JAVA LAB ASSIGNMENT 5 (JAVAFX+JDBC)

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19BCB0086

Q-1

Write a program using JavaFX that displays four lines of text in four Labels:

- Write your name, ID, Address, Phone in labels respectively.
- Set the background of the labels to white.
- Set the text colour of the labels to Blue or Black.
- Set the font of each label to TimesRoman, bold, and 20 pixels.
- Set the border of each label to a line border with Red color

CODE

```
import javafx.application.Application;
import javafx.geometry.Insets;
import javafx.scene.Scene;
import javafx.scene.control.Label;
import javafx.scene.layout.VBox;
import javafx.stage.Stage;

public class DA1 extends Application
    {
            public static void main(String[] args) {
                    launch(args);
            }
        @Override
        public void start(Stage primaryStage) {
        VBox rootPane = new VBox(10);
        rootPane.setPadding(new Insets(15, 5, 15, 5));
        Scene scene = new Scene(rootPane, 420, 340);
        String commonStyles = "-fx-background-color: white;" +
        "-fx-font-family: 'TimesRoman';" +
        "-fx-font-size: 20px;" +
        "-fx-font-weight: bold;" +
        "-fx-border-style: solid;" +
        "-fx-border-color: red;";

        rootPane.getChildren().addAll(
        new Label("Name: Arshdeep Singh Bhatia") {{
        setStyle(commonStyles + "-fx-text-fill: black;");
```
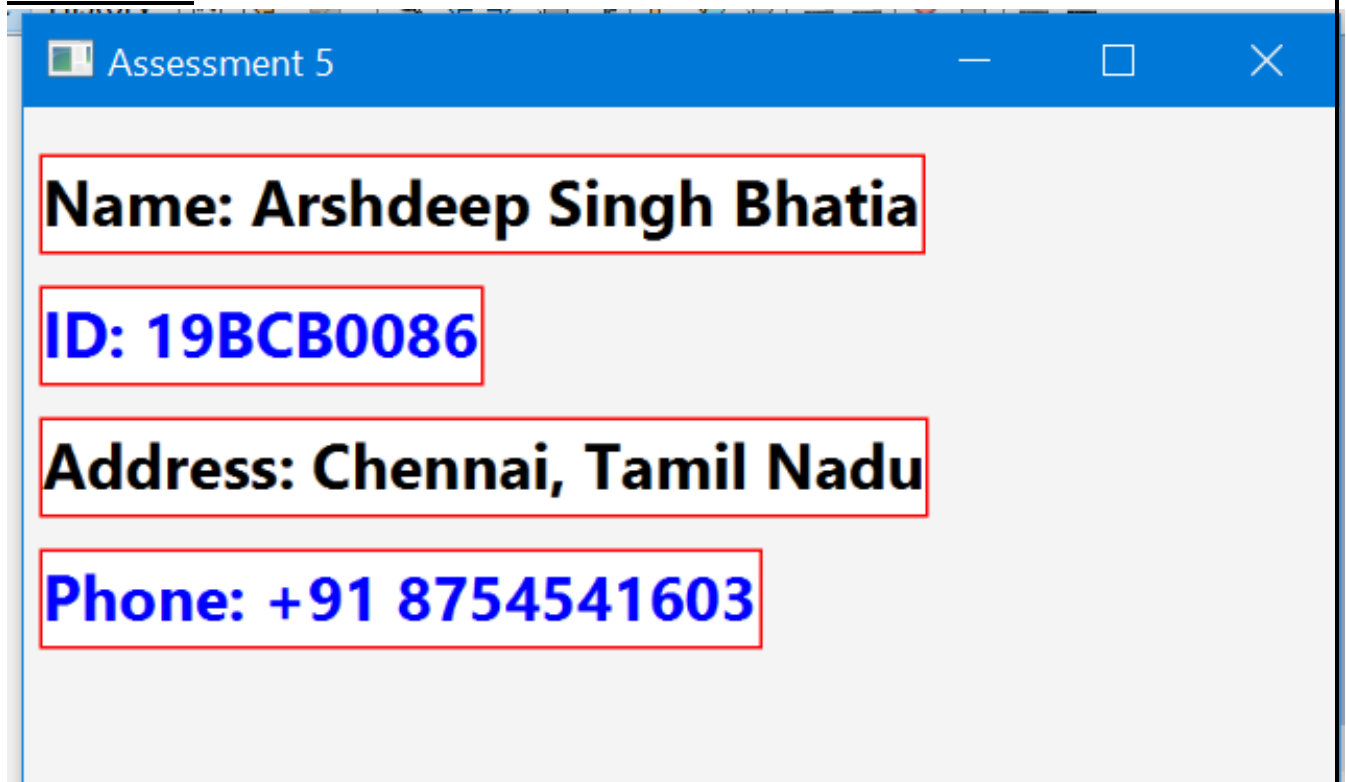
```
        }},

        new Label("ID: 19BCB0086") {{
        setStyle(commonStyles + "-fx-text-fill: blue;");
        }},

        new Label("Address: Chennai, Tamil Nadu") {{
        setStyle(commonStyles + "-fx-text-fill: black;");
        }},

        new Label("Phone: +91 8754541603") {{
        setStyle(commonStyles + "-fx-text-fill: blue;");
        }}
        );
        primaryStage.setScene(scene);
        primaryStage.centerOnScreen();
        primaryStage.setTitle("Assessment 5");
        primaryStage.show();
        }
}
```

