O'REILLY®

Scala Beyond the Basics

Daniel Hinojosa

About Me... Daniel Hinojosa

Programmer, Developer, Consultant, Instructor, and Speaker

Notable Content:

Testing in Scala (Book)
Beginning Scala Programming (Video)
Java & TDD (Video Training)

Speaker: A Few OSCONs No Fluff Just Stuff Tour DevNexus

<u>dhinojosa@evolutionnext.com</u> @dhinojosa



Structure of the Class

- All LiveCoding
- Performed in IntelliJ and Eclipse
- Commits and Pushing performed throughout the class
- Your Choice :
 - Watch
 - Code with Me
- Definitely Ask Questions

Project Setup

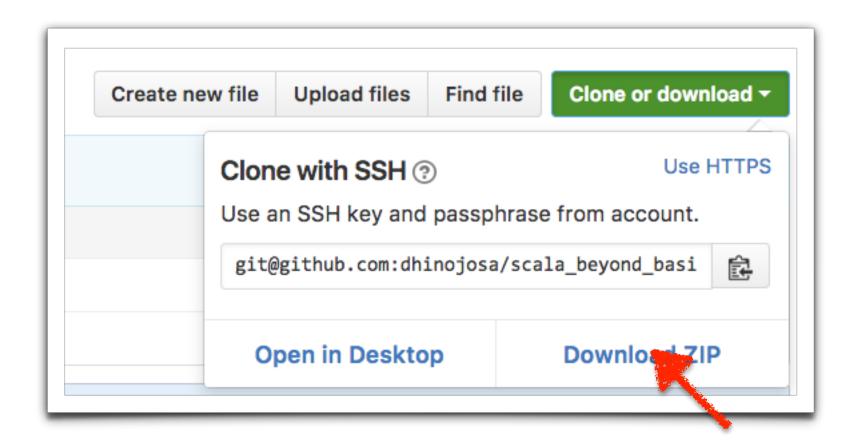
Checklist before setup...

- We provided pre-setup configuration already.
- Be sure JAVA_HOME is set and that the following works:
 - javac -version
 - java -version
- Be sure SBT is setup and ensure that the following works
 - sbt sbtVersion

Repository Location, Clone it!

https://github.com/dhinojosa/scala beyond basics

But, if don't know Git too well...



Once downloaded...Run SBT

```
~/Development/scala_beyond_basics(master) » sbt
```

You should see something like this...

```
-/Development/scala beyond basics(master) » sbt
Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPerm
rt was removed in 8.0
[info] Loading settings from plugins.sbt ...
[info] Loading project definition from /Users/danno/Development/sc
ics/project
[info] Loading settings from build.sbt ...
[info] Set current project to scala beyond basics (in build file:/
velopment/scala beyond basics/)
[info] sbt server started at 127.0.0.1:5901
sbt:scala beyond basics>
```

You'll need to update your project...

```
(~/Development/scala beyond basics(master) * sbt
Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxP
rt was removed in 8.0
[info] Loading settings from plugins.sbt ...
[info] Loading project definition from /Users/danno/Development
ics/project
[info] Loading settings from build.sbt ...
[info] Set current project to scala beyond basics (in build fil
velopment/scala beyond basics/)
[info] sbt server started at 127.0.0.1:5901
sbt:scala beyond basics> update
```

Updating Your Project

- This will download Scala and all your dependencies into your ~/.ivy2
- This may take a while depending on your connection speed.
- If you have any problems, there might be issues with network connection, or proxy based issues

Proxy Issues

 If you have problems because of any proxy server, add the following to your environment variables and change username and password accordingly

```
export JAVA_OPTS="$JAVA_OPTS \
-Dhttp.proxyHost=yourserver \
-Dhttp.proxyPort=8080 \
-Dhttp.proxyUser=username \
-Dhttp.proxyPassword=password"
```

Lab: Let's get setup!

Clone or download

```
scala_beyond_basics from
https://github.com/dhinojosa/
scala beyond basics
```

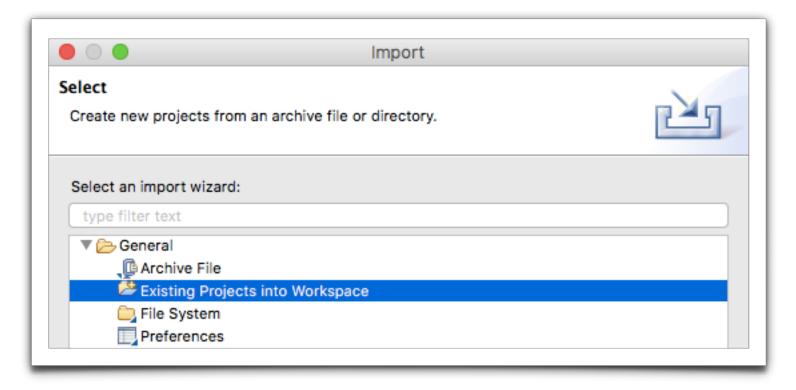
- Run sbt at the command line
- Once in the sbt console, run update
- Wait for the download to complete

