

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.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
-----
```