OUTPUT

Q-2

Write a program using javaFx to perform the following:-

- Add a Label Named No of Items with a Textfield
- Add a Label Named No of Prize of the Product with a Textfield
- Add a Button named purchase, once clicked display the Value of the Item in a Label.

CODE

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

public class Da2 extends Application {

  @Override
  public void start(Stage primaryStage) throws Exception {
    // TODO Auto-generated method stub
    Label quantity = new Label("Quantity");
    Label price = new Label("Price");
    Label ans = new Label();
    TextField tf1 = new TextField();
    TextField tf2 = new TextField();
    Button b = new Button("Purchase");

    b.setOnAction(new EventHandler<ActionEvent>() {
      @Override
      public void handle(ActionEvent event) {
        String k=tf1.getText();
        int q=Integer.parseInt(k);
        String l=tf2.getText();
        int p=Integer.parseInt(l);
        int m=p*q;
        ans.setText("THE TOTAL COST : " + Integer.toString(m));
      }

    });




    GridPane root = new GridPane();
    root.addRow(0, quantity, tf1);
    root.addRow(1, price, tf2);
    root.addRow(2, b);
```
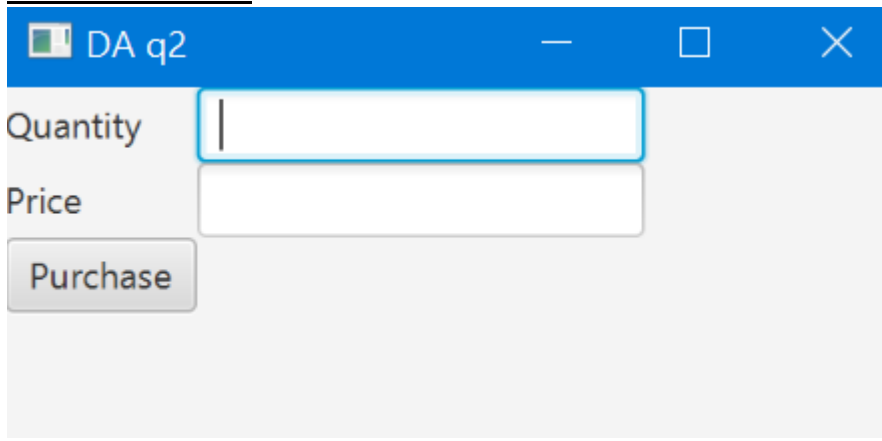
```
    root.addRow(3, ans);
    Scene scene = new Scene(root, 300, 200);
    primaryStage.setScene(scene);
    primaryStage.setTitle("DA q2");
    primaryStage.show();
  }