Setup for Eclipse

Run the Eclipse Plugin in SBT

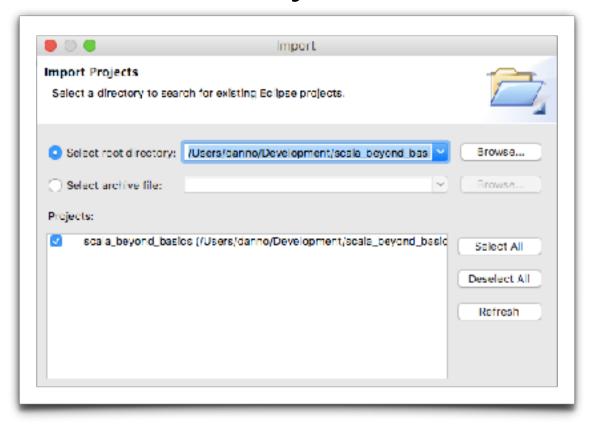
```
sbt:scala_beyond_basics> eclipse
```

Import Existing Project



File > Import Project >
Select Existing Projects Into Workspace > Next

Select Root Directory



Select the Root Directory of the Project using Browse, Ensure that the Project is Found, hit Finish

Project is now ready

```
workspace - Scala - scala, beyond, basics/src/fextiscala.com/ora/scalabeyondbasics/AdvancedPatternMatchimpSpac.scala - Eclipse
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                                                                                               iii bulld.sbt (2 AdvancedPattersMatchingSpec.scala 3)

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    import declarations

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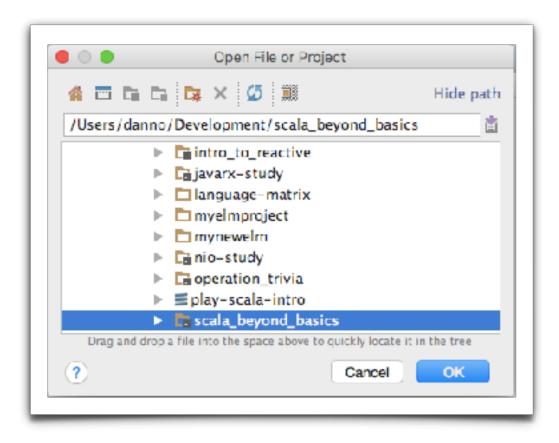
Select the Root Directory of the Project using Browse, Ensure that the Project is Found, hit Finish

Setup for IntelliJ

From IntelliJ Intro Screen, or from the splash screen, select Open



Locate the scala_beyond_basics project and click OK



Project is now ready...

```
AdvancedPatternMetchingSpec.scala - scala_beyond_basics - [-/Development/scala_beyond_basics]
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                                    ② 🕸 💆 🖰 🛠 Advance Pattern Watching Spec. scala × 🕦 Partial Function. class × 👣 Regex. class ×
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                                                           Advanced*etternNetchingSpec
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     F □ .settings
                                                            import org.scalatest.(FunSpec, Matchers)
     ⊩ □ bin

    project

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                                                            import scala.util.matching.Regex

    Imple

             Scale.
                                                           class AdvancedPatternMatchingSpec extends FunSpec with Matchers (
        w best
          w Escala
                                                   10
                                                             describe("Simple Pattern Hatches") (
             * Com ora scalabeyondbasics
                                                                it("can be as simple as an assignment") {
                   AdvancedImplicitsSpec
                                                                  wal a: Int = 40 // a will take on the value of 40
                   AdvancedFatternMatchingSpec
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                                                                  w should be (48)
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        .cache-tests
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        .classpath
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                                                                it("can also be more meaningful as something like a tuple") {
                                                   17
                                                                  val (x, y) = (180, "Foe")

 gitignore

                                                   18
                                                                  x should be (186)
        project ...
                                                   19
                                                                  y should be ("Foo")
        B build,sbt
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                                                                  //Vise a REPL to prove the type
        preregulation..xt
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    file External Libraries

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                                                                it( ""has the ability to have a value rame and an @
                                                                       to not only capture the individual items but the whole item!
                                                   24
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                                                                  val. t9(z, y) = (100, "Foo")
                                                   26
                                                                  x should be(186)
                                                                  y should be ("Foo")
                                                   27
                                                                  t should be((100, "Fee"))
                                                   20
                                                                  //Vee a REPL to prove this it
                                                                  //Change it to an array
                                                   31
   S TODO S 2 Version Control III Terminal
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```

Day 1: Pattern Matching (Live Coding)

Day 2: Implicits and Typeclasses (Live Coding)

Thank You