @pre. True
* @post. register the observer. All registered observers will be notified
* when the notifyObserver method is invoked
*/
public void register(Observer observer)
{
observers.add(observer);
}
/**
* This method implements the unregister method in sdf.util.Observable.
*
* @param observer
* A registered observer
* @pre. True
* @post. the observer is no longer a registered observer
*/
public void unregister(Observer observer)
{
observers.remove(observer);
}
/**
* This method implements the notifyObserver method in sdf.util.Observable.
*
* @pre. True
* @post. calling all registered observers' update method.
*/
public void notifyObserver()
{
for(Observer observer: observers)
{
observer.update(this,messageId);
sdf.model.Model
Output
Search Results
sdf copy lefted (run)
running...
14:28/1:5
INS Windows (CRLF)
Type here to search
33°C Mostly cloudy
ENG
12:22 pm
8/8/2021


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
public void unregister(Observer observer)
{
observers.remove(observer);
}
/**
* This method implements the notifyObserver method in sdf.util.Observable.
*
* @pre. True
* @post. calling all registered observers' update method.
*/
public void notifyObserver()
{
for(Observer observer: observers)
{
observer.update(this,messageId);
}
}
/**
* All models are expected to maintain a list of entities
* This method is used to retrive the number of entities in the list
*
* @return The number of entities in the list
* @post. Return the number of entities in the list
*/
public abstract int getCount();
}
sdf.model.Model
Output
Search Results
sdf copy lefted (run)
running...
14:28/1:5
INS Windows (CRLF)
Type here to search
33°C Mostly cloudy
ENG
12:22 pm
8/8/2021

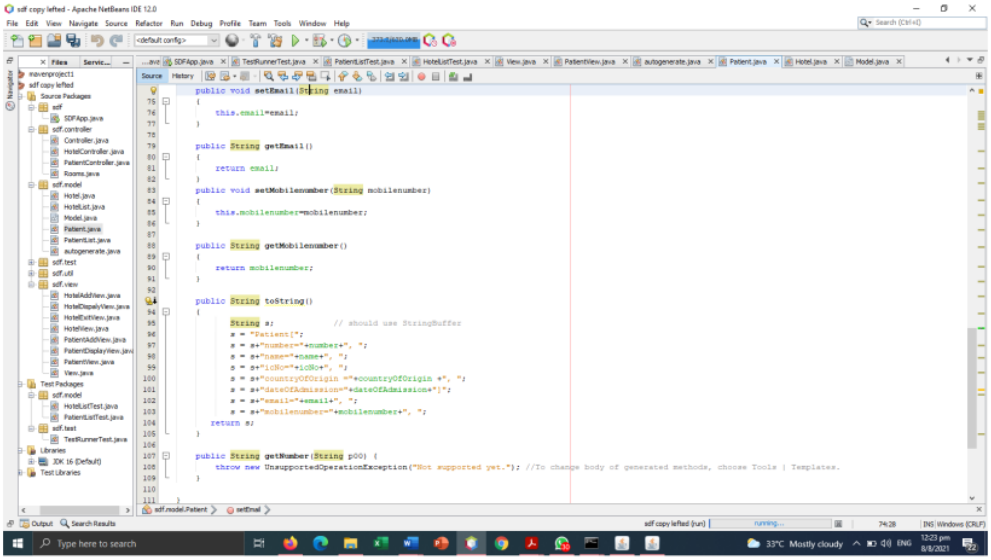
Patient.java



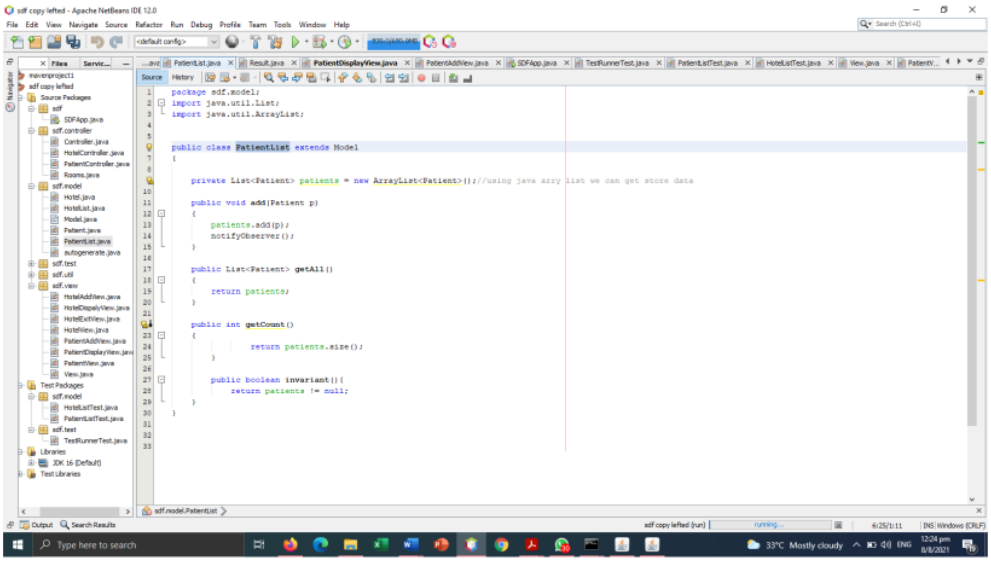
```
package sdf.model;

public class Patient
{
    private String number;
    private String name;
    private String icNo;
    private String countryOfOrigin ;
    private String dateOfAdmission;
    private String email;
    private String mobilenumber;


    public Patient()
    {
    }

    public Patient(String number)
    {
        this.number=number;
    }

    public void setNumber(String number)
    {
        this.number=number;
    }

    public String getNumber()
    {
        return number;
    }

    public void setName(String name)
    {
        this.name=name;
    }

    public String getName()
```



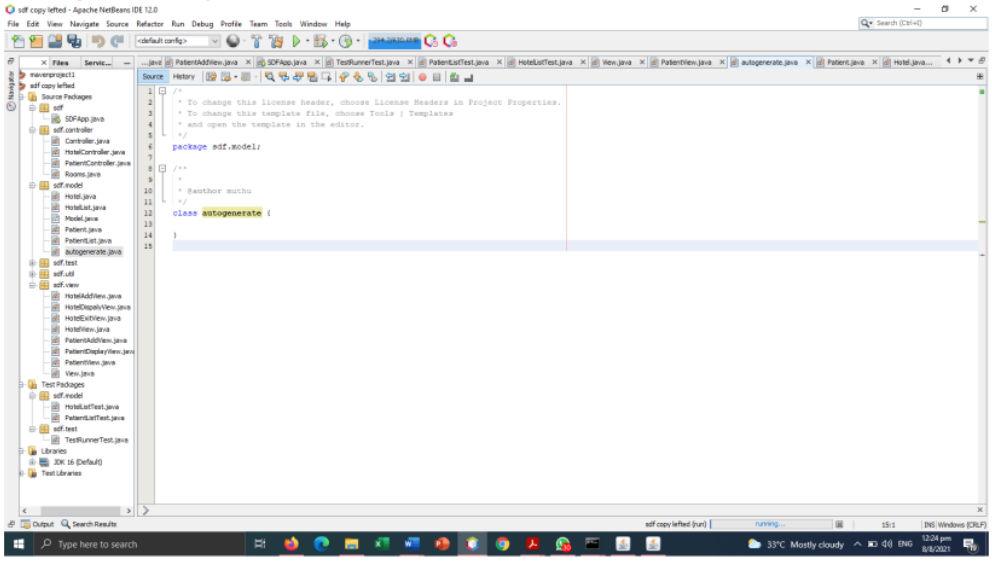
```
    public String getName()
    {
        return name;
    }

    public void setCountryOfOrigin (String countryOfOrigin )
    {
        this.countryOfOrigin = countryOfOrigin ;
    }

    public String getCountryOfOrigin ()
    {
        return countryOfOrigin ;
    }

    public void setDateOfAdmission(
                                String dateOfAdmission)
    {
        this.dateOfAdmission=dateOfAdmission;
    }

    public String getDateOfAdmission()
    {
        return dateOfAdmission;
    }

    public void setIcNo(String icNo)
    {
        this.icNo=icNo;
    }

    public String getIcNo()
    {
        return icNo;
    }

    public void setEmail(String email)
```



