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COURSE CODE: CSE1007
FACULTY: LOKESH KUMAR

LAB ASSIGNMENT-5

(Q1)

```java
import javafx.application.Application;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.Group;
import javafx.stage.Stage;
import javafx.scene.control.*;
import javafx.scene.layout.GridPane;

public class Question1 extends Application
{
	public static void main(String args[])
	{
		Application.launch(args);
	}
	public void start(Stage primaryStage)
	{
		Group root = new Group();
		Scene scene = new Scene(root,300,150);

		Label name = new Label("Name: Mounvi Podapati");
		Label id = new Label("ID: 19BCE0396");
		Label address = new Label("Address: Bangalore,India");
		Label phone = new Label("Phone: 9987654321");

		name.setStyle("-fx-background-color: white; -fx-text-fill: black;-fx-font: normal bold 20px 'Times New Roman';-fx-border-color: red;-fx-min-width:250");
		id.setStyle("-fx-background-color: white; -fx-text-fill: black;-fx-font: normal bold 20px 'Times New Roman';-fx-border-color: red;-fx-min-width:250");
		address.setStyle("-fx-background-color: white; -fx-text-fill: black;-fx-font: normal bold 20px 'Times New Roman';-fx-border-color: red;-fx-min-width:250");
		phone.setStyle("-fx-background-color: white; -fx-text-fill: black;-fx-font: normal bold 20px 'Times New Roman';-fx-border-color: red;-fx-min-width:250");

		GridPane grid = new GridPane();
		grid.setAlignment(Pos.CENTER);
		grid.setMinSize(300, 150);
		grid.setVgap(4);
		grid.add(name, 0, 0);
		grid.add(id, 0, 1);
		grid.add(address, 0, 2);
		grid.add(phone, 0, 3);

		root.getChildren().add(grid);
		primaryStage.setScene(scene);
		primaryStage.setTitle("Question 1");
```
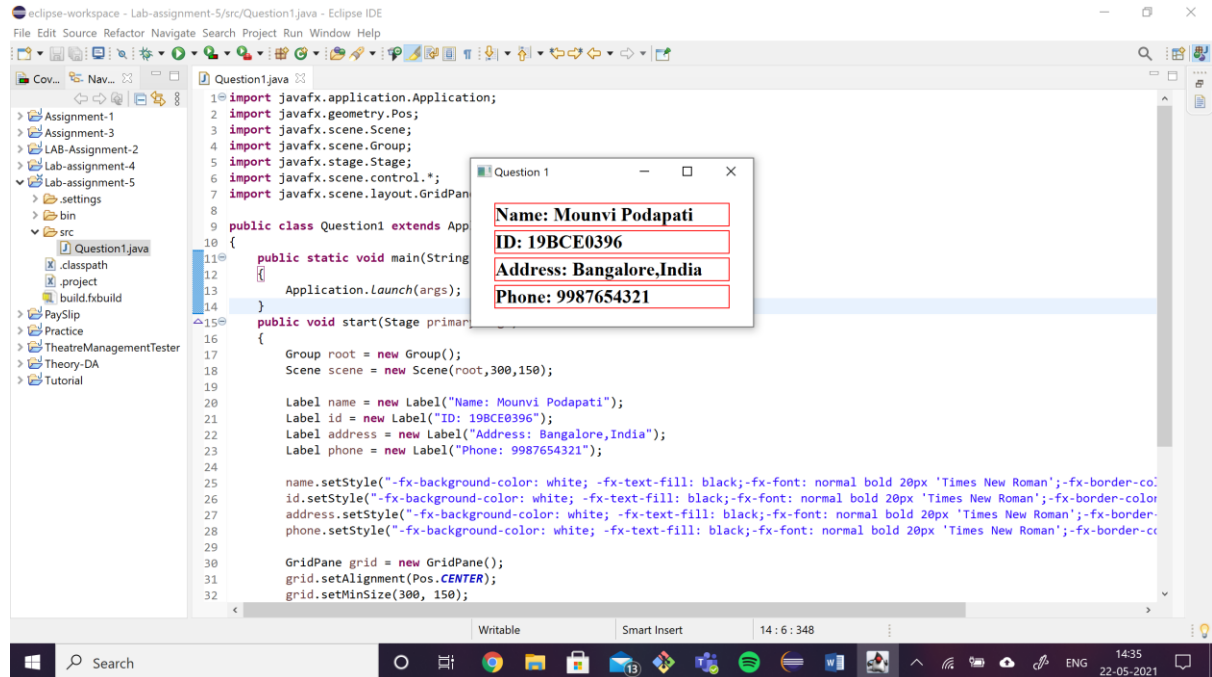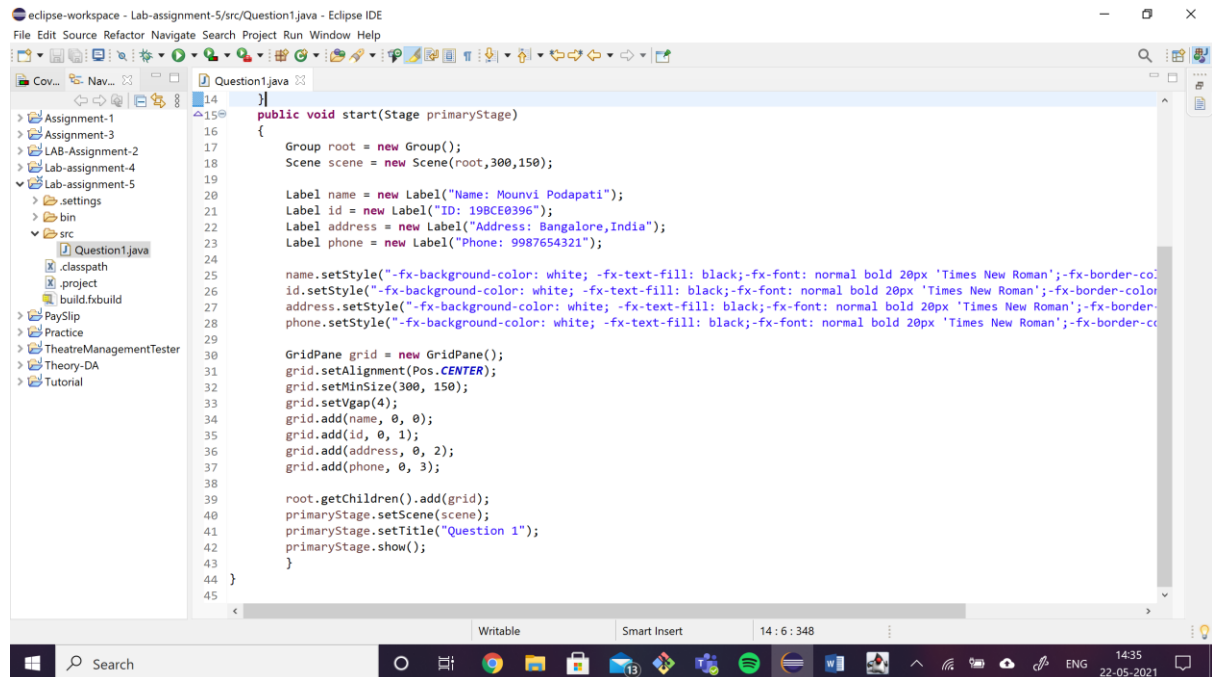
```
                    primaryStage.show();
            }
}
```

