**Log4j and PageObject**

Log4j:

* Log4j is used to extract logs from any time and date. Logs can be printed in any format debug/fatal/error/info etc.
* A configuration file is required to print all the errors and this can be controlled from configuration file.
* The logs can be printed either in console or in a file and file size can also be defined in configuration xml
* Log4j can be implemented in any java framework. Can be used for selenium, appium, webserviers

*log*.debug("Practice1\_This is to debug");

*log*.fatal("Practice1\_This is fatal error");

*log*.error("Practice1\_This is for error");

*log*.info("Practice1\_This is for info");

* The above code prints only fatal and errors without configuration file

Below is the sample config file:

<?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>

<Rolling File name=”File” filename=”${basepath}/prints.log” filepattern=”${basepath}/prints-%d(yyyy-MM-dd)”>

<sizebasesTriggeringPolicy size=”500”/>

</RollingFile>

<Loggers>

<Logger name="com.foo.Bar" level="trace" additivity="false">

<AppenderRef ref="Console"/>

<Root level=*"trace"*>

<AppenderRef ref=*"Console"*/>

</Root>

</Loggers>

</Configuration>

* We can define where to log the files in Appenders tag like console/file etc
* In Loggers tag, we can give a specific class with what to log like error/trace so that it logs only for that specific class
* In Root tag, we can give what to log for entire project like error/trace
* PatternLayout defines the pattern to print the error message
* If Additivity is false, the test runs only once for a class and if additivity is true and at root level, AppenderRef is Console and Root level is “trace”, then the class runs twice.
* Appenders console name is File, if logs needs to be saved in a text file,
* File path can be given in properties tag. File pattern with time stamp should be given in the same tag. File name should be mentioned where the logs needs to be printed inside Appenders tag.
* Size of the file also needs to be mentioned. If the logs exceed the given size, then a new file gets created.

**PageObject Pattern:**

* Easy to maintain
* Easy Readability of scripts
* Reduce or eliminate dupl
* icacy
* Reusability of code
* Reliability