

ASSIGNMENT 3

NAME : VATTI DEEPAK

REG : 20BCI0276

EMAIL : vatti.deepak2020@vitstudent.ac.in

VIT VELLORE

JDBC

CODE :

Following code creates the student1 table

Create the student table if it doesn't exist

```
sql = "CREATE TABLE IF NOT EXISTS student1 ("
      + "name VARCHAR(50) NOT NULL, "
      + "registernumber VARCHAR(10) NOT NULL PRIMARY KEY, "
      + "cgpa DOUBLE, "
      + "age INT, "
      + "dayscholar BOOLEAN, "
      + "hosteller BOOLEAN)";
stmt.executeUpdate(sql);
```

Following code inserts some sample data in the database

```
sql = "INSERT INTO student1 (name, registernumber, cgpa, age, dayscholar,
hosteller) VALUES "
      + "('John Doe', '1001', 8.5, 22, true, false), "
      + "('Jane Doe', '1002', 7.2, 20, false, true), "
      + "('Bob Smith', '1003', 4.8, 19, true, true), "
      + "('Alice Jones', '1004', 6.1, 21, false, false), "
      + "('Charlie Brown', '1005', 9.0, 18, true, true)";
stmt.executeUpdate(sql);
```

Main code

```
package jdbc1;
```

```
import java.sql.*;
import java.sql.ResultSet;

public class JDBC1 {

    public static void main(String[] args) {

        Connection conn = null;
        Statement stmt = null;

        try {
            // Register JDBC driver

            try {
                Class.forName("com.mysql.jdbc.Driver");
            } catch (ClassNotFoundException e) {

            }

            // Open a connection
            System.out.println("Connecting to database...");
            conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/mysql",
"root", "");

            // Execute a query
            System.out.println("Creating statement...");
            stmt = conn.createStatement();
            String sql;
            ResultSet rs;

            // Query the database for the desired data
            System.out.println("List of students who joined in 2018:");
            sql = "SELECT * FROM student1 WHERE registernumber LIKE '18%'";
```

```

rs = stmt.executeQuery(sql);
while (rs.next()) {
    System.out.println(rs.getString("name")      +      "      ("      +
rs.getString("registernumber") + ")");
}
System.out.println();

System.out.println("List of students whose age is between 18-20:");
sql = "SELECT * FROM student1 WHERE age BETWEEN 18 AND 20";
rs = stmt.executeQuery(sql);
while (rs.next()) {
    System.out.println(rs.getString("name")      +      "      ("      +
rs.getString("registernumber") + ")");
}
System.out.println();

System.out.println("List of students with CGPA less than 5:");
sql = "SELECT * FROM student1 WHERE cgpa < 5.0";
rs = stmt.executeQuery(sql);
while (rs.next()) {
    System.out.println(rs.getString("name")      +      "      ("      +
rs.getString("registernumber") + ")");
}
System.out.println();

System.out.println("List of students who stay in hostel:");
sql = "SELECT * FROM student1 WHERE hosteller = true";
rs = stmt.executeQuery(sql);
while (rs.next()) {
    System.out.println(rs.getString("name")      +      "      ("      +
rs.getString("registernumber") + ")");
}
System.out.println();

