**Exercise 1: Logging Error Messages and Warning Levels**

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

**Solution:**

**Tools Used:** Eclipse IDE, JUnit 5, Java, Maven

**Steps Performed:**

1. Created a Maven project LoggingExample and added SLF4J and Logback dependencies in pom.xml.
2. Implemented LoggingExample.java using LoggerFactory to log error and warning messages.
3. Ran the program using mvn exec:java, and observed log output in the terminal.

<dependencies>

<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>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.codehaus.mojo</groupId>

<artifactId>exec-maven-plugin</artifactId>

<version>3.0.0</version>

<configuration>

<mainClass>com.example.logging.LoggingExample</mainClass>

</configuration>

</plugin>

</plugins>

</build>

package com.example.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");

}

}

**Output:**

