

Question 5: Modify the main method of JDBCdemo.java to use the query you designed in Question 4 in lab 3.1. Print the query result to console in the same format as the example give (i.e. each line should be in the format of "column_name: value"). 15 points

The screenshot shows an IDE with the following components:

- Project Explorer:** Shows a project named 'Lab3_2' with a 'src' folder containing 'JDBCdemo.java'.
- Code Editor:** Displays the code for 'JDBCdemo.java'. The main method is as follows:


```

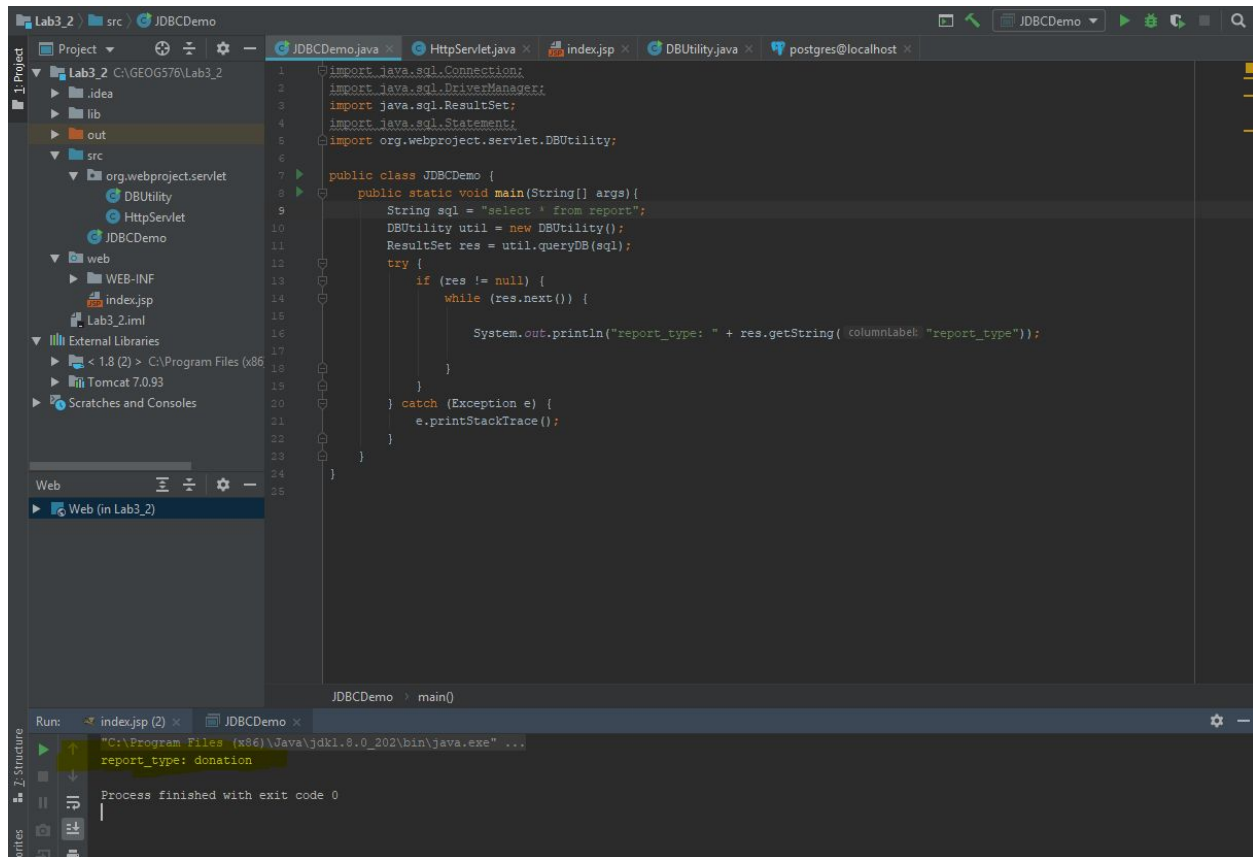
import java.sql.*;

public class JDBCdemo {
    public static void main(String[] args){
        Connection conn;
        Statement stmt;
        try{
            Class.forName("org.postgresql.Driver");
            String url = "jdbc:postgresql://localhost:5433/disasterdb";
            conn = DriverManager.getConnection(url, "postgres", "simple");
            String sql = "select donation_report.report_id, report.report_type, donation_report.resource_type, person.first_name";
            stmt = conn.createStatement();
            ResultSet res = stmt.executeQuery(sql);
            if (res != null){
                while (res.next()){
                    System.out.println("id: " + res.getString( "columnLabel: report_id"));
                    System.out.println("report_type: " + res.getString( "columnLabel: report_type"));
                    System.out.println("disaster: " + res.getString( "columnLabel: disaster_type"));
                    System.out.println("time_stamp: " + res.getString( "columnLabel: time_stamp"));
                    System.out.println("geom: " + res.getString( "columnLabel: st_astext"));
                }
            }
            stmt.close();
            conn.close();
        }
        catch (Exception e){
            e.printStackTrace();
        }
    }
}
      
```
- Run Console:** Shows the output of the program:


```

id: 1
report_type: donation
disaster: hurricane
time_stamp: 2019-03-10 18:59:47.081016-05
geom: POINT(-78.432044 13.560316)
      
```

Question 6: Please modify the code in main method to do another test. Now you are only supposed to test queryDB method. Please query all reports in the database and print out the "report_type" in the console. Hint: You can use "select * from report" to query all reports in the database



Question 7: Please read the code above carefully. What do you think the helper function is used for exactly? How could it reduce code repetition? Hint: You can run the three SQL queries in Postgre SQL to see what the differences are.

It is used for calling the database query and extracting the result set while reducing code repetition. Instead of writing the block of code for all three report types, a method was created to write the code block once and have it be called for each report type.

Question 8: In one sentence, what does this test function query about?

It queries for a report with the given parameters tab_id = 1, disaster_type = hurricane, report_type = donation, and resource_or_damage = food.

Question 9: Now you should be able to perform some complex client/server interaction using the skills learned in this lab. Do the following and submit your index.jsp.

3_2/index.jsp

localhost:8080 says

```
{ "damage_type": "pollution", "time_stamp": "2019-03-10
20:53:02.260449-05", "report_
id": "4", "latitude": "13.5963200000000004", "last_name": "Choo", "report_type": "damag
e", "first_name": "Jenny", "disaster": "hurricane", "longitude": "-78.463266000
0000044
" }
```

OK

Question 10: Now you should be able to add the “Query Report” feature in RunQuery.jsp by yourself. To test your code, you should also make some changes in index.jsp.

See drop box

Submit runQuery.jsp and index.jsp to the dropbox containing your code