

**O'REILLY®**

# Scala Programming Fundamentals

## Sealed Traits, Collections, and Functions

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# About Me...

Daniel Hinojosa

Programmer, Developer, Consultant,  
Instructor, and Speaker

## Notable Content:

Testing in Scala (Book)

Beginning Scala Programming (Video)

Java & TDD (Video Training)

Scala Beyond The Basics

Scala Programming Fundamentals Series

## Speaker:

OSCON

No Fluff Just Stuff Tour

DevNexus

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# Other Scala Classes

- Learn the Basics of Scala in 3 hours
- Setting Up Scala Projects
- Scala Beyond the Basics
  - Implicits
  - Pattern matching
- Scala Programming Fundamentals
  - Classes, Methods, Traits
- **Scala Programming Fundamentals**
  - **Sealed, Collections, and Functions**

# 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

# Checklist before we proceed...

- 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 about`
- Be sure that Scala plugins are installed in IntelliJ and Eclipse

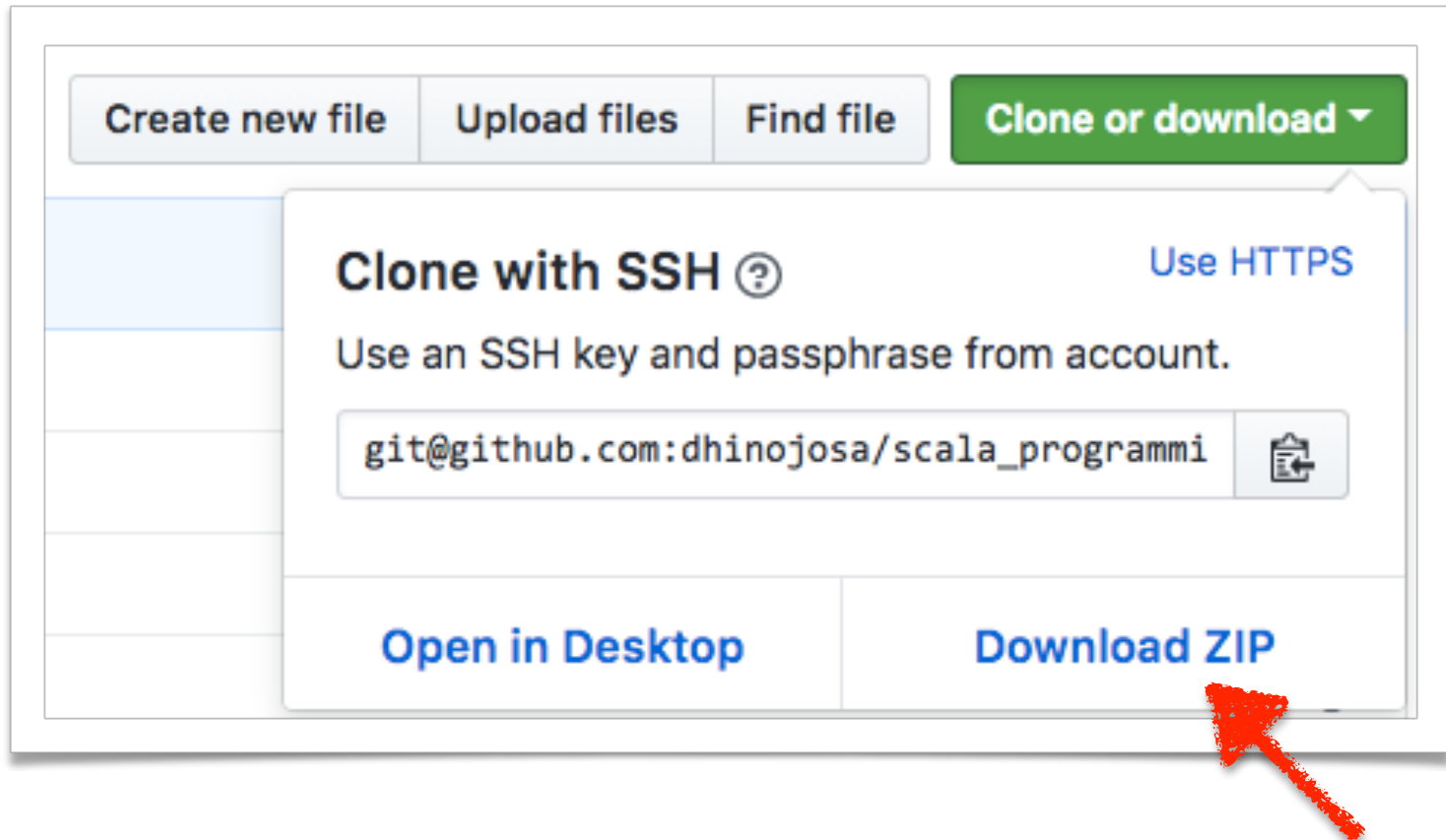
# Repository Location, Clone it!