PatientList.java

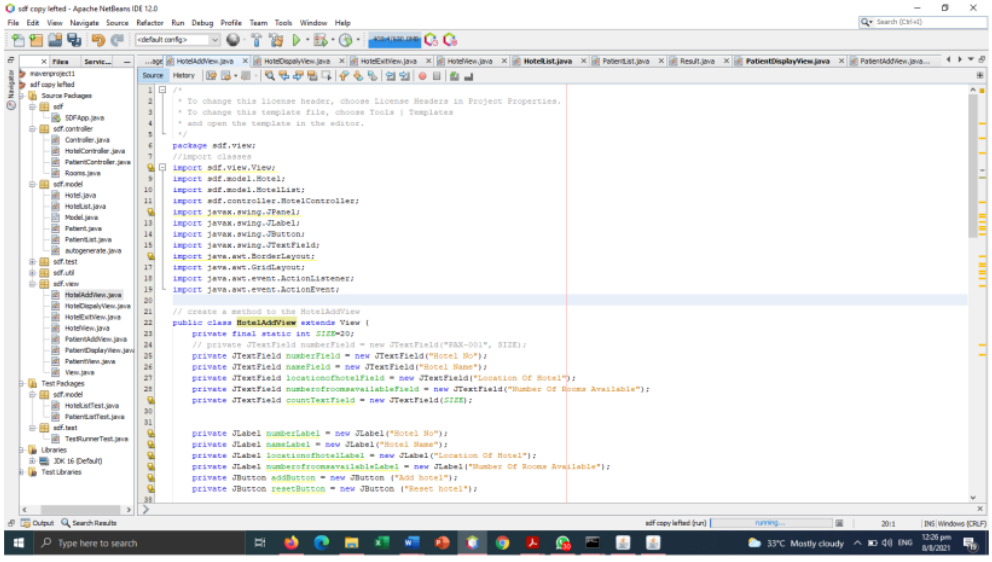


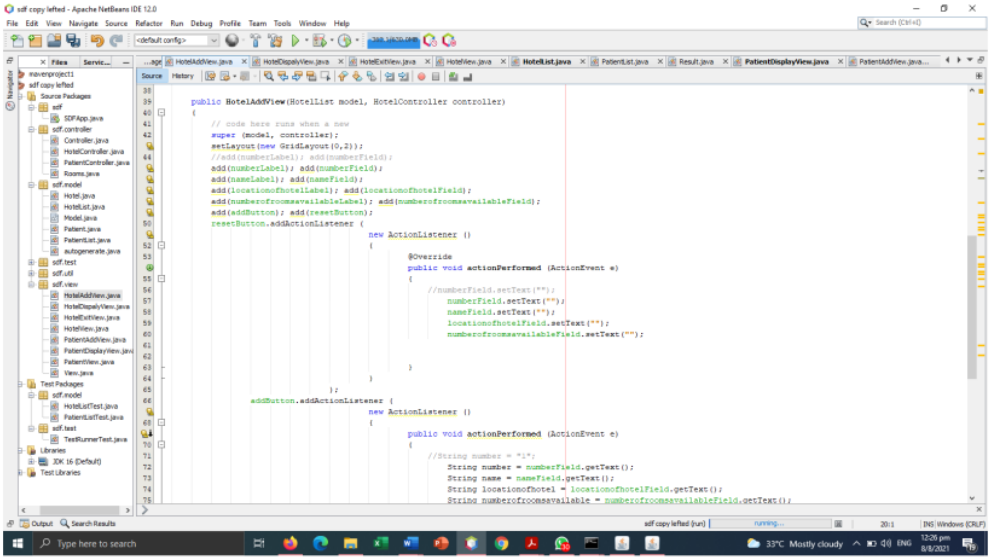
Autogenerate.java

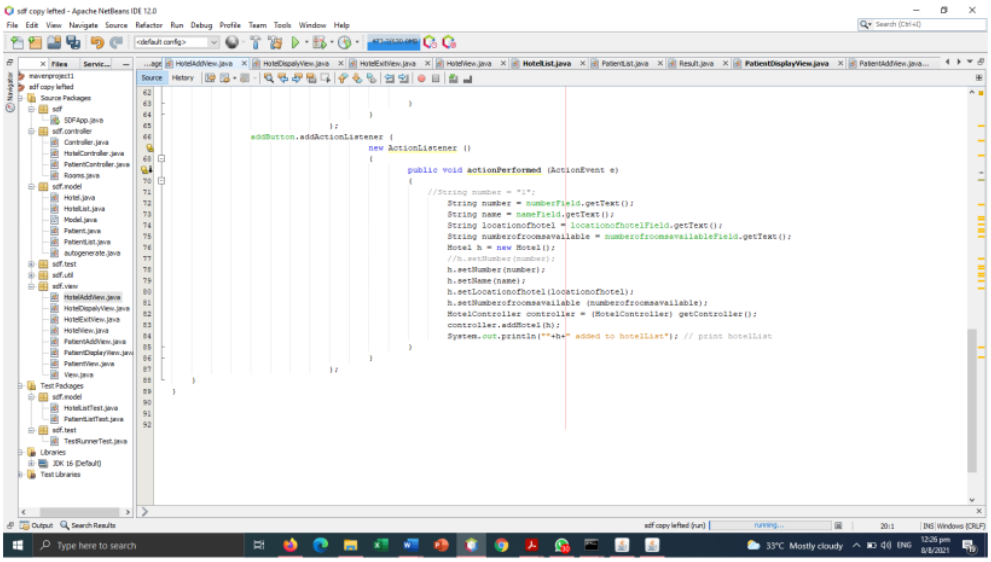


VIEW

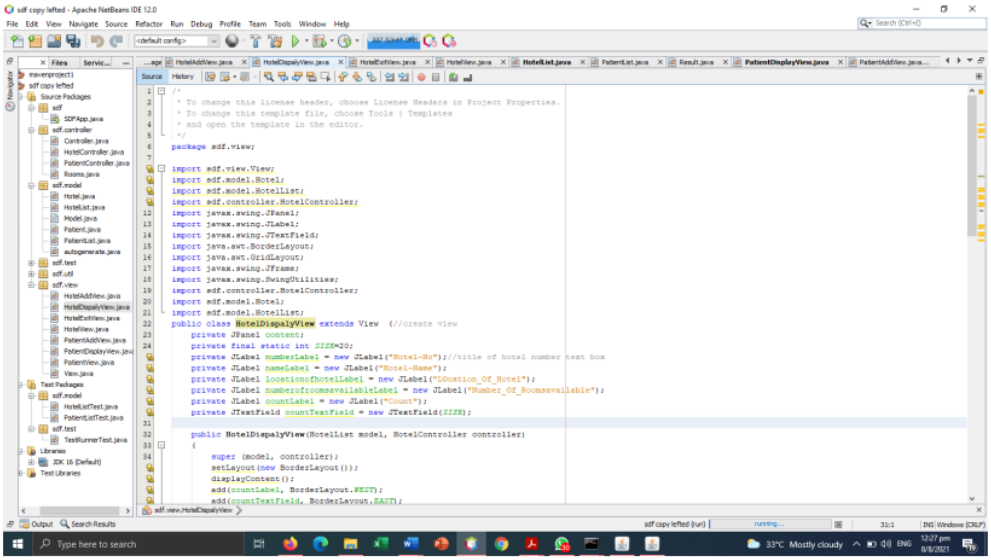
HotelAddView.java



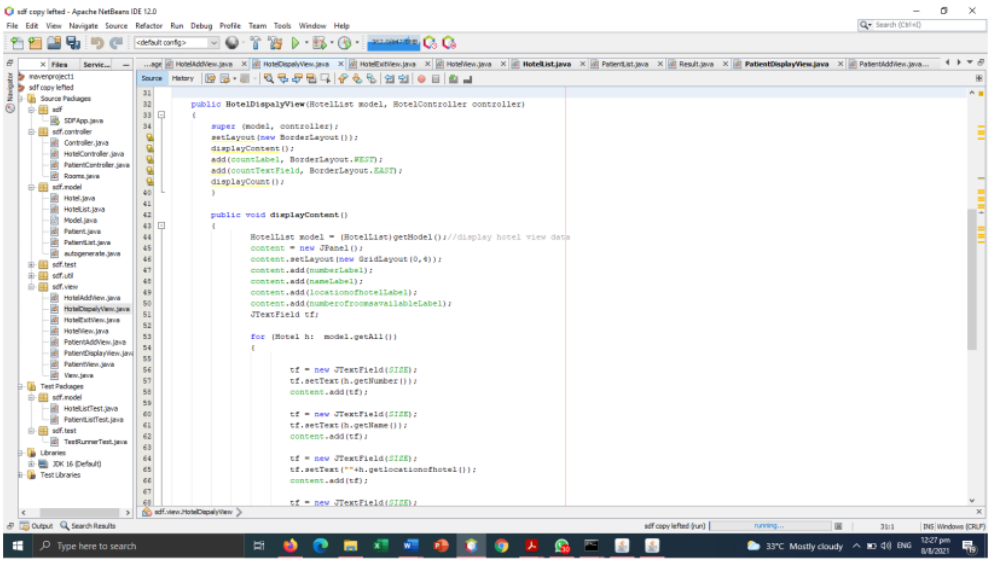

sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
HotelAddView.java
HotelDispalyView.java
HotelExitView.java
HotelView.java
HotelList.java
PatientList.java
Result.java
PatientDisplayView.java
PatientAddView.java
Source History
public HotelAddView(HotelList model, HotelController controller)
{
// code here runs when a new
super (model, controller);
setLayout(new GridLayout(0,2));
//add(numberLabel); add(numberField);
add(numberLabel); add(numberField);
add(nameLabel); add(nameField);
add(locationofhotelLabel); add(locationofhotelField);
add(numberofroomsavailableLabel); add(numberofroomsavailableField);
add(addButton); add(resetButton);
resetButton.addActionListener (
new ActionListener ()
{
@Override
public void actionPerformed (ActionEvent e)
{
//numberField.setText("");
numberField.setText("");
nameField.setText("");
locationofhotelField.setText("");
numberofroomsavailableField.setText("");
}
);
addButton.addActionListener (
new ActionListener ()
{
public void actionPerformed (ActionEvent e)
{
//String number = "1";
String number = numberField.getText();
String name = nameField.getText();
String locationofhotel = locationofhotelField.getText();
String numberofroomsavailable = numberofroomsavailableField.getText();
Output Search Results
sdf copy lefted (run) running...
20:1
INS Windows (CRLF)
Type here to search
33°C Mostly cloudy
ENG
12:26 pm
8/8/2021


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
HotelAddView.java
HotelDispalyView.java
HotelExitView.java
HotelView.java
HotelList.java
PatientList.java
Result.java
PatientDisplayView.java
PatientAddView.java
Source History
}
);
addButton.addActionListener (
new ActionListener ()
{
public void actionPerformed (ActionEvent e)
{
//String number = "1";
String number = numberField.getText();
String name = nameField.getText();
String locationofhotel = locationofhotelField.getText();
String numberofroomsavailable = numberofroomsavailableField.getText();
Hotel h = new Hotel();
//h.setNumber(number);
h.setNumber(number);
h.setName(name);
h.setLocationofhotel(locationofhotel);
h.setNumberofroomsavailable (numberofroomsavailable);
HotelController controller = (HotelController) getController();
controller.addHotel(h);
System.out.println("'"+h+" added to hotelList"); // print hotelList
}
);
}
}
Output Search Results
sdf copy lefted (run) running...
20:1
INS Windows (CRLF)
Type here to search
33°C Mostly cloudy
ENG
12:26 pm
8/8/2021

