



www.PacktPub.com

Resources available



Learning Spring Boot

Greg L. Turnquist



About Me

- Spring team at Pivotal (spring.io)
- Author of Learning Spring Boot (Packt Publishing)
- Lead developer for 10 years on a mission critical, 24x7 system
- Feel free to reach out to me @gregturn or GregLTurnquist.com



Learning Spring Boot

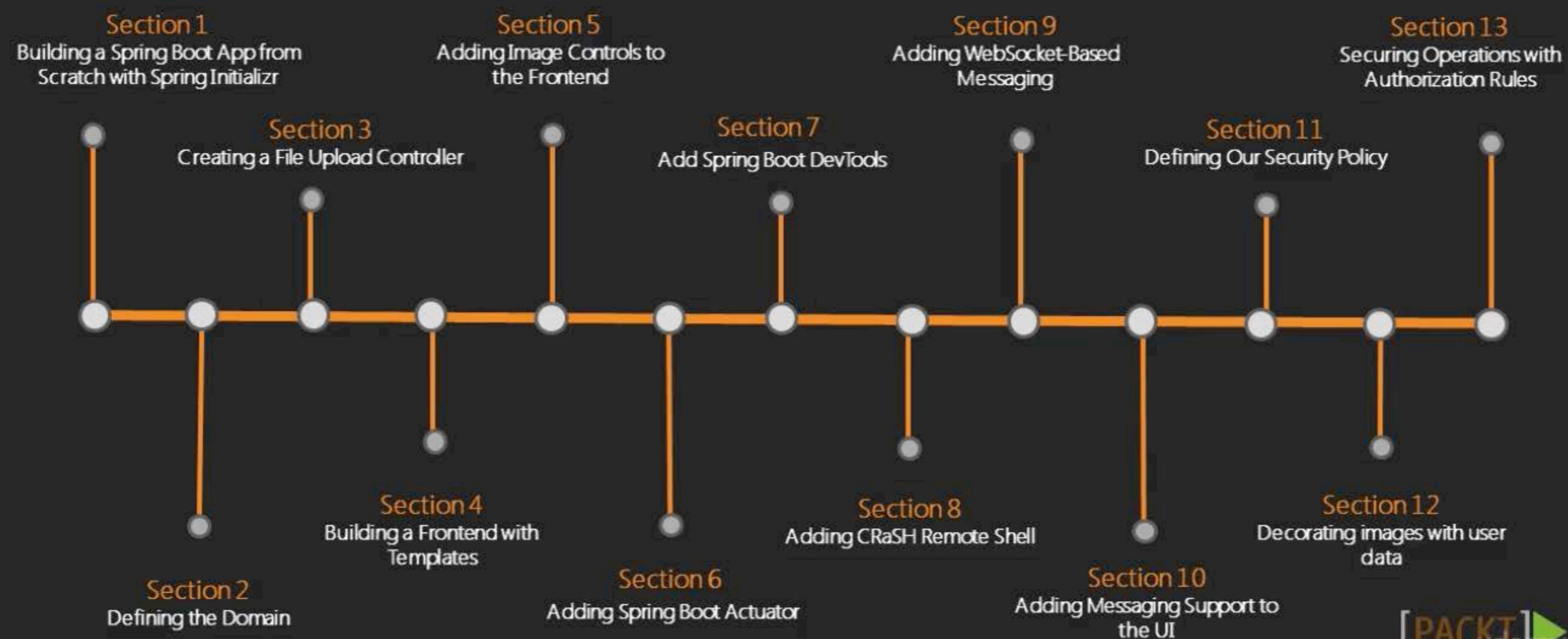
Greg L. Turnquist

Video 1.1

The Course Overview



The Road Map



"Let's begin this journey together"

Greg L. Turnquist

Section 1

*Building a Spring Boot App from
Scratch with Spring Initializr*



In this Section, we are going to take a look at...

- Navigating the Spring Initializr site
- Picking options for our app including persistence, web, security, and more
- Loading our app into our IDE

In this Video, we are going to take a look at...

- Spring Initializr site
- Shortcut options to pick dependencies
- Checking out all the options

SPRING INITIALIZR

bootstrap your application now

Generate a Maven Project with Spring Boot

Project Metadata

Artifact coordinates

Group

com.example

Dependencies

Add Spring Boot Starters and other dependencies

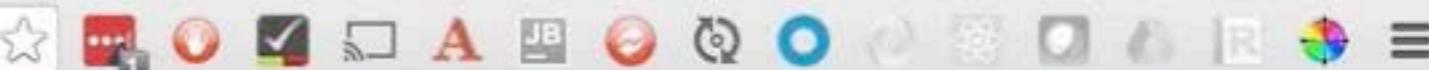
Search for dependencies

Web, Security, JPA, Actuator, etc.

