**CHAPTER 1**

INTRODUCTION

This project helps to keep track of both patients and management of the hospital.

It stores data in digitized format rather than traditional practice of recording it on sheets, which could be error prone

It is a stand – alone application built using Java Swings at frontend and JDBC at backend. It uses Oracle DB as its database.



* 1. Objectives of the work:

1. Read and write information about patient
2. Read and write information about doctor
3. Read and write information about nurse
4. Read and write information about accounts
5. Read and write information about pharmacy

**CHAPTER 2**

LITRATURE SURVEY

* 1. Mental Health – care patient management system :

A regional health authority wishes to procure an information system to help manage the care of patients suffering from mental health problems. The overall goals of the system are twofold:

1. To generate management information that allows health service managers to assess performance against local and government targets.
2. To provide medical staff with timely information to facilitate the treatment of patients.

The health authority has a number of clinics that patients may attend in different hospitals and in local health centers. Patients need not always attend the same clinic and some clinics may support ‘drop in’ as well as pre-arranged appointments.

The nature of mental health problems is such that patients are often disorganized so may miss appointments, deliberately or accidentally lose prescriptions and medication, forget instructions and make unreasonable demands on medical staff. In a minority of cases, they may be a danger to themselves or to other people. They may regularly change address and may be homeless on a long-term or short-term basis. Where patients are dangerous, they may need to be ‘sectioned’ – confined to a secure hospital for treatment and observation.

Users of the system include clinical staff (doctors, nurses, health visitors), receptionists who make appointments and medical records staff. Reports are generated for hospital management by medical records staff. Management has no direct access to the system.

The system is affected by two pieces of legislation (in the UK, Acts of Parliament). These are the Data Protection Act that governs the confidentiality of personal information and the Mental Health Act that governs the compulsory detention of patients deemed to be a danger to themselves or others.

The system is NOT a complete medical records system where all information about a patients’ medical treatment is maintained. It is solely intended to support mental health care so if a patient is suffering from some other unrelated condition (such as high blood pressure) this would not be formally recorded in the system.

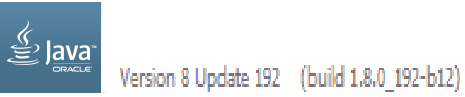
**CHAPTER 3**

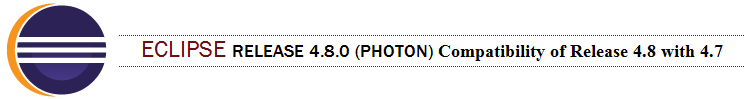
REQUIREMENT SPECIFICATION

* 1. Functional Requirement:

1. ADMIN Requirement:
2. ADMIN can MODIFY DOCTOR and NURSE entities.
3. ADMIN can ADD or REMOVE DOCTOR and NURSE entities.
4. DOCTOR Requirement:
5. DOCTOR can MODIFY PATIENT entities.
6. DOCTOR can ADD or REMOVE PATIENT entities.
7. NURSE Requirement:
8. NURSE can VIEW PATIENT entities.
9. ACCOUNTANT Requirement:
10. ACCOUNTANT can MODIFY ACCOUNT entities.
11. ACCOUNTANT can ADD or REMOVE ACCOUNT entities.
12. PHARMACIST Requirement:
13. PHARMACIST can MODIFY MEDICINE entities.
14. PHARMACIST can ADD or REMOVE MEDICINE entities.
    1. Non – Functional Requirements:
15. Good performance
16. Reliable
17. Easy Maintainability
18. Acceptability
19. Portable

Software Tools

(java is backward compatable)

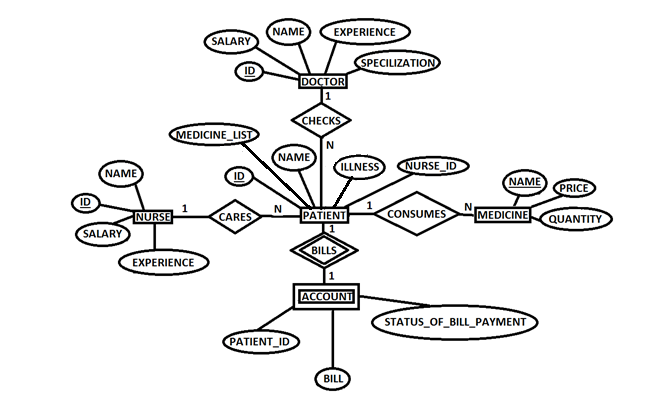




**CHAPTER 4**

DESIGN

* 1. Entity – Relationship model



**Relationships:**

1. One DOCTOR CHECKS many PATIENTS:



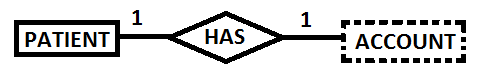
1. One PATIENT may CONSUME many MEDICINS



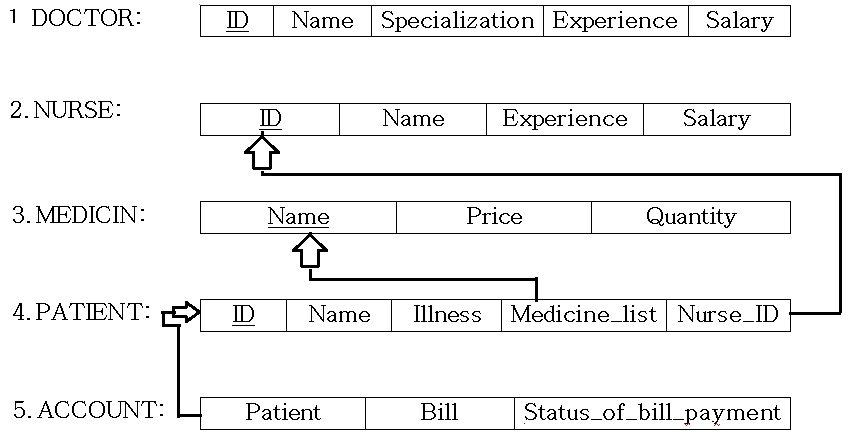
1. One NURSE CARES for many PATIENTS



1. One PATIENT HAS only one ACCOUNT



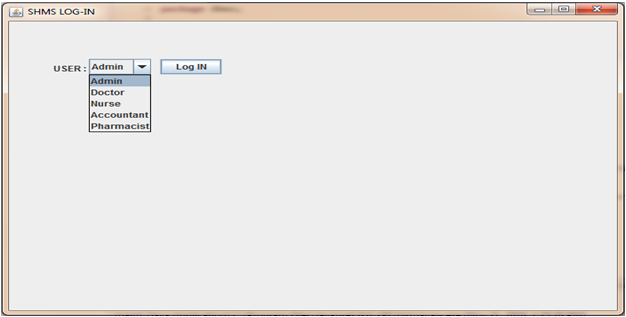
* 1. Schema diagram



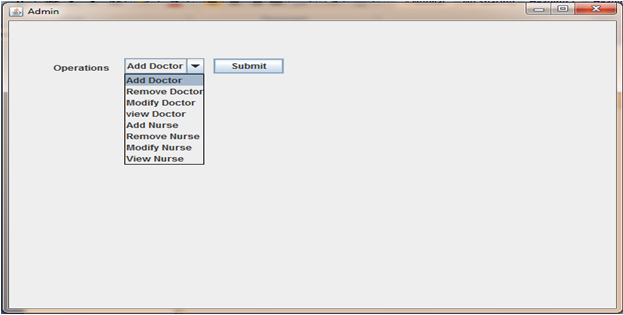
**CHAPTER 5**

RESULTS AND DISCUSSION

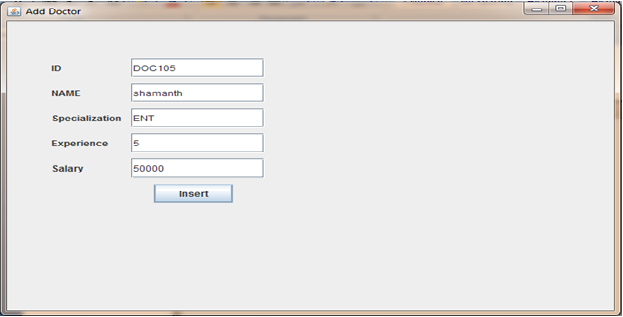
Login as any of the 5 users:



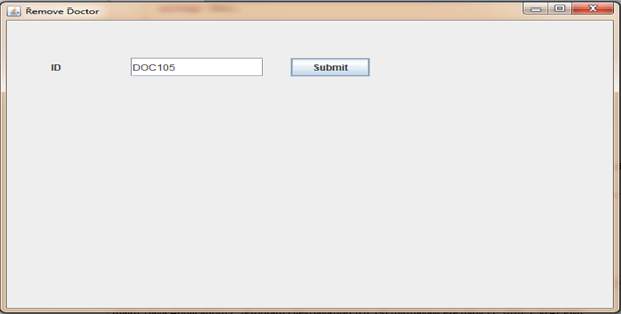
Perform any 1 operation specified in the list (in this case it is “Add Doctor”)



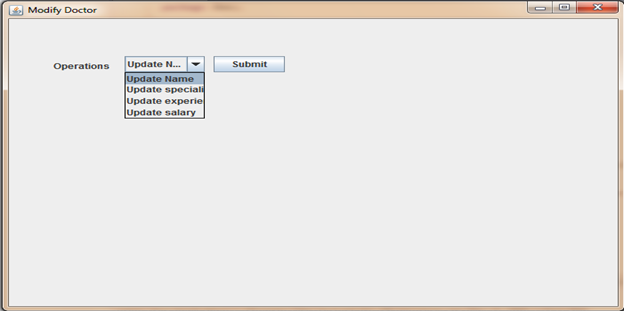
Enter the particulars if asked and press the button to perform the requested operation:



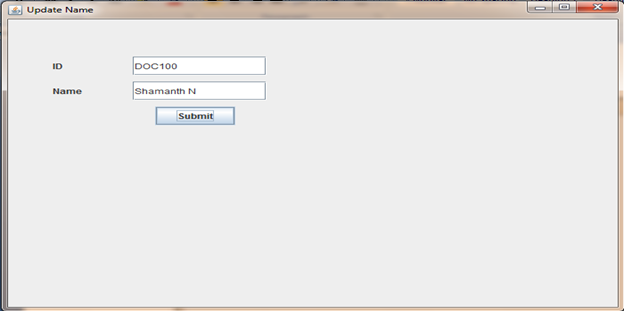
You can perform other basic operations such as remove:



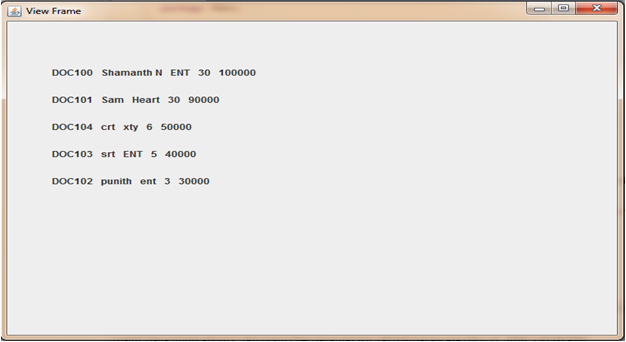
Modify:



Enter perticulars to modify:



The Last basic operation is to View:



**CHAPTER 6**

CODE

**package** dbms;

**import** java.util.\*;

**import** java.sql.\*;

**import** javax.swing.\*;

**import** java.awt.\*;

**import** java.awt.event.\*;

**class** doctor{

**static** **void** viewDoctor(Connection con) {

String query = "select \* from doctor";

**try** {

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery(query);

**while**(rs.next()) {

String id = rs.getString("id");

String name=rs.getString("name");

String specialization = rs.getString("specialization");

String experience=((Integer)rs.getInt("experience")).toString();

String salary=((Integer)rs.getInt("salary")).toString();

System.***out***.println();

System.***out***.println(id+" "+name+" "+specialization+" "+experience+" "+salary);

}

} **catch** (SQLException e) {

System.***out***.println("Doctor: view error");

}

}

**static** **void** updateDoctor(Connection con) {

System.***out***.println("Enter your choice:");

System.***out***.println("1. Update name");

System.***out***.println("2. Update specialization");

System.***out***.println("3. Update experience");

System.***out***.println("4. Update salary");

Scanner sc = **new** Scanner(System.***in***);

**int** choice = sc.nextInt();

System.***out***.println("Enter the Doctor id:");

String id = sc.next();

String query;

**switch**(choice) {

**case** 1:

System.***out***.println("Enter the name to update");

String name = sc.next();

query = "Update doctor set name = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,name);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Doctor: Update Name Success");

} **catch** (SQLException e) {

System.***out***.println("Doctor: Update name error");

}

**break**;

**case** 2:

System.***out***.println("Enter the specialization to update");

String specialization = sc.next();

query = "Update doctor set specialization = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,specialization);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Doctor: Update Specialization Success");

} **catch** (SQLException e) {

System.***out***.println("Doctor: Update specialization error");

}

**break**;

**case** 3:

System.***out***.println("Enter the experience to update");

String experience = sc.next();

query = "Update doctor set experience = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,experience);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Doctor: Update experience Success");

} **catch** (SQLException e) {

System.***out***.println("Doctor: Update experience error");

}

**break**;

**case** 4:

System.***out***.println("Enter the salary to update");

String salary = sc.next();

query = "Update doctor set salary = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,salary);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Doctor: Update salary Success");

} **catch** (SQLException e) {

System.***out***.println("Doctor: Update salary error");

}

**break**;

**default**: System.***out***.println("Invalied choice");

}

sc.close();

}

**static** **void** removeDoctor(Connection con,String id) {

String query = "Delete from doctor where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,id);

ps.executeUpdate();

System.***out***.println("Doctor delete Success");

} **catch** (SQLException e) {

System.***out***.println("Doctor Delete error");

}

}

**static** **void** addDoctor(Connection con, String id, String name, String specialization, String experience, String salary) {

String query = "insert into doctor(id,name,specialization,experience,salary)" +"values(?,?,?,?,?)";

**try** {

PreparedStatement ps=con.prepareStatement(query);

ps.setString(1,id);

ps.setString(2,name);

ps.setString(3,specialization);

ps.setString(4,experience);

ps.setString(5,salary);

ps.executeUpdate();

System.***out***.println("Doctor insert Success");

} **catch** (SQLException e) {

System.***out***.println("Doctor Insert error");

System.***err***.println(e.getClass().getName() + ": " + e.getMessage());

}

}

}

**class** nurse{

**static** **void** viewNurse(Connection con) {

String query = "select \* from nurse";

**try** {

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery(query);

**while**(rs.next()) {

String id = rs.getString("id");

String name=rs.getString("name");

String experience=((Integer)rs.getInt("experience")).toString();

String salary=((Integer)rs.getInt("salary")).toString();

System.***out***.println();

System.***out***.println(id+" "+name+" "+experience+" "+salary);

}

} **catch** (SQLException e) {

System.***out***.println("Nurse: view error");

}

}

**static** **void** updateNurse(Connection con) {

System.***out***.println("Enter your choice:");

System.***out***.println("1. Update name");

System.***out***.println("2. Update experience");

System.***out***.println("3. Update salary");

Scanner sc = **new** Scanner(System.***in***);

**int** choice = sc.nextInt();

System.***out***.println("Enter the Nurse id:");

String id = sc.next();

String query;

**switch**(choice) {

**case** 1:

System.***out***.println("Enter the name to update");

String name = sc.next();

query = "Update nurse set name = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,name);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Nurse: Update Name Success");

} **catch** (SQLException e) {

System.***out***.println("Nurse: Update name error");

}

**break**;

**case** 2:

System.***out***.println("Enter the experience to update");

String experience = sc.next();

query = "Update nurse set experience = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,experience);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Nurse: Update experience Success");

} **catch** (SQLException e) {

System.***out***.println("Nurse: Update experience error");

}

**break**;

**case** 3:

System.***out***.println("Enter the salary to update");

String salary = sc.next();

query = "Update nurse set salary = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,salary);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Nurse: Update salary Success");

} **catch** (SQLException e) {

System.***out***.println("Nurse: Update salary error");

}

**break**;

**default**: System.***out***.println("Invalied choice");

}

sc.close();

}

**static** **void** removeNurse(Connection con,String id) {

String query = "Delete from Nurse where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,id);

ps.executeUpdate();

System.***out***.println("Nurse: Delete Success");

} **catch** (SQLException e) {

System.***out***.println("Nurse: Delete error");

}

}

**static** **void** addNurse(Connection con, String id, String name, **int** experience, **int** salary) {

String query = "insert into Nurse(id,name,experience,salary)" +"values(?,?,?,?)";

**try** {

PreparedStatement ps=con.prepareStatement(query);

ps.setString(1,id);

ps.setString(2,name);

ps.setInt(3,experience);

ps.setInt(4,salary);

ps.executeUpdate();

System.***out***.println("Nurse: insert Success");

} **catch** (SQLException e) {

System.***out***.println("Nurse: Insert error");

}

}

}

**class** medicin{

**static** **void** viewMedicin(Connection con) {

String query = "select \* from medicin";

**try** {

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery(query);

**while**(rs.next()) {

String name=rs.getString("name");

String price=((Integer)rs.getInt("price")).toString();

String quantity=((Integer)rs.getInt("quantity")).toString();

System.***out***.println();

System.***out***.println(name+" "+price+" "+quantity);

}

} **catch** (SQLException e) {

System.***out***.println("Medicin: view error");

}

}

**static** **void** updateMedicin(Connection con) {

System.***out***.println("Enter your choice:");

System.***out***.println("1. Update price");

System.***out***.println("2. Update quantity");

Scanner sc = **new** Scanner(System.***in***);

**int** choice = sc.nextInt();

System.***out***.println("Enter the Medicin name:");

String name = sc.next();

String query;

**switch**(choice) {

**case** 1:

System.***out***.println("Enter the price to update");

**int** price = sc.nextInt();

query = "Update Medicin set price = ? where name = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,price);

ps.setString(2,name);

ps.executeUpdate();

System.***out***.println("Medicin: Update Price Success");

} **catch** (SQLException e) {

System.***out***.println("Medicin: Update Price error");

}

**break**;

**case** 2:

System.***out***.println("Enter the quantity to update");

**int** quantity = sc.nextInt();

query = "Update Medicin set quantity = ? where name = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,quantity);

ps.setString(2,name);

ps.executeUpdate();

System.***out***.println("Medicin: Update quantity Success");

} **catch** (SQLException e) {

System.***out***.println("Medicin: Update quantity error");

}

**break**;

**default**: System.***out***.println("Invalied choice");

}

sc.close();

}

**static** **void** removeMedicin(Connection con,String name) {

String query = "Delete from Medicin where name = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,name);

ps.executeUpdate();

System.***out***.println("Medicin: Delete Success");

} **catch** (SQLException e) {

System.***out***.println("Medicin: Delete error");

}

}

**static** **void** addMedicin(Connection con,String name, **int** price, **int** quantity) {

String query = "insert into Medicin(name,price,quantity)" +"values(?,?,?)";

**try** {

PreparedStatement ps=con.prepareStatement(query);

ps.setString(1,name);

ps.setInt(2,price);

ps.setInt(3,quantity);

ps.executeUpdate();

System.***out***.println("Medicin: insert Success");

} **catch** (SQLException e) {

System.***out***.println("Medicin: Insert error");

}

}

}

**class** patient{

**static** **void** viewPatient(Connection con) {

String query = "select \* from Patient";

**try** {

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery(query);

**while**(rs.next()) {

String id = rs.getString("id");

String name=rs.getString("name");

String illness = rs.getString("illness");

String medicine = rs.getString("medicine");

String nurse\_id = rs.getString("nurse\_id");

System.***out***.println();

System.***out***.println(id+" "+name+" "+illness+" "+medicine+" "+nurse\_id);

}

} **catch** (SQLException e) {

System.***out***.println("Patient: view error");

}

}

**static** **void** updatePatient(Connection con) {

System.***out***.println("Enter your choice:");

System.***out***.println("1. Update name");

System.***out***.println("2. Update illness");

