Spark Fundamentals - II

Using sbt, Eclipse, or IntelliJ for unit testing and debugging

Contents

USING SBT, ECLIPSE, OR INTELLIJ FOR UNIT TESTING AND DEBUGGING 3
1.1 USING SBT, ECLIPSE, OR INTELLIJ FOR UNIT TESTING AND DEBUGGING. 4
SUMMARY 6

Using sbt, Eclipse, or IntelliJ for unit testing and debugging

This lab will not use Zeppelin, but your choice of the listed tools in your own local workstation.

After completing this hands-on lab, you should be able to:

- Compile and package your application using SBT.
- (Optional) Use any of the listed IDEs for unit testing and debugging.

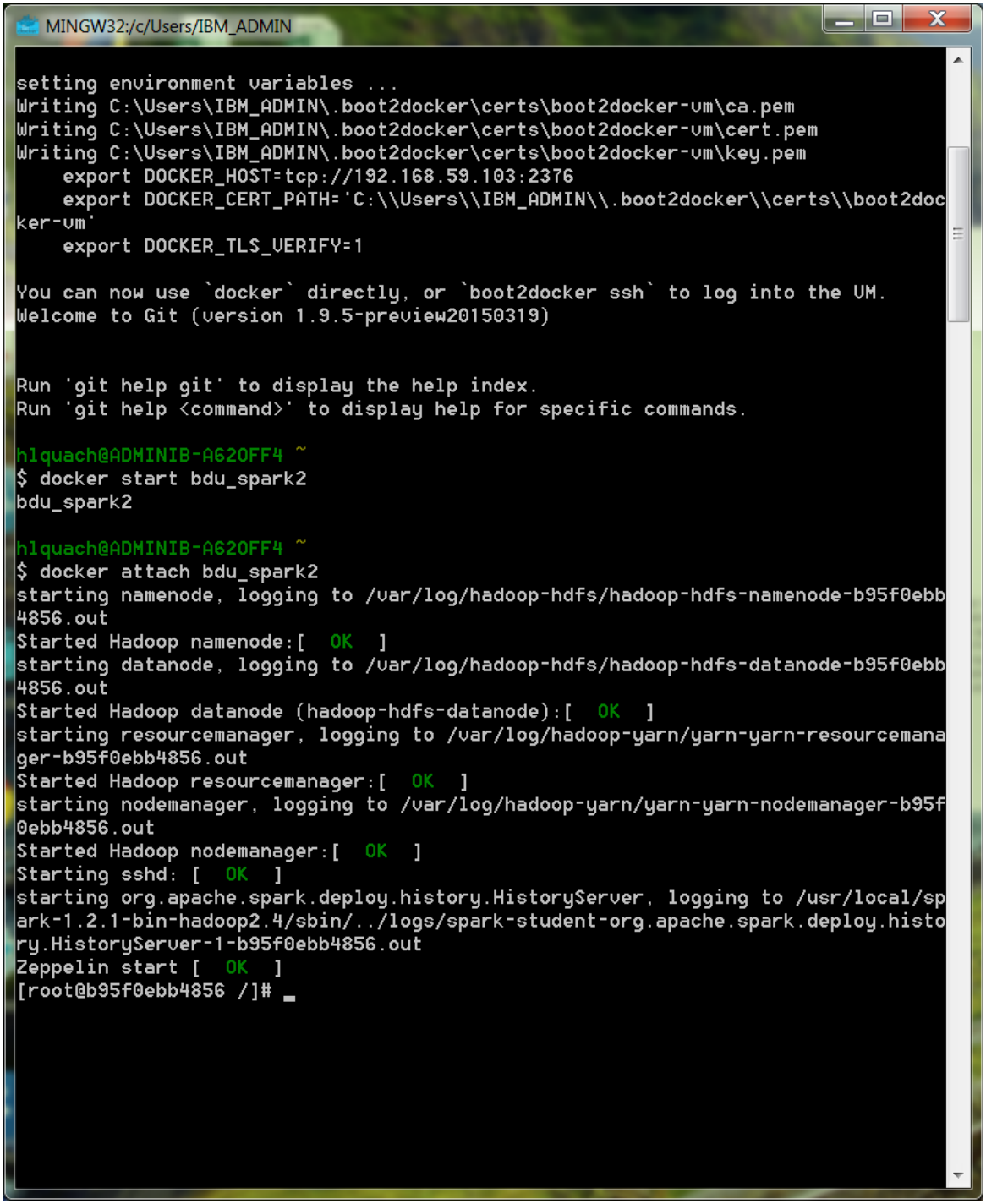
Allow 30 minutes to complete this section of lab.

1.1 Using sbt, Eclipse, or IntelliJ for unit testing and debugging.

Make sure your docker and the Zeppelin is running. If not, get it started before continuing with this lab. Use the instructions here:

https://registry.hub.docker.com/u/bigdatauniversity/spark2/

__1. Here I show how you would restart the container if you need to. Otherwise, continue from the previous instance of the boot2docker terminal from lab 3.



__2. Open up **Lab 5** in the Zeppelin notebook. If you do not have SBT installed, do so now:

http://www.scala-sbt.org/download.html

__3. Open up a terminal / command prompt within your on local machine (i.e. Linux / Windows).
__4. Create a **lab5** directory.
__5. Change into that directory.

__6. Run the **sbt** command:

```
C:\spark2>mkdir lab5

C:\spark2>cd lab5

C:\spark2\lab5>sbt
Getting org.fusesource.jansi jansi 1.11 ...
downloading https://repo1.maven.org/maven2/org/fusesource/jansi/jansi/1.11/jansi
-1.11.jar ...
        [SUCCESSFUL ] org.fusesource.jansi#jansi;1.11!jansi.jar (640ms)
:: retrieving :: org.scala-sbt#boot-jansi
        confs: [default]
        1 artifacts copied, 0 already retrieved (111kB/78ms)
Getting org.scala-sbt sbt 0.13.8 ...
downloading https://repo.typesafe.com/typesafe/ivy-releases/org.scala-sbt/sbt/0.
13.8/jars/sbt.jar ...
        [SUCCESSFUL ] org.scala-sbt#sbt;0.13.8!sbt.jar (1956ms)
```

If this is your first time running *sbt*, it will download all the necessary files.

__7. Follow the steps 3 - 10 inside the Zeppelin notebook. By the end, you should have a jar file in this directory:

`target/scala-2.10/lab5_2.10-1.0.jar`

__8. You can submit this job to the Spark cluster to see it run. Use the spark-submit script to execute it.
__9. For the remainder of the lab exercises, as an option, you can follow the instructions for your favorite IDE to set up sbt.

Summary

You should at least be able to compile and package your app using sbt. If you are using one of the IDEs listed in the lab, you should be able to use that IDE to develop your app. You have completed this course. Congratulations!

NOTES

NOTES

The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. This information is based on current IBM product plans and strategy, which are subject to change by IBM without notice. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way.