**Logging using SLF4J**

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

**Project name : SLF4JLoggingDemo**

**pom.xml :**

<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/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.example</groupId>

<artifactId>SLF4JLoggingDemo</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>jar</packaging>

<name>SLF4JLoggingDemo</name>

<url>http://maven.apache.org</url>

<properties>

<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>

</properties>

<dependencies>

<!-- SLF4J API -->

<dependency>

<groupId>org.slf4j</groupId>

<artifactId>slf4j-api</artifactId>

<version>1.7.30</version>

</dependency>

<!-- Logback implementation -->

<dependency>

<groupId>ch.qos.logback</groupId>

<artifactId>logback-classic</artifactId>

<version>1.2.3</version>

</dependency>

</dependencies>

</project>

**LoggingExample.java :**

package com.example.SLF4JLoggingDemo;

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*.trace("This is a TRACE message");

*logger*.debug("This is a DEBUG message");

*logger*.info("This is an INFO message");

*logger*.warn("This is a WARNING message");

*logger*.error("This is an ERROR message");

try {

// Simulate an error

int result = 10 / 0;

} catch (Exception e) {

*logger*.error("An arithmetic error occurred: ", e);

}

}

}