  public static void main(String[] args) {
    launch(args);
  }
}
```
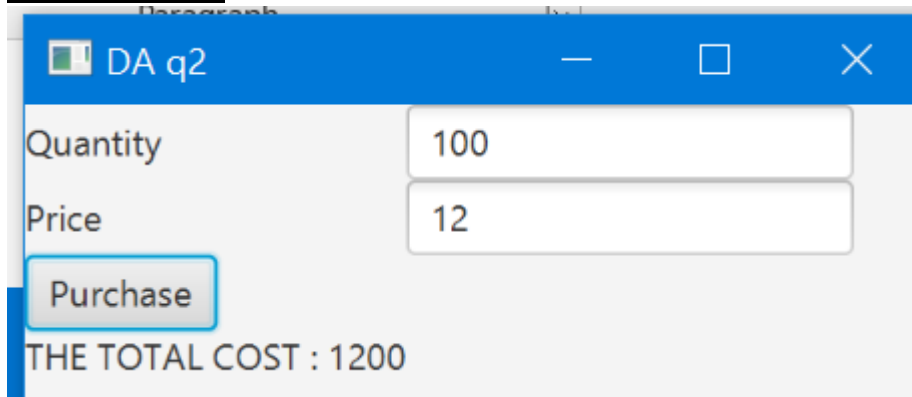
OUTPUT

BEFORE CLICK

AFTER CLICK

Q-3

Develop a java application to perform operations like insert, update, retrieve and delete in employee database using JDBC connectivity. Using Preferred DBMS (like Oracle / MySql /Others) to perform this Steps:-

1. Create Customer Table with the following Fields
Cus_id number, Customer name varchar2(10), email varchar2(30), city varchar2(10) Bill amount number);

2. Connect the DB and perform the following operations
      a. Insert 10 customer details

      b. Use select Query to retrieve customer with bill amount > 50000

      c. Delete the customer details belong to same city

      d. Update operation to add the last name to the customer.

3.1 After DATABASE CREATION(1 done in mysql)

```
MariaDB [(none)]> use employee
Database changed
MariaDB [employee]> select * from customer
    -> ;
+--------+---------------+------------------------+---------+-------------+
| cus_id | Customer name | email                  | city    | bill amount |
+--------+---------------+------------------------+---------+-------------+
|      1 | Arshdeep      | arshdeepdgreat@gmail.com | chennai |         100 |
+--------+---------------+------------------------+---------+-------------+
1 row in set (0.000 sec)

MariaDB [employee]> desc customer
    -> ;
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| cus_id        | int(5)      | NO   | PRI | NULL    | auto_increment |
| Customer name | varchar(10) | NO   |     | NULL    |                |
| email         | varchar(30) | NO   |     | NULL    |                |
| city          | varchar(10) | NO   |     | NULL    |                |
| bill amount   | int(7)      | NO   |     | NULL    |                |
+---------------+-------------+------+-----+---------+----------------+
5 rows in set (0.013 sec)
```

3.2.A. *Insert 10 customer details*
Code

```java
import java.sql.*;
import java.util.Scanner;

class Daq3 {

    public static void main(String args[]) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection(
                    "jdbc:mysql://localhost:3306/employee", "root", "");

            Statement stmt = con.createStatement();
            Scanner sc=new Scanner(System.in);
            System.out.println("enter number of customer entries to be inserted :");
            int n=sc.nextInt();
            for(int i=0;i<n;i++){
                System.out.println("enter customer name");
                String name=sc.next();
                System.out.println("Enter customer email");
                String email=sc.next();
                System.out.println("Enter city");
                String city=sc.next();
                System.out.println("Enter amount");
                int amount=sc.nextInt();
                String sqli="insert into customer (`Customer name`, `email`, `city`, `bill amount`)
values (?,?,?,?);";
                PreparedStatement stmti=con.prepareStatement(sqli);
                stmti.setString(1,name);
                stmti.setString(2,email);
                stmti.setString(3,city);
                stmti.setInt(4,amount);
                stmti.execute();
            }
            sc.close();
            ResultSet rs = stmt.executeQuery("select * from customer");
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " + rs.getString(2) + "  " + rs.getString(3)+"  " +
rs.getString(4)+"  " + rs.getInt(5));
            }
            con.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
```

}
# OUTPUT

```
enter number of customer entries to be inserted :
9
enter customer name
ram
Enter customer email
ram@gmail.com
Enter city
pune
Enter amount
1000
enter customer name
tom
Enter customer email
tom@gmail.com
Enter city
chennai
Enter amount
0229
enter customer name
aman
Enter customer email
aman@gmail.com
Enter city
salem
Enter amount
812
enter customer name
ravi
Enter customer email
ravi@gmail.com
Enter city
delhi
Enter amount
2398
enter customer name
gurleen
Enter customer email
gurleen@gmail.com
Enter city
jaipur
Enter amount
09823
```