Artifact

demo

Selected Dependencies



SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot 1.3.5

Project Metadata

Artifact coordinates

Group

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Artifact

Selected Dependencies

Generate Project

Don't know what to look for? Want more options? [Switch to the full version.](#)

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group



Artifact

Generate Project

Don't know what to look for? Want more options? [Switch to the full version.](#)

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web

Full-stack web development with Tomcat and Spring MVC

Rest Repositories

Exposing Spring Data repositories over REST via `spring-data-rest-webmvc`

Vaadin

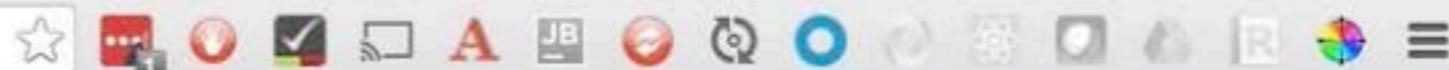
Vaadin

Web Services

Contract-first SOAP service development with Spring Web Services

Jersey (JAX-RS)

the Jersey RESTful Web Services framework



SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group



Artifact

Generate Project

Don't know what to look for? Want more options? [Switch to the full version.](#)

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

MongoDB

MongoDB NoSQL Database, including spring-data-mongodb

Actuator

Production ready features to help you monitor and manage your application

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group

Artifact

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Selected Dependencies

Web MongoDB Security

Generate Project

Don't know what to look for? Want more options? [Switch to the full version.](#)

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Artifact

learning-spring-boot-video

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

Web X

MongoDB X

Security X

Generate Project *

Don't know what to look for? Want more options? [Switch to the full version.](#)



**Generate Project**

Core

 Security

Secure your application via spring-security

 AOP

Aspect-oriented programming including spring-aop and AspectJ

 Atomikos (JTA)

JTA distributed transactions via Atomikos

 Bitronix (JTA)

JTA distributed transactions via Bitronix

 Cache

Spring's Cache abstraction

 DevTools

Spring Boot Development Tools

 Validation

JSR-303 validation infrastructure (already included with web)

 Session

API and implementations for managing a user's session information

 Retry

Web

 Web

Full-stack web development with Tomcat and Spring MVC

 Websocket

Websocket development with SockJS and STOMP

 Web Services

Contract-first SOAP service development with Spring Web Services

 Jersey (JAX-RS)

the Jersey RESTful Web Services framework

 Ratpack

Spring Boot integration for the Ratpack framework

 Vaadin

Vaadin

 Rest Repositories

Exposing Spring Data repositories over REST via spring-data-rest-webmvc

 HATEOAS

HATEOAS-based RESTful services

 Rest Repositories HAL Browser

NoSQL

MongoDB

MongoDB NoSQL Database, including spring-data-mongodb

Cassandra

Cassandra NoSQL Database, including spring-data-cassandra

Redis

REDIS key-value data store, including spring-redis

Gemfire

GemFire distributed data store including spring-data-gemfire

Solr

Apache Solr search platform, including spring-data-solr

Elasticsearch

Elasticsearch search and analytics engine including spring-data-elasticsearch

Cloud Core

Cloud Connectors

Simplifies connecting to services in cloud platforms, including spring-cloud-connector and spring-cloud-cloudfoundry-connector

Cloud Bootstrap

spring-cloud-context (e.g. Bootstrap context and @RefreshScope)

Cloud Security

Secure load balancing and routing with spring-cloud-security

Cloud OAuth2

OAuth2 and distributed application patterns with spring-cloud-security



Cloud Config

Config Client

spring-cloud-config Client

Config Server

Central management for configuration via a git or svn backend

Zookeeper Configuration

Configuration management with Zookeeper and spring-cloud-zookeeper-config

Consul Configuration

Configuration management with Hashicorp Consul

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot 1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Artifact

learning-spring-boot-video

Selected Dependencies

Web X MongoDB X Security X

Generate Project ⌘ + ↵

Don't know what to look for? Want more options? [Switch to the full version.](#)

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot 1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Artifact

learning-spring-boot-video

Selected Dependencies

Web X

MongoDB X

Security X

Generate Project

Don't know what to look for? Want more options? [Switch to the full version.](#)

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Artifact

learning-spring-boot-video

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

Web

MongoDB

Security

Generate Project ⌘ + ↵

Don't know what to look for? Want more options? [Switch to the full version.](#)

start.spring.io is powered by [Spring Initializr](#) and [Pivotal Web Services](#)

Next Video

Picking Options for the App

Learning Spring Boot

Greg L. Turnquist

Video 1.3

Picking Options for the App



0:02 / 6:34

In this Video, we are going to take a look at...

