Task: Create a Database Connection Code

Name: Om Ingle **Batch:** IT **Repository:**

1. Class & Method Explanation

- **DBConnection Class:** This class handles the database connectivity logic for the application.

- **main Method:** The entry point of the program. It first prints the mandatory student details (Name and Batch) and then attempts to connect to the database.

- **Class.forName(...):** This line dynamically loads the MySQL JDBC driver (com.mysql.cj.jdbc.Driver) into memory, allowing the Java application to communicate with the MySQL database.

- **DriverManager.getConnection(...):** This method establishes the actual connection using the configured URL, username, and password.

- **Exception Handling:**

  - **ClassNotFoundException:** Catches errors if the MySQL Connector JAR is missing.

  - **SQLException:** Catches errors related to invalid credentials or database server issues.

  - **finally Block:** Ensures the connection object is closed properly after execution to prevent resource leaks.

2. Console Output Screenshot

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Package Explorer

- AbstractClassDemo1
- Advanced-Java-Assignments
- CloneableDemo
- CollectionExampleDemo
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- FruitManagementSystem
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  - src
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  - JRE System Library [jre]
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- ThreadDemoExamples
- UnitTestingExampleDemo

DBConnection.java

```java
1 import java.sql.Connection;
2 import java.sql.DriverManager;
3 import java.sql.SQLException;
4
5 public class DBConnection {
6     public static void main(String[] args) {
7
8         // Mandatory Output Format
9         System.out.println("Name: Om Ingle");
10        System.out.println("Batch: IT");
11        System.out.println("------------------------------------");
12
13        String url = "jdbc:mysql://localhost:3306/test_db";
14        String username = "root";
```

Task List

Find   All   Activate...

Outline

DBConnection
    main(String[]) : void

Problems   Javadoc   Declaration   Console   Terminal

<terminated> DBConnection [Java Application] C:\Users\Sai\Downloads\eclipse-java-2024-03-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.10.v20240120-1143

```
Name: Om Ingle
Batch: IT
------------------------------------
Driver Loaded.
Connection Established Successfully!
Connection Closed.
```

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