

## // Mess Management System - Java Database Connection (JDBC)

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class DBConnection {

    // Database credentials
    private static final String URL =
        "jdbc:mysql://localhost:3306/mess_management";
    private static final String USER = "root";      // change if needed
    private static final String PASSWORD = "";       // change if needed

    public static Connection getConnection() {
        Connection conn = null;
        try {
            // Load MySQL JDBC Driver
            Class.forName("com.mysql.cj.jdbc.Driver");

            // Create connection
            conn = DriverManager.getConnection(URL, USER, PASSWORD);
            System.out.println("Database connected successfully.");
        } catch (ClassNotFoundException e) {
            System.out.println("MySQL JDBC Driver not found.");
            e.printStackTrace();
        } catch (SQLException e) {
            System.out.println("Database connection failed.");
            e.printStackTrace();
        }
        return conn;
    }

    // Test connection
    public static void main(String[] args) {
        Connection connection = getConnection();
        if (connection != null) {
            try {
```

```
        connection.close();
        System.out.println("Connection closed.");
    } catch (SQLException e) {
        e.printStackTrace();
    }
}
}

// Example: Fetch members from database

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

public class MemberTest {

    public static void main(String[] args) {

        String sql = "SELECT member_id, role FROM members";

        try (Connection con = DBConnection.getConnection();
             PreparedStatement ps = con.prepareStatement(sql);
             ResultSet rs = ps.executeQuery()) {

            while (rs.next()) {
                System.out.println(
                    rs.getInt("member_id") + " | " +
                    rs.getString("role")
                );
            }
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```