OUTPUT:

WORKSPACE SNAPSHOT:

(Q2)

```java
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.layout.GridPane;
import javafx.scene.control.TextField;
import javafx.stage.Stage;

public class Question2 extends Application {
    @Override
    public void start(Stage stage) {
        Label text1 = new Label("No. Of Items:");
        Label text2 = new Label("Price Of Item:");
        TextField textField1 = new TextField();
        TextField textField2 = new TextField();
        Button btn = new Button("Purchase");

        GridPane grid = new GridPane();
        grid.setMinSize(400, 200);
        grid.setVgap(5);
        grid.setHgap(5);
        grid.setAlignment(Pos.CENTER);
        grid.add(text1, 0, 0);
        grid.add(textField1, 1, 0);
        grid.add(text2, 0, 1);
        grid.add(textField2, 1, 1);
        grid.add(btn, 1, 2);

        btn.setOnAction((EventHandler<ActionEvent>) new EventHandler<ActionEvent>()
{
            public void handle(ActionEvent event) {
                int itemsNum = Integer.parseInt(textField1.getText());
                int price = Integer.parseInt(textField2.getText());
                Label value = new Label("Total Value: " +(itemsNum*price));
                value.setStyle("-fx-font: normal bold 20px 'Times New Roman' ");
                grid.add(value,1,3);
            }
        });

        btn.setStyle("-fx-background-color: darkslateblue; -fx-text-fill: white;");
        text1.setStyle("-fx-font: normal bold 20px 'Times New Roman' ");
        text2.setStyle("-fx-font: normal bold 20px 'Times New Roman' ");

        Scene scene = new Scene(grid);
        stage.setTitle("Question2");
        stage.setScene(scene);
        stage.show();
    }
    public static void main(String args[]){
        Launch(args);
    }
}
```
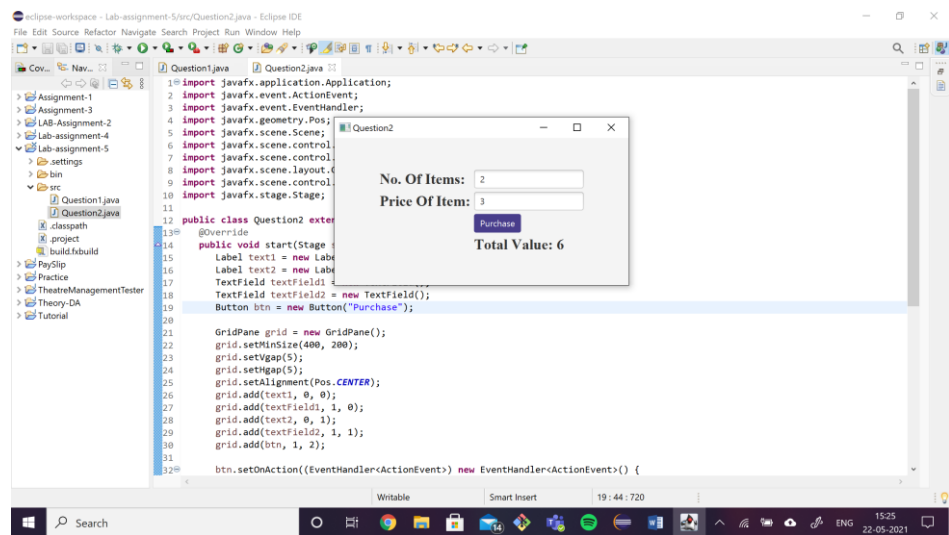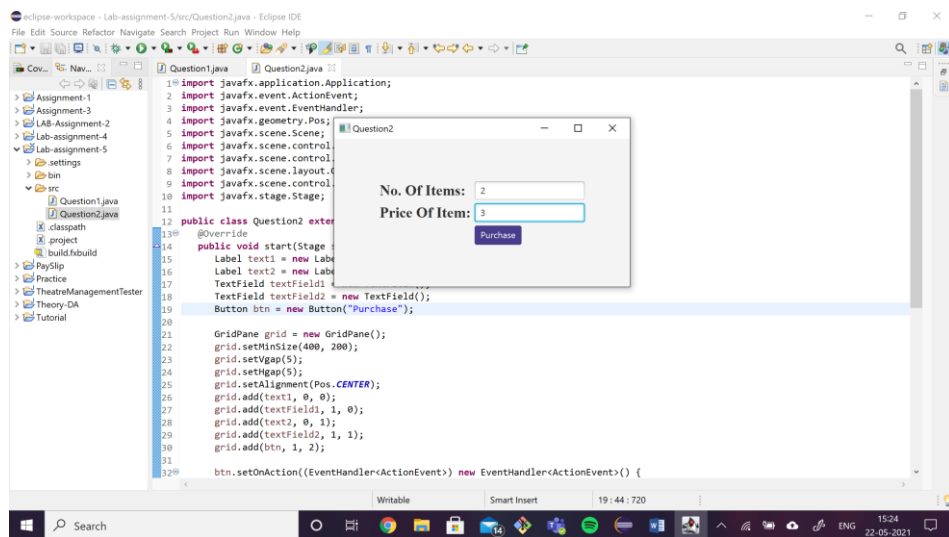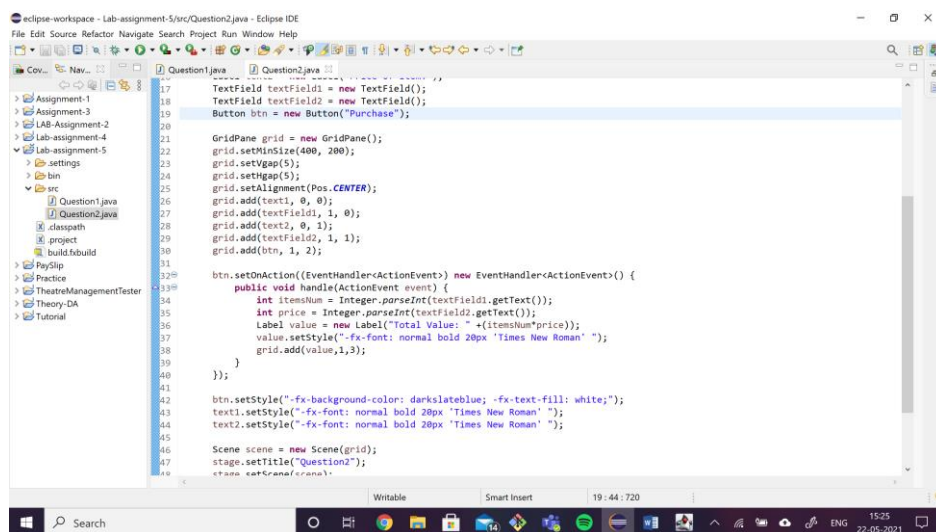
OUTPUT :

