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:

project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4\_0\_0.xsd">

  <modelVersion>4.0.0</modelVersion>

  <groupId>com.example</groupId>

  <artifactId>logging-demo</artifactId>

  <packaging>jar</packaging>

  <version>1.0-SNAPSHOT</version>

  <name>logging-demo</name>

  <url>http://maven.apache.org</url>

 <dependencies>

  <!-- SLF4J API -->

  <dependency>

    <groupId>org.slf4j</groupId>

    <artifactId>slf4j-api</artifactId>

    <version>1.7.30</version>

  </dependency>

  <!-- Logback (SLF4J Implementation) -->

  <dependency>

    <groupId>ch.qos.logback</groupId>

    <artifactId>logback-classic</artifactId>

    <version>1.2.3</version>

  </dependency>

</dependencies>

</project>

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

package com.example;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

public class LoggingExample {

    // Creating a logger for this class

    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");

        System.out.println("Logging complete. Check console output.");

    }

}

Output:

