**Log4j configuration file:**

Log4j configuration can be found by searching google with “log4j configuration” and you can find it at <https://logging.apache.org/log4j/2.x/manual/configuration.html>.

The basic configuration file is:

1. <?xml version="1.0" encoding="UTF-8"?>
2. <Configuration status="WARN">
3. <Appenders>
4. <Console name="Console" target="SYSTEM\_OUT">
5. <PatternLayout pattern="%d{HH:mm:ss.SSS} [%t] %-5level %logger{36} - %msg%n"/>
6. </Console>
7. </Appenders>
8. <Loggers>
9. <Logger name="com.foo.Bar" level="trace">
10. <AppenderRef ref="Console"/>
11. </Logger>
12. <Root level="error">
13. <AppenderRef ref="Console"/>
14. </Root>
15. </Loggers>
16. </Configuration>

Basically, there two main tags in the configuration file. Appenders and Loggers.

**Where to log:**

There are two places where you can log the information. You can simply log in the console window or you can log in a separate file.

This can be found in “Appenders” tag.

In the above example we have console tag so we are saying to print it in console and the format of how it should be printed is by PatternLayout tag. We have to give a name to the console tag so that Root tag finds this information and logs the errors or information to the console.

**How to log:** PatternLayout tag

**What to log:**

This will be under Loggers tag.

This will have two tags.

This contains Logger and Root tags.

Root section contains what kind of information should be logged. If level=”error” only errors (error and fatal) will be printed. If level=”trace” all the info (debug, info, error, fatal) will be printed.

Now create a new folder and create an xml file under that.

**Important Note: Name the file as log4j2.xml only. Otherwise it will use the default one.**

We need to add this new xml file to the build path so that the program will know that an xml file is defined.

This can be done by setting up build path. Right click on the project and click on build path -> Configure build path -> Java Build Path -> go to source tab -> Add Folder and add the new folder created (where our xml file is stored).

If you have multiple packages, and you want for one package only errors but for the remaining you want all the message then you have to use <logger> tag.

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

<Configuration status=*"WARN"*>

<Appenders>

<Console name=*"Console"* target=*"SYSTEM\_OUT"*>

<PatternLayout pattern=*"%d{HH:mm:ss.SSS} [%t] %-5level %logger{36} - %msg%n"*/>

</Console>

</Appenders>

<Loggers>

<logger name=*"loggingpackage2.logtest1"* level=*"error"* additivity=*"false"*>

<AppenderRef ref=*"Console"*/>

</logger>

<Root level=*"trace"*>

<AppenderRef ref=*"Console"*/>

</Root>

</Loggers>

</Configuration>

In the above you can see that for logginpackage2.logtest1 only errors will be printed. But for the remaining everything will be printed as the root level is trace.

The additivity tag prevents the error message printing twice.