WORKSPACE SNAPSHOT :

(Q3)

### (1):- Connecting to a Database named Java and Creating a Table in it

```
mysql> CREATE DATABASE Java;
Query OK, 1 row affected (0.01 sec)

mysql> USE Java;
Database changed
mysql> SHOW tables;
Empty set (0.01 sec)

mysql>
```

Code for Creating a Table:-

```java
import java.sql.*;
public class Question3 {
 public static void main(String[] args) throws ClassNotFoundException, SQLException {
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Java","root","Mounvi@123");
        String q = "CREATE TABLE Customers(Cus_id int primary key,Customer_name
varchar(20),email varchar(30),city varchar(10),Bill_amt int)";
        Statement stmt = con.createStatement();
        stmt.executeUpdate(q);
        System.out.println("Table Successfully Created");
        con.close();
 }
}
```
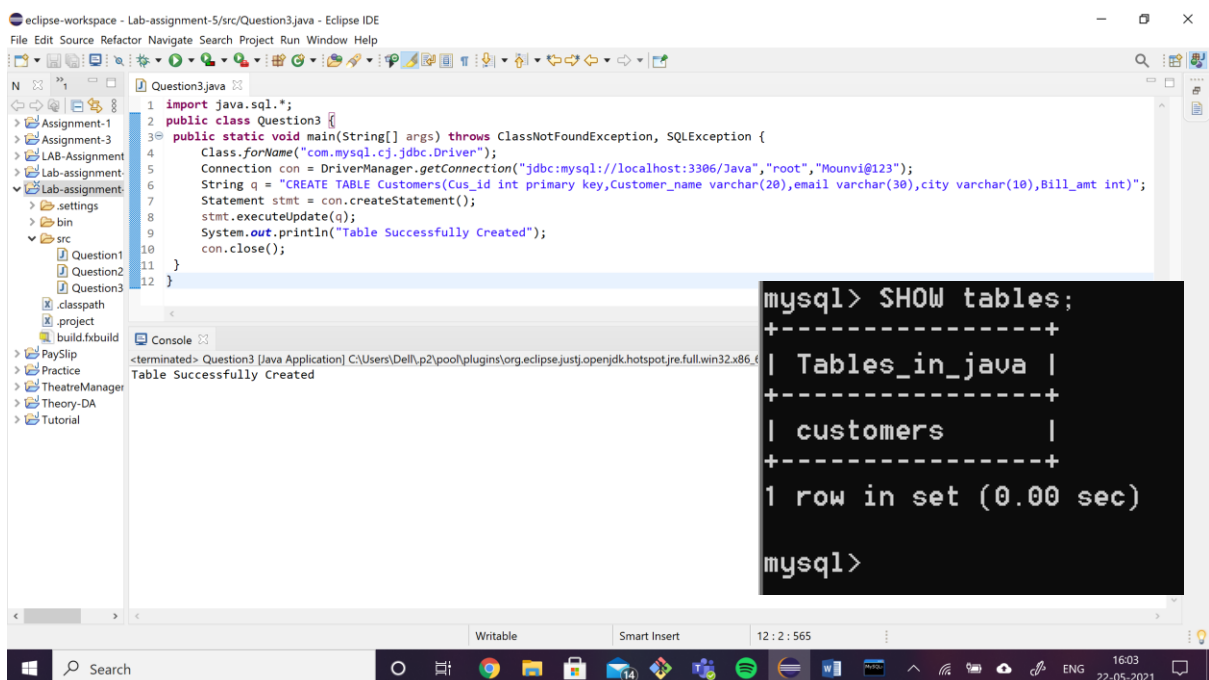
(2):-