System.***out***.println("3. Update medicine");

System.***out***.println("4. Update nurse\_id");

Scanner sc = **new** Scanner(System.***in***);

**int** choice = sc.nextInt();

System.***out***.println("Enter the Patient id:");

String id = sc.next();

String query;

**switch**(choice) {

**case** 1:

System.***out***.println("Enter the name to update");

String name = sc.next();

query = "Update Patient set name = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,name);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Patient: Update Name Success");

} **catch** (SQLException e) {

System.***out***.println("Patient: Update name error");

}

**break**;

**case** 2:

System.***out***.println("Enter the illness to update");

String illness = sc.next();

query = "Update Patient set illness = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,illness);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Patient: Update illness Success");

} **catch** (SQLException e) {

System.***out***.println("Patient: Update illness error");

}

**break**;

**case** 3:

System.***out***.println("Enter the medicine to update");

String medicine = sc.next();

query = "Update Patient set medicine = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,medicine);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Patient: Update medicine Success");

} **catch** (SQLException e) {

System.***out***.println("Patient: Update medicine error");

}

**break**;

**case** 4:

System.***out***.println("Enter the nurse\_id to update");

String nurse\_id = sc.next();

query = "Update Patient set nurse\_id = ? where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,nurse\_id);

ps.setString(2,id);

ps.executeUpdate();

System.***out***.println("Patient: Update nurse\_id Success");

} **catch** (SQLException e) {

System.***out***.println("Patient: Update nurse\_id error");

}

**break**;

**default**: System.***out***.println("Invalied choice");

}

sc.close();

}

**static** **void** removePatient(Connection con,String id) {

String query = "Delete from Patient where id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,id);

ps.executeUpdate();

System.***out***.println("Patient delete Success");

} **catch** (SQLException e) {

System.***err***.println(e.getClass().getName() + ": " + e.getMessage());

System.***out***.println("Patient Delete error");

}

}

**static** **void** addPatient(Connection con, String id, String name, String illness, String medicine, String nurse\_id) {

String query = "insert into Patient(id,name,illness,medicine,nurse\_id)" +"values(?,?,?,?,?)";

**try** {

PreparedStatement ps=con.prepareStatement(query);

ps.setString(1,id);

ps.setString(2,name);

ps.setString(3,illness);

ps.setString(4,medicine);

ps.setString(5,nurse\_id);

ps.executeUpdate();

System.***out***.println("Patient insert Success");

} **catch** (SQLException e) {

System.***out***.println("Patient Insert error");

}

}

}

**class** account{

**static** **void** viewAccount(Connection con) {

String query = "select \* from Account";

**try** {

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery(query);

**while**(rs.next()) {

String patient\_id=rs.getString("patient\_id");

String bill=((Integer)rs.getInt("bill")).toString();

String status\_of\_bill=rs.getString("status\_of\_bill");

System.***out***.println();

System.***out***.println(patient\_id+" "+bill+" "+status\_of\_bill);

}

} **catch** (SQLException e) {

System.***out***.println("Account: view error");

}

}

**static** **void** updateAccount(Connection con) {

System.***out***.println("Enter your choice:");

System.***out***.println("1. Update Bill");

System.***out***.println("2. Update status\_of\_bill");

Scanner sc = **new** Scanner(System.***in***);

**int** choice = sc.nextInt();

System.***out***.println("Enter the Patient ID:");

String patient\_id = sc.next();

String query;

**switch**(choice) {

**case** 1:

System.***out***.println("Enter the Bill to update");

**int** Bill = sc.nextInt();

query = "Update Account set Bill = ? where patient\_id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,Bill);

ps.setString(2,patient\_id);

ps.executeUpdate();

System.***out***.println("Account: Update Bill Success");

} **catch** (SQLException e) {

System.***out***.println("Account: Update Bill error");

}

**break**;

**case** 2:

System.***out***.println("Enter the status\_of\_bill to update");

String status\_of\_bill = sc.next();

query = "Update Account set status\_of\_bill = ? where patient\_id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,status\_of\_bill);

ps.setString(2,patient\_id);

ps.executeUpdate();

System.***out***.println("Account: Update status\_of\_bill Success");

} **catch** (SQLException e) {

System.***out***.println("Account: Update status\_of\_bill error");

}

**break**;

**default**: System.***out***.println("Invalied choice");

}

sc.close();

}

**static** **void** removeAccount(Connection con,String patient\_id) {

String query = "Delete from Account where patient\_id = ?";

**try** {

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,patient\_id);

ps.executeUpdate();

System.***out***.println("Account: Delete Success");

} **catch** (SQLException e) {

System.***out***.println("Account: Delete error");

}

}

**static** **void** addAccount(Connection con,String patient\_id, **int** bill, String status\_of\_bill) {

String query = "insert into account(patient\_id,bill,status\_of\_bill)" +"values(?,?,?)";

**try** {

PreparedStatement ps=con.prepareStatement(query);

ps.setString(1,patient\_id);

ps.setInt(2,bill);

ps.setString(3,status\_of\_bill);

ps.executeUpdate();

System.***out***.println("Account: insert Success");

} **catch** (SQLException e) {

System.***out***.println("Account: Insert error");

}

}

}

**public** **class** main1 {

**public** **static** **void** main(String[] args) {

**try** {

Class.*forName*("oracle.jdbc.driver.OracleDriver");

}

**catch**(ClassNotFoundException e) {

System.***out***.println("Class Not Found");

}

/\*try {

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","123");

}

catch(SQLException e) {

System.out.println("Sql Exception in main()");

System.exit(1);

}\*/

JFrame frame1=**new** JFrame("SHMS LOG-IN");

frame1.setVisible(**true**);

//frame1.dispose();

frame1.setBounds(200,100,700,500);

Container c1 = frame1.getContentPane();

c1.setLayout(**null**);

JLabel label1 = **new** JLabel("USER :");

label1.setBounds(50,60,60,30);

String[] arr = {"Admin","Doctor","Nurse","Accountant","Pharmacist"};

JComboBox combo1 = **new** JComboBox(arr);

combo1.setBounds(90,60,70,25);

JButton button1 = **new** JButton("Log IN");

button1.setBounds(170,60,70,25);

button1.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String User = (String) combo1.getSelectedItem();

//System.out.println(User);

frame1.dispose();

**switch**(User) {

**case** "Admin" :

JFrame adminFrame =**new** JFrame(User);

adminFrame.setVisible(**true**);

adminFrame.setBounds(200,100,700,500);

Container c2 = adminFrame.getContentPane();

c2.setLayout(**null**);

JLabel adminLabel = **new** JLabel("Operations");

adminLabel.setBounds(50,60,90,30);

String[] adminOpr = {"Add Doctor","Remove Doctor","Modify Doctor","view Doctor","Add Nurse","Remove Nurse","Modify Nurse","View Nurse"};

JComboBox adminCombo = **new** JComboBox(adminOpr);

adminCombo.setBounds(130,60,90,25);

JButton adminButton = **new** JButton("Submit");

adminButton.setBounds(230,60,80,25);

adminButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String Op = (String) adminCombo.getSelectedItem();

**switch**(Op) {

**case** "Add Doctor":

adminFrame.dispose();

JFrame adminDocFrame = **new** JFrame("Add Doctor");

adminDocFrame.setVisible(**true**);

adminDocFrame.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

adminDocFrame.setBounds(200,100,700,500);

Container c3 = adminDocFrame.getContentPane();

c3.setLayout(**null**);

JLabel adminDocIdLbl = **new** JLabel("ID");

adminDocIdLbl.setBounds(50,60,60,30);

JTextField adminDocIdTxt = **new** JTextField();

adminDocIdTxt.setBounds(140,60,150,30);

JLabel adminDocNameLbl = **new** JLabel("NAME");

adminDocNameLbl.setBounds(50,100,60,30);

JTextField adminDocNameTxt = **new** JTextField();

adminDocNameTxt.setBounds(140,100,150,30);

JLabel adminDocSpecializationLbl = **new** JLabel("Specialization");

adminDocSpecializationLbl.setBounds(50,140,90,30);

JTextField adminDocSpecializationTxt = **new** JTextField();

adminDocSpecializationTxt.setBounds(140,140,150,30);

JLabel adminDocExperienceLbl = **new** JLabel("Experience");

adminDocExperienceLbl.setBounds(50,180,90,30);

JTextField adminDocExperienceTxt = **new** JTextField();

adminDocExperienceTxt.setBounds(140,180,150,30);

JLabel adminDocSalaryLbl = **new** JLabel("Salary");

adminDocSalaryLbl.setBounds(50,220,60,30);

JTextField adminDocSalaryTxt = **new** JTextField();

adminDocSalaryTxt.setBounds(140,220,150,30);

JButton adminDocBtn = **new** JButton("Insert");

adminDocBtn.setBounds(165,260,90,30);

adminDocBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String DocId = adminDocIdTxt.getText();

String DocName = adminDocNameTxt.getText();

String DocSpecialization = adminDocSpecializationTxt.getText();

String DocExperience = adminDocExperienceTxt.getText();

String DocSalary = adminDocSalaryTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

doctor.*addDoctor*(con, DocId, DocName, DocSpecialization, DocExperience, DocSalary);

}

**catch**(SQLException e1) {

System.***out***.println("Sql Exception in main()");

System.*exit*(1);

}

}

});

c3.add(adminDocIdTxt);

c3.add(adminDocNameTxt);

c3.add(adminDocSpecializationTxt);

c3.add(adminDocExperienceTxt);

c3.add(adminDocSalaryTxt);

c3.add(adminDocIdLbl);

c3.add(adminDocNameLbl);

c3.add(adminDocSpecializationLbl);

c3.add(adminDocExperienceLbl);

c3.add(adminDocSalaryLbl);

c3.add(adminDocBtn);

c3.revalidate();

**break**;

**case** "Remove Doctor":

JFrame adminRmFr = **new** JFrame("Remove Doctor");

adminRmFr.setVisible(**true**);

adminRmFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

adminRmFr.setBounds(200,100,700,500);

Container c4 = adminRmFr.getContentPane();

c4.setLayout(**null**);