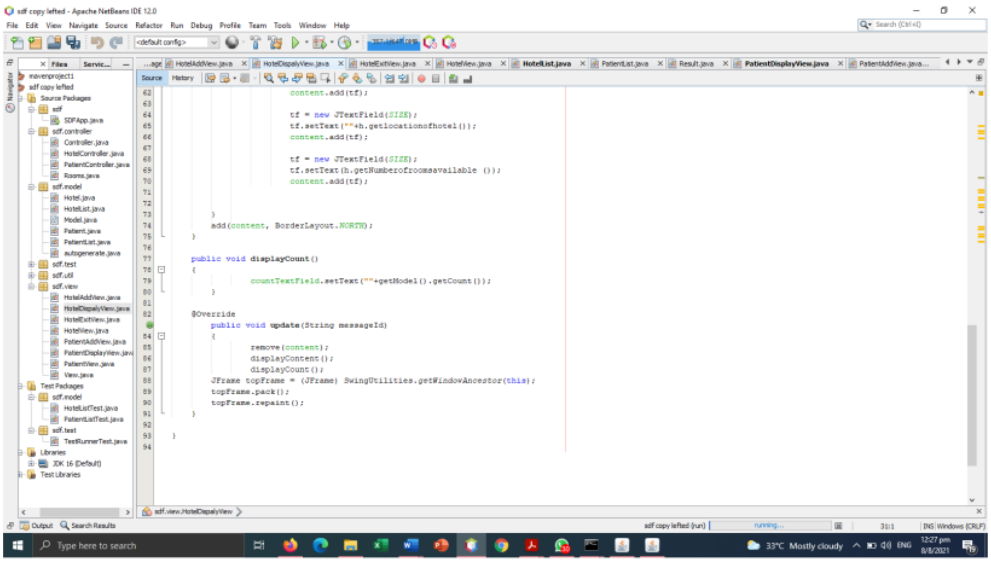
HotelDispalyView.java



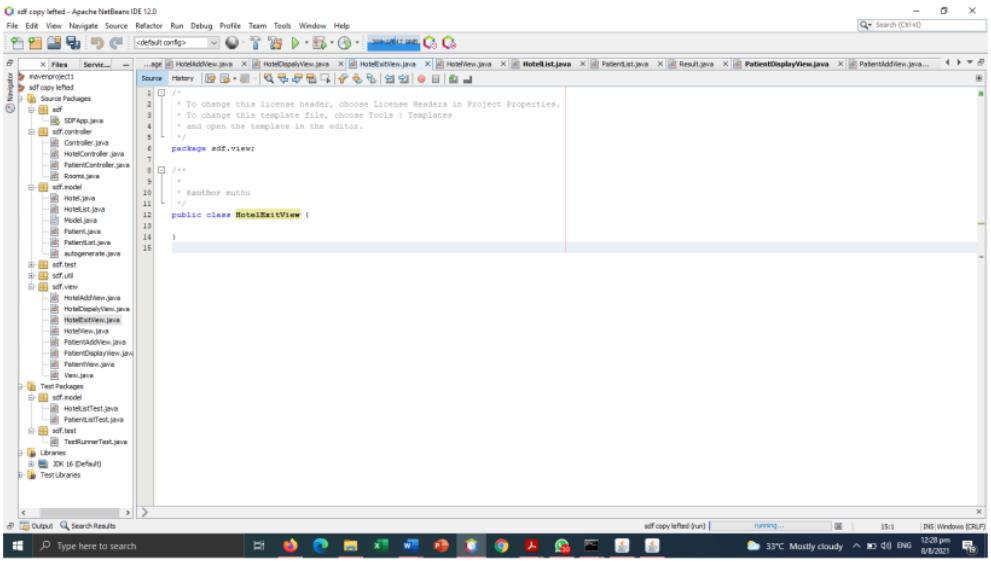
```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package sdf.view;

import sdf.view.View;
import sdf.model.Hotel;
import sdf.model.HotelList;
import sdf.controller.HotelController;
import javax.swing.JPanel;
import javax.swing.JLabel;
import javax.swing.JTextField;
import java.awt.BorderLayout;
import java.awt.GridLayout;
import javax.swing.JFrame;
import javax.swing.SwingUtilities;
import sdf.controller.HotelController;
import sdf.model.Hotel;
import sdf.model.HotelList;
public class HotelDispalyView extends View  {//create view
    private JPanel content;
    private final static int SIZE=20;
    private JLabel numberLabel = new JLabel("Hotel-No");//title of hotel number text box
    private JLabel nameLabel = new JLabel("Hotel-Name");
    private JLabel locationofhotelLabel = new JLabel("LOcation_Of_Hotel");
    private JLabel numberofroomsavailableLabel = new JLabel("Number_Of_Roomsavailable");
    private JLabel countLabel = new JLabel("Count");
    private JTextField countTextField = new JTextField(SIZE);

    public HotelDispalyView(HotelList model, HotelController controller)
    {
        super (model, controller);
        setLayout(new BorderLayout());
        displayContent();
        add(countLabel, BorderLayout.WEST);
        add(countTextField, BorderLayout.EAST);
```



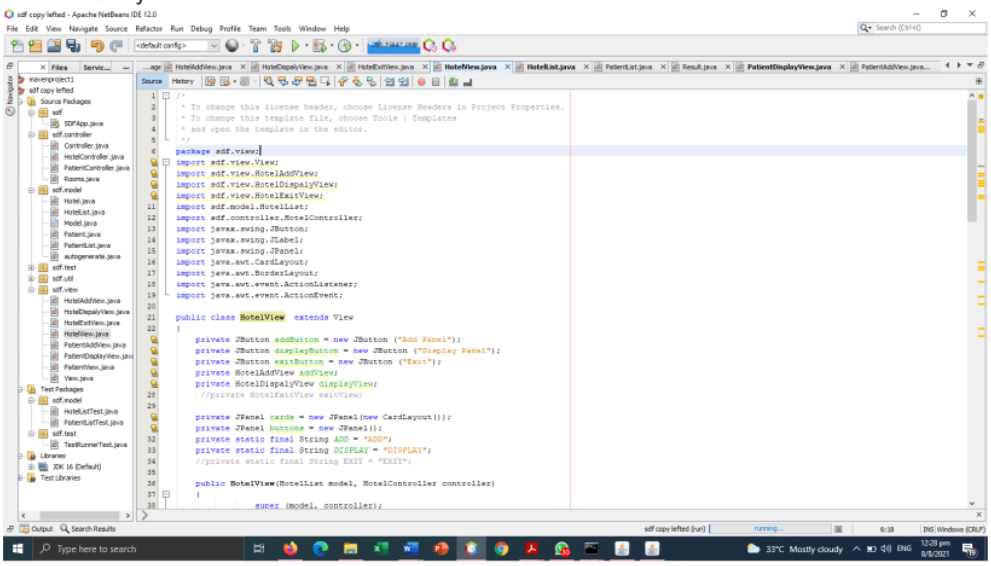
```
    public HotelDispalyView(HotelList model, HotelController controller)
    {
        super (model, controller);
        setLayout(new BorderLayout());
        displayContent();
        add(countLabel, BorderLayout.WEST);
        add(countTextField, BorderLayout.EAST);
        displayCount();
        }

        public void displayContent()
        {
                HotelList model = (HotelList)getModel();//display hotel view data
                content = new JPanel();
                content.setLayout(new GridLayout(0,4));
                content.add(numberLabel);
                content.add(nameLabel);
                content.add(locationofhotelLabel);
                content.add(numberofroomsavailableLabel);
                JTextField tf;

                for (Hotel h:  model.getAll())
                {

                        tf = new JTextField(SIZE);
                        tf.setText(h.getNumber());
                        content.add(tf);

                        tf = new JTextField(SIZE);
                        tf.setText(h.getName());
                        content.add(tf);

                        tf = new JTextField(SIZE);
                        tf.setText(""+h.getlocationofhotel());
                        content.add(tf);

                        tf = new JTextField(SIZE);
```