A. Inserting 10 values into the Database

```java
import java.util.Scanner;
import java.sql.*;
public class Question3a {
    public static void main(String[] args) throws ClassNotFoundException,
SQLException {
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Java","root","Mounvi@123"
);
        PreparedStatement pstmt = con.prepareStatement("INSERT INTO
Customers values(?,?,?,?,?)");
        Scanner sc = new Scanner(System.in);
        for(int i=0;i<10;i++) {
            System.out.print("CustomerID: ");
            int id = sc.nextInt();
            System.out.print("Name: ");
            String name = sc.next();
            System.out.print("Email : ");
            String email = sc.next();
            System.out.print("City : ");
            String city = sc.next();
            System.out.print("Bill Amount: ");
            double amt = sc.nextDouble();
            pstmt.setInt(1,id);
            pstmt.setString(2,name);
            pstmt.setString(3,email);
            pstmt.setString(4,city);
            pstmt.setDouble(5,amt);
            int result = pstmt.executeUpdate();
            if(result != 0) {
                System.out.println("Successfully Inserted Row "+i);
            }
            else {
                System.out.println("Unable to Insert Row " + i);
            }
        }
        pstmt.close();
        con.close();
    }
}
```

OUTPUT:

```
CustomerID: 1
Name: Mounvi
Email : mounvip1525@gmail.com
City : Bangalore
Bill Amount: 53000
Successfully Inserted Row 0
CustomerID: 2
Name: Adhvaith
Email : adhvaithramesh25@gmail.com
City : Kochi
Bill Amount: 46000
```

```
Successfully Inserted Row 1
CustomerID: 3
Name: Nikhil
Email : mmvsn.15@gmail.com
City : Hyderabad
Bill Amount: 32000
Successfully Inserted Row 2
CustomerID: 4
Name: Vani
Email : vani.verma@yahoo.com
City : California
Bill Amount: 78000
Successfully Inserted Row 3
CustomerID: 5
Name: Tanmay
Email : tanmayxvx@gmail.com
City : Gangtok
Bill Amount: 47670
Successfully Inserted Row 4
CustomerID: 6
Name: Adarsh
Email : adarsh@yahoo.com
City : Ahmedabad
Bill Amount: 43000
Successfully Inserted Row 5
CustomerID: 7
Name: Janvi
Email : janvi.prasad@gmail.com
City : Mumbai
Bill Amount: 36780
Successfully Inserted Row 6
CustomerID: 8
Name: Ayush
Email : chakayush@gmail.com
City : Kolkata
Bill Amount: 23450
Successfully Inserted Row 7
CustomerID: 9
Name: Rushil
Email : rushil.goel@gmail.com
City : Hyderabad
Bill Amount: 45345
Successfully Inserted Row 8
CustomerID: 10
Name: Devansh
Email : devansh.baid@gmail.com
City : Siliguiri
Bill Amount: 25670
Successfully Inserted Row 9
```