```

```

        System.out.println("List of 2019 batch students who are dayscholars:");
        sql = "SELECT * FROM student1 WHERE dayscholar = true AND
registernumber LIKE '19%'";
        rs = stmt.executeQuery(sql);
        while (rs.next()) {
            System.out.println(rs.getString("name") + " (" +
rs.getString("registernumber") + ")");
        }
        System.out.println();

        // Clean up resources
        rs.close();
        stmt.close();
        conn.close();
    } catch (SQLException se) {
// Handle errors for JDBC
        se.printStackTrace();
    } catch (Exception e) {
// Handle errors for Class.forName
        e.printStackTrace();
    } finally {
// Finally block used to close resources
        try {
            if (stmt != null) {
                stmt.close();
            }
        } catch (SQLException se2) {
        } // nothing we can do
        try {
            if (conn != null) {
                conn.close();
            }
        } catch (SQLException se) {
            se.printStackTrace();

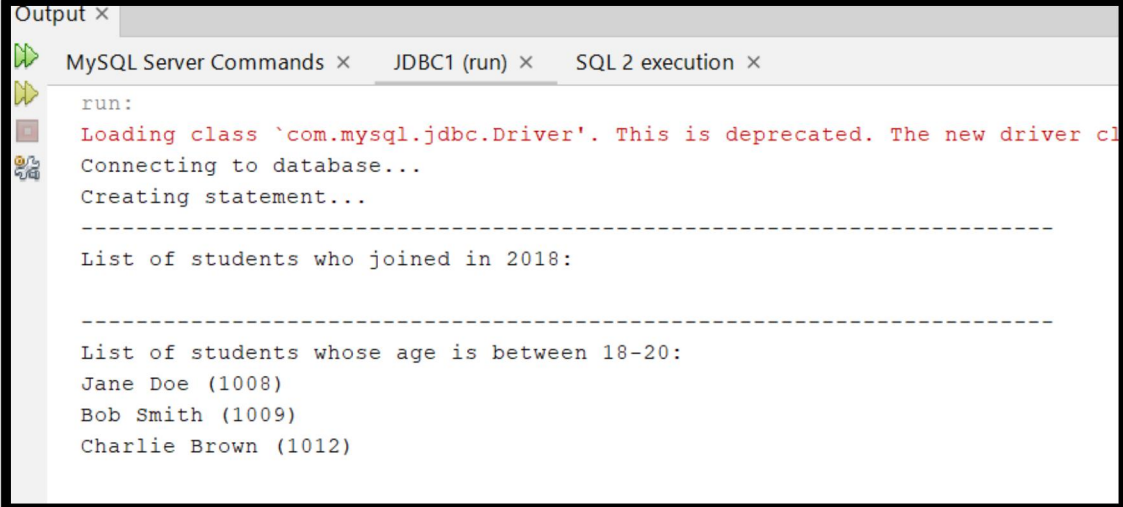
```

```

        } // end finally try
    } // end try
}
}

```

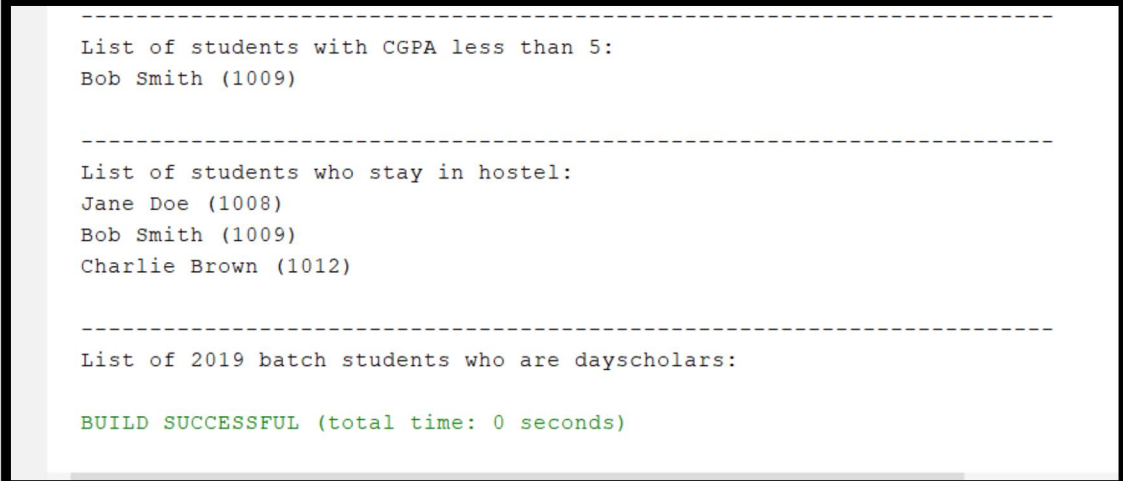
OUTPUT :



```

Output x
MySQL Server Commands x  JDBC1 (run) x  SQL 2 execution x
run:
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class
Connecting to database...
Creating statement...
-----
List of students who joined in 2018:
-----
List of students whose age is between 18-20:
Jane Doe (1008)
Bob Smith (1009)
Charlie Brown (1012)

```



```

-----
List of students with CGPA less than 5:
Bob Smith (1009)
-----
List of students who stay in hostel:
Jane Doe (1008)
Bob Smith (1009)
Charlie Brown (1012)
-----
List of 2019 batch students who are dayscholars:
BUILD SUCCESSFUL (total time: 0 seconds)

```