Doctor Appointment System

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1. Introduction

Picture a system that simplifies the process of managing doctor appointments for an administrator. That's exactly what the Admin Doctor Appointment System using JDBC does.

Now, what makes this system special? It relies on something called JDBC, which acts as a bridge between a computer program and a specific type of database. This helps the system keep track of appointments, doctor details, and all the important data.

Imagine this: whenever the admin needs to set up an appointment for a doctor, there's no need to go through a bunch of manual steps. Instead, they can use this system. They select a suitable time slot, and it's done! On the admin's side, they can easily see the doctor's schedule and ensure everything is well-organised.

1. Technologies Used

- Java: The programming language used.

- MySQL: Database management system used to store and retrieve information.

2. System Design

- User Interface: The console interface will be used for user interaction.

- Database: The schema includes tables for doctors, patients and appointments.

3. Database Design

PATIENTS	
pat_id 🖉	int
name	varchar(25)
age	int
gender	varchar(20)
contact	varchar(10)

DOCTORS	
doc_id 🖉	int
name	varchar(25)
specialisation	varchar(25)
timing	varchar(20)

APPOINTMENTS	
app_id 🖉	int
doc_id	int
pat_id	int
app_date	varchar(10)
app_time	varchar(20)
reason	varchar(30)
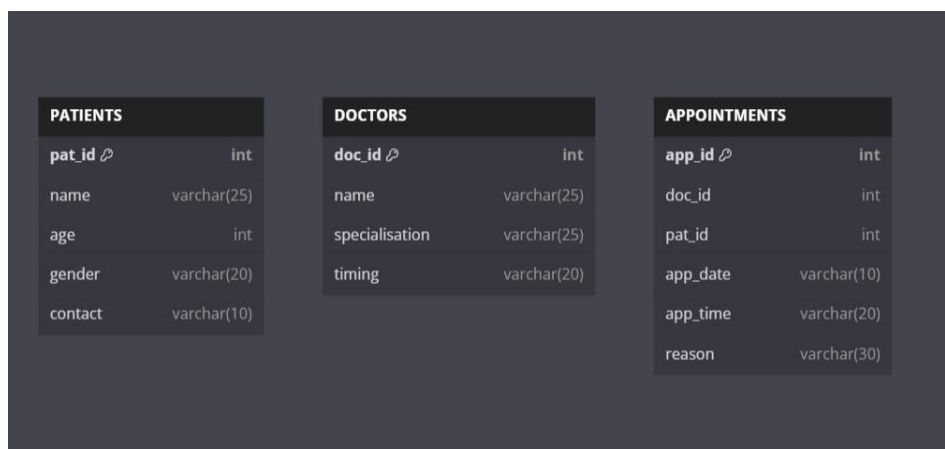
2. The Main Menu

Explanation

The main menu is the entry point to the program. There are 4 options in the main menu.

1. Patients Menu

This option will take the user to the patients menu. Patients Menu is explained in detail in Section 4.

2. Doctor Details

This option will take the user to the doctor details. All doctor details can be obtained from here. It is explained in Section 3.

3. Appointments Menu

This option will take the user to the appointments menu. Appointments menu is explained in detail in Section 5.

4. Exit

This option will help the user to exit the program.

Code

The code for the main menu in java is given below,

```java
package Appointment;

import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int choice;

        do {
            displayMenu();
```

```java
                    choice = scanner.nextInt();
                    scanner.nextLine();

                    switch (choice) {
                    case 1:
                            Patients.Patient_Menu();

                            break;
                    case 2:
                            try {
                                    Doctors.PrintDetails();
                            } catch (Exception e) {
                                    System.out.println(e);
                            }

                            break;
                    case 3:
                            Appointments.Appointment_Menu();

                            break;
                    case 0:
                            System.out.println("\n Exiting the
program.");
                            break;
                    default:
                            System.out.println("Invalid choice.
Please select a valid option.");
                            break;
                    }
            } while (choice != 0);

            scanner.close();
    }

    private static void displayMenu() {
            System.out.println("-------THE DOCTOR
APPOINTMENT SYSTEM---------");
            System.out.println("\n Welcome to the Doctor
Appointment System\n");
            System.out.println("\n1 - Patients Menu \n");
            System.out.println("2 - Doctor Details \n");
            System.out.println("3 - Appointments Menu \n");
            System.out.println("0 - Exit\n");
            System.out.println("Please enter an option below:");

    }

}
```

Output

The output of the main menu is given below.

```
--------THE DOCTOR APPOINTMENT SYSTEM---------

 Welcome to the Doctor Appointment System


1 - Patients Menu

2 - Doctor Details

3 - Appointments Menu

0 - Exit

Please enter an option below:
```

3. The Doctors List

Explanation

When choosing Option 2 from the main menu, the user can view the doctor details. Doctor details include name, specialisation, and timing.

