JavaFX project

1] Create a JavaFX project to retrieve the employee details from the database.

```java
package retrievedata;
import javafx.application.Application;
import javafx.geometry.Insets;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.control.TextField;
import javafx.scene.layout.HBox;
import javafx.scene.layout.VBox;
import javafx.stage.Stage;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

public class Retrievedata extends Application {
    private Connection conn;
    private PreparedStatement pstmt;
    private ResultSet rs;
    @Override
    public void start(Stage primaryStage) {
        HBox inputBox = new HBox(10);
        inputBox.setAlignment(Pos.CENTER_RIGHT);
        inputBox.setPadding(new Insets(10));
```

```java
Label idLabel = new Label("Employee ID:");

TextField idField = new TextField();


Button searchButton = new Button("Search");


inputBox.getChildren().addAll(idLabel, idField, searchButton);


VBox outputBox = new VBox(10);

outputBox.setAlignment(Pos.CENTER);

outputBox.setPadding(new Insets(10));


Scene scene = new Scene(new VBox(inputBox, outputBox), 300, 200);

primaryStage.setScene(scene);

primaryStage.setTitle("Employee Search");

primaryStage.show();


searchButton.setOnAction(e -> {
    String employeeId = idField.getText();
    if (!employeeId.isEmpty()) {
        try {
            conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/hr", "root", "2827852");
            pstmt = conn.prepareStatement("SELECT fname, lname, gmail_id FROM employee WHERE emp_id = ?");
            pstmt.setString(1, employeeId);
            rs = pstmt.executeQuery();


            if (rs.next()) {
                String fname = rs.getString("fname");
                String lname = rs.getString("lname");
                String gmailId = rs.getString("gmail_id");


                Label detailsLabel = new Label("Employee Details:");
```

```java
                    Label fnameLabel = new Label("First Name: " + fname);

                    Label lnameLabel = new Label("Last Name: " + lname);

                    Label gmailIdLabel = new Label("Gmail ID: " + gmailId);


                    outputBox.getChildren().addAll(detailsLabel, fnameLabel, lnameLabel,
gmailIdLabel);
                } else {

                    Label notFoundLabel = new Label("Employee not found!");

                    outputBox.getChildren().add(notFoundLabel);

                }
            } catch (Exception ex) {

                System.err.println("Error: " + ex.getMessage());

            } finally {

                try {

                    if (rs != null) rs.close();

                    if (pstmt != null) pstmt.close();

                    if (conn != null) conn.close();

                } catch (Exception ex) {

                    System.err.println("Error closing resources: " + ex.getMessage());

                }

            }

        }

    });

  }


  public static void main(String[] args) {

    Application.launch(Retrievedata.class, args);

  }

}
```
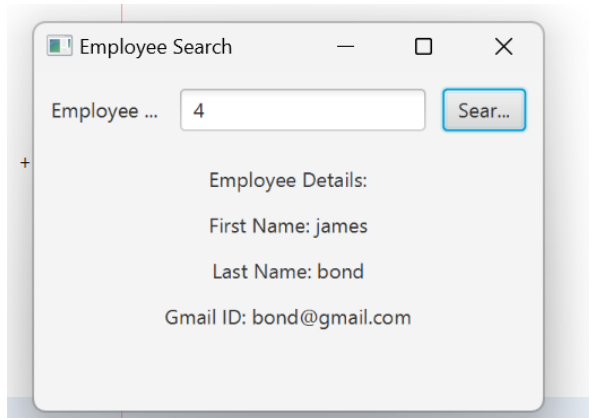
Output:

2] Create a Java project to retrieve the employee details from the database using a Callable statement.

package calleble_statement;

import javafx.application.Application;

import javafx.geometry.Insets;

import javafx.geometry.Pos;

import javafx.scene.Scene;

import javafx.scene.control.Button;

import javafx.scene.control.Label;

import javafx.scene.control.TextField;

import javafx.scene.layout.HBox;

import javafx.scene.layout.VBox;

import javafx.stage.Stage;

import java.sql.CallableStatement;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.SQLException;

public class Calleble_Statement extends Application {

    private Connection conn;

    private CallableStatement cstmt;

    private ResultSet rs;

    @Override

```java
public void start(Stage primaryStage) {

    HBox inputBox = new HBox(10);

    inputBox.setAlignment(Pos.CENTER_RIGHT);

    inputBox.setPadding(new Insets(10));

    Label idLabel = new Label("Employee ID:");

    TextField idField = new TextField();

    Button searchButton = new Button("Search");

    inputBox.getChildren().addAll(idLabel, idField, searchButton);

    VBox outputBox = new VBox(10);

    outputBox.setAlignment(Pos.CENTER);

    outputBox.setPadding(new Insets(10));

    Scene scene = new Scene(new VBox(inputBox, outputBox), 300, 200);

    primaryStage.setScene(scene);

    primaryStage.setTitle("Employee Search");

    primaryStage.show();

    searchButton.setOnAction(e -> {

        String employeeIdStr = idField.getText();

        if (!employeeIdStr.isEmpty()) {

            try {

                int employeeId = Integer.parseInt(employeeIdStr);

                conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/hr", "root",
"2827852");

                cstmt = conn.prepareCall("{call getEmployeeDetails(?)}");

                cstmt.setInt(1, employeeId);

                rs = cstmt.executeQuery();

                if (rs.next()) {

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

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

                    String gmailId = rs.getString("gmail_id");

                    Label detailsLabel = new Label("Employee Details:");

                    Label fnameLabel = new Label("First Name: " + fname);

                    Label lnameLabel = new Label("Last Name: " + lname);

                    Label gmailIdLabel = new Label("Gmail ID: " + gmailId);
```

```java
                outputBox.getChildren().addAll(detailsLabel, fnameLabel, lnameLabel,
gmailIdLabel);
            } else {
                Label notFoundLabel = new Label("Employee not found!");
                outputBox.getChildren().add(notFoundLabel);
            }
        } catch (SQLException ex) {
            System.err.println("Error: " + ex.getMessage());
        } finally {
            try {
                if (rs != null) rs.close();
                if (cstmt != null) cstmt.close();
                if (conn != null) conn.close();
            } catch (SQLException ex) {
                System.err.println("Error closing resources: " + ex.getMessage());
            }
        }
    }
    });
}
public static void main(String[] args) {
    launch(Calleble_Statement.class, args);
}
}
```

Output: