

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>

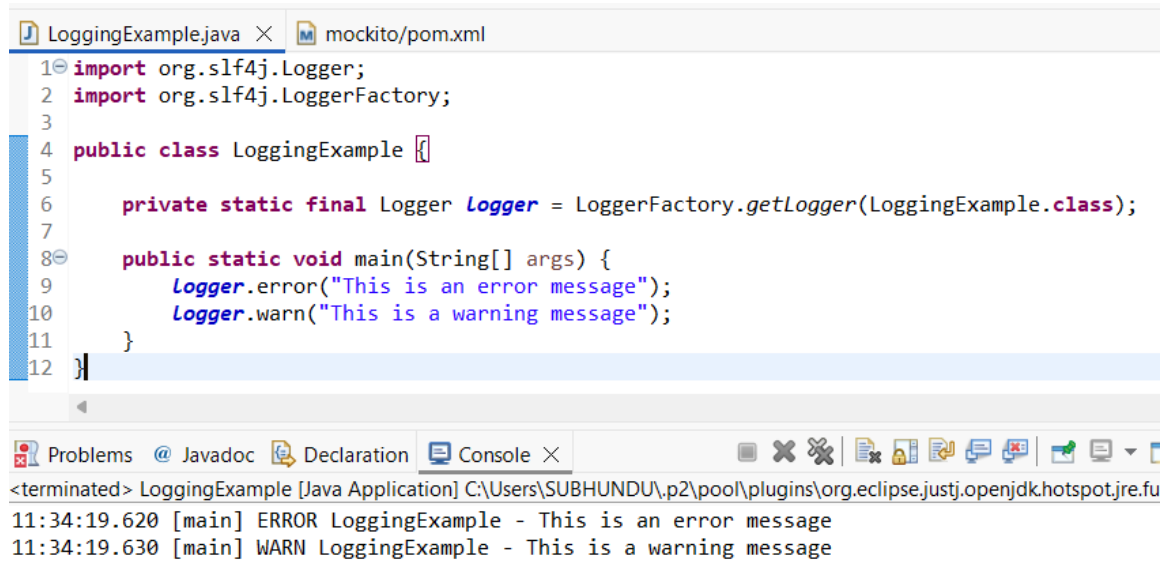
16
17<dependencies>
18  <dependency>
19    <groupId>org.slf4j</groupId>
20    <artifactId>slf4j-api</artifactId>
21    <version>1.7.30</version>
22  </dependency>
23
24  <!-- Logback (SLF4J Implementation) -->
25  <dependency>
26    <groupId>ch.qos.logback</groupId>
27    <artifactId>logback-classic</artifactId>
28    <version>1.2.3</version>
29  </dependency>
30 </dependencies>
31
32 </project>
33
```

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");  
    }  
}
```



The screenshot shows the Eclipse IDE interface. The top editor displays the file `LoggingExample.java` with the following code:

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

The bottom console window shows the output of the application:

```
<terminated> LoggingExample [Java Application] C:\Users\SUBHUNDU\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.fu  
11:34:19.620 [main] ERROR LoggingExample - This is an error message  
11:34:19.630 [main] WARN LoggingExample - This is a warning message
```