



# **ENTERPRISE SYSTEM DEVELOPMENT (SSE4354)**

## **LAB DOCUMENTATION: JDBC PRACTICAL**

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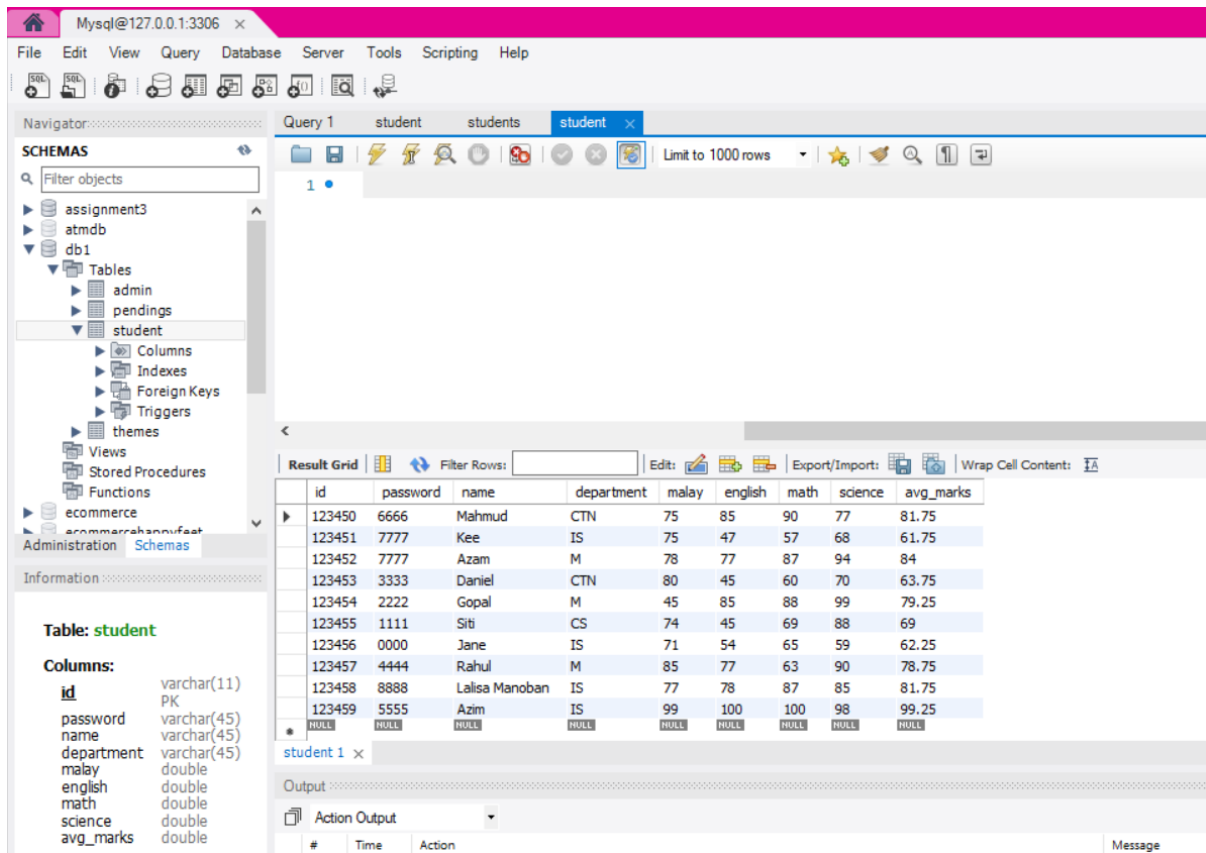
**GROUP NO.: 1**

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**LAB INSTRUCTOR: MR MAHMOUD**

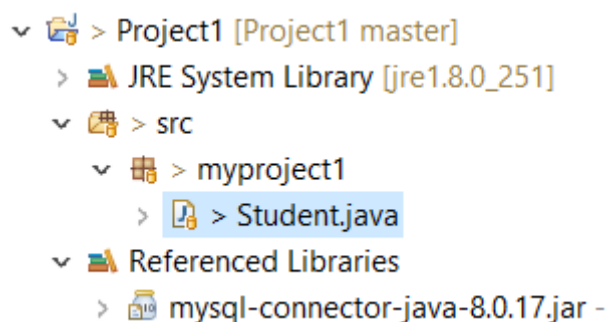
This program is written in JAVA with the implementation of Java Database Connectivity(JDBC) with MySQLWorkBench 8.0 CE.