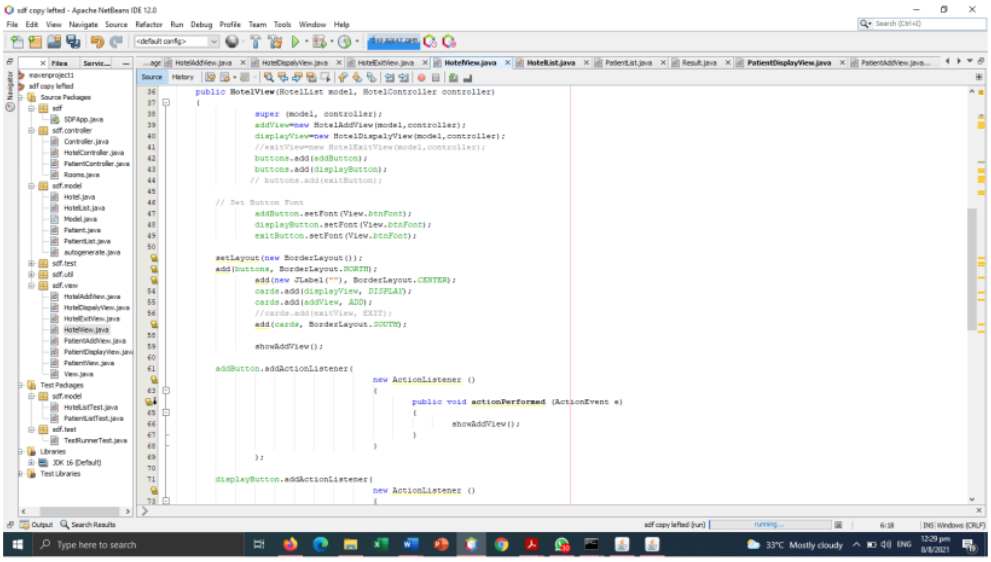
HotelExitView.java



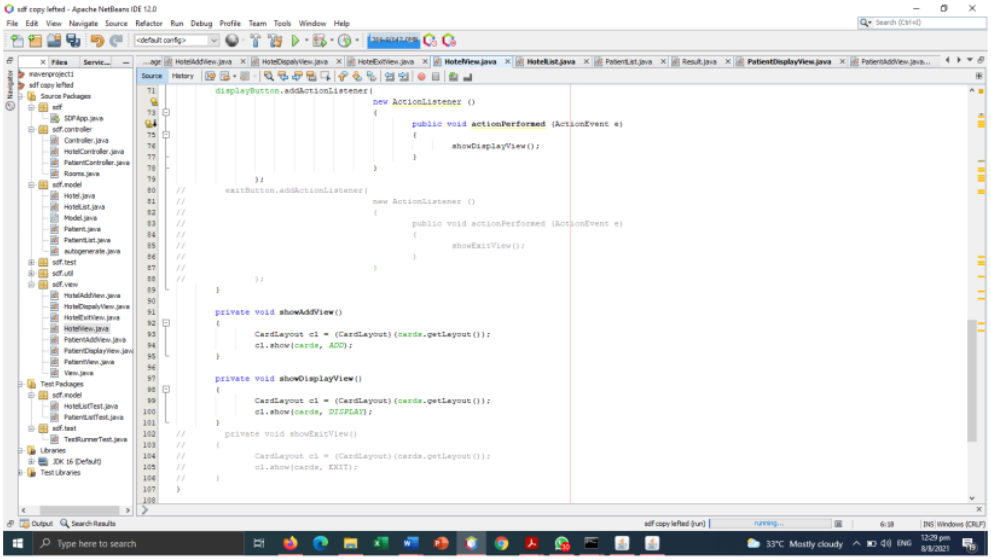
HotelView.java



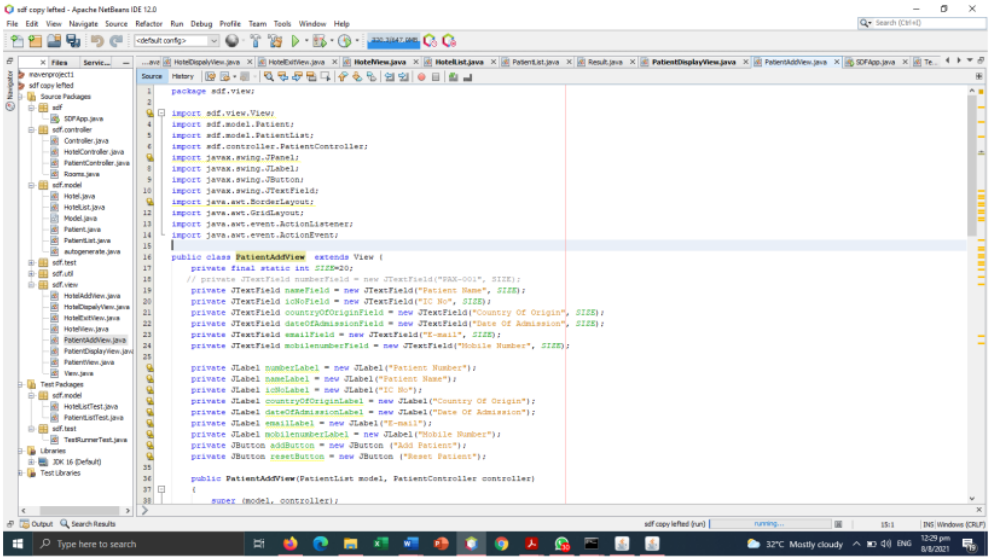
```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package sdf.view;
import sdf.view.View;
import sdf.view.HotelAddView;
import sdf.view.HotelDispalyView;
import sdf.view.HotelExitView;
import sdf.model.HotelList;
import sdf.controller.HotelController;
import javax.swing.JButton;
import javax.swing.JLabel;
import javax.swing.JPanel;
import java.awt.CardLayout;
import java.awt.BorderLayout;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class HotelView extends View
{
    private JButton addButton = new JButton ("Add Panel");
    private JButton displayButton = new JButton ("Display Panel");
    private JButton exitButton = new JButton ("Exit");
    private HotelAddView addView;
    private HotelDispalyView displayView;
     //private HotelExitView exitView;

    private JPanel cards = new JPanel(new CardLayout());
    private JPanel buttons = new JPanel();
    private static final String ADD = "ADD";
    private static final String DISPLAY = "DISPLAY";
    //private static final String EXIT = "EXIT";

    public HotelView(HotelList model, HotelController controller)
    {
            super (model, controller);
```

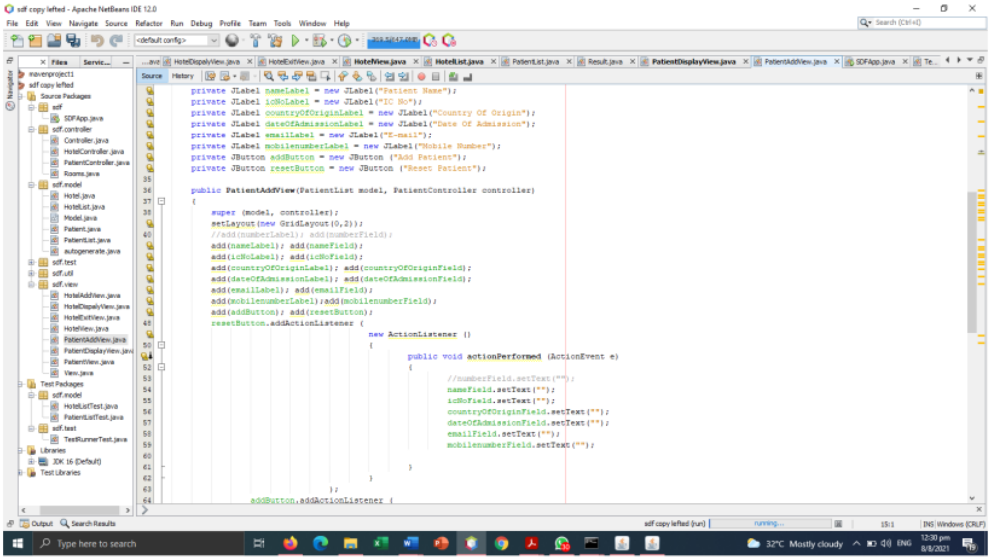


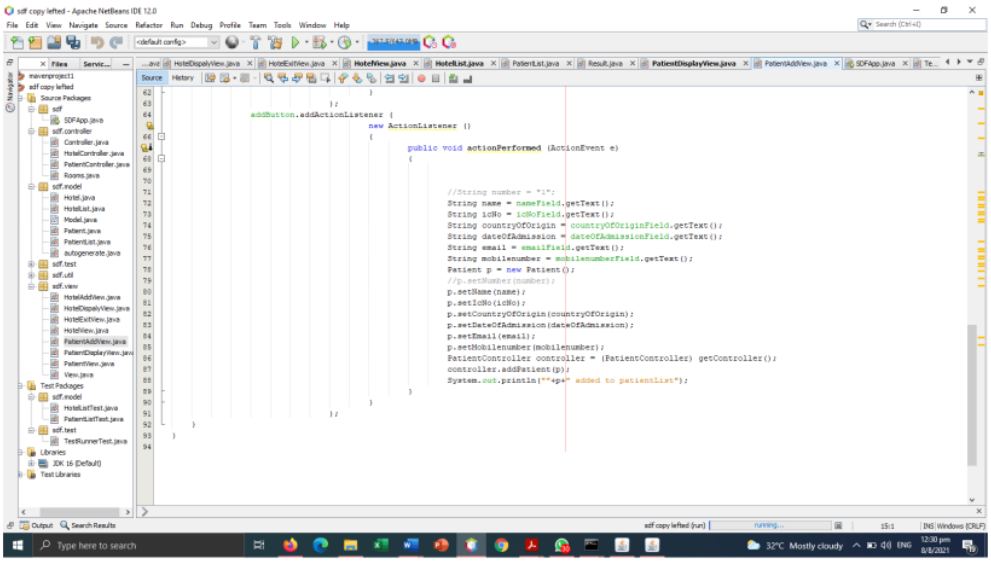
```
    public HotelView(HotelList model, HotelController controller)
    {
            super (model, controller);
            addView=new HotelAddView(model,controller);
            displayView=new HotelDispalyView(model,controller);
            //exitView=new HotelExitView(model,controller);
            buttons.add(addButton);
            buttons.add(displayButton);
           // buttons.add(exitButton);

        // Set Button Font
            addButton.setFont(View.btnFont);
            displayButton.setFont(View.btnFont);
            exitButton.setFont(View.btnFont);

        setLayout(new BorderLayout());
        add(buttons, BorderLayout.NORTH);
            add(new JLabel(""), BorderLayout.CENTER);
            cards.add(displayView, DISPLAY);
            cards.add(addView, ADD);
            //cards.add(exitView, EXIT);
            add(cards, BorderLayout.SOUTH);

            showAddView();

        addButton.addActionListener(
                                    new ActionListener ()
                                    {
                                        public void actionPerformed (ActionEvent e)
                                        {
                                            showAddView();
                                        }
                                    }
            );

        displayButton.addActionListener(
                                    new ActionListener ()
                                    {
```