JLabel adminRmFrIdLbl = **new** JLabel("ID");

adminRmFrIdLbl.setBounds(50,60,60,30);

JTextField adminRmFrIdTxt = **new** JTextField();

adminRmFrIdTxt.setBounds(140,60,150,30);

JButton adminRmFrIdBtn = **new** JButton("Submit");

adminRmFrIdBtn.setBounds(320,60,90,30);

adminRmFrIdBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String RmDocId = adminRmFrIdTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

doctor.*removeDoctor*(con,RmDocId);

}

**catch**(SQLException e1) {

System.***out***.println("Sql Exception in main()");

System.*exit*(1);

}

}

});

c4.add(adminRmFrIdLbl);

c4.add(adminRmFrIdTxt);

c4.add(adminRmFrIdBtn);

**break**;

**case** "Modify Doctor":

JFrame adminModFr = **new** JFrame("Modify Doctor");

adminModFr.setVisible(**true**);

adminModFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

adminModFr.setBounds(200,100,700,500);

Container c5 = adminModFr.getContentPane();

c5.setLayout(**null**);

JLabel adminModLabel = **new** JLabel("Operations");

adminModLabel.setBounds(50,60,90,30);

String[] adminModOpr = {"Update Name","Update specialization","Update experience","Update salary"};

JComboBox adminModCombo = **new** JComboBox(adminModOpr);

adminModCombo.setBounds(130,60,90,25);

JButton adminModButton = **new** JButton("Submit");

adminModButton.setBounds(230,60,80,25);

adminModButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String RmOperation = (String)adminModCombo.getSelectedItem();

**switch**(RmOperation) {

**case** "Update Name" :

JFrame docUpFr = **new** JFrame("Update Name");

docUpFr.setVisible(**true**);

docUpFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

docUpFr.setBounds(200,100,700,500);

Container c6 = docUpFr.getContentPane();

c6.setLayout(**null**);

JLabel upDocIdLbl = **new** JLabel("ID");

upDocIdLbl.setBounds(50,60,60,30);

JTextField upDocIdTxt = **new** JTextField();

upDocIdTxt.setBounds(140,60,150,30);

JLabel upDocNameLbl = **new** JLabel("Name");

upDocNameLbl.setBounds(50,100,60,30);

JTextField upDocNameTxt = **new** JTextField();

upDocNameTxt.setBounds(140,100,150,30);

JButton upBtn = **new** JButton("Submit");

upBtn.setBounds(165,140,90,30);

upBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateId = upDocIdTxt.getText();

String updateName = upDocNameTxt.getText();

String query = "Update doctor set name = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateName);

ps.setString(2,updateId);

ps.executeUpdate();

System.***out***.println("Doctor: Update Name Success");

} **catch** (SQLException e1) {

System.***out***.println("Doctor: Update name error");

}

}

});

c6.add(upDocIdLbl);

c6.add(upDocIdTxt);

c6.add(upDocNameLbl);

c6.add(upDocNameTxt);

c6.add(upBtn);

**break**;

**case** "Update specialization" :

JFrame docUpSpFr = **new** JFrame("Update specialization");

docUpSpFr.setVisible(**true**);

docUpSpFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

docUpSpFr.setBounds(200,100,700,500);

Container c7 = docUpSpFr.getContentPane();

c7.setLayout(**null**);

JLabel upSpDocIdLbl = **new** JLabel("ID");

upSpDocIdLbl.setBounds(50,60,60,30);

JTextField upSpDocIdTxt = **new** JTextField();

upSpDocIdTxt.setBounds(140,60,150,30);

JLabel upDocSpecializationLbl = **new** JLabel("specialization");

upDocSpecializationLbl.setBounds(50,100,90,30);

JTextField upDocSpecializationTxt = **new** JTextField();

upDocSpecializationTxt.setBounds(140,100,150,30);

JButton upSpecializationBtn = **new** JButton("Submit");

upSpecializationBtn.setBounds(165,140,90,30);

upSpecializationBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateId = upSpDocIdTxt.getText();

String updatespecialization = upDocSpecializationTxt.getText();

String query = "Update doctor set specialization = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updatespecialization);

ps.setString(2,updateId);

ps.executeUpdate();

System.***out***.println("Doctor: Update Specialization Success");

} **catch** (SQLException e1) {

System.***out***.println("Doctor: Update specialization error");

}

}

});

c7.add(upSpDocIdLbl);

c7.add(upSpDocIdTxt);

c7.add(upDocSpecializationLbl);

c7.add(upDocSpecializationTxt);

c7.add(upSpecializationBtn);

**break**;

**case** "Update experience" :

JFrame docUpExpFr = **new** JFrame("Update Experience");

docUpExpFr.setVisible(**true**);

docUpExpFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

docUpExpFr.setBounds(200,100,700,500);

Container c8 = docUpExpFr.getContentPane();

c8.setLayout(**null**);

JLabel upExpDocIdLbl = **new** JLabel("ID");

upExpDocIdLbl.setBounds(50,60,60,30);

JTextField upExpDocIdTxt = **new** JTextField();

upExpDocIdTxt.setBounds(140,60,150,30);

JLabel upDocExperienceLbl = **new** JLabel("Experience");

upDocExperienceLbl.setBounds(50,100,90,30);

JTextField upDocExperienceTxt = **new** JTextField();

upDocExperienceTxt.setBounds(140,100,150,30);

JButton upExperienceBtn = **new** JButton("Submit");

upExperienceBtn.setBounds(165,140,90,30);

upExperienceBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateExpId = upExpDocIdTxt.getText();

String updateExpExperience = upDocExperienceTxt.getText();

String query = "Update doctor set experience = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateExpExperience);

ps.setString(2,updateExpId);

ps.executeUpdate();

System.***out***.println("Doctor: Update experience Success");

} **catch** (SQLException e1) {

System.***out***.println("Doctor: Update experience error");

}

}

});

c8.add(upExpDocIdLbl);

c8.add(upExpDocIdTxt);

c8.add(upDocExperienceLbl);

c8.add(upDocExperienceTxt);

c8.add(upExperienceBtn);

**break**;

**case** "Update salary" :

JFrame docUpSalFr = **new** JFrame("Update Salary");

docUpSalFr.setVisible(**true**);

docUpSalFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

docUpSalFr.setBounds(200,100,700,500);

Container c9 = docUpSalFr.getContentPane();

c9.setLayout(**null**);

JLabel upSalDocIdLbl = **new** JLabel("ID");

upSalDocIdLbl.setBounds(50,60,60,30);

JTextField upSalDocIdTxt = **new** JTextField();

upSalDocIdTxt.setBounds(140,60,150,30);

JLabel upDocSalaryLbl = **new** JLabel("Salary");

upDocSalaryLbl.setBounds(50,100,90,30);

JTextField upDocSalaryTxt = **new** JTextField();

upDocSalaryTxt.setBounds(140,100,150,30);

JButton upSalaryBtn = **new** JButton("Submit");

upSalaryBtn.setBounds(165,140,90,30);

upSalaryBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateSalId = upSalDocIdTxt.getText();

String updateSalSalary = upDocSalaryTxt.getText();

String query = "Update doctor set salary = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateSalSalary);

ps.setString(2,updateSalId);

ps.executeUpdate();

System.***out***.println("Doctor: Update salary Success");

} **catch** (SQLException e1) {

System.***out***.println("Doctor: Update salary error");

}

}

});

c9.add(upSalDocIdLbl);

c9.add(upSalDocIdTxt);

c9.add(upDocSalaryLbl);

c9.add(upDocSalaryTxt);

c9.add(upSalaryBtn);

**break**;

}

}

});

c5.add(adminModLabel);

c5.add(adminModCombo);

c5.add(adminModButton);

**break**;

**case** "view Doctor":

JFrame viewDoctorFr = **new** JFrame("View Frame");

viewDoctorFr.setVisible(**true**);

viewDoctorFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

viewDoctorFr.setBounds(200,100,700,500);

Container c10 = viewDoctorFr.getContentPane();

c10.setLayout(**null**);

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

String query = "Select \* from doctor";

Statement viewStmt = con.createStatement();

ResultSet rs = viewStmt.executeQuery(query);

**int** i=60;

**while**(rs.next()) {

String id=rs.getString(1);

String name=rs.getString(2);

String specialization=rs.getString(3);

String experience=rs.getString(4);

String salary=rs.getString(5);

String printLine = id+" "+name+" "+specialization+" "+experience+" "+salary;

JLabel printLbl = **new** JLabel(printLine);

printLbl.setBounds(50,i,300,30);

c10.add(printLbl);

i=i+40;

}

}

**catch**(SQLException e1) {

System.***out***.println("Doctor view failed");

}

**break**;

**case** "Add Nurse":

adminFrame.dispose();

JFrame adminNrFr = **new** JFrame("Add Nurse");

adminNrFr.setVisible(**true**);

adminNrFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

adminNrFr.setBounds(200,100,700,500);

Container c11 = adminNrFr.getContentPane();

c11.setLayout(**null**);

JLabel adminNrIdLbl = **new** JLabel("ID");

adminNrIdLbl.setBounds(50,60,60,30);

JTextField adminNrIdTxt = **new** JTextField();

adminNrIdTxt.setBounds(140,60,150,30);

JLabel adminNrNameLbl = **new** JLabel("NAME");

adminNrNameLbl.setBounds(50,100,60,30);

JTextField adminNrNameTxt = **new** JTextField();

adminNrNameTxt.setBounds(140,100,150,30);

JLabel adminNrExperienceLbl = **new** JLabel("Experience");

adminNrExperienceLbl.setBounds(50,180,90,30);

JTextField adminNrExperienceTxt = **new** JTextField();

adminNrExperienceTxt.setBounds(140,180,150,30);

JLabel adminNrSalaryLbl = **new** JLabel("Salary");

adminNrSalaryLbl.setBounds(50,220,60,30);

JTextField adminNrSalaryTxt = **new** JTextField();

adminNrSalaryTxt.setBounds(140,220,150,30);

JButton adminNrBtn = **new** JButton("Insert");

adminNrBtn.setBounds(165,260,90,30);

adminNrBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String NrId = adminNrIdTxt.getText();