SNAPSHOT :

B. Select Query

```java
import java.sql.*;
public class Question3b {
        public static void main(String[] args) throws ClassNotFoundException,
SQLException {
                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Java","root","Mounvi@123"
);
                Statement st = con.createStatement();
                ResultSet rs = st.executeQuery("SELECT * FROM Customers WHERE
Bill_amt>50000");
                while (rs.next()) {
```

```
        System.out.println(rs.getInt("Cus_id") + " " +

                rs.getString("Customer_name")+ " " +
                rs.getString("email")+" " +
                rs.getString("city")+ " " +
                rs.getInt("Bill_amt"));
        }

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

OUTPUT :

```
1 Mounvi mounvip1525@gmail.com Bangalore 53000
4 Vani vani.verma@yahoo.com California 78000
```


SNAPSHOT :

C. Delete Query

```java
import java.sql.*;
    public class Question3c {
     public static void main(String[] args) throws ClassNotFoundException,
    SQLException {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con =
    DriverManager.getConnection("jdbc:mysql://localhost:3306/Java","root","Moun
    vi@123");
            String query = "DELETE t1 from Customers t1, Customers t2 WHERE
    t1.city = t2.city and t1.Cus_id>t2.Cus_id";
            Statement stmt = con.createStatement();
            stmt.executeUpdate(query);
            System.out.println("Rows has been Deleted");
            con.close();
            }
    }
```

OUTPUT:
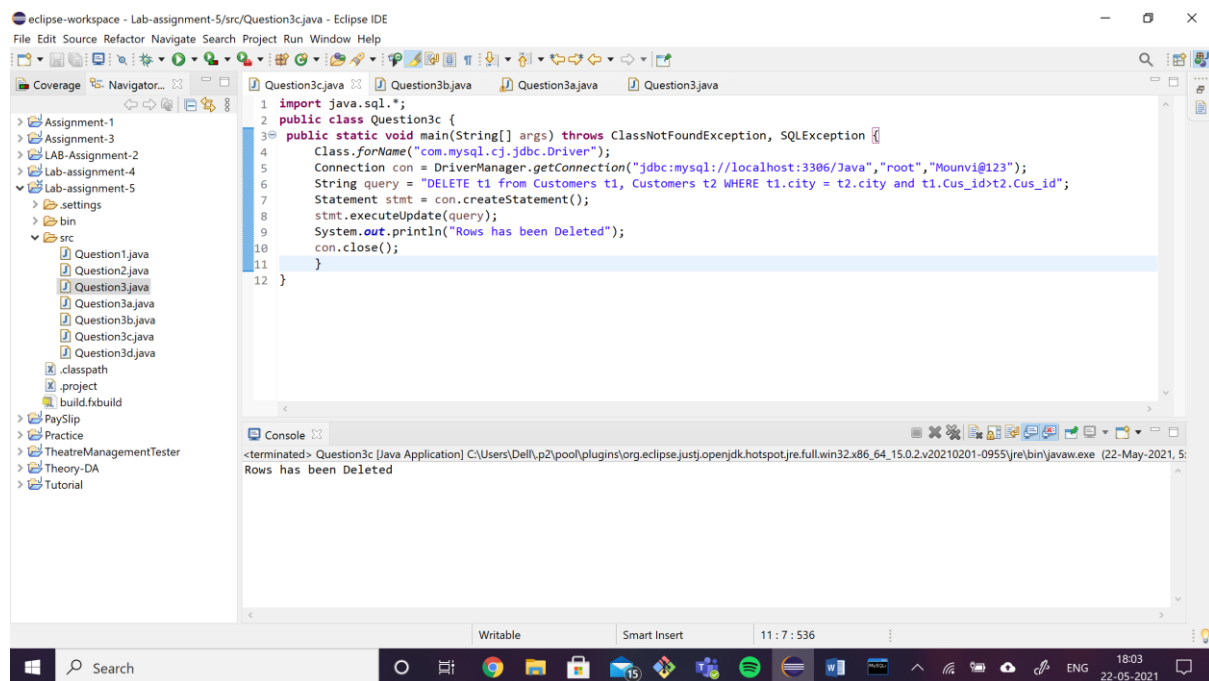
Before Deletion:-

AFTER DELETION:-