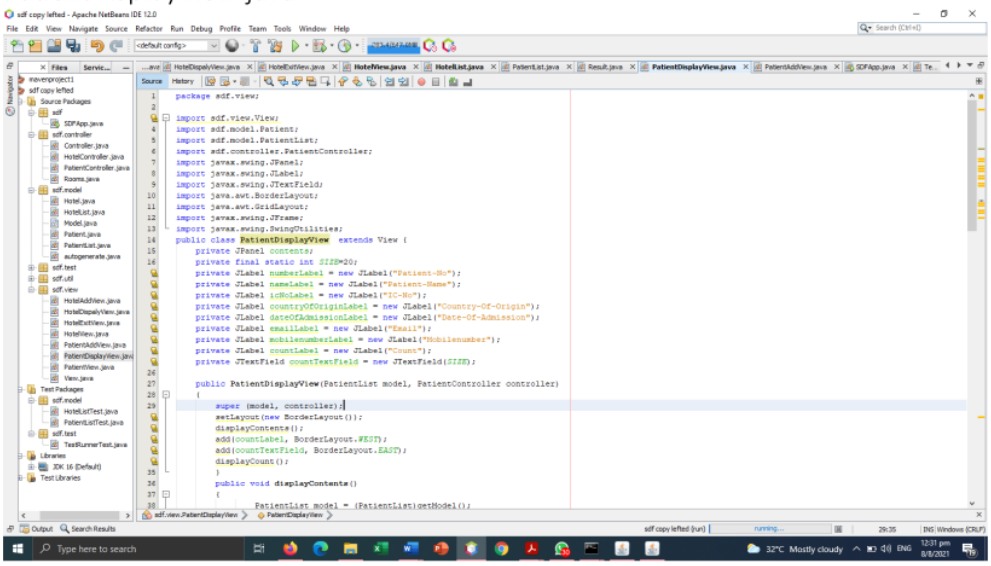
PatientAddView.java



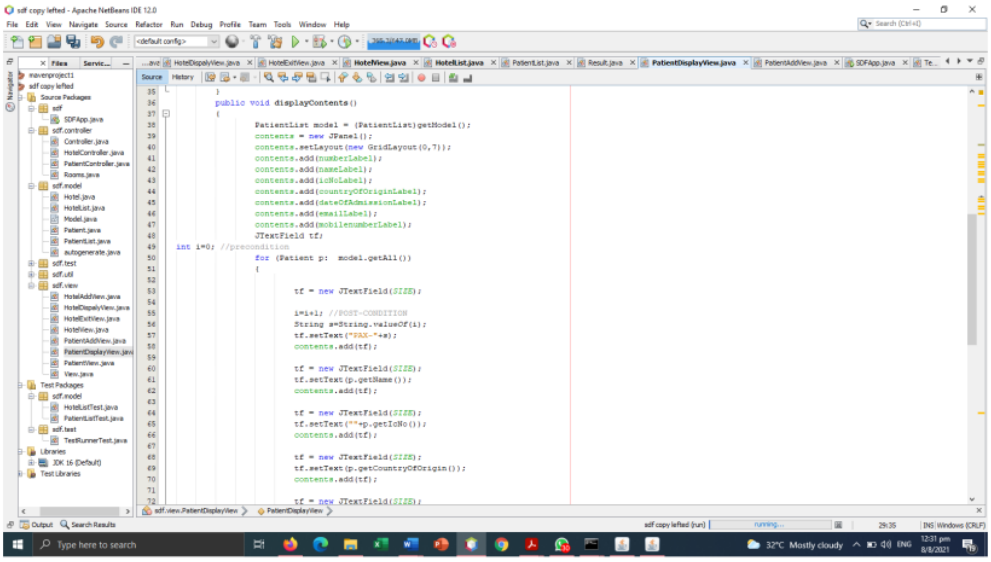

sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
private JLabel nameLabel = new JLabel("Patient Name");
private JLabel icNoLabel = new JLabel("IC No");
private JLabel countryOfOriginLabel = new JLabel("Country Of Origin");
private JLabel dateOfAdmissionLabel = new JLabel("Date Of Admission");
private JLabel emailLabel = new JLabel("E-mail");
private JLabel mobilenumberLabel = new JLabel("Mobile Number");
private JButton addButton = new JButton ("Add Patient");
private JButton resetButton = new JButton ("Reset Patient");
public PatientAddView(PatientList model, PatientController controller)
super (model, controller);
setLayout(new GridLayout(0,2));
//add(numberLabel); add(numberField);
add(nameLabel); add(nameField);
add(icNoLabel); add(icNoField);
add(countryOfOriginLabel); add(countryOfOriginField);
add(dateOfAdmissionLabel); add(dateOfAdmissionField);
add(emailLabel); add(emailField);
add(mobilenumberLabel);add(mobilenumberField);
add(addButton); add(resetButton);
resetButton.addActionListener (
new ActionListener ()
public void actionPerformed (ActionEvent e)
//numberField.setText("");
nameField.setText("");
icNoField.setText("");
countryOfOriginField.setText("");
dateOfAdmissionField.setText("");
emailField.setText("");
mobilenumberField.setText("");
);
addButton.addActionListener (
Type here to search
32°C Mostly cloudy
ENG
12:30 pm
8/8/2021


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
);
addButton.addActionListener (
new ActionListener ()
public void actionPerformed (ActionEvent e)
//String number = "1";
String name = nameField.getText();
String icNo = icNoField.getText();
String countryOfOrigin = countryOfOriginField.getText();
String dateOfAdmission = dateOfAdmissionField.getText();
String email = emailField.getText();
String mobilenumber = mobilenumberField.getText();
Patient p = new Patient();
//p.setNumber(number);
p.setName(name);
p.setIcNo(icNo);
p.setCountryOfOrigin(countryOfOrigin);
p.setDateOfAdmission(dateOfAdmission);
p.setEmail(email);
p.setMobilenumber(mobilenumber);
PatientController controller = (PatientController) getController();
controller.addPatient(p);
System.out.println(""+p+" added to patientList");
);
Type here to search
32°C Mostly cloudy
ENG
12:30 pm
8/8/2021

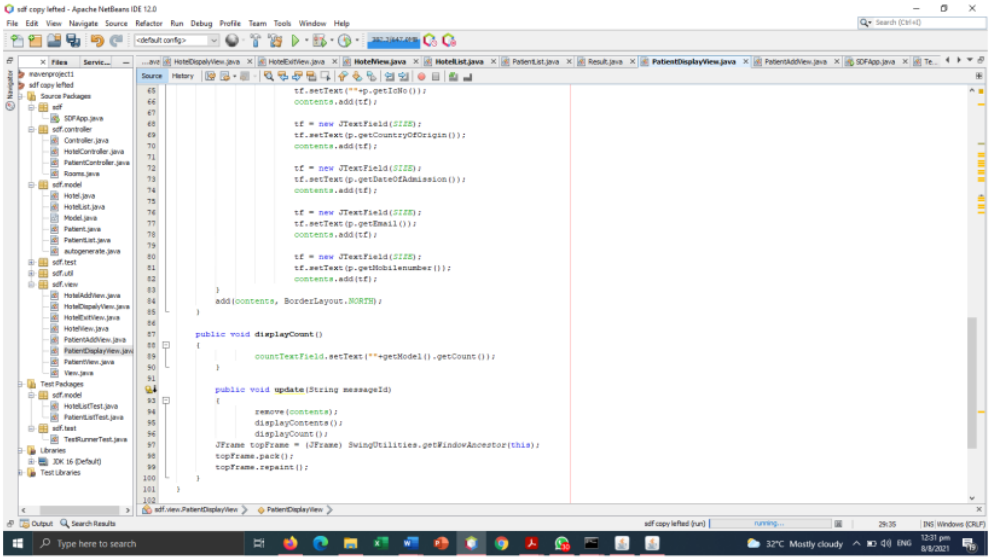
PatientDisplayView.java



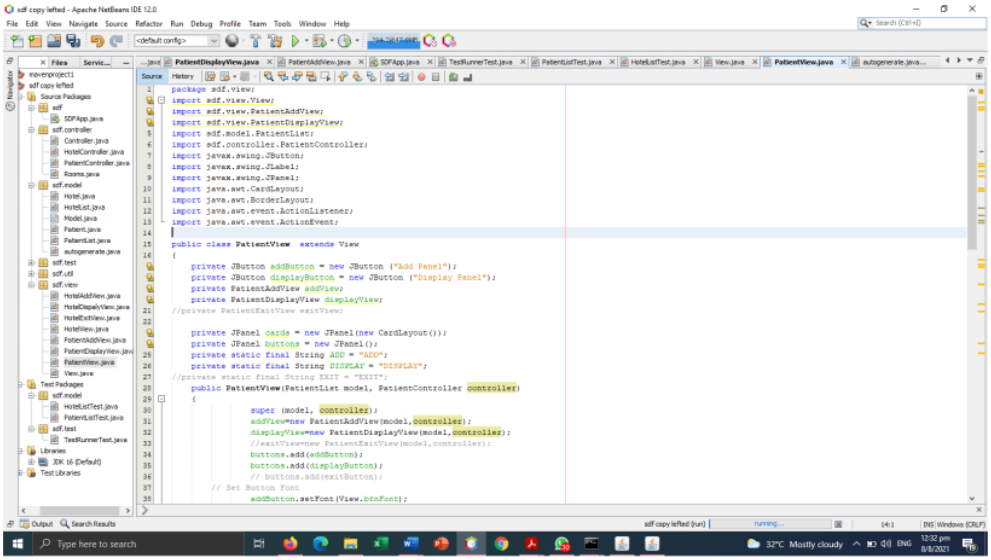
```
package sdf.view;

import sdf.view.View;
import sdf.model.Patient;
import sdf.model.PatientList;
import sdf.controller.PatientController;
import javax.swing.JPanel;
import javax.swing.JLabel;
import javax.swing.JTextField;
import java.awt.BorderLayout;
import java.awt.GridLayout;
import javax.swing.JFrame;
import javax.swing.SwingUtilities;
public class PatientDisplayView  extends View {
    private JPanel contents;
    private final static int SIZE=20;
    private JLabel numberLabel = new JLabel("Patient-No");
    private JLabel nameLabel = new JLabel("Patient-Name");
    private JLabel icNoLabel = new JLabel("IC-No");
    private JLabel countryOfOriginLabel = new JLabel("Country-Of-Origin");
    private JLabel dateOfAdmissionLabel = new JLabel("Date-Of-Admission");
    private JLabel emaillabel = new JLabel("Email");
    private JLabel mobilenumberLabel = new JLabel("Mobilenumber");
    private JLabel countLabel = new JLabel("Count");
    private JTextField countTextField = new JTextField(SIZE);

    public PatientDisplayView(PatientList model, PatientController controller)
    {
        super (model, controller);
        setLayout(new BorderLayout());
        displayContents();
        add(countLabel, BorderLayout.WEST);
        add(countTextField, BorderLayout.EAST);
        displayCount();
        }
        public void displayContents()
        {
                PatientList model = (PatientList)getModel();
```

