**SL4J Logging**

**Question 1: Setting-up Junit**

**Scenario: Set up JUnit in your Java project to start writing unit tests**

**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.slf4j</groupId>

    <artifactId>SLF4JLoggingExample</artifactId>

    <version>1.0-SNAPSHOT</version>

    <name>SLF4JLoggingExample</name>

    <properties>

        <maven.compiler.source>17</maven.compiler.source> *<!-- Change to 11 or 1.8 if needed -->*

        <maven.compiler.target>17</maven.compiler.target>

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

        <slf4j.version>2.0.13</slf4j.version>

        <logback.version>1.5.6</logback.version>

    </properties>

    <dependencies>

*<!-- SLF4J API -->*

        <dependency>

            <groupId>org.slf4j</groupId>

            <artifactId>slf4j-api</artifactId>

            <version>${slf4j.version}</version>

        </dependency>

*<!-- Logback Classic (SLF4J implementation) -->*

        <dependency>

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

            <artifactId>logback-classic</artifactId>

            <version>${logback.version}</version>

        </dependency>

    </dependencies>

    <build>

        <plugins>

*<!-- Maven Compiler Plugin -->*

            <plugin>

                <groupId>org.apache.maven.plugins</groupId>

                <artifactId>maven-compiler-plugin</artifactId>

                <version>3.11.0</version>

                <configuration>

                    <source>${maven.compiler.source}</source>

                    <target>${maven.compiler.target}</target>

                </configuration>

            </plugin>

*<!-- Maven Exec Plugin for running the Java application -->*

            <plugin>

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

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

                <version>3.2.0</version>

                <configuration>

                    <mainClass>LoggingExample</mainClass>

                </configuration>

            </plugin>

        </plugins>

    </build>

</project>

**LoggingExample.java:**

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

public class LoggingExample {

    // Create a logger instance 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("Check your console or log file for SLF4J logs.");

    }

}