String NrName = adminNrNameTxt.getText();

**int** NrExperience = Integer.*parseInt*(adminNrExperienceTxt.getText());

**int** NrSalary = Integer.*parseInt*(adminNrSalaryTxt.getText());

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

nurse.*addNurse*(con, NrId, NrName, NrExperience, NrSalary);

}

**catch**(SQLException e1) {

System.***out***.println("Sql Exception in main()");

System.*exit*(1);

}

}

});

c11.add(adminNrIdTxt);

c11.add(adminNrNameTxt);

c11.add(adminNrExperienceTxt);

c11.add(adminNrSalaryTxt);

c11.add(adminNrIdLbl);

c11.add(adminNrNameLbl);

c11.add(adminNrExperienceLbl);

c11.add(adminNrSalaryLbl);

c11.add(adminNrBtn);

c11.revalidate();

**break**;

**case** "Remove Nurse":

JFrame adminRmNrFr = **new** JFrame("Remove Nurse");

adminRmNrFr.setVisible(**true**);

adminRmNrFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

adminRmNrFr.setBounds(200,100,700,500);

Container c12 = adminRmNrFr.getContentPane();

c12.setLayout(**null**);

JLabel adminRmNrFrIdLbl = **new** JLabel("ID");

adminRmNrFrIdLbl.setBounds(50,60,60,30);

JTextField adminRmNrFrIdTxt = **new** JTextField();

adminRmNrFrIdTxt.setBounds(140,60,150,30);

JButton adminRmNrFrIdBtn = **new** JButton("Submit");

adminRmNrFrIdBtn.setBounds(320,60,90,30);

adminRmNrFrIdBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String RmNrId = adminRmNrFrIdTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

nurse.*removeNurse*(con,RmNrId);

}

**catch**(SQLException e1) {

System.***out***.println("Sql Exception in main()");

System.*exit*(1);

}

}

});

c12.add(adminRmNrFrIdLbl);

c12.add(adminRmNrFrIdTxt);

c12.add(adminRmNrFrIdBtn);

**break**;

**case** "Modify Nurse":

JFrame adminModNrFr = **new** JFrame("Modify Doctor");

adminModNrFr.setVisible(**true**);

adminModNrFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

adminModNrFr.setBounds(200,100,700,500);

Container c14 = adminModNrFr.getContentPane();

c14.setLayout(**null**);

JLabel adminModNrLabel = **new** JLabel("Operations");

adminModNrLabel.setBounds(50,60,90,30);

String[] adminModNrOpr = {"Update Name","Update experience","Update salary"};

JComboBox adminModNrCombo = **new** JComboBox(adminModNrOpr);

adminModNrCombo.setBounds(130,60,90,25);

JButton adminModNrButton = **new** JButton("Submit");

adminModNrButton.setBounds(230,60,80,25);

adminModNrButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String NrOperation = (String)adminModNrCombo.getSelectedItem();

**switch**(NrOperation) {

**case** "Update Name" :

JFrame NrUpFr = **new** JFrame("Update Name");

NrUpFr.setVisible(**true**);

NrUpFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

NrUpFr.setBounds(200,100,700,500);

Container c15 = NrUpFr.getContentPane();

c15.setLayout(**null**);

JLabel upNrIdLbl = **new** JLabel("ID");

upNrIdLbl.setBounds(50,60,60,30);

JTextField upNrIdTxt = **new** JTextField();

upNrIdTxt.setBounds(140,60,150,30);

JLabel upNrNameLbl = **new** JLabel("Name");

upNrNameLbl.setBounds(50,100,60,30);

JTextField upNrNameTxt = **new** JTextField();

upNrNameTxt.setBounds(140,100,150,30);

JButton upNrBtn = **new** JButton("Submit");

upNrBtn.setBounds(165,140,90,30);

upNrBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateNrId = upNrIdTxt.getText();

String updateNrName = upNrNameTxt.getText();

String query = "Update nurse set name = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateNrName);

ps.setString(2,updateNrId);

ps.executeUpdate();

System.***out***.println("Nurse: Update Name Success");

} **catch** (SQLException e1) {

System.***out***.println("Nurse: Update name error");

}

}

});

c15.add(upNrIdLbl);

c15.add(upNrIdTxt);

c15.add(upNrNameLbl);

c15.add(upNrNameTxt);

c15.add(upNrBtn);

**break**;

**case** "Update experience" :

JFrame NrUpExpFr = **new** JFrame("Update Experience");

NrUpExpFr.setVisible(**true**);

NrUpExpFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

NrUpExpFr.setBounds(200,100,700,500);

Container c16 = NrUpExpFr.getContentPane();

c16.setLayout(**null**);

JLabel upExpNrIdLbl = **new** JLabel("ID");

upExpNrIdLbl.setBounds(50,60,60,30);

JTextField upExpNrIdTxt = **new** JTextField();

upExpNrIdTxt.setBounds(140,60,150,30);

JLabel upNrExperienceLbl = **new** JLabel("Experience");

upNrExperienceLbl.setBounds(50,100,90,30);

JTextField upNrExperienceTxt = **new** JTextField();

upNrExperienceTxt.setBounds(140,100,150,30);

JButton upExperienceNrBtn = **new** JButton("Submit");

upExperienceNrBtn.setBounds(165,140,90,30);

upExperienceNrBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateExpNrId = upExpNrIdTxt.getText();

**int** updateExpNrExperience = Integer.*parseInt*(upNrExperienceTxt.getText());

String query = "Update nurse set experience = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,updateExpNrExperience);

ps.setString(2,updateExpNrId);

ps.executeUpdate();

System.***out***.println("Nurse: Update experience Success");

} **catch** (SQLException e1) {

System.***out***.println("Nurse: Update experience error");

}

}

});

c16.add(upExpNrIdLbl);

c16.add(upExpNrIdTxt);

c16.add(upNrExperienceLbl);

c16.add(upNrExperienceTxt);

c16.add(upExperienceNrBtn);

**break**;

**case** "Update salary" :

JFrame NrUpSalFr = **new** JFrame("Update Salary");

NrUpSalFr.setVisible(**true**);

NrUpSalFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

NrUpSalFr.setBounds(200,100,700,500);

Container c17 = NrUpSalFr.getContentPane();

c17.setLayout(**null**);

JLabel upSalNrIdLbl = **new** JLabel("ID");

upSalNrIdLbl.setBounds(50,60,60,30);

JTextField upSalNrIdTxt = **new** JTextField();

upSalNrIdTxt.setBounds(140,60,150,30);

JLabel upNrSalaryLbl = **new** JLabel("Salary");

upNrSalaryLbl.setBounds(50,100,90,30);

JTextField upNrSalaryTxt = **new** JTextField();

upNrSalaryTxt.setBounds(140,100,150,30);

JButton upSalaryNrBtn = **new** JButton("Submit");

upSalaryNrBtn.setBounds(165,140,90,30);

upSalaryNrBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateNrSalId = upSalNrIdTxt.getText();

**int** updateNrSalSalary = Integer.*parseInt*(upNrSalaryTxt.getText());

String query = "Update nurse set salary = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,updateNrSalSalary);

ps.setString(2,updateNrSalId);

ps.executeUpdate();

System.***out***.println("Nurse: Update salary Success");

} **catch** (SQLException e1) {

System.***out***.println("Nurse: Update salary error");

}

}

});

c17.add(upSalNrIdLbl);

c17.add(upSalNrIdTxt);

c17.add(upNrSalaryLbl);

c17.add(upNrSalaryTxt);

c17.add(upSalaryNrBtn);

}

}

});

c14.add(adminModNrLabel);

c14.add(adminModNrCombo);

c14.add(adminModNrButton);

**break**;

**case** "View Nurse":

JFrame viewNurseFr = **new** JFrame("View Nurse");

viewNurseFr.setVisible(**true**);

viewNurseFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

viewNurseFr.setBounds(200,100,700,500);

Container c13 = viewNurseFr.getContentPane();

c13.setLayout(**null**);

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

String query = "Select \* from nurse";

Statement viewStmt = con.createStatement();

ResultSet rs = viewStmt.executeQuery(query);

**int** i=60;

**while**(rs.next()) {

String id=rs.getString(1);

String name=rs.getString(2);

**int** experience=rs.getInt(3);

**int** salary=rs.getInt(4);

String printLine = id+" "+name+" "+experience+" "+salary;

JLabel printLbl = **new** JLabel(printLine);

printLbl.setBounds(50,i,300,30);

c13.add(printLbl);

i=i+40;

}

}

**catch**(SQLException e1) {

System.***out***.println("Nurse view failed");

}

**break**;

}

}

});

c2.add(adminLabel);

c2.add(adminCombo);

c2.add(adminButton);

**break**;

**case** "Doctor" :

JFrame docFr = **new** JFrame("Doctor");

docFr.setBounds(200,100,700,500);

docFr.setVisible(**true**);

Container cd = docFr.getContentPane();

cd.setLayout(**null**);

JLabel docOperationLbl = **new** JLabel("Operation");

docOperationLbl.setBounds(50,60,90,30);

String[] oper = {"Add Patient", "Remove Patient", "Modify Patient", "View Patient"};

JComboBox docOperationCombo = **new** JComboBox(oper);

docOperationCombo.setBounds(140,60,100,30);

JButton docButton = **new** JButton("submit");

docButton.setBounds(250,60,90,30);

docButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String selectedOp = (String) docOperationCombo.getSelectedItem();

**switch**(selectedOp) {

**case** "Add Patient" :

docFr.dispose();

JFrame addPtFr = **new** JFrame("Add Patient");

addPtFr.setBounds(200,100,700,500);

addPtFr.setVisible(**true**);

addPtFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

Container cda = addPtFr.getContentPane();

cda.setLayout(**null**);

JLabel addPtIdLbl = **new** JLabel("ID");

addPtIdLbl.setBounds(50,60,60,30);

JTextField addPtIdTxt = **new** JTextField();

addPtIdTxt.setBounds(140,60,150,30);

JLabel addPtNameLbl = **new** JLabel("NAME");

addPtNameLbl.setBounds(50,100,60,30);

JTextField addPtNameTxt = **new** JTextField();

addPtNameTxt.setBounds(140,100,150,30);