```
1  Arshdeep  arshdeepdgreat@gmail.com  chennai  100
2  ram  ram@gmail.com  pune  1000
3  tom  tom@gmail.com  chennai  229
4  aman  aman@gmail.com  salem  812
5  ravi  ravi@gmail.com  delhi  2398
6  gurleen  gurleen@gmail.com  jaipur  9823
7  gopal  gopal@gmail.com  noida  3498
8  john  john@gmail.com  chennai  9783
9  tanya  tanya@gmail.com  pune  812
10  christy  christy@gmail.com  pondy  239
BUILD SUCCESSFUL (total time: 4 minutes 37 seconds)
```

3.2 b. Use select Query to retrieve customer with bill amount > 50000
Code

```
import java.sql.*;
import java.util.Scanner;

class Daq3 {

    public static void main(String args[]) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection(
                "jdbc:mysql://localhost:3306/employee", "root", "");

            Statement stmt = con.createStatement();
//
            ResultSet rs = stmt.executeQuery("select * from customer where `bill amount`
>50000");
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " + rs.getString(2) + "  " + rs.getString(3)+"  " +
rs.getString(4)+"  " + rs.getInt(5));
            }
            con.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
```

Output

```
run:
5  ravi  ravi@gmail.com  delhi  62398
6  gurleen  gurleen@gmail.com  jaipur  433576
7  gopal  gopal@gmail.com  noida  57347
BUILD SUCCESSFUL (total time: 0 seconds)
```

3.2c *Delete the customer details belong to same city*
The duplicate city entries are

```
run:
3  tom  tom@gmail.com  chennai  229
8  john  john@gmail.com  chennai  9783
9  tanya  tanya@gmail.com  pune  812
BUILD SUCCESSFUL (total time: 0 seconds)
```

Code:
```java
import java.sql.*;
import java.util.Scanner;

class Daq3 {

    public static void main(String args[]) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection(
                "jdbc:mysql://localhost:3306/employee", "root", "");

            Statement stmt = con.createStatement();
            Statement st1=con.createStatement();
            st1.executeUpdate("DELETE FROM customer WHERE cus_id NOT IN (SELECT MIN(cus_id) as id FROM customer GROUP BY city)");
            ResultSet rs = stmt.executeQuery("select * from customer");
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " + rs.getString(2) + "  " + rs.getString(3)+"  " + rs.getString(4)+"  " + rs.getInt(5));
            }
            con.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
```

Output
(values got deleted)

```
1  Arshdeep  arshdeepdgreat@gmail.com  chennai  100
2  ram  ram@gmail.com  pune  1000
4  aman  aman@gmail.com  salem  812
5  ravi  ravi@gmail.com  delhi  62398
6  gurleen  gurleen@gmail.com  jaipur  433576
7  gopal  gopal@gmail.com  noida  57347
10  christy  christy@gmail.com  pondy  239
BUILD SUCCESSFUL (total time: 0 seconds)
```

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3.2d *Update operation to add the last name field to the customer.*
Code

```
import java.sql.*;
import java.util.Scanner;

class Daq3 {

    public static void main(String args[]) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection(
                "jdbc:mysql://localhost:3306/employee", "root", "");

             Statement st2=con.createStatement();
            st2.executeUpdate("ALTER TABLE customer ADD last_name varchar(10) AFTER
`Customer name`;");
            con.close();
        } catch (Exception e) {
            System.out.println(e);
        }
```

OUTPUT

```
MariaDB [(none)]> use employee
Database changed
MariaDB [employee]> desc customer
    -> ;
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| cus_id        | int(5)      | NO   | PRI | NULL    | auto_increment |
| Customer name | varchar(10) | NO   |     | NULL    |                |
| last_name     | varchar(10) | YES  |     | NULL    |                |
| email         | varchar(30) | NO   |     | NULL    |                |
| city          | varchar(10) | NO   |     | NULL    |                |
| bill amount   | int(7)      | NO   |     | NULL    |                |
+---------------+-------------+------+-----+---------+----------------+
6 rows in set (0.016 sec)
```

New field last_name is added