Code

The code for doctor details is given below

```
package Appointment;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
```

```java
public class Doctors {
    public static void PrintDetails() throws Exception {
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Appointment", "root",
                                    "The#1password");
        Statement st = con.createStatement();
        ResultSet rs = st.executeQuery("select * from
Doctors");
        System.out.println("------DOCTOR DETAILS--------");
        System.out.println("ID Specialisation Name
Timing\n---------------------------------\n");

        while (rs.next()) {
            System.out.println(rs.getInt("doc_id")
                                + " " +
                                rs.getString("specialisation") + " "
+ rs.getString("name") + " " + rs.getString("timing"));

        }
        System.out.println("\n\n");
        st.close();
        con.close();

    }

}
```

Output

The output of the Doctor List is given below.

```
Please enter an option below:
2
------DOCTOR DETAILS--------
ID Specialisation Name Timing
----------------------------------

101 Pediatrics Thomas 09:00-17:00
102 Psychiatrist Shaun 09:00-12:00
103 Radiologist David 14:00-17:00
104 Neurologist Marcus 10:00-13:00
105 Dermatologist Steve 09:00-15:00
```

4. The Patients Menu

Explanation

By entering option 1 in the main menu, the user gets to the patient menu.
Here, there are 6 options.

- ● Register a patient

  The admin can register a patient by entering name, age, gender and contact number.

- ● Modify Patient Details

  A menu will appear where the user can choose to modify name, age, gender or contact number.

- ● Delete a patient

  The admin can choose to delete a patient record by providing the patient ID.

- ● View a patient

  The admin can view patient details by providing the patient id.

- ● View all patients

  The admin can view details of all patients using this option.

