SCALA-LOGGING WITH LOG4J2

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In this brief post I provide a minimal complete example that uses `scala-logging` with `log4j2`. `scala-logging` is a Scala logging library wrapping SLF4J. When I tried to setup this up myself, I could not find an example with the correct dependencies that works for `scala-logging` using `log4j2`.

1. SCALA CODE

Here is a minimal complete Scala code example using `scala-logging`. Note that we use a companion object to define an instance of `Logger` that will be shared across all instances of `SimpleLoggingTest`.

```scala
package org.henrietteharmse.tutorial

import com.typesafe.scalalogging.Logger

class SimpleLoggingTest {
  SimpleLoggingTest.logger.trace("Hello while instance of SimpleLoggingTest is created.")
}

object SimpleLoggingTest {
  private val logger = Logger[SimpleLoggingTest]

  def main(args: Array[String]):Unit = {
    logger.trace("Hello from SimpleLoggingTest companion object")
    val simpleLoggingTest = new SimpleLoggingTest
    try {
      throw new RuntimeException("Some error")
    } catch {
      case t : Throwable => logger.error(s"Error: ${t.getMessage}")
    }
  }
}
```

2. LOG4J CONFIGURATION

Below we define a trace level logger for our application code with an error level logger for all other errors. Logging for our code will be written to a file in `./logs/App.log` with all other errors being logged to the console.

```xml
<?xml version="1.0" encoding="UTF-8"?>
  <Configuration status="WARN">
  <Appenders>
    <Console name="Console" target="SYSTEM_OUT">
      <PatternLayout pattern="%markerSimpleName %-5p %C.%M():%L - %msg %ex{full}%n"/>
    </Console>
```

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```
    <File name="Log" fileName="./logs/App.log">
      <PatternLayout>
        <Pattern>%markerSimpleName %-5p %C.%M():%L - %msg %ex{full}%n</Pattern>
      </PatternLayout>
    </File>
  </Appenders>
  <Loggers>
    <Logger name="org.henrietteharmse.tutorial" level="trace" additivity="false">
      <AppenderRef ref="Log"/>
    </Logger>
    <Root level="error">
      <AppenderRef ref="Console"/>
    </Root>
  </Loggers>
</Configuration>
```

3. SBT CONFIGURATION

The `build.sbt` file for building this application is given below. Most importantly it states the correct dependencies for using `scala-logging` with

```
ThisBuild / scalaVersion := "2.13.2"
ThisBuild / organization := "org.henrietteharmse.tutorial"

val setLog4jDebug = sys.props("log4j2.debug") = "true"

lazy val root = (project in file("."))
  .settings(
  name := "scala-logging-with-log4j2",
  libraryDependencies ++= Seq(
    "com.typesafe.scala-logging" %% "scala-logging" % "3.9.2",
    "org.slf4j" % "slf4j-api" % "1.7.30",
    "org.apache.logging.log4j" % "log4j-slf4j-impl" % "2.13.3"
  ),
  scalacOptions ++= Seq("-deprecation")
)
```

github

REFERENCES