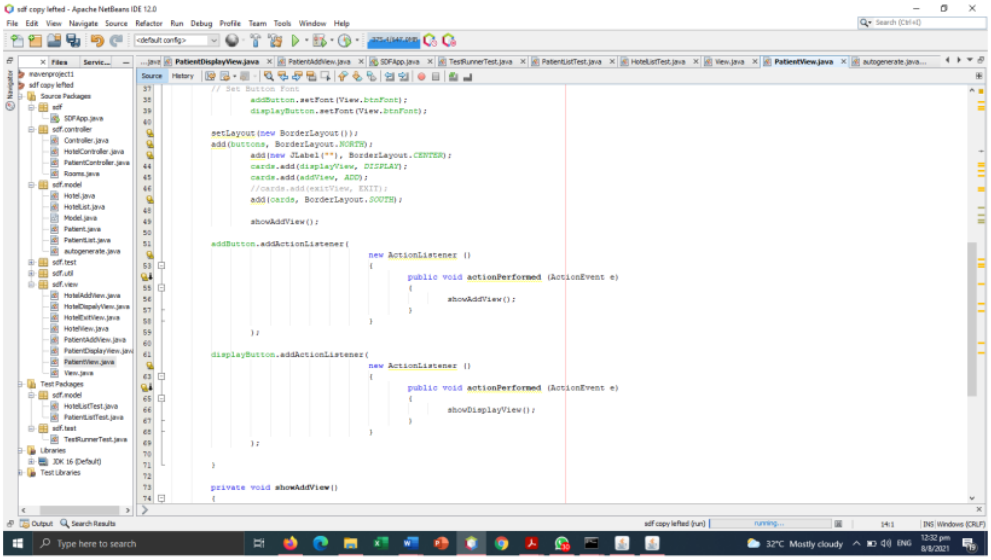


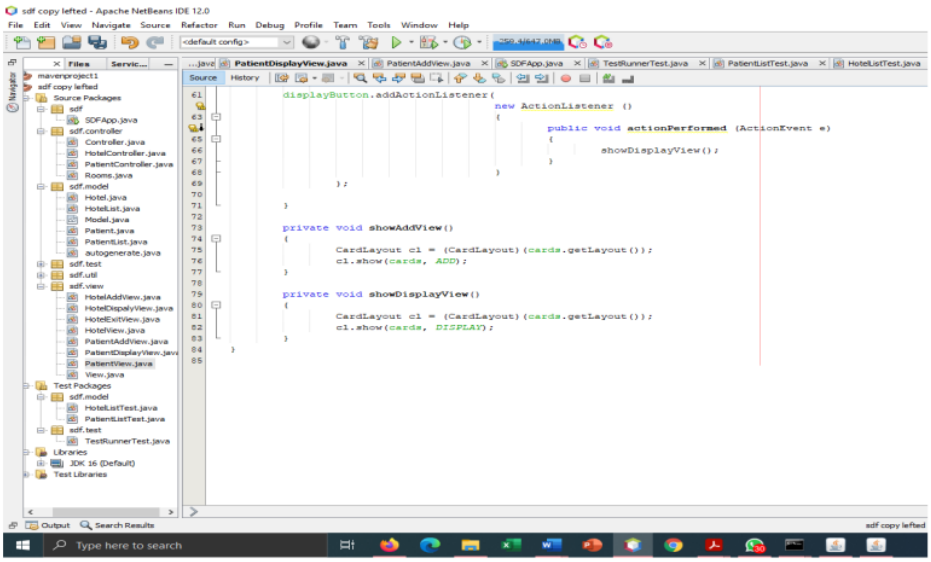
```
        }
        public void displayContents()
        {
                PatientList model = (PatientList)getModel();
                contents = new JPanel();
                contents.setLayout(new GridLayout(0,7));
                contents.add(numberLabel);
                contents.add(nameLabel);
                contents.add(icNoLabel);
                contents.add(countryOfOriginLabel);
                contents.add(dateOfAdmissionLabel);
                contents.add(emaillabel);
                contents.add(mobilenumberLabel);
                JTextField tf;
int i=0; //precondition
                for (Patient p:  model.getAll())
                {

                        tf = new JTextField(SIZE);

                        i=i+1; //POST-CONDITION
                        String s=String.valueOf(i);
                        tf.setText("PAX-"+s);
                        contents.add(tf);

                        tf = new JTextField(SIZE);
                        tf.setText(p.getName());
                        contents.add(tf);

                        tf = new JTextField(SIZE);
                        tf.setText(""+p.getIcNo());
                        contents.add(tf);

                        tf = new JTextField(SIZE);
                        tf.setText(p.getCountryOfOrigin());
                        contents.add(tf);

                        tf = new JTextField(SIZE);
```



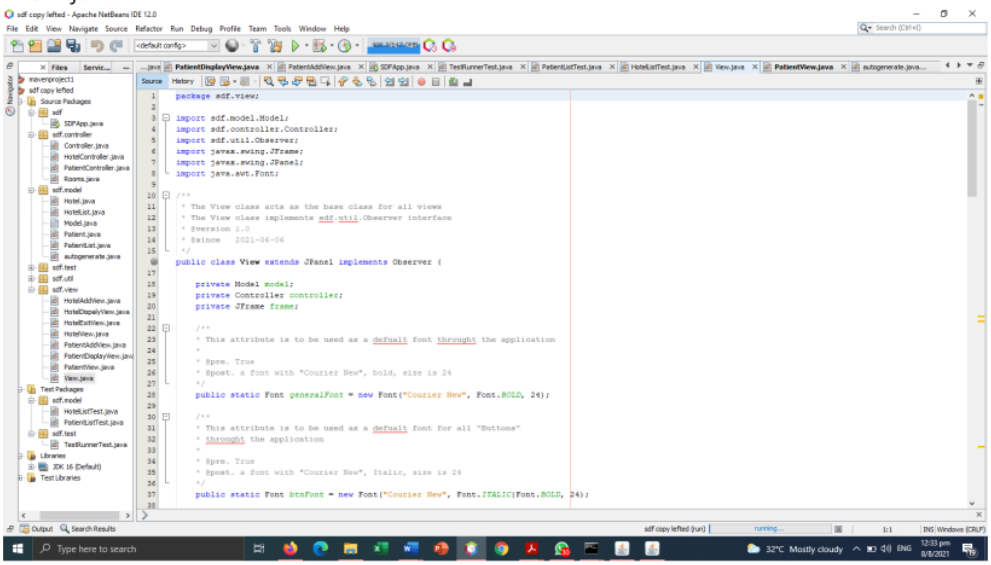
PatientView.java



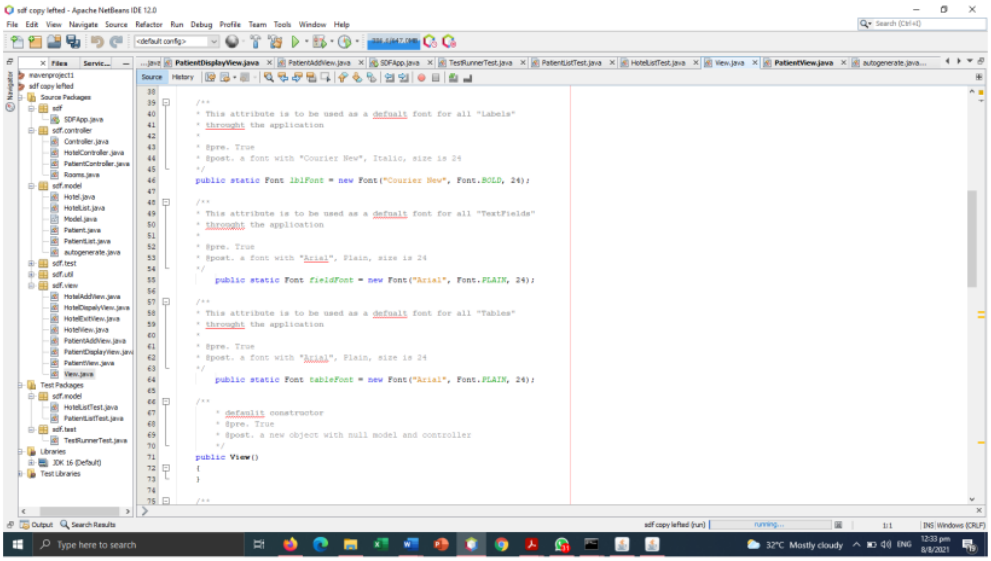

sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
// Set button font
addButton.setFont(View.btnFont);
displayButton.setFont(View.btnFont);
setLayout(new BorderLayout());
add(buttons, BorderLayout.NORTH);
add(new JLabel(""), BorderLayout.CENTER);
cards.add(displayView, DISPLAY);
cards.add(addView, ADD);
//cards.add(exitView, EXIT);
add(cards, BorderLayout.SOUTH);
showAddView();
addButton.addActionListener(
new ActionListener ()
{
public void actionPerformed (ActionEvent e)
{
showAddView();
}
}
);
displayButton.addActionListener(
new ActionListener ()
{
public void actionPerformed (ActionEvent e)
{
showDisplayView();
}
}
);
}
private void showAddView()
{
Type here to search
32°C Mostly cloudy
ENG
12:32 pm
8/8/2021