### Database: MySQLWorkBench 8.0 CE



A database with connection name of db1 is created for this program. In db1, a table named Student is created with columns of id, password, name, department, malay, english, math, science and avg\_marks. Each of the columns were filled in with data according to their data type.

### Java Project: Eclipse

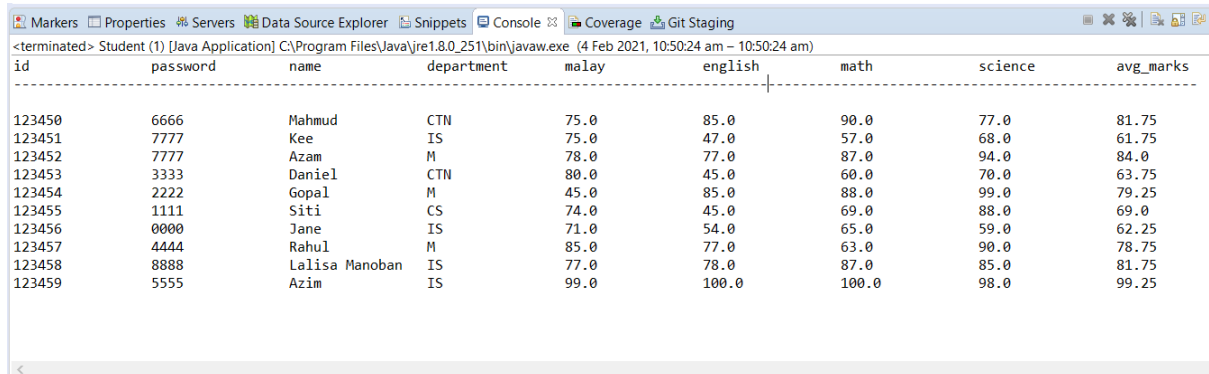


The Java project is created in Eclipse with the name of Project1 under package name myproject1 with mysql-connector-java-8.0.12.jar as the MySQL Driver for database connectivity. A Student.java class is created under Project1.

## Code for JDBC Practical Lab in Eclipse:

```
1 package myproject1;
2
3 import java.sql.*;
4
5 public class Student {
6
7     public static void main(String[] args) throws SQLException, ClassNotFoundException {
8         Class.forName("com.mysql.cj.jdbc.Driver");
9
10        String url = "jdbc:mysql://localhost:3306/db1?useUnicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC";
11
12        Connection c=DriverManager.getConnection(url,"root","Database2019");
13
14        // Create a statement to retrieve objects
15        Statement s = c.createStatement();
16
17        // Retrieve results from the table
18        ResultSet rs = s.executeQuery ("Select * from Student");
19
20        // Print columns headers
21        ResultSetMetaData rsmd =rs.getMetaData();
22        int i =rsmd.getColumnCount( );
23
24        //Loop to retrieve and print column header
25        for(int j=1; j<=i; j++) {
26            System.out.printf("%-16s", rsmd.getColumnLabel(j));
27            System.out.print(" ");
28        }
29
30        System.out.println("\n");
31        System.out.println("-----");
32        System.out.println("-----");
33
34
35        //Loop to retrieve and print records
36        while(rs.next( )) {
37            System.out.print("\n");
38            for(int j=1; j<=i; j++)
39            {
40                System.out.printf("%-17s", rs.getString(j));
41            }
42        }
43    }
44 }
45
46
```

## Output of the code:



<terminated> Student (1) [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (4 Feb 2021, 10:50:24 am)								
id	password	name	department	malay	english	math	science	avg_marks
123450	6666	Mahmud	CTN	75.0	85.0	90.0	77.0	81.75
123451	7777	Kee	IS	75.0	47.0	57.0	68.0	61.75
123452	7777	Azam	M	78.0	77.0	87.0	94.0	84.0
123453	3333	Daniel	CTN	80.0	45.0	60.0	70.0	63.75
123454	2222	Gopal	M	45.0	85.0	88.0	99.0	79.25
123455	1111	Siti	CS	74.0	45.0	69.0	88.0	69.0
123456	0000	Jane	IS	71.0	54.0	65.0	59.0	62.25
123457	4444	Rahul	M	85.0	77.0	63.0	90.0	78.75
123458	8888	Lalisa Manoban	IS	77.0	78.0	87.0	85.0	81.75
123459	5555	Azim	IS	99.0	100.0	100.0	98.0	99.25

Each of the data in every column of Student table in db1 database is successfully retrieved and displayed in a table as the output.