[https://github.com/dhinojosa/scala\\_programming\\_fundamentals\\_2](https://github.com/dhinojosa/scala_programming_fundamentals_2)

or use the abbreviation...

<https://bit.ly/2lgoOyp>

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





# Once downloaded...Run SBT

```
-----  
~/Development/scala_programming_fundamentals_2(master) » sbt
```

# You should see something like this...

```
-----  
[-/Development/scala_programming_fundamentals_2(master) » sbt  
[info] Loading global plugins from /Users/danno/.sbt/1.0/plugins  
[info] Loading settings from plugins.sbt ...  
[info] Loading project definition from /Users/danno/Development/scala/  
/project  
[info] Loading settings from build.sbt ...  
[info] Set current project to scala_programming_fundamentals_2 (in bu  
opment/scala_programming_fundamentals_2/)  
[info] sbt server started at local:///Users/danno/.sbt/1.0/server/30c  
sbt:scala_programming_fundamentals_2> █
```

# You'll need to update your project...

```
-----  
[~/Development/scala_programming_fundamentals_2(master) » sbt  
[info] Loading global plugins from /Users/danno/.sbt/1.0/plugins  
[info] Loading settings from plugins.sbt ...  
[info] Loading project definition from /Users/danno/Development/scala_programming_fundamentals_2/project  
[info] Loading settings from build.sbt ...  
[info] Set current project to scala_programming_fundamentals_2 (in build file:/Users/danno/Development/scala_programming_fundamentals_2/)  
[info] sbt server started at local:///Users/danno/.sbt/1.0/server/30cfdcd7772580  
[sbt:scala_programming_fundamentals_2> update  
[info] Updating ...  
[info] Done updating.  
[success] Total time: 2 s, completed Mar 29, 2018, 12:59:55 PM  
sbt:scala_programming_fundamentals_2> █
```

# 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_programming_fundamentals_2`  
from  
`https://github.com/dhinojosa/scala\_programming\_fundamentals\_2`
- Run `sbt` at the command line
- Once in the `sbt` console, run `update`
- Wait for the download to complete

