30/08/2024

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

Program:

package project;

import javafx.application.Application;

import javafx.geometry.Insets;

import javafx.geometry.Pos;

import javafx.scene.Scene;

import javafx.scene.control.\*;

import javafx.scene.layout.VBox;

import javafx.stage.Stage;

import java.sql.\*;

public class Project extends Application {

@Override

public void start(Stage primaryStage) {

VBox layout = new VBox(15);

layout.setAlignment(Pos.CENTER);

layout.setPadding(new Insets(15));

TextField idField = new TextField();

idField.setPromptText("Enter Employee ID");

Button searchButton = new Button("Search");

Label resultLabel = new Label();

searchButton.setOnAction(e -> {

String employeeId = idField.getText().trim();

if (!employeeId.isEmpty()) {

searchEmployee(employeeId, resultLabel);

} else {

resultLabel.setText("Please enter an Employee ID.");

}

});

layout.getChildren().addAll(new Label("Employee ID:"), idField, searchButton, resultLabel);

primaryStage.setScene(new Scene(layout, 320, 200));

primaryStage.setTitle("Employee Search");

primaryStage.show();

}

private void searchEmployee(String employeeId, Label resultLabel) {

String query = "SELECT fname, lname, gmail\_id FROM employee WHERE emp\_id = ?";

try (Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/empdb", "root", "root");

PreparedStatement pstmt = conn.prepareStatement(query)) {

pstmt.setString(1, employeeId);

try (ResultSet rs = pstmt.executeQuery()) {

if (rs.next()) {

resultLabel.setText(String.format("Name: %s %s\nGmail: %s",

rs.getString("fname"), rs.getString("lname"), rs.getString("gmail\_id")));

} else {

resultLabel.setText("Employee not found!");

}

}

} catch (SQLException ex) {

resultLabel.setText("Error: " + ex.getMessage());

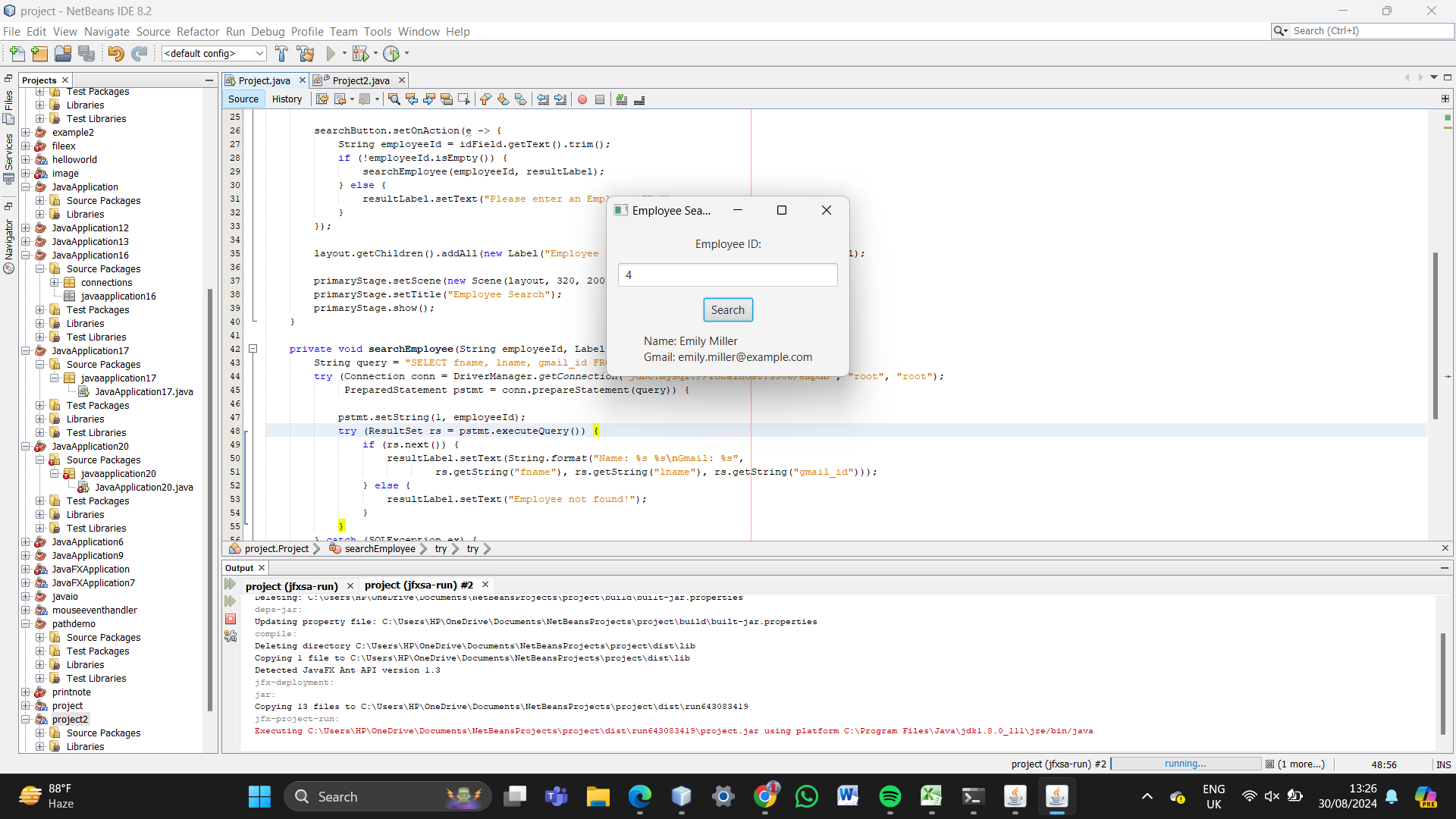
}

}

public static void main(String[] args) {

launch(args);

}

}

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

Program:

package project2;

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 Project2 extends Application {

private Connection conn;

private CallableStatement cstmt;

private ResultSet rs;

@Override

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/empdb", "root", "root");

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);

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(Project2.class, args);

}

}