JLabel addPtIllnessLbl = **new** JLabel("Illness");

addPtIllnessLbl.setBounds(50,140,90,30);

JTextField addPtIllnessTxt = **new** JTextField();

addPtIllnessTxt.setBounds(140,140,150,30);

JLabel addPtMedicineLbl = **new** JLabel("Medicine");

addPtMedicineLbl.setBounds(50,180,90,30);

JTextField addPtMedicineTxt = **new** JTextField();

addPtMedicineTxt.setBounds(140,180,150,30);

JLabel addPtNurse\_idLbl = **new** JLabel("Nurse\_id");

addPtNurse\_idLbl.setBounds(50,220,60,30);

JTextField addPtNurse\_idTxt = **new** JTextField();

addPtNurse\_idTxt.setBounds(140,220,150,30);

JButton addPtBtn = **new** JButton("Insert");

addPtBtn.setBounds(165,260,90,30);

addPtBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String PtId = addPtIdTxt.getText();

String PtName = addPtNameTxt.getText();

String PtIllness = addPtIllnessTxt.getText();

String PtMedicine = addPtMedicineTxt.getText();

String PtNurse\_id = addPtNurse\_idTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

patient.*addPatient*(con, PtId, PtName, PtIllness, PtMedicine, PtNurse\_id);

}

**catch**(SQLException e1) {

System.***out***.println("Sql Exception in main()");

System.*exit*(1);

}

}

});

cda.add(addPtIdTxt);

cda.add(addPtNameTxt);

cda.add(addPtIllnessTxt);

cda.add(addPtMedicineTxt);

cda.add(addPtNurse\_idTxt);

cda.add(addPtIdLbl);

cda.add(addPtNameLbl);

cda.add(addPtIllnessLbl);

cda.add(addPtMedicineLbl);

cda.add(addPtNurse\_idLbl);

cda.add(addPtBtn);

cda.revalidate();

**break**;

**case** "Remove Patient" :

docFr.dispose();

JFrame RmPtFr = **new** JFrame("Remove Patient");

RmPtFr.setBounds(200,100,700,500);

RmPtFr.setVisible(**true**);

RmPtFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

Container cdr = RmPtFr.getContentPane();

cdr.setLayout(**null**);

JLabel RmPtIdLbl = **new** JLabel("ID");

RmPtIdLbl.setBounds(50,60,60,30);

JTextField RmPtIdTxt = **new** JTextField();

RmPtIdTxt.setBounds(140,60,150,30);

JButton RmPtBtn = **new** JButton("Submit");

RmPtBtn.setBounds(320,60,90,30);

RmPtBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String RmPtId = RmPtIdTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

patient.*removePatient*(con,RmPtId);

}

**catch**(SQLException e1) {

System.***out***.println("Sql Exception in main()");

System.*exit*(1);

}

}

});

cdr.add(RmPtIdLbl);

cdr.add(RmPtIdTxt);

cdr.add(RmPtBtn);

RmPtFr.revalidate();

**break**;

**case** "Modify Patient" :

JFrame PatientModFr = **new** JFrame("Modify Patient");

PatientModFr.setVisible(**true**);

PatientModFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

PatientModFr.setBounds(200,100,700,500);

Container cpm = PatientModFr.getContentPane();

cpm.setLayout(**null**);

JLabel PatientModLabel = **new** JLabel("Operations");

PatientModLabel.setBounds(50,60,90,30);

String[] PatientModOpr = {"Update Name","Update Illness","Update Medicine","Update Nurse Id"};

JComboBox PatientModCombo = **new** JComboBox(PatientModOpr);

PatientModCombo.setBounds(130,60,90,25);

JButton PatientModButton = **new** JButton("Submit");

PatientModButton.setBounds(230,60,80,25);

PatientModButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String PtModOperation = (String)PatientModCombo.getSelectedItem();

**switch**(PtModOperation) {

**case** "Update Name" :

JFrame PtUpFr = **new** JFrame("Update Name");

PtUpFr.setVisible(**true**);

PtUpFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

PtUpFr.setBounds(200,100,700,500);

Container c6 = PtUpFr.getContentPane();

c6.setLayout(**null**);

JLabel upPtIdLbl = **new** JLabel("ID");

upPtIdLbl.setBounds(50,60,60,30);

JTextField upPtIdTxt = **new** JTextField();

upPtIdTxt.setBounds(140,60,150,30);

JLabel upPtNameLbl = **new** JLabel("Name");

upPtNameLbl.setBounds(50,100,60,30);

JTextField upPtNameTxt = **new** JTextField();

upPtNameTxt.setBounds(140,100,150,30);

JButton upPtBtn = **new** JButton("Submit");

upPtBtn.setBounds(165,140,90,30);

upPtBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updatePtId = upPtIdTxt.getText();

String updatePtName = upPtNameTxt.getText();

String query = "Update patient set name = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updatePtName);

ps.setString(2,updatePtId);

ps.executeUpdate();

System.***out***.println("Patient: Update Name Success");

} **catch** (SQLException e1) {

System.***out***.println("Patient: Update name error");

}

}

});

c6.add(upPtIdLbl);

c6.add(upPtIdTxt);

c6.add(upPtNameLbl);

c6.add(upPtNameTxt);

c6.add(upPtBtn);

**break**;

**case** "Update Illness" :

JFrame IllPtFr = **new** JFrame("Update Illness");

IllPtFr.setVisible(**true**);

IllPtFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

IllPtFr.setBounds(200,100,700,500);

Container c7 = IllPtFr.getContentPane();

c7.setLayout(**null**);

JLabel upIllPtIdLbl = **new** JLabel("ID");

upIllPtIdLbl.setBounds(50,60,60,30);

JTextField upIllPtIdTxt = **new** JTextField();

upIllPtIdTxt.setBounds(140,60,150,30);

JLabel upPtIllnessLbl = **new** JLabel("Illness");

upPtIllnessLbl.setBounds(50,100,90,30);

JTextField upPtIllnessTxt = **new** JTextField();

upPtIllnessTxt.setBounds(140,100,150,30);

JButton upPtIllnessBtn = **new** JButton("Submit");

upPtIllnessBtn.setBounds(165,140,90,30);

upPtIllnessBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateId = upIllPtIdTxt.getText();

String updateIllness = upPtIllnessTxt.getText();

String query = "Update patient set illness = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateIllness);

ps.setString(2,updateId);

ps.executeUpdate();

System.***out***.println("Patient: Update Illness Success");

} **catch** (SQLException e1) {

System.***out***.println("Patient: Update Illness error");

}

}

});

c7.add(upIllPtIdLbl);

c7.add(upIllPtIdTxt);

c7.add(upPtIllnessLbl);

c7.add(upPtIllnessTxt);

c7.add(upPtIllnessBtn);

**break**;

**case** "Update Medicine" :

JFrame ptUpMedFr = **new** JFrame("Update Medicine");

ptUpMedFr.setVisible(**true**);

ptUpMedFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

ptUpMedFr.setBounds(200,100,700,500);

Container c8 = ptUpMedFr.getContentPane();

c8.setLayout(**null**);

JLabel ptUpMedIdLbl = **new** JLabel("ID");

ptUpMedIdLbl.setBounds(50,60,60,30);

JTextField ptUpMedIdTxt = **new** JTextField();

ptUpMedIdTxt.setBounds(140,60,150,30);

JLabel upPtMedicineLbl = **new** JLabel("Medicine");

upPtMedicineLbl.setBounds(50,100,90,30);

JTextField upPtMedicineTxt = **new** JTextField();

upPtMedicineTxt.setBounds(140,100,150,30);

JButton upPtMedicineBtn = **new** JButton("Submit");

upPtMedicineBtn.setBounds(165,140,90,30);

upPtMedicineBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateMedId = ptUpMedIdTxt.getText();

String updateMedMedicine = upPtMedicineTxt.getText();

String query = "Update patient set Medicine = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateMedMedicine);

ps.setString(2,updateMedId);

ps.executeUpdate();

System.***out***.println("Patient: Update Medicine Success");

} **catch** (SQLException e1) {

System.***out***.println("Patient: Update Medicine error");

}

}

});

c8.add(ptUpMedIdLbl);

c8.add(ptUpMedIdTxt);

c8.add(upPtMedicineLbl);

c8.add(upPtMedicineTxt);

c8.add(upPtMedicineBtn);

**break**;

**case** "Update Nurse Id" :

JFrame PtUpNrFr = **new** JFrame("Update Nurse Id");

PtUpNrFr.setVisible(**true**);

PtUpNrFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

PtUpNrFr.setBounds(200,100,700,500);

Container c9 = PtUpNrFr.getContentPane();

c9.setLayout(**null**);

JLabel upPtNrIdLbl = **new** JLabel("ID");

upPtNrIdLbl.setBounds(50,60,60,30);

JTextField upPtNrIdTxt = **new** JTextField();

upPtNrIdTxt.setBounds(140,60,150,30);

JLabel upPtNurseIdLbl = **new** JLabel("Nurse Id");

upPtNurseIdLbl.setBounds(50,100,90,30);

JTextField upPtNurseIdTxt = **new** JTextField();

upPtNurseIdTxt.setBounds(140,100,150,30);

JButton upPtNrIdBtn = **new** JButton("Submit");

upPtNrIdBtn.setBounds(165,140,90,30);

upPtNrIdBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateNrIdId = upPtNrIdTxt.getText();

String updateNrIdNurse = upPtNurseIdTxt.getText();

String query = "Update patient set Nurse\_id = ? where id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateNrIdNurse);

ps.setString(2,updateNrIdId);

ps.executeUpdate();

System.***out***.println("Patient: Update Nurse ID Success");

} **catch** (SQLException e1) {

System.***err***.println(e1.getClass().getName() + ": " + e1.getMessage());

System.***out***.println("Patient: Update Nurse ID error");

}

}

});

c9.add(upPtNrIdLbl);

c9.add(upPtNrIdTxt);

c9.add(upPtNurseIdLbl);

c9.add(upPtNurseIdTxt);

c9.add(upPtNrIdBtn);