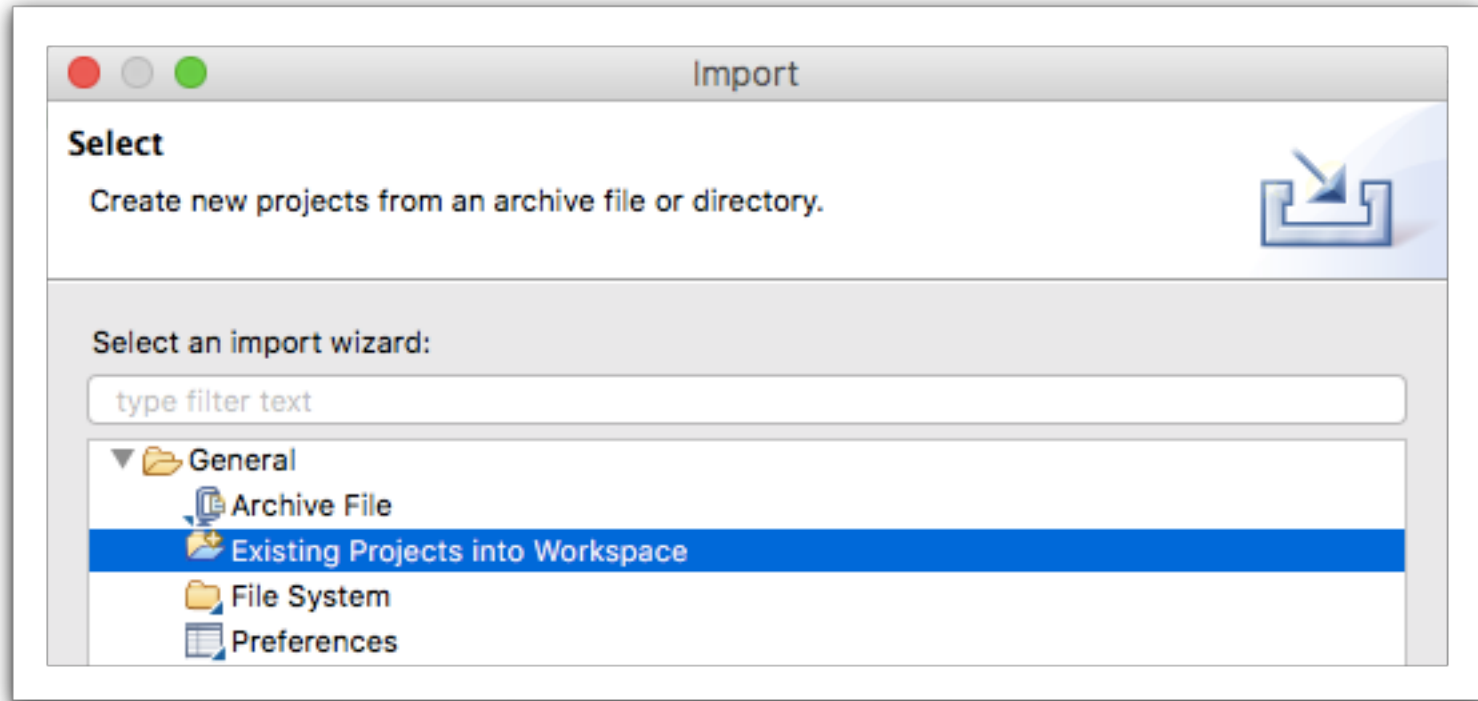
# Setup for Eclipse

# Run the Eclipse Plugin in SBT

```
sbt:scala_programming_fundamentals_2> eclipse
```