- ● Exit to main menu

Code

The code for the patient menu is given below.

```
package Appointment;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.util.Scanner;
```

```java
public class Patients {

    public static void Patient_Menu() {
        Scanner scanner = new Scanner(System.in);
        int choice;

        do {
            displayMenu();
            choice = scanner.nextInt();
            scanner.nextLine(); // Consume the newline character

            switch (choice) {
            case 1:
                try {
                    Insert_Patient();
                } catch (Exception e1) {
                    System.out.println(e1);

                }

                break;
            case 2:
                try {
                    Modify_Patient();
                } catch (Exception e1) {
                    System.out.println(e1);

                }
                break;
            case 3:
                try {
                    Delete_Patient();
                } catch (Exception e1) {
                    System.out.println(e1);
                }

                break;
            case 4:
                try {
                    PrintDetails();

                } catch (Exception e) {
                    System.out.println(e);
                }

                break;
            case 5:
```

```java
                                try {
                                        PrintAllDetails();
                                } catch (Exception e) {
                                        System.out.println(e);
                                }

                                break;
                        case 0:
                                System.out.println("Exiting the patient
menu .");
                                break;
                        default:
                                System.out.println("Invalid choice.
Please select a valid option.");
                                break;
                        }
                } while (choice != 0);
        }

        private static void PrintDetails() throws Exception {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Your Patient ID");
                int p_id = sc.nextInt();

                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
                                "The#1password");
                Statement st = con.createStatement();
                ResultSet rs = st.executeQuery("select * from Patients
where pat_id = " + p_id + ";");

                System.out.println("------PATIENT DETAILS--------");
                System.out.println("ID  Name  Age Gender Contact");


                while (rs.next()) {

                        System.out.println(rs.getInt("pat_id") + " " +
rs.getString("name") + " " + rs.getInt("age") + " "
                                        + rs.getString("gender") + " " +
rs.getString("contact"));

                }
                System.out.println("\n");
                System.out.println("-----------------------------");
```

```java
                st.close();
                con.close();

        }

        public static void Modify_Patient() throws Exception {

                Scanner sc = new Scanner(System.in);

                System.out.println("\n--------------MODIFY PATIENT
DETAILS-------------- \n");
                System.out.println("1. Change Name \n");
                System.out.println("2. Change Age \n");
                System.out.println("3. Change Gender \n");
                System.out.println("4. Change Contact Number \n");
                System.out.println("0. Exit\n");

                System.out.println("Enter your choice: ");
                int ch = sc.nextInt();
                int u_id;

                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
                                "The#1password");
                Statement st = con.createStatement();

                switch (ch) {
                case 1:
                        System.out.println("Enter Patient Id: ");
                        u_id = sc.nextInt();
                        System.out.println("Enter Patient name:- ");
                        String u_name = sc.next();
                        String ModNameQuery = " update patients set
name = '" + u_name + "'where pat_id =" + u_id + ";";
                        int res1 = st.executeUpdate(ModNameQuery);

                        if (res1 == 0) {
                                System.out.println("Patient not
updated.\n Try again.");
                        } else {
                                System.out.println("Patient updated
succesfully\n");
                        }
                        break;

                case 2:
```

```java
                                        System.out.println("Enter Patient Id: ");
                                        u_id = sc.nextInt();
                                        System.out.println("Enter Patient's Age:- ");
                                        int u_age = sc.nextInt();
                                        String ModAgeQuery = " update patients set
age = " + u_age + " where pat_id =" + u_id + ";";
                                        int res2 = st.executeUpdate(ModAgeQuery);

                                        if (res2 == 0) {
                                                System.out.println("Patient not
updated\n Try again");
                                        } else {
                                                System.out.println("Patient updated
successfully\n");
                                        }
                                        break;

                        case 3:
                                        System.out.println("Enter Patient Id: ");
                                        u_id = sc.nextInt();
                                        System.out.println("Enter Patient's Gender:- ");
                                        String u_gen = sc.next();
                                        String ModGenQuery = " update patients set
gender = '" + u_gen + "'where pat_id =" + u_id + ";";
                                        int res3 = st.executeUpdate(ModGenQuery);

                                        if (res3 == 0) {
                                                System.out.println("Patient not
updated\n Try again");
                                        } else {
                                                System.out.println("Patient updated
successfully\n");
                                        }
                                        break;

                        case 4:
                                        System.out.println("Enter Patient Id: ");
                                        u_id = sc.nextInt();
                                        System.out.println("Enter Contact Number:- ");
                                        String u_num = sc.next();
                                        String ModNumQuery = " update patients set
contact = '" + u_num + "'where pat_id =" + u_id + ";";
                                        int res4 = st.executeUpdate(ModNumQuery);

                                        if (res4 == 0) {
                                                System.out.println("Patient not
updated\n Try again");
                                        } else {
```

```java
                                System.out.println("Patient updated
successfully\n");
                        }
                        break;

                case 0:
                        break;

                default:
                        System.out.println("Invalid Choice. Enter a
number from 0 to 4\n");
                }

                st.close();
                con.close();
                // sc.close();
        }



        private static void displayMenu() {
                System.out.println("\n You are in the Patients Menu.
Enter an option");
                System.out.println(
                                "\n\n1 - Register Patient\n\n2 - Modify
Patient Details\n\n3 - Delete Patient Record\n\n4 - View a Patient\n\n"
                                                + "5 - View All
Patients\n\n0 - Exit\n");
                System.out.println("-------------------------------");

        }

        public static void PrintAllDetails() throws Exception {
                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
                                "The#1password");
                Statement st = con.createStatement();
                ResultSet rs = st.executeQuery("select * from
Patients");
                System.out.println("\n------PATIENT DETAILS--------\n");

                System.out.println("ID  Name  Age Gender Contact");

                while (rs.next()) {

                        System.out.println(
```

```java
                                            rs.getInt("pat_id") + " " +
rs.getString("name") + " " + rs.getInt("age") + " "
                                                                        +
rs.getString("gender") + " " + rs.getString("contact"));

                }
                System.out.println("\n");
                System.out.println("------------------------------");

                st.close();
                con.close();
        }

        public static void Insert_Patient() throws Exception {
                Scanner sc = new Scanner(System.in);
                System.out.println("\n------INSERT PATIENT--------\n");

                System.out.println("Enter Patient Name");
                String p_name = sc.next();
                System.out.println("Enter Patient Age");
                int p_age = sc.nextInt();
                System.out.println("Enter Patient Gender");
                String p_gen = sc.next();
                System.out.println("Enter Patient Contact Number");
                String p_num = sc.next();

                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
                                "The#1password");
                Statement st = con.createStatement();
                String insertQuery = "insert into
Patients(name,age,gender,contact) " + "values('" + p_name + "'," +
p_age
                                + ",'" + p_gen
                                + "'," + p_num + ")";
                int res = st.executeUpdate(insertQuery);

                if (res == 0) {
                        System.out.println("\nPatient not inserted\n Try
again");
                } else {
                        System.out.println("\nPatient inserted
successfully\n\n");
                }
                System.out.println("------------------------------");
                st.close();
```

```java
				con.close();

		}

		public static void Delete_Patient() throws Exception {
				Scanner sc = new Scanner(System.in);
				System.out.println("\n------DELETE PATIENT--------\n");

				System.out.println("Enter Patient ID");
				int p_id = sc.nextInt();

				System.out.println("Enter Patient ID again");
				int p2_id = sc.nextInt();

				Class.forName("com.mysql.cj.jdbc.Driver");
				Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
						"The#1password");
				Statement st = con.createStatement();
				String deleteQuery = "delete from Patients where
pat_id = " + p_id + ";";
				try {
						if (p_id == p2_id) {
								int res = st.executeUpdate(deleteQuery);


				if (res == 0) {
						System.out.println("\nPatient not deleted\n");
				} else {
						System.out.println("\nPatient deleted
successfully\n");
				}
		} else {
				System.out.println("\nIDs don't match\n");
		}
		} catch (Exception e) {
				System.out.println("\nYou can't delete a patient having
an appointment. Delete the appointment first.\n");
		}
		System.out.println("-------------------------------");

				st.close();
				con.close();

		}

}
```