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
displayButton.addActionListener(
new ActionListener ()
{
public void actionPerformed (ActionEvent e)
{
showDisplayView();
}
}
);
}
private void showAddView()
{
CardLayout cl = (CardLayout)(cards.getLayout());
cl.show(cards, ADD);
}
private void showDisplayView()
{
CardLayout cl = (CardLayout)(cards.getLayout());
cl.show(cards, DISPLAY);
}
}
Type here to search

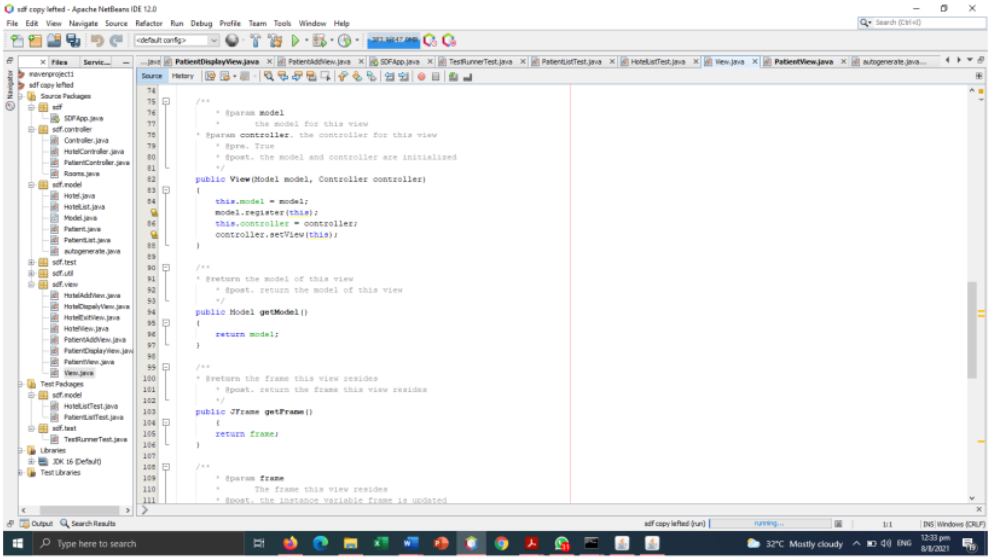
View.java

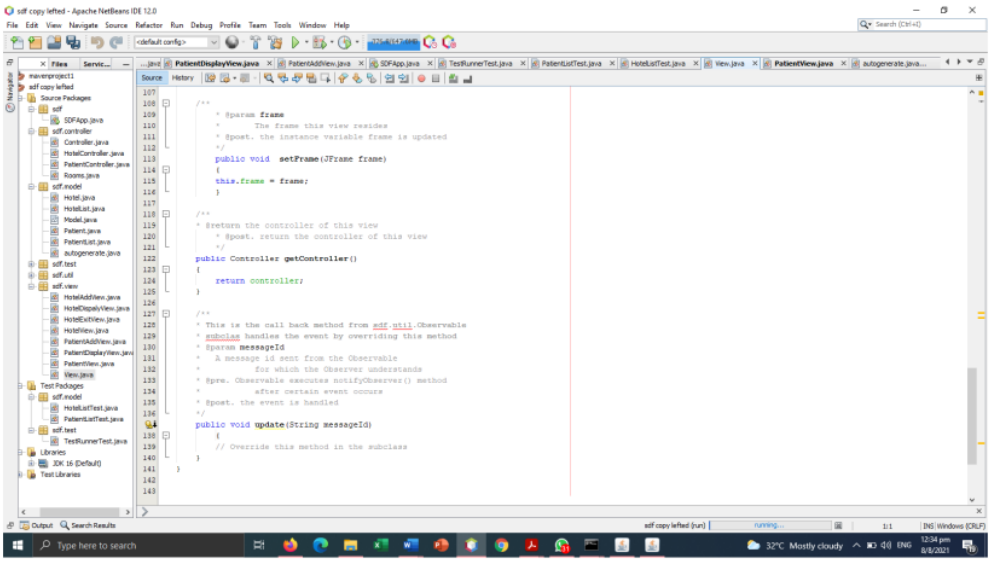


```
package sdf.view;

import sdf.model.Model;
import sdf.controller.Controller;
import sdf.util.Observer;
import javax.swing.JFrame;
import javax.swing.JPanel;
import java.awt.Font;

/**
 * The View class acts as the base class for all views
 * The View class implements sdf.util.Observer interface
 * @version 1.0
 * @since  2021-06-06
 */
public class View extends JPanel implements Observer {

    private Model model;
    private Controller controller;
    private JFrame frame;

    /**
     * This attribute is to be used as a default font throught the application
     *
     * @pre. True
     * @post. a font with "Courier New", bold, size is 24
     */
    public static Font generalFont = new Font("Courier New", Font.BOLD, 24);

    /**
     * This attribute is to be used as a default font for all "Buttons"
     * throught the application
     *
     * @pre. True
     * @post. a font with "Courier New", Italic, size is 24
     */
    public static Font btnFont = new Font("Courier New", Font.ITALIC|Font.BOLD, 24);
```



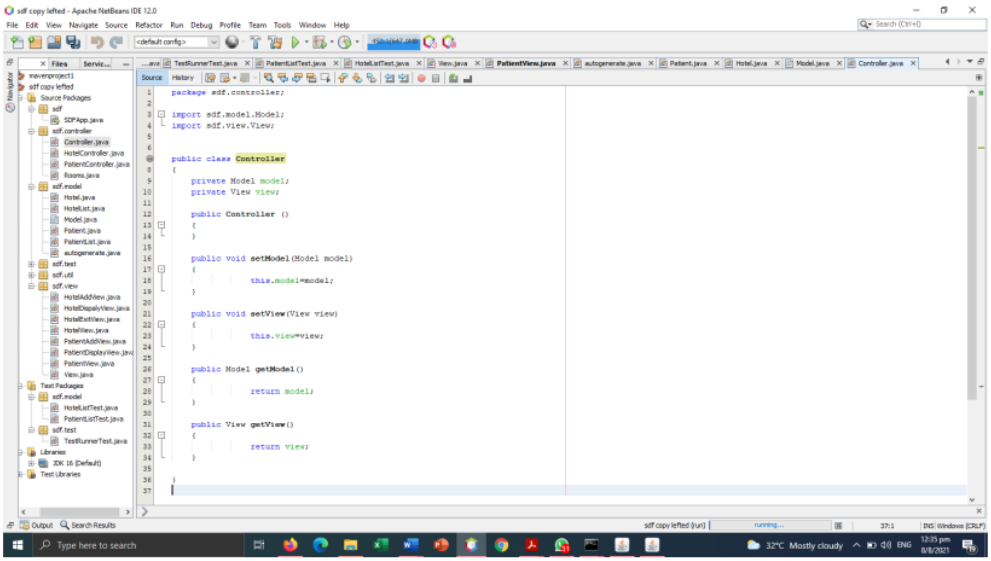
```
    /**
     * This attribute is to be used as a default font for all "Labels"
     * throught the application
     *
     * @pre. True
     * @post. a font with "Courier New", Italic, size is 24
     */
    public static Font lblFont = new Font("Courier New", Font.BOLD, 24);

    /**
     * This attribute is to be used as a default font for all "TextFields"
     * throught the application
     *
     * @pre. True
     * @post. a font with "Arial", Plain, size is 24
     */
        public static Font fieldFont = new Font("Arial", Font.PLAIN, 24);

    /**
     * This attribute is to be used as a default font for all "Tables"
     * throught the application
     *
     * @pre. True
     * @post. a font with "Arial", Plain, size is 24
     */
        public static Font tableFont = new Font("Arial", Font.PLAIN, 24);

    /**
        * defaulit constructor
        * @pre. True
        * @post. a new object with null model and controller
        */
    public View()
    {
    }

    /**
```


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Source History
/**
* @param model
* the model for this view
* @param controller. the controller for this view
* @pre. True
* @post. the model and controller are initialized
*/
public View(Model model, Controller controller)
{
this.model = model;
model.register(this);
this.controller = controller;
controller.setView(this);
}
/**
* @return the model of this view
* @post. return the model of this view
*/
public Model getModel()
{
return model;
}
/**
* @return the frame this view resides
* @post. return the frame this view resides
*/
public JFrame getFrame()
{
return frame;
}
/**
* @param frame
* The frame this view resides
* @post. the instance variable frame is updated
Output Search Results
sdf copy lefted (run) running...
1:1
INS Windows (CRLF)
Type here to search
32°C Mostly cloudy
ENG
12:33 pm
8/8/2021


sdf copy lefted - Apache NetBeans IDE 12.0
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
PatientDisplayView.java
PatientAddView.java
SDFApp.java
TestRunnerTest.java
PatientListTest.java
HotelListTest.java
View.java
PatientView.java
autogenerate.java
Source History
/**
* @param frame
* The frame this view resides
* @post. the instance variable frame is updated
*/
public void setFrame(JFrame frame)
{
this.frame = frame;
}
/**
* @return the controller of this view
* @post. return the controller of this view
*/
public Controller getController()
{
return controller;
}
/**
* This is the call back method from sdf.util.Observable
* subclass handles the event by overriding this method
* @param messageId
* A message id sent from the Observable
* for which the Observer understands
* @pre. Observable executes notifyObserver() method
* after certain event occurs
* @post. the event is handled
*/
public void update(String messageId)
{
// Override this method in the subclass
}
}
Output Search Results
sdf copy lefted (run) running...
1:1
INS Windows (CRLF)
Type here to search
32°C Mostly cloudy
ENG
12:34 pm
8/8/2021