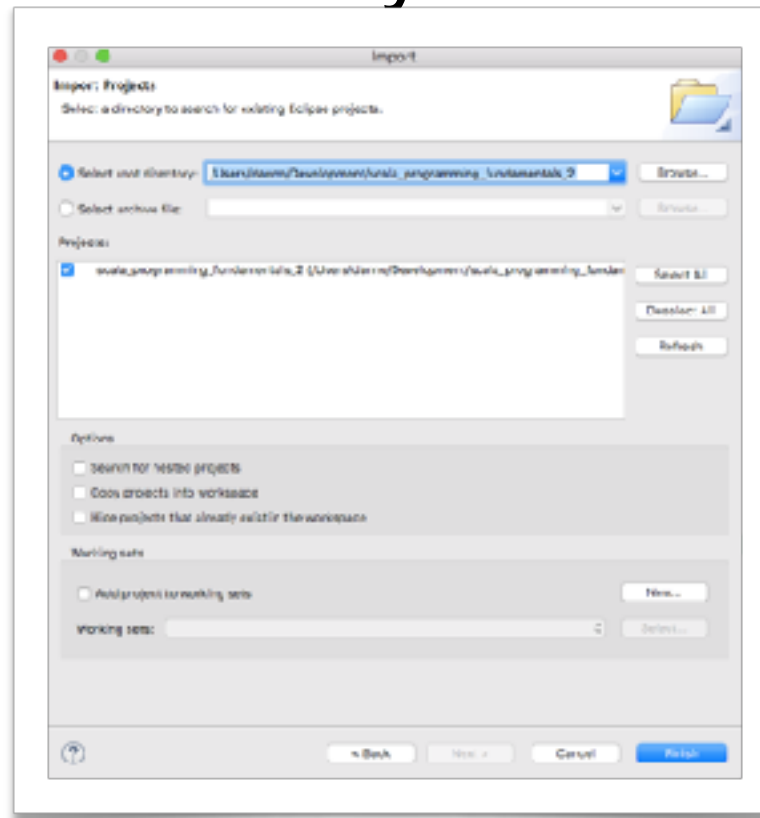


# Import Existing Project



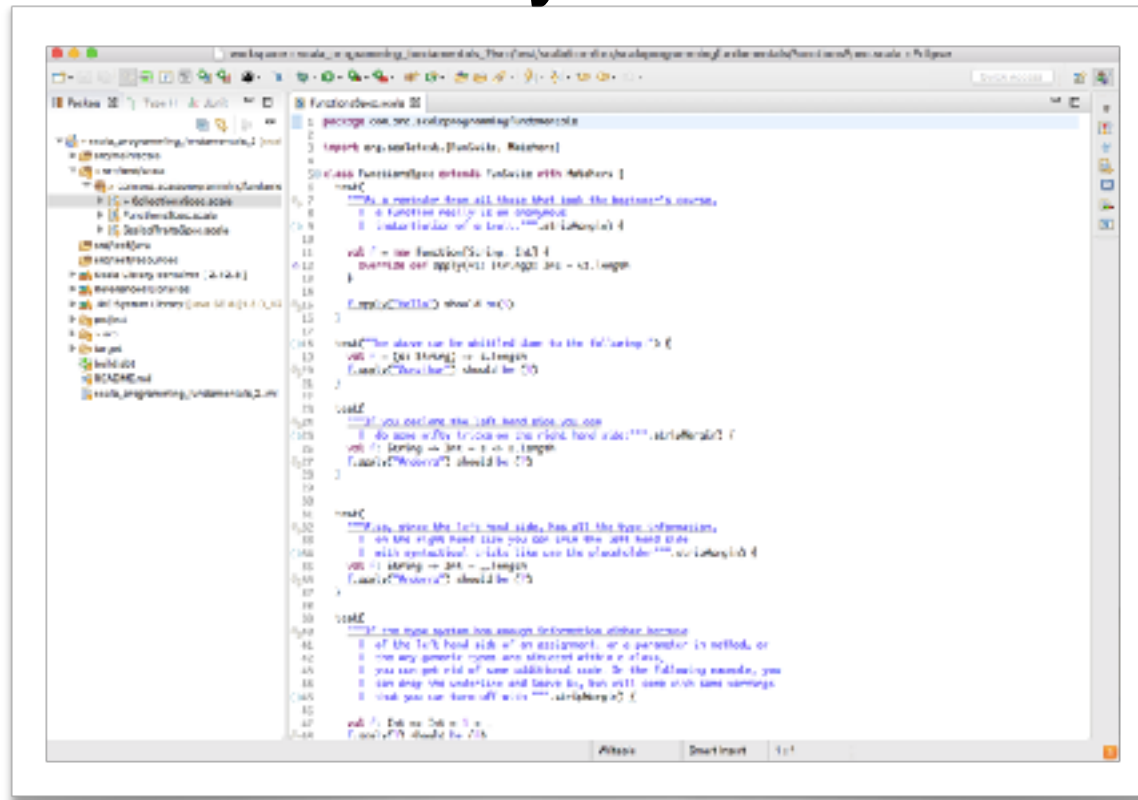
File > Import Project >  
Select Existing Projects Into Workspace > Next