- Picking our data persistence solution
- Selecting our web template engine
- Adding production-grade features
- Fitting our project with security

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot 1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Artifact

learning-spring-boot-video

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

jpa

JPA

Java Persistence API including spring-data-jpa, spring-orm and

Hibernate

Generate Project *

Don't know what to look for? Want more options? [Switch to the full version.](#)

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Artifact

learning-spring-boot-video

Selected Dependencies

JPA

Generate Project *

Don't know what to look for? Want more options? [Switch to the full version.](#)

Picking Options for Our App

Spring Initializr

Section 1, Lecture 3

Go to Greg's Dashboard

start.spring.io

SPRING INITIALIZR bootstrap your application now

Generate a Gradle Project with Spring Boot 1.3.5

Project Metadata

Artifact coordinates

Group: com.greglturnquist.learningspringboot

Artifact: learning-spring-boot-video

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies: h2

H2
H2 database (with embedded support)

Generate Project

Don't know what to look for? Want more options? [Switch to the full version.](#)

start.spring.io is powered by Spring Initializr and Pivotal Web Services

2:04 / 6:34

Spring Initializr Greg.L.Turnqui...

start.spring.io

Package Name
com.greglturnquist.learningspringboot

Packaging
Jar

Java Version
1.8

Language
Java

Too many options? [Switch back to the simple version.](#)

Generate Project

Core

Security
Secure your application via spring-security

AOP
Aspect-oriented programming including spring-aop and AspectJ

Atomikos (JTA)
JTA distributed transactions via Atomikos

Web

Web
Full-stack web development with Tomcat and Spring MVC

Websocket
Websocket development with SockJS and STOMP

Web Services
Contract-first SOAP service development with Spring Web Services

[PACKT] VIDEO

Template Engines

- Freemarker**
FreeMarker templating engine
- Velocity**
Velocity templating engine
- Groovy Templates**
Groovy templating engine
- Thymeleaf**
Thymeleaf templating engine, including integration with Spring
- Mustache**
Mustache templating engine

SQL

- JPA**
Java Persistence API including spring-data-jpa, spring-orm and Hibernate
- JOOQ**
Persistence support using Java Object Oriented Querying
- JDBC**
JDBC databases
- H2**
H2 database (with embedded support)
- HSQLDB**
HSQLDB database (with embedded support)
- Apache Derby**
Apache Derby database (with embedded support)
- MySQL**
MySQL jdbc driver
- PostgreSQL**
PostgreSQL jdbc driver

Spring Initializr Greg.L.Turnqui...

start.spring.io

Template Engines

- Freemarker
FreeMarker templating engine
- Velocity
Velocity templating engine
- Groovy Templates
Groovy templating engine
- Thymeleaf
Thymeleaf templating engine, including integration with Spring
- Mustache
Mustache templating engine

SQL

- JPA
Java Persistence API including spring-data-jpa, spring-orm and Hibernate
- JOOQ
Persistence support using Java Object Oriented Querying
- JDBC
JDBC databases
- H2
H2 database (with embedded support)
- HSQLDB
HSQLDB database (with embedded support)
- Apache Derby
Apache Derby database (with embedded support)
- MySQL
MySQL jdbc driver
- PostgreSQL
PostgreSQL jdbc driver

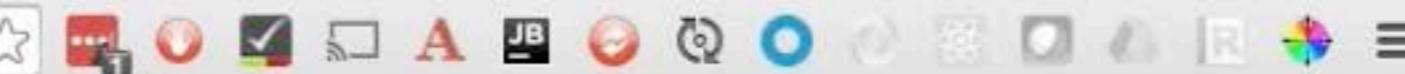
NoSQL

- MongoDB
MongoDB NoSQL Database, including spring-data-mongodb

Cloud Core

- Cloud Connectors
Simplifies connecting to services in cloud platforms, including spring-cloud-D E O

[PACKT] ▶

 JMS (Artemis)

Java Message Service API via Apache Artemis

 JMS (HornetQ)

