Logger Object
=============
      => enables logging on the given java class.
      => Logger logger = Logger.getLogger(current java class related to java.lang.Class object);
                  eg: Logger logger = Logger.getLogger(BankAppProject.class);

      => use the following method based on the priority level to generate the log message
                  logger.debug("");
                  logger.info("");
                  logger.warn("");
                  logger.error("");
                  logger.fatal("");

      => Allows to specify logger level to retrieve log messages
                  logger.setLevel(Level.DEBUG)[if no logger level is given then the defualt logger level is DEBUG]

      => Both Appender object and Layout object will be added to logger object directly or indirectly.

      => Instructions/Inputs to logger object can be hardcoded or given by using properties file/xml file.

Appender Object
===============
      => specifies the destination where to write/record the log messages.
                  eg: FileAppender,RollingFileAppender,DailyRollingFileAppender,JDBCAppender, IMAPAppender,ConsoleAppender
      => All Appender classes implements from org.log4j.Appender(I).

Layout Object
=============
      => Given to format the log messgaes before givinig to appender for recording/writing the destination file
                  eg: SimpleLayout,HtmlLayout,XmlLayout,PatterLayout......
      => All Layout classes extends from org.log4j.Layout(c)

Log4j Architecture
==================
                  refer diagram

To load the properties file data into java program we need to use the following class
==
static {
            PropertyConfigurator.configure("src\\main\\java\\in\\ineuron\\cfgs\\log4j.properties");
}

Using log4j to work with properties file
==
case1:: Working with HTMLLayout and FileAppender

```
#For  HTMLLayout and  FileAppender
#specify  Logger level to retrieve the  log messages
log4j.rootLogger=INFO,R

#specify appender
log4j.appender.R=org.apache.log4j.FileAppender

#Specify file name
log4j.appender.R.File=D:\\log.html

#Disabling append mode on file
log4j.appender.R.append=true

#sepcify layaout
log4j.appender.R.layout=org.apache.log4j.HTMLLayout
=====================================================================

Case2:: Working with Multiple Appenders

#For  Working with multiple Appenders
#specify  Logger level to retrieve the  log messages
log4j.rootLogger=DEBUG,R,C

#related ConsoleAppender and SimpleLayout
log4j.appender.C=org.apache.log4j.ConsoleAppender
log4j.appender.C.layout=org.apache.log4j.SimpleLayout

#related to  FileAppender and HTMLLayout
log4j.appender.R=org.apache.log4j.FileAppender
log4j.appender.R.File=D:/log.html
log4j.appender.R.append=true
log4j.appender.R.layout=org.apache.log4j.HTMLLayout
=====================================================================

Case3:Working with FileAppender and XMLLayout

#For  XmlLayout and  FileAppender
##specify  Logger level to retrieve the  log messages
log4j.rootLogger=INFO,R

##specify appender
log4j.appender.R=org.apache.log4j.FileAppender

##Specify file name
log4j.appender.R.File=D:/info.xml

##enabling append mode on file
log4j.appender.R.append=true

##sepcify layaout
log4j.appender.R.layout=org.apache.log4j.xml.XMLLayout

=====================================================================
Case4: RollingFileAppender and PatternLayout

# ForRollingFileAppender and  PatternLayout
log4j.rootLogger=DEBUG,R
log4j.appender.R=org.apache.log4j.RollingFileAppender
log4j.appender.R.File=log_info.txt
```

```
log4j.appender.R.MaxFileSize=10KB
log4j.appender.R.MaxBackupIndex=3
log4j.appender.R.append=true
log4j.appender.R.layout=org.apache.log4j.PatternLayout
log4j.appender.R.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %p %10.15c %10M
%-10t %r %L  %m%n


# For DailyRollingFileAppender and  PatternLayout
log4j.rootLogger=DEBUG,R
log4j.appender.R=org.apache.log4j.DailyRollingFileAppender
log4j.appender.R.File=log_info1.txt
log4j.appender.R.append=true
log4j.appender.R.datePattern='.'yyyy-MM-dd-HH-mm
log4j.appender.R.layout=org.apache.log4j.PatternLayout
log4j.appender.R.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %p %10.15c %10M
%-10t %r %L  %m%n
```

Note: In real timepractise,the popularly used appender is
"DailyRollingFileAppender" and layout is "PatternLayout".