# Select Root Directory



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

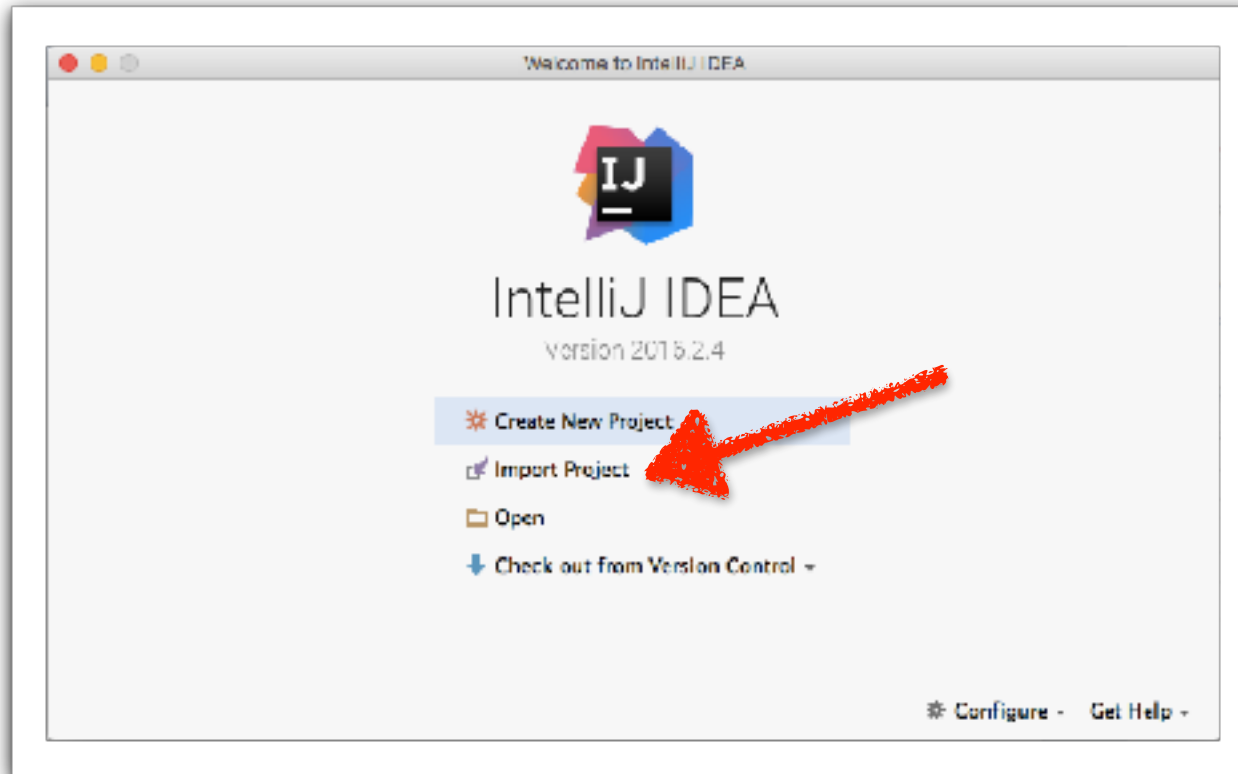
# Project is now ready



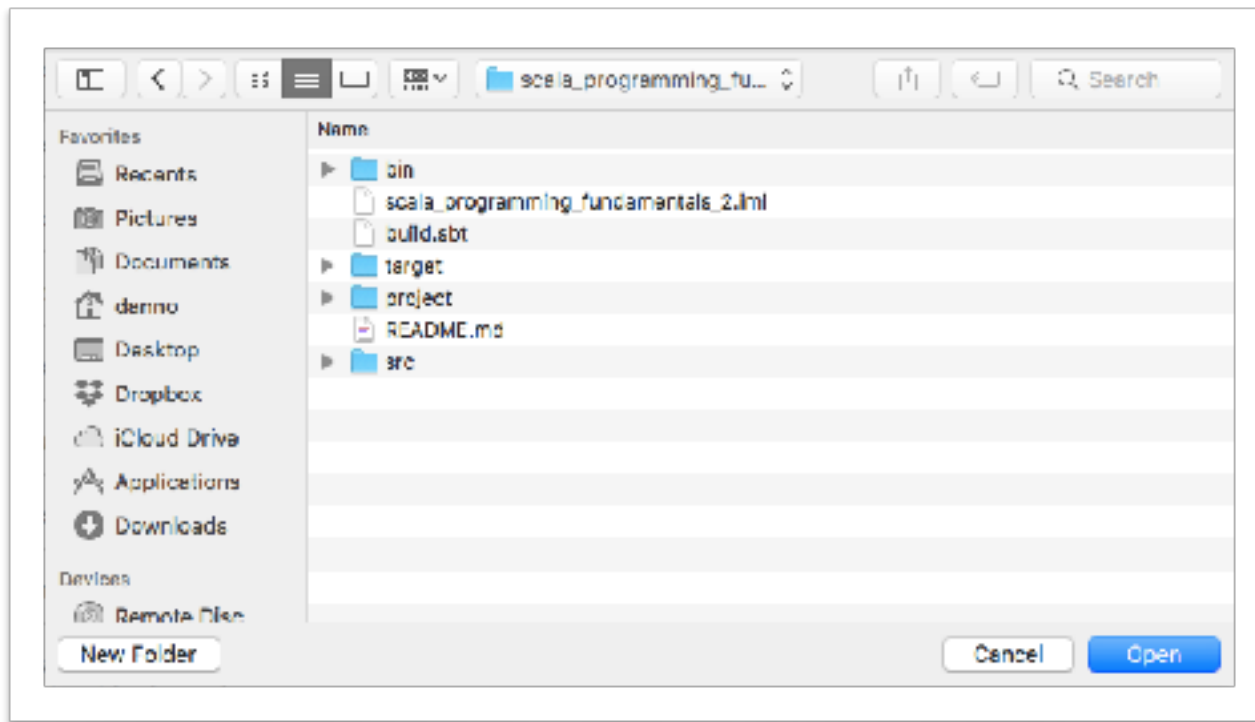
Select the Root Directory of the Project using Browse,  
Ensure that the Project is Found, hit Finish