Output

The outputs for each of the options are given below.

- Register Patient

```
----------------------------------------
1

------INSERT PATIENT--------

Enter Patient Name
Mary
Enter Patient Age
5
Enter Patient Gender
Female
Enter Patient Contact Number
8912451278

Patient inserted successfully


----------------------------------------
```

- Modify Patient Details

```
--------------------------------
2

--------------MODIFY PATIENT DETAILS------------

1. Change Name

2. Change Age

3. Change Gender

4. Change Contact Number

0. Exit

Enter your choice:
2
Enter Patient Id:
202
Enter Patient's Age:-
17
Patient updated successfully
```

- Delete Patient

```
------DELETE PATIENT--------

Enter Patient ID
209
Enter Patient ID again
209

Patient deleted successfully

--------------------------------
```

- View a patient

```
4
Enter Your Patient ID
208
------PATIENT DETAILS--------
ID  Name  Age Gender Contact
208 Mary 5 Female 8912451278


------------------------------
```

- VIew all patients

```
------------------------------
5

------PATIENT DETAILS--------

ID  Name  Age Gender Contact
202 Alex 17 Male 9897878898
203 Anna 22 Female 1457856255
208 Mary 5 Female 8912451278


------------------------------
```

5. The Appointments Menu

Explanation

By entering option 3 in the main menu, the user gets to the appointments menu.
Here, there are 6 options.

- ## Make an Appointment

  The admin can make an appointment by entering doctor ID, Patient ID, date, time and reason.

- ## Modify Appointment Details

  A menu will appear where the user can choose to modify doctor ID, Patient ID, date, time and reason.

- Delete an appointment

  The admin can choose to delete a appointment record by providing the appointment ID.

- View an appointment

  The admin can view appointment details by providing the appointment id.

- View all appointments

  The admin can view details of all appointments using this option.

