**Exercise 3: Using Different Appenders**

**Task: Write a Java application that demonstrates using different appenders with SLF4J.**

**Code:**

**pom.xml**

<?xml version="1.0" encoding="UTF-8"?>

<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>logging-demo</artifactId>

  <version>1.0-SNAPSHOT</version>

<name>logging-demo</name>

  <url>http://www.example.com</url>

<properties>

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

    <maven.compiler.source>1.8</maven.compiler.source>

    <maven.compiler.target>1.8</maven.compiler.target>

  </properties>

<dependencies>

**<!-- SLF4J API -->**

    <dependency>

      <groupId>org.slf4j</groupId>

      <artifactId>slf4j-api</artifactId>

      <version>1.7.30</version>

    </dependency>

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

    <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>3.1.0</version>

        <configuration>

          <mainClass>com.example.AppendersExample</mainClass>

        </configuration>

      </plugin>

    </plugins>

  </build>

</project>

**logback.xml**

<configuration>

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

    <encoder>

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

    </encoder>

  </appender>

<appender name="file" class="ch.qos.logback.core.FileAppender">

    <file>app.log</file>

    <encoder>

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

    </encoder>

  </appender>

<root level="debug">

    <appender-ref ref="console" />

    <appender-ref ref="file" />

  </root>

</configuration>

**AppendersExample.java**

package com.example;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

public class AppendersExample {

private static final Logger logger = LoggerFactory.getLogger(AppendersExample.class);

public static void main(String[] args) {

        logger.debug("Debug level message");

        logger.info("Info level message");

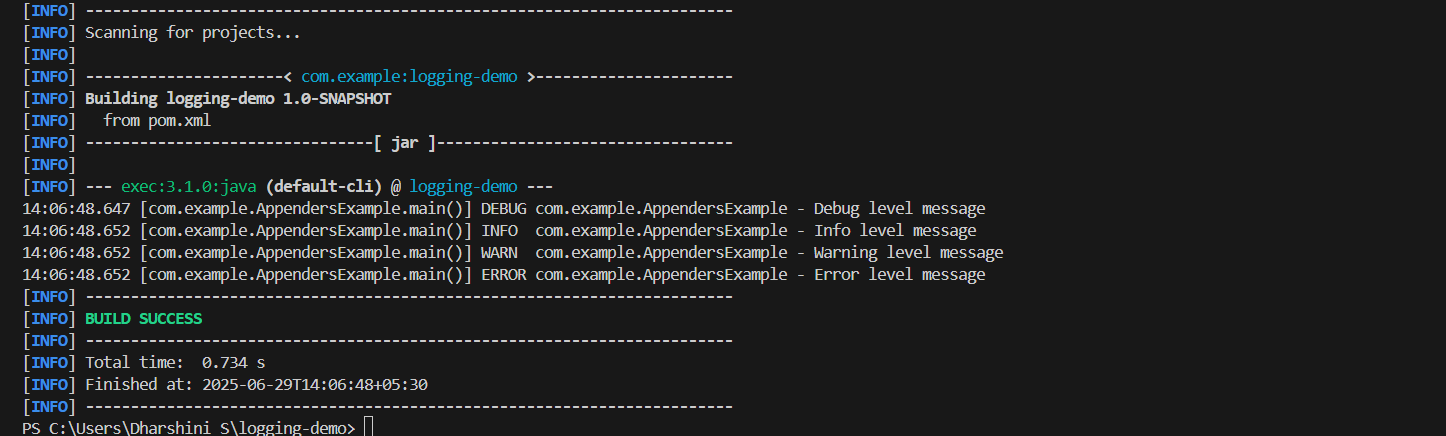
        logger.warn("Warning level message");

        logger.error("Error level message");

    }

}

**Output:**

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