SLF4J Logging Exercises - Solutions

# Exercise 1: Logging Error Messages and Warning Levels

1. Add SLF4J and Logback dependencies to your pom.xml file:  
  
<dependency>  
 <groupId>org.slf4j</groupId>  
 <artifactId>slf4j-api</artifactId>  
 <version>1.7.30</version>  
</dependency>  
<dependency>  
 <groupId>ch.qos.logback</groupId>  
 <artifactId>logback-classic</artifactId>  
 <version>1.2.3</version>  
</dependency>  
  
2. Java class using SLF4J for error and warning logging:  
  
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");  
 }  
}

# Exercise 2: Parameterized Logging

1. Add the same SLF4J and Logback dependencies as in Exercise 1.  
  
2. Java class using parameterized logging:  
  
import org.slf4j.Logger;  
import org.slf4j.LoggerFactory;  
  
public class ParameterizedLoggingExample {  
 private static final Logger logger = LoggerFactory.getLogger(ParameterizedLoggingExample.class);  
  
 public static void main(String[] args) {  
 String user = "Priya";  
 int age = 25;  
 logger.info("User name: {}, Age: {}", user, age);  
 }  
}

# Exercise 3: Using Different Appenders

1. Add SLF4J and Logback dependencies to your pom.xml file (same as above).  
  
2. Create `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>  
  
3. Java class using SLF4J:  
  
import org.slf4j.Logger;  
import org.slf4j.LoggerFactory;  
  
public class AppenderExample {  
 private static final Logger logger = LoggerFactory.getLogger(AppenderExample.class);  
  
 public static void main(String[] args) {  
 logger.debug("Debug message");  
 logger.info("Info message logged to console and file");  
 logger.error("Error message for testing appenders");  
 }  
}