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package postgresConnectionExample;

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

public class PostgreSqlExample {
    public static void main(String[] args) {

        try
        {
//Creating Connection Object
            Connection connection =
DriverManager.getConnection("jdbc:postgresql://localhost:5432/university","postgres",
"123456");

            System.out.println("Java JDBC PostgreSQL Example");
            System.out.println("Connected to PostgreSQL database!\n");
//Creating statement
            Statement statement = connection.createStatement();

//Reading student names who have got A+ grade in semester Fall and year 2009

            System.out.println("Reading student records...");
            System.out.printf("%s %s %s", "Student id", "Student name", "Student
grade Student course\n");
//Reading values from resultset StudentList
            ResultSet StudentList = statement.executeQuery(
                "select s.id,s.name,t.grade,t.course_id from student
s,takes t where s.id=t.id and t.semester='Fall' and t.year='2009' and t.grade='A+' order by s.id
LIMIT 5;");
            while (StudentList.next()) {
                System.out.printf("%s %s %s %s\n\n", StudentList.getString("id"),
StudentList.getString("name"),
StudentList.getString("grade"),
StudentList.getString("course_id"));
            }

//inserting values using preparedstatement

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        PreparedStatement st = connection. prepareStatement("INSERT INTO
instructor (ID, NAME,DEPT_NAME,SALARY) VALUES (?, ?, ?, ?)");
        st.setString(1,"67825");
        st.setString(2, "Peter");
        st.setString(3,"English");
        st.setFloat(4,(float) 90000.00);
        st.executeUpdate();
        st.close();
        System.out.println("Inserted instructor values sucessfully...");

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//updating department name of instructor Levine

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        Scanner myObj = new Scanner(System.in); // Create a Scanner object
        System.out.println("Enter new department for instructor Levine");
        //Reading new department name
        String new_dept_name = myObj.nextLine();
        System.out.println(new_dept_name);
        String updatesql = "update instructor set dept_name=" + new_dept_name
+ " where name='Levine'";
        int updateStatus=statement.executeUpdate(updatesql);

```

//displaying instructor values after insert and update

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        System.out.printf("%s %s %s %s", "id", "name", "dept_name", "salary\n");
        ResultSet instructorList = statement.executeQuery("select id,name,dept_name,salary from
instructor");
        while (instructorList.next()) { System.out.printf("%s %s %s
%s\n\n",instructorList.getString("id"),instructorList.getString("name"),instructorList.getString("dept_name"),
instructorList.getString("salary"));
        }

```

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        } catch (SQLException e) {
            System.out.println("Connection failure.");
            e.printStackTrace();
        }

    }

}

```