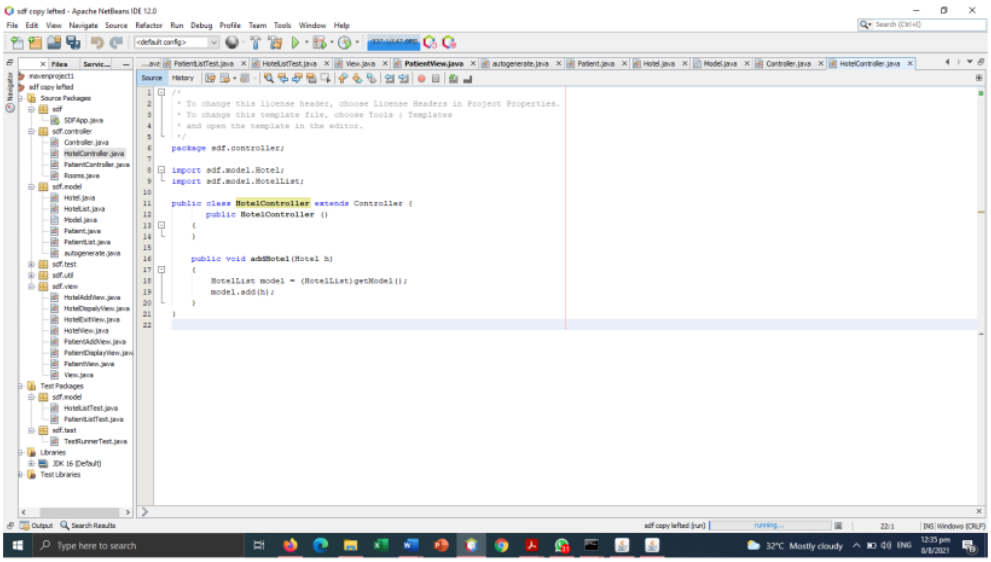
Controller

Controller.java



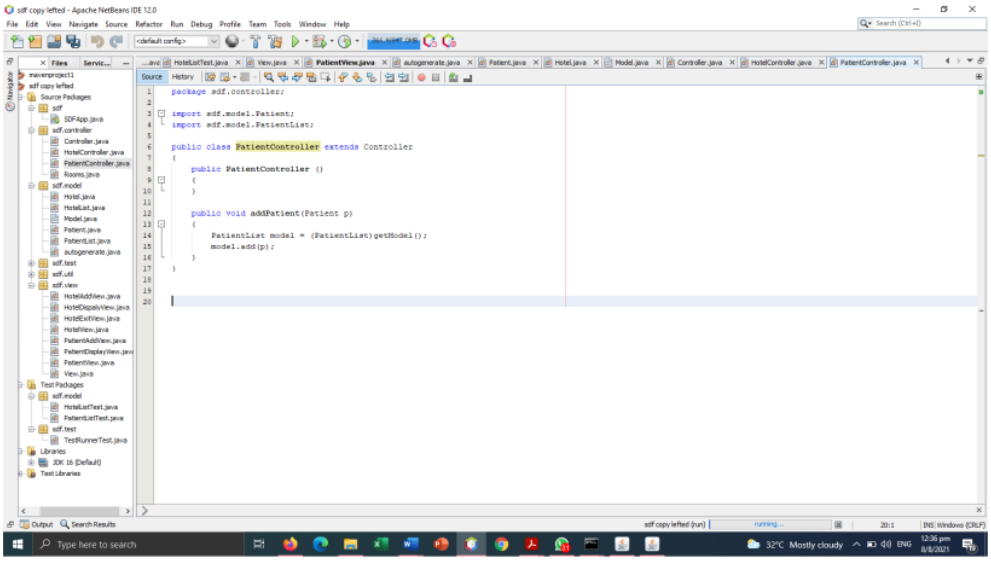
```
package sdf.controller;

import sdf.model.Model;
import sdf.view.View;


public class Controller
{
    private Model model;
    private View view;

    public Controller ()
    {
    }

    public void setModel(Model model)
    {
            this.model=model;
    }

    public void setView(View view)
    {
            this.view=view;
    }

    public Model getModel()
    {
            return model;
    }

    public View getView()
    {
            return view;
    }

}
```

HotelController.java

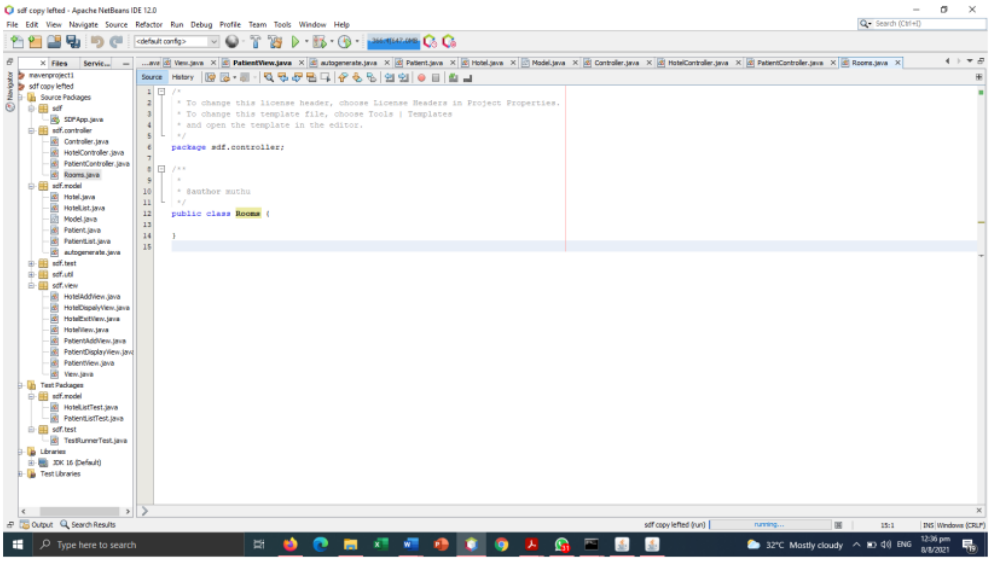


```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package sdf.controller;

import sdf.model.Hotel;
import sdf.model.HotelList;

public class HotelController extends Controller {
    public HotelController ()
    {
    }

    public void addHotel(Hotel h)
    {
        HotelList model = (HotelList)getModel();
        model.add(h);
    }
}
```

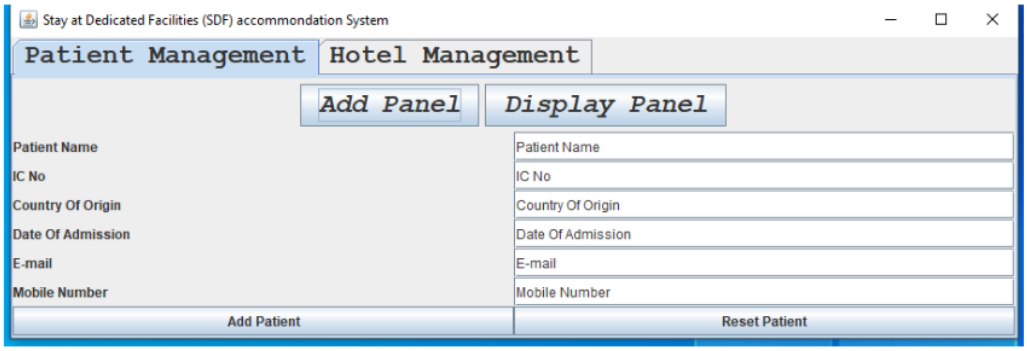
PatientController.java



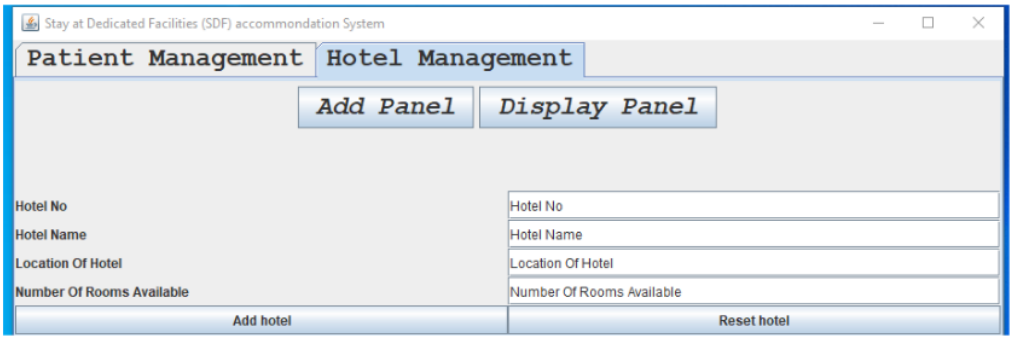
Rooms.java



GUI- Patient Management



GUI- Hotel Management



REPORT

ORIGINALITY REPORT

0%	0%	0%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

Exclude quotes	Off	Exclude matches	< 1%
Exclude bibliography	On		