# Setup for IntelliJ

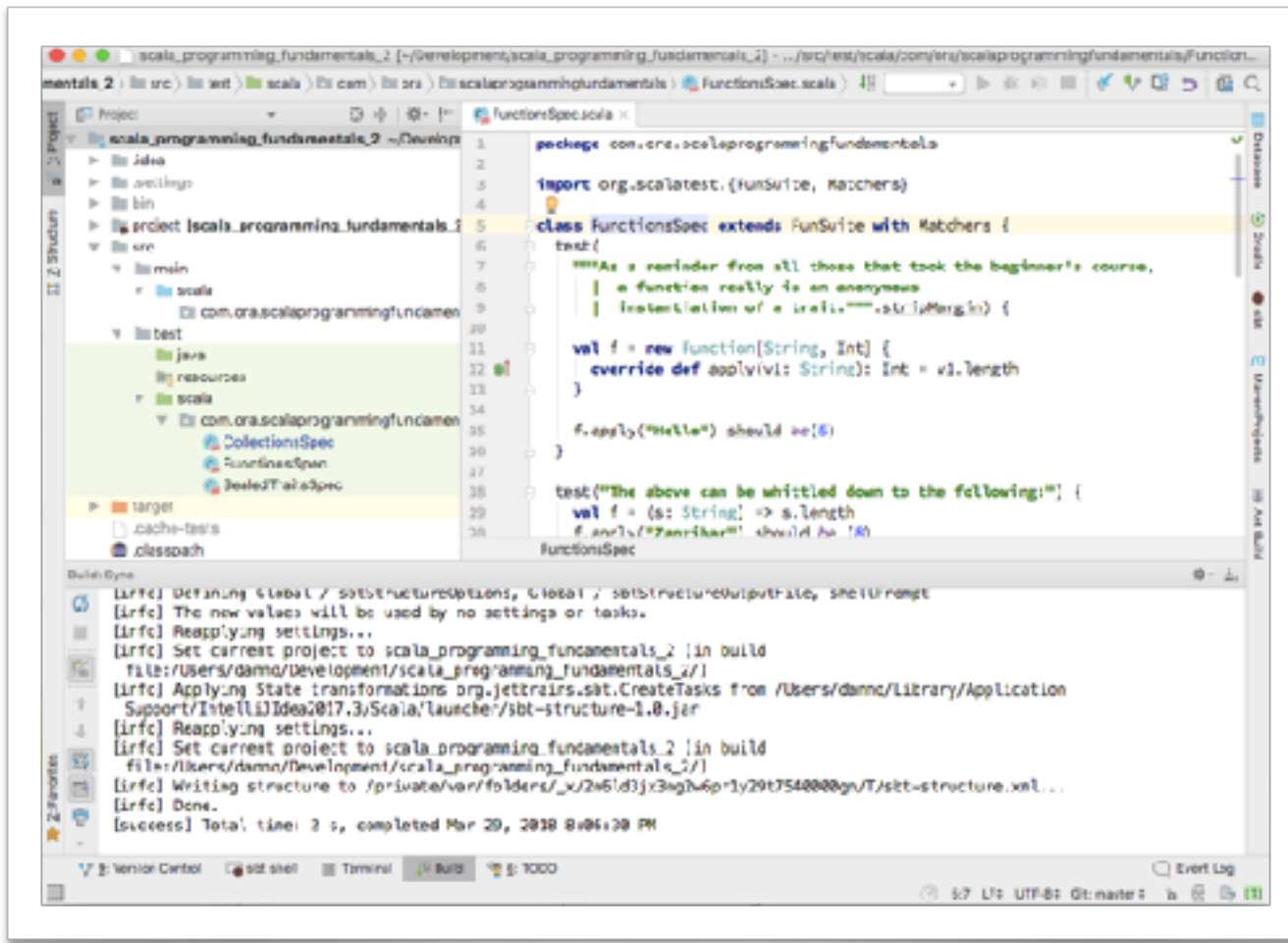
# From IntelliJ Intro Screen, or from the splash screen, select Import Project



Locate the  
scala\_programming\_fundamentals\_2  
project and click OK, accept defaults



# Project is now ready...



# Sealed Traits and Abstract Classes, Collections, and Functions (Live Coding)



# Thank You