Name:- Vidya C S   Track: JAVA FSE

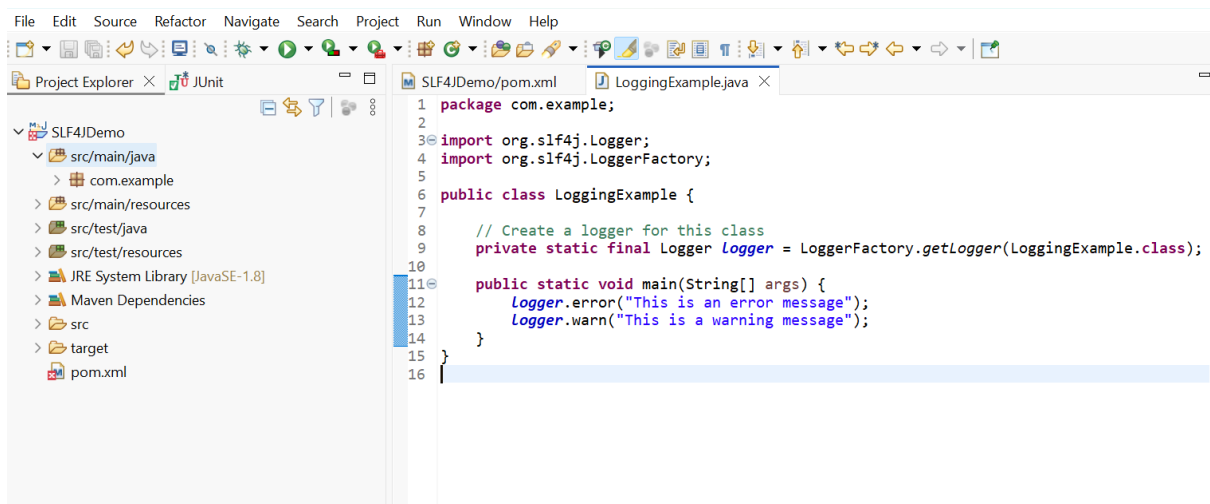## Skill: Logging using SLF4J Hands-On Exercises

Exercise 1: Logging Error Messages and Warning Levels Task: Write a Java application that demonstrates logging error messages and warning levels using SLF4J.

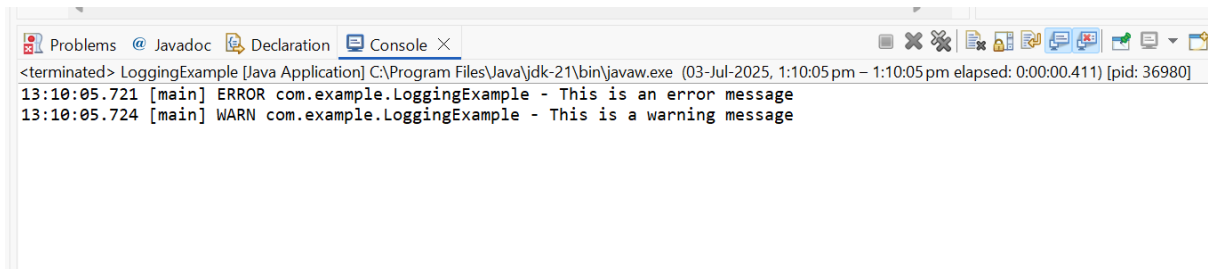**Step1: Add SLF4J and Logback dependencies to your `pom.xml` file**

```
https://maven.apache.org/xsd/maven-4.0.0.xsd (xsi:schemaLocation)
1  <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XML
2    <modelVersion>4.0.0</modelVersion>
3    <groupId>com.example</groupId>
4    <artifactId>SLF4JDemo</artifactId>
5    <version>0.0.1-SNAPSHOT</version>
6    <!-- SLF4J API -->
7  <dependency>
8    <groupId>org.slf4j</groupId>
9    <artifactId>slf4j-api</artifactId>
10   <version>1.7.30</version>
11 </dependency>
12
13 <!-- Logback implementation (SLF4J backend) -->
14 <dependency>
15   <groupId>ch.qos.logback</groupId>
16   <artifactId>logback-classic</artifactId>
17   <version>1.2.3</version>
18 </dependency>
19
20 </project>
```

Step2: Create a Java class that uses SLF4J for logging

```java
1 package com.example;
2
3 import org.slf4j.Logger;
4 import org.slf4j.LoggerFactory;
5
6 public class LoggingExample {
7
8     // Create a logger for this class
9     private static final Logger logger = LoggerFactory.getLogger(LoggingExample.class);
10
11     public static void main(String[] args) {
12         logger.error("This is an error message");
13         logger.warn("This is a warning message");
14     }
15 }
16
```

OUTPUT:-

<terminated> LoggingExample [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (03-Jul-2025, 1:10:05 pm – 1:10:05 pm elapsed: 0:00:00.411) [pid: 36980]

```
13:10:05.721 [main] ERROR com.example.LoggingExample - This is an error message
13:10:05.724 [main] WARN com.example.LoggingExample - This is a warning message
```