- Exit to main menu

Code

The code for the patient menu is given below.

```java
package Appointment;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.util.Scanner;

public class Appointments {
	public static void Appointment_Menu() {
		Scanner scanner = new Scanner(System.in);
		int choice;

		do {
			displayMenu();
			choice = scanner.nextInt();
			scanner.nextLine(); // Consume the newline character

			switch (choice) {
			case 1:
				try {
					Insert_Appointment();
```

```java
					} catch (Exception e1) {
						System.out.println(e1);

					}

					break;
				case 2:
					try {
						Modify_Appointment();
					} catch (Exception e1) {
						System.out.println(e1);

					}
					break;
				case 3:
					try {
						Delete_Appointmentt();
					} catch (Exception e1) {
						System.out.println(e1);
					}

					break;
				case 4:
					try {
						PrintDetails();

					} catch (Exception e) {
						System.out.println(e);
					}

					break;
				case 5:
					try {
						PrintAllDetails();
					} catch (Exception e) {
						System.out.println(e);
					}

					break;
				case 0:
					System.out.println("Exiting the
appointment menu .");
					break;
				default:
					System.out.println("Invalid choice.
Please select a valid option.");
					break;
				}
```

```java
			} while (choice != 0);
	}

	private static void PrintAllDetails() throws Exception {
			Class.forName("com.mysql.cj.jdbc.Driver");
			Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
					"The#1password");
			Statement st = con.createStatement();
			ResultSet rs = st.executeQuery("select * from
Appointments");
			System.out.println("------APPOINTMENT
DETAILS---------");

			System.out.println("App_ID  Doc_ID  Pat_ID Date
Time");

			while (rs.next()) {

					System.out.println(rs.getInt("app_id") + " " +
rs.getInt("doc_id") + " " + rs.getInt("pat_id") + " "
						+ rs.getString("app_date") + " " +
rs.getString("app_time") + " " + rs.getString("reason"));

			}
			System.out.println("\n");
			System.out.println("-------------------------------");

			st.close();
			con.close();
	}



	private static void PrintDetails() throws Exception {
			Scanner sc = new Scanner(System.in);
			System.out.println("Enter Your Appointment ID");
			int a_id = sc.nextInt();

			Class.forName("com.mysql.cj.jdbc.Driver");
			Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
					"The#1password");
			Statement st = con.createStatement();
			ResultSet rs = st.executeQuery("select * from
Appointments where app_id = " + a_id + ";");
```

```java
                System.out.println("-------APPOINTMENT
DETAILS--------");

                System.out.println("App_ID | Doc_ID | Pat_ID | Date |
Time | Reason");

                while (rs.next()) {

                        System.out.println(rs.getInt("app_id") + " " +
rs.getInt("doc_id") + " " + rs.getInt("pat_id") + " "
                                        + rs.getString("app_date") + " " +
rs.getString("app_time") + " " + rs.getString("reason"));

                }
                System.out.println("\n");
                System.out.println("--------------------------------");

                st.close();
                con.close();

        }

        private static void Delete_Appointmentt() throws Exception {
                Scanner sc = new Scanner(System.in);
                System.out.println("-------DELETE
APPOINTMENT-------");

                System.out.println("Enter Appointment ID");
                int a_id = sc.nextInt();

                System.out.println("Enter appointment ID again");
                int a2_id = sc.nextInt();

                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
                                "The#1password");
                Statement st = con.createStatement();
                String deleteQuery = "delete from Appointments where
app_id = " + a_id + ";";
                try {
                        if (a_id == a2_id) {
                                int res = st.executeUpdate(deleteQuery);

                if (res == 0) {

System.out.println("\nAppointment not deleted\n");
```

```java
			} else {

System.out.println("\nAppointment deleted successfully\n");
				}
					} else {
						System.out.println("\nIDs don't
match\n");
					}
				} catch (Exception e) {
					System.out.println("\nDeletio0n failed. Try
again.\n");
				}
				System.out.println("-----------------------------");

				st.close();
				con.close();

		}

		private static void Insert_Appointment() throws Exception {
				Scanner sc = new Scanner(System.in);
				System.out.println("-----INSERT
APPOINTMENT--------");

				System.out.println("Enter the Doctor ID");
				int d_id = sc.nextInt();
				System.out.println("Enter your Patient ID");
				int p_id = sc.nextInt();
				System.out.println("Enter the Date(DD/MM/YYYY)");
				String a_date = sc.next();
				System.out.println("Enter the Time in 24 hour
format(15.00)");
				String a_time = sc.next();
				System.out.println("Enter the Reason");
				String a_reason = sc.next();

				Class.forName("com.mysql.cj.jdbc.Driver");
				Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
						"The#1password");
				Statement st = con.createStatement();
				String insertQuery = "insert into Appointments(doc_id,
pat_id,app_date, app_time, reason) " + "values(" + d_id
						+ ","
						+ p_id + ",'" + a_date
						+ "','" + a_time + "','" + a_reason + "');";
				int res = st.executeUpdate(insertQuery);
```

```java
                if (res == 0) {
                        System.out.println("\nAppointment not
inserted");
                } else {
                        System.out.println("\nAppointment inserted
successfully");
                }
                System.out.println("-------------------------------");

                st.close();
                con.close();

        }

        public static void Modify_Appointment() throws Exception {

                Scanner sc = new Scanner(System.in);

                System.out.println("--------------MODIFY
APPOINTMENT DETAILS-------------- ");
