

Logging using SLF4J

Exercise 1: Logging Error Messages and Warning Levels

Task: Write a Java application that demonstrates logging error messages and warning levels using SLF4J.

Step-by-Step Solution:

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

```
<dependency>
<groupId>org.slf4j</groupId>
<artifactId>slf4j-api</artifactId>
<version>1.7.30</version>
</dependency>
<dependency>
<groupId>ch.qos.logback</groupId>
<artifactId>logback-classic</artifactId>
<version>1.2.3</version>
</dependency>
```

2. Create a Java class that uses SLF4J for logging:

```
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

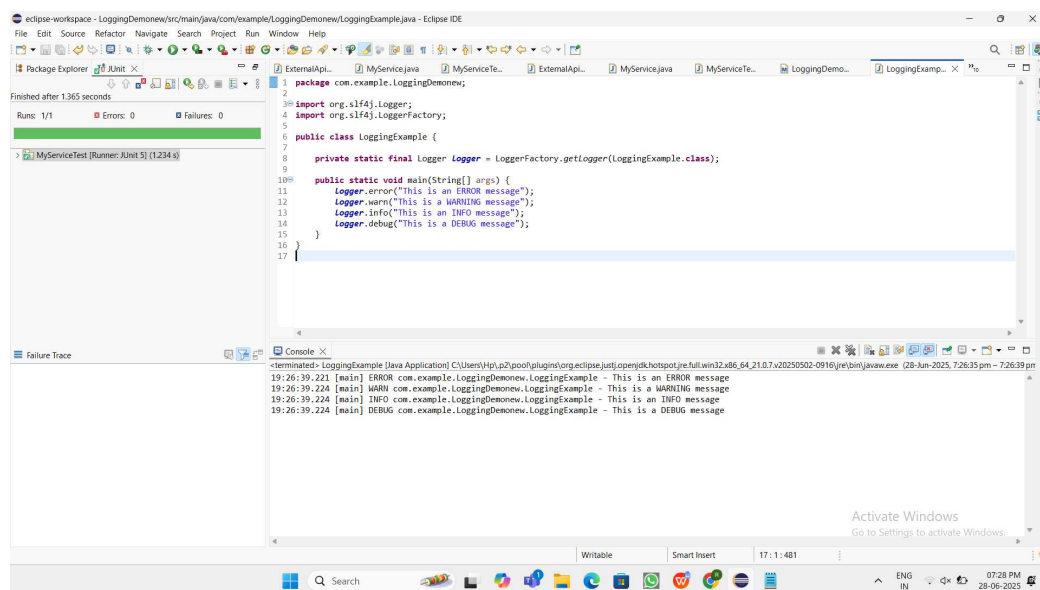
public class LoggingExample {
    private static final Logger logger = LoggerFactory.getLogger(LoggingExample.class);
    public static void main(String[] args) {
        logger.error("This is an error message");
        logger.warn("This is a warning message");
    }
}
```

CODE:

LoggingExample.java

```
package com.example.LoggingDemonew;  
  
import org.slf4j.Logger;  
  
import org.slf4j.LoggerFactory;  
  
public class LoggingExample {  
  
    private static final Logger logger = LoggerFactory.getLogger(LoggingExample.class);  
  
    public static void main(String[] args) {  
  
        logger.error("This is an ERROR message");  
  
        logger.warn("This is a WARNING message");  
  
        logger.info("This is an INFO message");  
  
        logger.debug("This is a DEBUG message");  
  
    }  
}
```

OUTPUT:



The screenshot shows the Eclipse IDE interface. The main editor displays the source code of `LoggingExample.java`. The Package Explorer on the left shows the project structure. The Console window at the bottom shows the output of the program execution, which includes the following log messages:

```
<terminated> LoggingExample [Java Application] C:\Users\Hp\p2\poo\plugins\org.eclipse.jdt.openide.hotspot.jre.full.win32.x86_64.21.0.7\20250502-0916\jre\bin\java.exe (28-Jun-2025, 7:26:35 pm - 7:26:39 pm)  
19:26:39.221 [main] ERROR com.example.LoggingDemonew.LoggingExample - This is an ERROR message  
19:26:39.224 [main] WARN com.example.LoggingDemonew.LoggingExample - This is a WARNING message  
19:26:39.224 [main] INFO com.example.LoggingDemonew.LoggingExample - This is an INFO message  
19:26:39.224 [main] DEBUG com.example.LoggingDemonew.LoggingExample - This is a DEBUG message
```