**break**;

}

}

});

cpm.add(PatientModLabel);

cpm.add(PatientModCombo);

cpm.add(PatientModButton);

**break**;

**case** "View Patient" :

JFrame viewPatientFr = **new** JFrame("View Patient");

viewPatientFr.setVisible(**true**);

viewPatientFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

viewPatientFr.setBounds(200,100,700,500);

Container c10 = viewPatientFr.getContentPane();

c10.setLayout(**null**);

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

String query = "Select \* from patient";

Statement viewStmt = con.createStatement();

ResultSet rs = viewStmt.executeQuery(query);

**int** i=60;

**while**(rs.next()) {

String id=rs.getString(1);

String name=rs.getString(2);

String illness=rs.getString(3);

String medicine=rs.getString(4);

String Nurse\_id=rs.getString(5);

String printLine = id+" "+name+" "+illness+" "+medicine+" "+Nurse\_id;

JLabel printLbl = **new** JLabel(printLine);

printLbl.setBounds(50,i,300,30);

c10.add(printLbl);

i=i+40;

}

}

**catch**(SQLException e1) {

System.***out***.println("Doctor view failed");

}

}

}

});

cd.add(docOperationLbl);

cd.add(docOperationCombo);

cd.add(docButton);

**break**;

**case** "Nurse" :

JFrame viewPatientFr = **new** JFrame("View Patient");

viewPatientFr.setVisible(**true**);

viewPatientFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

viewPatientFr.setBounds(200,100,700,500);

Container c10 = viewPatientFr.getContentPane();

c10.setLayout(**null**);

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

String query = "Select \* from patient";

Statement viewStmt = con.createStatement();

ResultSet rs = viewStmt.executeQuery(query);

**int** i=60;

**while**(rs.next()) {

String id=rs.getString(1);

String name=rs.getString(2);

String illness=rs.getString(3);

String medicine=rs.getString(4);

String Nurse\_id=rs.getString(5);

String printLine = id+" "+name+" "+illness+" "+medicine+" "+Nurse\_id;

JLabel printLbl = **new** JLabel(printLine);

printLbl.setBounds(50,i,300,30);

c10.add(printLbl);

i=i+40;

}

}

**catch**(SQLException e1) {

System.***out***.println("Doctor view failed");

}

**break**;

**case** "Accountant" :

JFrame accountFr = **new** JFrame("Accounts");

accountFr.setBounds(200,100,700,500);

accountFr.setVisible(**true**);

Container accountFrC = accountFr.getContentPane();

accountFrC.setLayout(**null**);

JLabel accountsOpLbl = **new** JLabel("Operation");

accountsOpLbl.setBounds(50,60,90,30);

String[] oprs = {"Add account","Remove account","Modify account","View account"};

JComboBox accountsOprsCombo = **new** JComboBox(oprs);

accountsOprsCombo.setBounds(130,60,100,30);

JButton accountsBtn = **new** JButton("Submit");

accountsBtn.setBounds(250,60,90,30);

accountsBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String SelectedOp = (String) accountsOprsCombo.getSelectedItem();

**switch**(SelectedOp) {

**case** "Add account" :

accountFr.dispose();

JFrame addAcc = **new** JFrame("Add Account");

addAcc.setBounds(200,100,700,500);

addAcc.setVisible(**true**);

addAcc.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

Container addAccC = addAcc.getContentPane();

addAccC.setLayout(**null**);

JLabel accPtIdLbl = **new** JLabel("Patient ID");

accPtIdLbl.setBounds(50,60,60,30);

JTextField accPtIdTxt = **new** JTextField();

accPtIdTxt.setBounds(140,60,150,30);

JLabel accBillLbl = **new** JLabel("Bill");

accBillLbl.setBounds(50,100,60,30);

JTextField accBillTxt = **new** JTextField();

accBillTxt.setBounds(140,100,150,30);

JLabel accSOBLbl = **new** JLabel("Status of Bill");

accSOBLbl.setBounds(50,140,90,30);

JTextField accSOBTxt = **new** JTextField();

accSOBTxt.setBounds(140,140,150,30);

JButton accInsertBtn = **new** JButton("Insert");

accInsertBtn.setBounds(165,180,90,30);

accInsertBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String PtId = accPtIdTxt.getText();

**int** Bill = Integer.*parseInt*(accBillTxt.getText());

String SOB = accSOBTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

account.*addAccount*(con, PtId, Bill, SOB);

}

**catch**(SQLException e) {

System.***out***.println("Account Insertion Error");

}

}

});

addAccC.add(accPtIdLbl);

addAccC.add(accPtIdTxt);

addAccC.add(accBillLbl);

addAccC.add(accBillTxt);

addAccC.add(accSOBLbl);

addAccC.add(accSOBTxt);

addAccC.add(accInsertBtn);

**break**;

**case** "Remove account" :

accountFr.dispose();

JFrame rmAcc = **new** JFrame("Add Account");

rmAcc.setBounds(200,100,700,500);

rmAcc.setVisible(**true**);

rmAcc.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

Container rmAccC = rmAcc.getContentPane();

rmAccC.setLayout(**null**);

JLabel accRmPtIdLbl = **new** JLabel("Patient ID");

accRmPtIdLbl.setBounds(50,60,60,30);

JTextField accRmPtIdTxt = **new** JTextField();

accRmPtIdTxt.setBounds(140,60,150,30);

JButton accRmBtn = **new** JButton("Remove");

accRmBtn.setBounds(165,100,90,30);

accRmBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String toRmPtId = accRmPtIdTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

account.*removeAccount*(con, toRmPtId);

}

**catch**(SQLException e) {

System.***out***.println("Account Remove Error");

}

}

});

rmAccC.add(accRmPtIdLbl);

rmAccC.add(accRmPtIdTxt);

rmAccC.add(accRmBtn);

**break**;

**case** "Modify account" :

accountFr.dispose();

JFrame accModFr = **new** JFrame("Modify account");

accModFr.setVisible(**true**);

accModFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

accModFr.setBounds(200,100,700,500);

Container c14 = accModFr.getContentPane();

c14.setLayout(**null**);

JLabel accModLabel = **new** JLabel("Operations");

accModLabel.setBounds(50,60,90,30);

String[] accModOpr = {"Update Bill","Update Status of bill"};

JComboBox accModCombo = **new** JComboBox(accModOpr);

accModCombo.setBounds(130,60,90,25);

JButton accModButton = **new** JButton("Submit");

accModButton.setBounds(230,60,80,25);

accModButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String accModOperation = (String)accModCombo.getSelectedItem();

**switch**(accModOperation) {

**case** "Update Bill" :

JFrame accModBillFr = **new** JFrame("Update Bill");

accModBillFr.setVisible(**true**);

accModBillFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

accModBillFr.setBounds(200,100,700,500);

Container c16 = accModBillFr.getContentPane();

c16.setLayout(**null**);

JLabel accModBillIdLbl = **new** JLabel("Patient ID");

accModBillIdLbl.setBounds(50,60,60,30);

JTextField accModBillIdTxt = **new** JTextField();

accModBillIdTxt.setBounds(140,60,150,30);

JLabel accModBillBillLbl = **new** JLabel("Bill");

accModBillBillLbl.setBounds(50,100,90,30);

JTextField accModBillBillTxt = **new** JTextField();

accModBillBillTxt.setBounds(140,100,150,30);

JButton accModBillBtn = **new** JButton("Submit");

accModBillBtn.setBounds(165,140,90,30);

accModBillBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateBillId = accModBillIdTxt.getText();

**int** updateBillBill = Integer.*parseInt*(accModBillBillTxt.getText());

String query = "Update account set bill = ? where patient\_id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,updateBillBill);

ps.setString(2,updateBillId);

ps.executeUpdate();

System.***out***.println("Account: Update Bill Success");

} **catch** (SQLException e1) {

System.***out***.println("Account: Update Bill error");

}

}

});

c16.add(accModBillIdLbl);

c16.add(accModBillIdTxt);

c16.add(accModBillBillLbl);

c16.add(accModBillBillTxt);

c16.add(accModBillBtn);

**break**;

**case** "Update Status of bill" :

JFrame accUpSOBFr = **new** JFrame("Update Status of bill");

accUpSOBFr.setVisible(**true**);

accUpSOBFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

accUpSOBFr.setBounds(200,100,700,500);

Container c17 = accUpSOBFr.getContentPane();

c17.setLayout(**null**);

JLabel accUpIdLbl = **new** JLabel("Patient ID");

accUpIdLbl.setBounds(50,60,60,30);

JTextField accUpIdTxt = **new** JTextField();

accUpIdTxt.setBounds(140,60,150,30);

JLabel upSTOBLbl = **new** JLabel("Status Of Bill");

upSTOBLbl.setBounds(50,100,90,30);

JTextField upSTOBTxt = **new** JTextField();

upSTOBTxt.setBounds(140,100,150,30);

JButton accUpBtn = **new** JButton("Submit");

accUpBtn.setBounds(165,140,90,30);

accUpBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updatePatient\_idId = accUpIdTxt.getText();

String updateSTOB = upSTOBTxt.getText();

String query = "Update account set status\_of\_bill = ? where patient\_id = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setString(1,updateSTOB);

ps.setString(2,updatePatient\_idId);

ps.executeUpdate();

System.***out***.println("Account: Update Statuf Of Bill Success");

} **catch** (SQLException e1) {

System.***out***.println("Account: Update Statuf Of Bill error");

}

}

});

c17.add(accUpIdLbl);

c17.add(accUpIdTxt);

c17.add(upSTOBLbl);

c17.add(upSTOBTxt);

c17.add(accUpBtn);

}

}

});

c14.add(accModLabel);

c14.add(accModCombo);

c14.add(accModButton);

**break**;

**case** "View account" :

accountFr.dispose();

JFrame viewPatientFr = **new** JFrame("View Patient");

viewPatientFr.setVisible(**true**);

viewPatientFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

viewPatientFr.setBounds(200,100,700,500);

Container c10 = viewPatientFr.getContentPane();

c10.setLayout(**null**);

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

String query = "Select \* from account";

Statement viewStmt = con.createStatement();

ResultSet rs = viewStmt.executeQuery(query);

**int** i=60;

**while**(rs.next()) {

String id=rs.getString(1);

