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

**pom.xml -Maven Dependencies**

<project xmlns="http://maven.apache.org/POM/4.0.0" >

<modelVersion>4.0.0</modelVersion>

<groupId>com.example</groupId>

<artifactId>LoggingApp</artifactId>

<version>1.0-SNAPSHOT</version>

**Using SLF4J API**

<dependencies>

<!-- SLF4J API -->

<dependency>

<groupId>org.slf4j</groupId>

<artifactId>slf4j-api</artifactId>

<version>1.7.30</version>

</dependency>

**Logback Classic - implementation of SLF4J**

<dependency>

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

<artifactId>logback-classic</artifactId>

<version>1.2.3</version>

</dependency>

</dependencies>

</project>

**LoggingExample.java**

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");

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

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

}

}

**logback.xml**

<configuration>

<appender name="STDOUT" class="ch.qos.logback.core.ConsoleAppender">

<encoder>

<pattern>%d{HH:mm:ss.SSS} [%thread] %-5level %logger{36} - %msg%n</pattern>

</encoder>

</appender>

<root level="warn">

<appender-ref ref="STDOUT" />

</root>

</configuration>

**OUTPUT**

**12:05:10.321 [main] ERROR LoggingExample - This is an error message**

**12:05:10.322 [main] WARN LoggingExample - This is a warning message**