                System.out.println("1. Update the Doctor ");
                System.out.println("2. Update the Patient ");
                System.out.println("3. Update Date");
                System.out.println("4. Update Time");
                System.out.println("5. Update the reason");

                System.out.println("0. Exit\n");

                System.out.println("Enter your choice: ");
                int ch = sc.nextInt();
                int a_id;

                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Doctor_Ap
pointment", "root",
                                "The#1password");
                Statement st = con.createStatement();

                switch (ch) {
                case 1:
                        System.out.println("Enter Appointment Id: ");
                        a_id = sc.nextInt();
                        System.out.println("Enter the Doctor ID:- ");
                        int d_id = sc.nextInt();
                        String UpdDocQuery = " update appointments
set doc_id = " + d_id + " where app_id =" + a_id + ";";
```

```java
                    int res1 = st.executeUpdate(UpdDocQuery);

                    if (res1 == 0) {
                        System.out.println("\nAppointment not
updated\n");
                    } else {
                        System.out.println("\nAppointment
updated succesfully\n");
                    }
                    break;

            case 2:
                    System.out.println("Enter Appointment Id: ");
                    a_id = sc.nextInt();
                    System.out.println("Enter the Patient ID:- ");
                    int p_id = sc.nextInt();
                    String UpdPatQuery = " update appointments
set pat_id = " + p_id + " where app_id =" + a_id + ";";
                    int res2 = st.executeUpdate(UpdPatQuery);

                    if (res2 == 0) {
                        System.out.println("\nAppointment not
updated\n");
                    } else {
                        System.out.println("\nAppointment
updated succesfully\n");
                    }
                    break;

            case 3:
                    System.out.println("Enter Appointment Id: ");
                    a_id = sc.nextInt();
                    System.out.println("Enter the new date");
                    String a_date = sc.next();
                    String UpdDateQuery = " update appointments
set app_date = '" + a_date + "'where app_id =" + a_id + ";";
                    int res3 = st.executeUpdate(UpdDateQuery);

                    if (res3 == 0) {
                        System.out.println("\nAppointment not
updated\n");
                    } else {
                        System.out.println("\nAppointment
updated succesfully\n");
                    }
                    break;

            case 4:
```

```java
                        System.out.println("Enter Appointment Id: ");
                        a_id = sc.nextInt();
                        System.out.println("Enter the new timing ):- ");
                        String a_time = sc.next();
                        String UpdTimeQuery = " update appointments
set  app_time= '" + a_time + "'where app_id =" + a_id + ";";
                        int res4 = st.executeUpdate(UpdTimeQuery);

                        if (res4 == 0) {
                                System.out.println("\nAppointment not
updated\n");
                        } else {
                                System.out.println("\nAppointment
updated succesfully\n");
                        }

                        break;

                case 5:
                        System.out.println("Enter Appointment Id: ");
                        a_id = sc.nextInt();
                        System.out.println("Enter the reason ):- ");
                        String a_reason = sc.next();
                        String UpdResQuery = " update appointments
set reason = '" + a_reason + "'where app_id =" + a_id + ";";
                        int res5 = st.executeUpdate(UpdResQuery);

                        if (res5 == 0) {
                                System.out.println("\nAppointment not
updated\n");
                        } else {
                                System.out.println("\nAppointment
updated succesfully\n");
                        }
                        break;


                case 0:
                        break;

                default:
                        System.out.println("Invalid Choice!!!\n");
                }

                st.close();
                con.close();
                // sc.close();
        }
```

```java
        private static void displayMenu() {
                System.out.println("You are in the Appointments Menu.
Enter an option");
                System.out.println(
                                "\n1 - Make an Appointment\n2 - Modify
Appointment Details\n3 - Delete Appointment\n4 - View an
appointment\n"
                                                + "5 - View All
appointments\n0 - Exit");

        }

}
```

Output

The outputs for each of the options are given below.

- Make an appointment

- Modify an appointment

```
2
--------------MODIFY APPOINTMENT DETAILS--------------
1. Update the Doctor
2. Update the Patient
3. Update Date
4. Update Time
5. Update the reason
0. Exit

Enter your choice:
3
Enter Appointment Id:
304
Enter the new date
18/08/2023

Appointment updated succesfully
```

- Delete an appointment

```
3
-------DELETE APPOINTMENT-------
Enter Appointment ID
307
Enter appointment ID again
307

Appointment deleted successfully

----------------------------------
```

- View an appointment

```
4
Enter Your Appointment ID
304
-------APPOINTMENT DETAILS--------
App_ID | Doc_ID | Pat_ID | Date | Time | Reason
304 101 208 18/08/2023 14:00 Headache


----------------------------------
```

- View all appointments

```
5
------APPOINTMENT DETAILS---------
App_ID  Doc_ID  Pat_ID Date Time
304 101 208 18/08/2023 14:00 Headache
306 102 202 17/08/2023 10:00 Depression


---------------------------------
```