```
mysql> select * from customers;
+--------+---------------+---------------------------+------------+----------+
| Cus_id | Customer_name | email                     | city       | Bill_amt |
+--------+---------------+---------------------------+------------+----------+
|      1 | Mounvi        | mounvip1525@gmail.com     | Bangalore  |    53000 |
|      2 | Adhvaith      | adhvaithramesh25@gmail.com| Kochi      |    46000 |
|      3 | Nikhil        | mmvsn.15@gmail.com        | Hyderabad  |    32000 |
|      4 | Vani          | vani.verma@yahoo.com      | California |    78000 |
|      5 | Tanmay        | tanmayxvx@gmail.com       | Gangtok    |    47670 |
|      6 | Adarsh        | adarsh@yahoo.com          | Ahmedabad  |    43000 |
|      7 | Janvi         | janvi.prasad@gmail.com    | Mumbai     |    36780 |
|      8 | Ayush         | chakayush@gmail.com       | Kolkata    |    23450 |
|     10 | Devansh       | devansh.baid@gmail.com    | Siliguiri  |    25670 |
+--------+---------------+---------------------------+------------+----------+
9 rows in set (0.00 sec)
```

D. Update Query

```java
import java.sql.*;
public class Question3a {
        public static void main(String[] args) throws ClassNotFoundException,
SQLException {
                Class.forName("com.mysql.cj.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Java","root","Mounvi@123"
);
                PreparedStatement pstmt = con.prepareStatement("ALTER table
Customers ADD lastName varchar(20)");
                pstmt.executeUpdate();
                System.out.println("New Column has been added successfully");
                PreparedStatement pstmt1 = con.prepareStatement("UPDATE Customers
SET lastName='Podapati' WHERE Cus_id='1'" );
                PreparedStatement pstmt2 = con.prepareStatement("UPDATE Customers
SET lastName='Ramesh' WHERE Cus_id='2'" );
                PreparedStatement pstmt3 = con.prepareStatement("UPDATE Customers
SET lastName='Maddali' WHERE Cus_id='3'" );
                PreparedStatement pstmt4 = con.prepareStatement("UPDATE Customers
SET lastName='Verma' WHERE Cus_id='4'" );
                PreparedStatement pstmt5 = con.prepareStatement("UPDATE Customers
SET lastName='Srivastava' WHERE Cus_id='5'" );
                PreparedStatement pstmt6 = con.prepareStatement("UPDATE Customers
SET lastName='Mishra' WHERE Cus_id='6'" );
                PreparedStatement pstmt7 = con.prepareStatement("UPDATE Customers
SET lastName='Prasad' WHERE Cus_id='7'" );
                PreparedStatement pstmt8 = con.prepareStatement("UPDATE Customers
SET lastName='Chakladar' WHERE Cus_id='8'" );
                PreparedStatement pstmt9 = con.prepareStatement("UPDATE Customers
SET lastName='Goel' WHERE Cus_id='9'" );
                PreparedStatement pstmt10 = con.prepareStatement("UPDATE Customers
SET lastName='Biad' WHERE Cus_id='10'" );

