

Advanced Java Lab

Week-1

Roll Number: 248W5A1213

1. Install JDBC & Create Basic Connection to MySQL

Code:

```
package com.mycompany.mavenproject2;

import java.sql.Connection;
import java.sql.DriverManager;

public class Mavenproject2 {

    public static void main(String[] args) {

        String url = "jdbc:mysql://localhost:3306/mydb";
        String username = "root";
        String password = "";

        try {
            // Load MySQL JDBC Driver
            Class.forName("com.mysql.cj.jdbc.Driver");

            // Establish connection
            Connection con = DriverManager.getConnection(url, username, password);
            System.out.println("Connected to the database successfully!");

            con.close();
        } catch (ClassNotFoundException e) {
            System.err.println("JDBC Driver not found: " + e.getMessage());
        } catch (Exception e) {
            System.out.println("Exception occurred: " + e.getMessage());
        }
    }
}
```

```

        System.err.println("Database error: " + e.getMessage());
    }
}
}

```

Output:

```

--- compiler:3.13.0:compile (default-compile) @ mavenproject2 ---
Nothing to compile - all classes are up to date.
--- exec:3.1.0:exec (default-cli) @ mavenproject2 ---
Connected to the database successfully!
-----
BUILD SUCCESS
-----
Total time: 3.726 s
Finished at: 2025-11-22T17:25:51+05:30
-----

```

2. Write a simple JDBC program to insert and retrieve data using Statement interface.

Code:

```

package com.mycompany.mavenproject2;

import java.sql.*;

public class Mavenproject2 {

    public static void main(String[] args) {

        String url = "jdbc:mysql://localhost:3306/mydb";

        String username = "root";

        String password = "";

        try {

            Class.forName("com.mysql.cj.jdbc.Driver");

            Connection con = DriverManager.getConnection(url, username, password);

            Statement stmt = con.createStatement();

```

```

// Insert data

String insertQuery = "INSERT INTO students (name, age) VALUES ('Bharath',
20)";

int rows = stmt.executeUpdate(insertQuery);

System.out.println(rows + " record inserted.");

String selectQuery = "SELECT * FROM students";

ResultSet rs = stmt.executeQuery(selectQuery);

System.out.println("Student Records:");

while (rs.next()) {

    System.out.println(rs.getInt("id") + " | " +

        rs.getString("name") + " | " +

        rs.getInt("age"));

}

con.close();

} catch (Exception e) {

    System.out.println(e);

}

}

}

```

Output:

```

[ --- compiler:3.13.0:compile (default-compile) @ mavenproject2 ---
  Recompiling the module because of changed source code.
  Compiling 1 source file with javac [debug release 24] to target\classes
] --- exec:3.1.0:exec (default-cli) @ mavenproject2 ---
  1 record inserted.
  Student Records:
  1 | Bharath | 20
-----
BUILD SUCCESS
-----

Total time:  5.681 s
Finished at: 2025-11-22T17:29:29+05:30
-----

```