**int** bill=rs.getInt(2);

String SOB=rs.getString(3);

String printLine = id+" "+bill+" "+SOB;

JLabel printLbl = **new** JLabel(printLine);

printLbl.setBounds(50,i,300,30);

c10.add(printLbl);

i=i+40;

}

}

**catch**(SQLException e1) {

System.***out***.println("Patient view failed");

}

**break**;

}

}

});

accountFrC.add(accountsOpLbl);

accountFrC.add(accountsOprsCombo);

accountFrC.add(accountsBtn);

**break**;

**case** "Pharmacist" :

JFrame pharmaFr = **new** JFrame("Accounts");

pharmaFr.setBounds(200,100,700,500);

pharmaFr.setVisible(**true**);

Container pharmaFrC = pharmaFr.getContentPane();

pharmaFrC.setLayout(**null**);

JLabel pharmaOpLbl = **new** JLabel("Operation");

pharmaOpLbl.setBounds(50,60,90,30);

String[] phOprs = {"Add Medicin","Remove Medicin","Modify Medicin","View Medicin"};

JComboBox pharmaOprsCombo = **new** JComboBox(phOprs);

pharmaOprsCombo.setBounds(130,60,100,30);

JButton pharmaBtn = **new** JButton("Submit");

pharmaBtn.setBounds(250,60,90,30);

pharmaBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String SelectedOp = (String) pharmaOprsCombo.getSelectedItem();

**switch**(SelectedOp) {

**case** "Add Medicin" :

pharmaFr.dispose();

JFrame addMed = **new** JFrame("Add Medicin");

addMed.setBounds(200,100,700,500);

addMed.setVisible(**true**);

addMed.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

Container addMedC = addMed.getContentPane();

addMedC.setLayout(**null**);

JLabel medNameLbl = **new** JLabel("Medicin Name");

medNameLbl.setBounds(50,60,60,30);

JTextField medNameTxt = **new** JTextField();

medNameTxt.setBounds(140,60,150,30);

JLabel medPriceLbl = **new** JLabel("Price");

medPriceLbl.setBounds(50,100,60,30);

JTextField medPriceTxt = **new** JTextField();

medPriceTxt.setBounds(140,100,150,30);

JLabel medQuantityLbl = **new** JLabel("Quantity");

medQuantityLbl.setBounds(50,140,90,30);

JTextField medQuantityTxt = **new** JTextField();

medQuantityTxt.setBounds(140,140,150,30);

JButton medInsertBtn = **new** JButton("Insert");

medInsertBtn.setBounds(165,180,90,30);

medInsertBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String medName = medNameTxt.getText();

**int** medPrice = Integer.*parseInt*(medPriceTxt.getText());

**int** medQuantity = Integer.*parseInt*(medQuantityTxt.getText());

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

medicin.*addMedicin*(con, medName, medPrice, medQuantity);

}

**catch**(SQLException e) {

System.***out***.println("Medicin Insertion Error");

}

}

});

addMedC.add(medNameLbl);

addMedC.add(medNameTxt);

addMedC.add(medPriceLbl);

addMedC.add(medPriceTxt);

addMedC.add(medQuantityLbl);

addMedC.add(medQuantityTxt);

addMedC.add(medInsertBtn);

**break**;

**case** "Remove Medicin" :

pharmaFr.dispose();

JFrame rmPh = **new** JFrame("Remove Medicin");

rmPh.setBounds(200,100,700,500);

rmPh.setVisible(**true**);

rmPh.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

Container phC = rmPh.getContentPane();

phC.setLayout(**null**);

JLabel phRmMedNameLbl = **new** JLabel("Name");

phRmMedNameLbl.setBounds(50,60,60,30);

JTextField phRmMedNameTxt = **new** JTextField();

phRmMedNameTxt.setBounds(140,60,150,30);

JButton phRmBtn = **new** JButton("Remove");

phRmBtn.setBounds(165,100,90,30);

phRmBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String toRmMedName = phRmMedNameTxt.getText();

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

medicin.*removeMedicin*(con, toRmMedName);

}

**catch**(SQLException e) {

System.***out***.println("Medicin Remove Error");

}

}

});

phC.add(phRmMedNameLbl);

phC.add(phRmMedNameTxt);

phC.add(phRmBtn);

**break**;

**case** "Modify Medicin" :

pharmaFr.dispose();

JFrame phModFr = **new** JFrame("Modify Medicin");

phModFr.setVisible(**true**);

phModFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

phModFr.setBounds(200,100,700,500);

Container c14 = phModFr.getContentPane();

c14.setLayout(**null**);

JLabel phModLabel = **new** JLabel("Operations");

phModLabel.setBounds(50,60,90,30);

String[] phModOpr = {"Update Price","Update Quantity"};

JComboBox phModCombo = **new** JComboBox(phModOpr);

phModCombo.setBounds(130,60,90,25);

JButton phModButton = **new** JButton("Submit");

phModButton.setBounds(230,60,80,25);

phModButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

String phModOperation = (String)phModCombo.getSelectedItem();

**switch**(phModOperation) {

**case** "Update Price" :

JFrame phModPriceFr = **new** JFrame("Update Price");

phModPriceFr.setVisible(**true**);

phModPriceFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

phModPriceFr.setBounds(200,100,700,500);

Container c16 = phModPriceFr.getContentPane();

c16.setLayout(**null**);

JLabel phModPriceNameLbl = **new** JLabel("Name");

phModPriceNameLbl.setBounds(50,60,60,30);

JTextField phModPriceNameTxt = **new** JTextField();

phModPriceNameTxt.setBounds(140,60,150,30);

JLabel phModPricePriceLbl = **new** JLabel("Price");

phModPricePriceLbl.setBounds(50,100,90,30);

JTextField phModPricePriceTxt = **new** JTextField();

phModPricePriceTxt.setBounds(140,100,150,30);

JButton phModPriceBtn = **new** JButton("Submit");

phModPriceBtn.setBounds(165,140,90,30);

phModPriceBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateName = phModPriceNameTxt.getText();

**int** updatePrice = Integer.*parseInt*(phModPricePriceTxt.getText());

String query = "Update medicin set price = ? where name = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,updatePrice);

ps.setString(2,updateName);

ps.executeUpdate();

System.***out***.println("Medicin: Update Price Success");

} **catch** (SQLException e1) {

System.***out***.println("Medicin: Update Price error");

}

}

});

c16.add(phModPriceNameLbl);

c16.add(phModPriceNameTxt);

c16.add(phModPricePriceLbl);

c16.add(phModPricePriceTxt);

c16.add(phModPriceBtn);

**break**;

**case** "Update Quantity" :

JFrame phUpQuantityFr = **new** JFrame("Update Quantity");

phUpQuantityFr.setVisible(**true**);

phUpQuantityFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

phUpQuantityFr.setBounds(200,100,700,500);

Container c17 = phUpQuantityFr.getContentPane();

c17.setLayout(**null**);

JLabel phUpNameLbl = **new** JLabel("Name");

phUpNameLbl.setBounds(50,60,60,30);

JTextField phUpNameTxt = **new** JTextField();

phUpNameTxt.setBounds(140,60,150,30);

JLabel upQuantityLbl = **new** JLabel("Quantity");

upQuantityLbl.setBounds(50,100,90,30);

JTextField upQuantityTxt = **new** JTextField();

upQuantityTxt.setBounds(140,100,150,30);

JButton phUpBtn = **new** JButton("Submit");

phUpBtn.setBounds(165,140,90,30);

phUpBtn.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String updateName = phUpNameTxt.getText();

**int** updateQuantity = Integer.*parseInt*(upQuantityTxt.getText());

String query = "Update medicin set quantity = ? where name = ?";

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

PreparedStatement ps = con.prepareStatement(query);

ps.setInt(1,updateQuantity);

ps.setString(2,updateName);

ps.executeUpdate();

System.***out***.println("Medicin: Update Quantity Success");

} **catch** (SQLException e1) {

System.***out***.println("Medicin: Update Quantity error");

}

}

});

c17.add(phUpNameLbl);

c17.add(phUpNameTxt);

c17.add(upQuantityLbl);

c17.add(upQuantityTxt);

c17.add(phUpBtn);

}

}

});

c14.add(phModLabel);

c14.add(phModCombo);

c14.add(phModButton);

**break**;

**case** "View Medicin" :

pharmaFr.dispose();

JFrame viewMedicinFr = **new** JFrame("View Medicin");

viewMedicinFr.setVisible(**true**);

viewMedicinFr.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

viewMedicinFr.setBounds(200,100,700,500);

Container c10 = viewMedicinFr.getContentPane();

c10.setLayout(**null**);

**try** {

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","system","123");

String query = "Select \* from medicin";

Statement viewStmt = con.createStatement();

ResultSet rs = viewStmt.executeQuery(query);

**int** i=60;

**while**(rs.next()) {

String name=rs.getString(1);

**int** price=rs.getInt(2);

**int** quantity=rs.getInt(3);

String printLine = name+" "+price+" "+quantity;

JLabel printLbl = **new** JLabel(printLine);

printLbl.setBounds(50,i,300,30);

c10.add(printLbl);

i=i+40;

}

}

**catch**(SQLException e1) {

System.***out***.println("Medicin view failed");

}

**break**;

}

}

});

pharmaFr.add(pharmaOpLbl);

pharmaFr.add(pharmaOprsCombo);

pharmaFr.add(pharmaBtn);

**break**;

}

}

});

c1.add(label1);

c1.add(combo1);

c1.add(button1);

c1.revalidate();

}

}

**CHAPTER 7**

REFERENCES

Books:

1. Java the complete reference 9th edition, Herbert Scheldt

Chapter 31: Introducing Swings.

1. J2EE The Complete Reference, Jim Keog

Chapter 6: JDBC Objects.

Websites: [Java Swing - Complete tutorials (HINDI)](https://www.youtube.com/watch?v=ibl5T-hxT7Y&list=PLGDO4Z63KR2ZU6ERsUTF0lrKb9rVNBoPo)

https://www.youtube.com/playlist?list=PLGDO4Z63KR2ZU6ERsUTF0lrKb9rVNBoPo