Java Message Service API via HornetQ

 AMQP

Advanced Message Queuing Protocol via spring-rabbit

 Mail

javax.mail

Ops

 Actuator

Production ready features to help you monitor and manage your application

 Actuator Docs

API documentation for the Actuator endpoints

 Remote Shell

CRaSH shell integration

[Generate Project](#)

start.spring.io

 AOP

Aspect-oriented programming including spring-aop and AspectJ

 Atomikos (JTA)

JTA distributed transactions via Atomikos

 Bitronix (JTA)

JTA distributed transactions via Bitronix

 Cache

Spring's Cache abstraction

 DevTools

Spring Boot Development Tools

 Validation

JSR-303 validation infrastructure (already included with web)

 Session

API and implementations for managing a user's session information

 Retry

Provide declarative retry support via spring-retry

 Lombok

Java annotation library which help to reduce boilerplate code and code faster

 WebSocket

WebSocket development with SockJS and STOMP

 Web Services

Contract-first SOAP service development with Spring Web Services

 Jersey (JAX-RS)

the Jersey RESTful Web Services framework

 Ratpack

Spring Boot integration for the Ratpack framework

 Vaadin

Vaadin

 Rest Repositories

Exposing Spring Data repositories over REST via spring-data-rest-webmvc

 HATEOAS

HATEOAS-based RESTful services

 Rest Repositories HAL Browser

Browsing Spring Data REST repositories with an HTML UI

 Mobile

Simplify the development of mobile web applications with spring-mobile

 REST Docs

Document RESTful services by combining hand-written and auto-generated documentation



Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Artifact

learning-spring-boot-video

Name

learning-spring-boot-video

Description

Demo project for Spring Boot

Package Name

com.greglturnquist.learningspringboot

Packaging

Jar

Java Version

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

security

Security

Secure your application via spring-security

Cloud Security

Secure load balancing and routing with spring-cloud-security

Cloud OAuth2

OAuth2 and distributed application patterns with spring-cloud-security

Spring Initializr Greg.L.Turnqui...

start.spring.io

Packaging
Jar

Java Version
1.8

Language
Java

Too many options? [Switch back to the simple version.](#)

[Generate Project](#)

Core

Security
Secure your application via spring-security

AOP
Aspect-oriented programming including spring-aop and AspectJ

Atomikos (JTA)
JTA distributed transactions via Atomikos

Bitronix (JTA)
JTA distributed transactions via Bitronix

Cache

Web

Web
Full-stack web development with Tomcat and Spring MVC

Websocket
Websocket development with SockJS and STOMP

Web Services
Contract-first SOAP service development with Spring Web Services

Jersey (JAX-RS)
the Jersey RESTful Web Services framework

Ratpack

[PACKT] VIDEO

Spring Initializr Greg.L.Turnqui...

Packaging

Jar

Java Version

1.8

Language

Java

Too many options? [Switch back to the simple version.](#)

 [Download](#)

Generate Project

Web

Security
Secure your application via spring-security

AOP
Aspect-oriented programming including spring-aop and AspectJ

Atomikos (JTA)
JTA distributed transactions via Atomikos

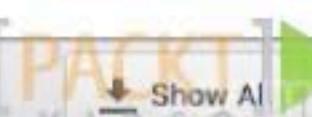
Bitronix (JTA)
JTA distributed transactions via Bitronix

Web
Full-stack web development with Tomcat and Spring MVC

Websocket
Websocket development with SockJS and STOMP

Web Services
Contract-first SOAP service development with Spring Web Services

Jersey (JAX-RS)
the Java RESTful Web Services framework

 Show All

Next Video

Unpacking and Importing the
Bundled App into Our IDE

Learning Spring Boot

Greg L. Turnquist

Video 1.4

Unpacking and Importing the Bundled App into Our IDE



In this Video, we are going to take a look at...

- Unpacking the downloaded artifact
- Importing it into your IDE
- Inspecting the results

SPRING INITIALIZR

bootstrap your application now

Generate a Gradle Project with Spring Boot

1.3.5

Project Metadata

Artifact coordinates

Group

com.greglturnquist.learningspringboot

Artifact

learning-spring-boot-video

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

JPA ×

H2 ×

Thymeleaf ×

Actuator ×

DevTools ×

Remote Shell ×

Generate Project ⌘ + ↵

Don't know what to look for? Want more options? [Switch to the full version.](#)