                pstmt1.executeUpdate();
                pstmt2.executeUpdate();
                pstmt3.executeUpdate();
                pstmt4.executeUpdate();
                pstmt5.executeUpdate();
                pstmt6.executeUpdate();
```
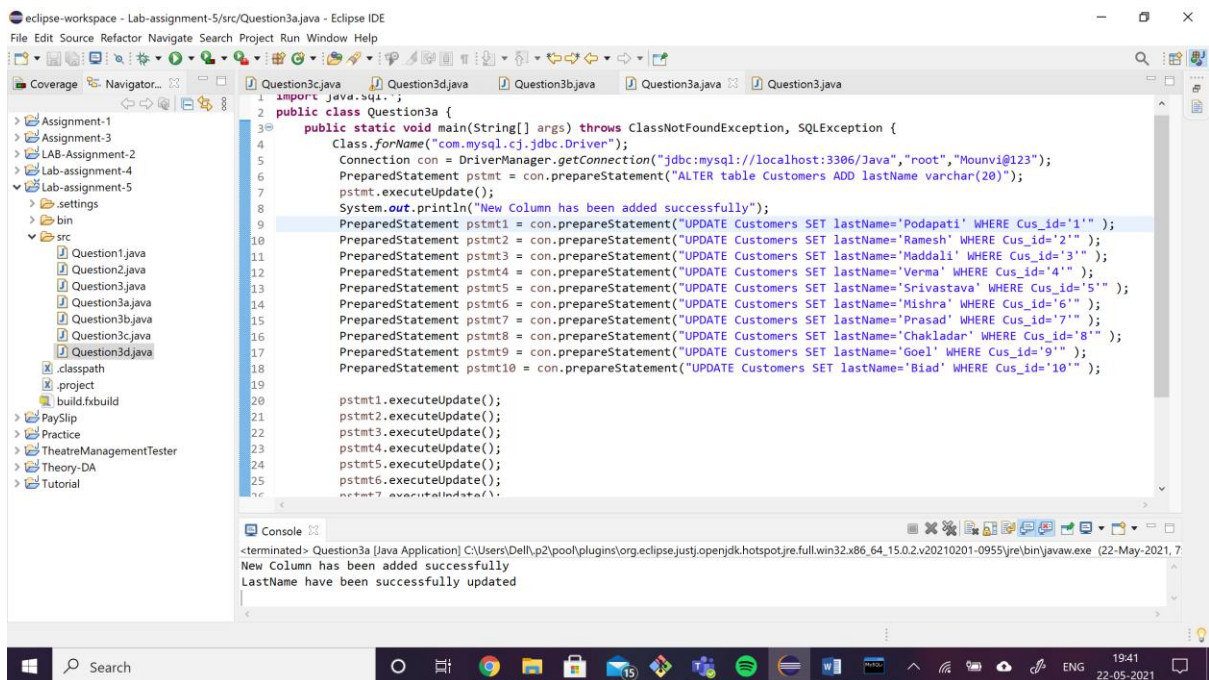
```
            pstmt7.executeUpdate();
            pstmt8.executeUpdate();
            pstmt9.executeUpdate();
            pstmt10.executeUpdate();
            System.out.println("LastName have been successfully updated");
            con.close();
        }
}
```

OUTPUT:

SNAPSHOTS:

```
mysql> SELECT * FROM Customers;
+--------+---------------+-----------------------------+------------+----------+------------+
| Cus_id | Customer_name | email                       | city       | Bill_amt | lastName   |
+--------+---------------+-----------------------------+------------+----------+------------+
|      1 | Mounvi        | mounvip1525@gmail.com       | Bangalore  |    53000 | Podapati   |
|      2 | Adhvaith      | adhvaithramesh25@gmail.com  | Kochi      |    46000 | Ramesh     |
|      3 | Nikhil        | mmvsn.15@gmail.com          | Hyderabad  |    32000 | Maddali    |
|      4 | Vani          | vani.verma@yahoo.com        | California |    78000 | Verma      |
|      5 | Tanmay        | tanmayxvx@gmail.com         | Gangtok    |    47670 | Srivastava |
|      6 | Adarsh        | adarsh@yahoo.com            | Ahmedabad  |    43000 | Mishra     |
|      7 | Janvi         | janvi.prasad@gmail.com      | Mumbai     |    36780 | Prasad     |
|      8 | Ayush         | chakayush@gmail.com         | Kolkata    |    23450 | Chakladar  |
|      9 | Rushil        | rushil.goel@gmail.com       | Hyderabad  |    45345 | Goel       |
|     10 | Devansh       | devansh.baid@gmail.com      | Siliguiri  |    25670 | Biad       |
+--------+---------------+-----------------------------+------------+----------+------------+
10 rows in set (0.00 sec)
```