File Manager					
		Name	Date Modified	Size	Kind
Applications	learning-spring-boot-video.zip		Today, 10:46 PM	57 KB	ZIP archive
		Clarksville Christian Writers - Summer 2016.jpg	Yesterday, 11:41 AM	479 KB	JPEG image
		off-to-war-preview (5).pdf	May 27, 2016, 9:26 AM	1.6 MB	PDF Document
		off-to-war-sample-preview.pdf	May 27, 2016, 9:26 AM	1.6 MB	PDF Document
		cover.jpg	May 26, 2016, 8:46 PM	701 KB	JPEG image
		cover.png	May 26, 2016, 8:45 PM	5.2 MB	PNG image
		IMG_4491.JPG	May 26, 2016, 8:36 PM	2 MB	JPEG image
		schedule.jpg	May 26, 2016, 1:49 PM	79 KB	JPEG image
		Hyatt_Regency_Santa_Clara_Greg_Turnquist_16946164_1.pdf	May 26, 2016, 1:44 PM	34 KB	PDF Document
		Screen Shot 2016-05-24 at 2.07.30 PM.png	May 24, 2016, 8:09 AM	1.2 MB	PNG image
		cf-lego.jpg	May 24, 2016, 8:03 AM	1.2 MB	JPEG image
		ucblogo-6.0	May 21, 2016, 9:24 AM	--	Folder
		off-to-war-preview (4).pdf	May 20, 2016, 7:53 PM	1.6 MB	PDF Document
		Greg's logo.jpg	May 20, 2016, 11:51 AM	409 KB	JPEG image
		logos-and-badges_f-logo_online	May 20, 2016, 11:48 AM	--	Folder
		logos-and-badges_f-logo_online.zip	May 20, 2016, 11:48 AM	1.2 MB	ZIP archive
		brand guideline logos	May 20, 2016, 11:31 AM	--	Folder
		brand_guideline_logos_0.zip	May 20, 2016, 11:31 AM	499 KB	ZIP archive
		openstack.png	May 19, 2016, 11:34 AM	4 KB	PNG image
		Muted.m4a	May 19, 2016, 11:11 AM	34 KB	Apple...4 audio
		Scrivener-2.app	May 18, 2016, 10:25 AM	169.1 MB	Application
		Scrivener.app	May 18, 2016, 10:25 AM	169.1 MB	Application
		doctor-strange-02-03.jpg	May 17, 2016, 12:13 AM	242 KB	JPEG image
		SwitchResX4.zip	May 16, 2016, 11:08 PM	4 MB	ZIP archive
		Contract_Last Name_Booktitle.docx	May 13, 2016, 7:40 PM	34 KB	Micros...ument
		fd6cddd7d404-HOPE_IN_CRIPPLE_CREEK_TURNQUIST.doc	May 13, 2016, 7:40 PM	561 KB	Word
		cpt-obvious.jpg	May 13, 2016, 2:53 PM	48 KB	JPEG image
		Off-to-War-Cover-1.jpg	May 13, 2016, 2:18 PM	1.5 MB	JPEG image
		Williams Bally repair guide.pdf	May 13, 2016, 12:50 PM	3.5 MB	PDF Document
		pinball-at-raventools.mp4	May 12, 2016, 11:22 PM	815 KB	MPEG-4 movie
		UCBLogo-6.0.dmg	May 12, 2016, 3:52 PM	41.9 MB	Disk Image
		droids.jpg	May 10, 2016, 5:04 PM	60 KB	JPEG image
		learning-spring-boot-2nd-edition-mock.jpg	May 10, 2016, 4:25 PM	1.2 MB	JPEG image
		3021OS_Learning-Spring-Boot.png	May 10, 2016, 4:08 PM	162 KB	PNG image
		1	May 7, 2016, 11:51 PM	55 KB	ZIP archive

IntelliJ IDEA

72% Sun 10:47 PM Greg Turnquist

1.4.pptx

Search in Presentation

Home Themes Tables Charts SmartArt Transitions Animations Slide Show Review

Slides Layout New Slide Section

Font Paragraph Insert Format Slide Show

Welcome to IntelliJ IDEA

Play

Slides Outline

1

2

3

4

IntelliJ IDEA Version 15.0.2

Create New Project Import Project Open Check out from Version Control

Register Configure Get Help

Click to add notes

Normal View

Slide 1 of 4 68%

Amazon App Store Calendar Google Drive Photos Maps Books Clock Safari Chrome Help IntelliJ IDEA

IntelliJ IDEA Sun 10:47 PM Greg Turnquist

1.4.pptx 68% Search in Presentation

Home Themes Tables Charts Smart Slides Layout Section New Slide Slides Outline

Select File or Directory to Import

Select directory with **existing sources**,
Maven project file (pom.xml),
Bnd/Bndtools workspace (workspace/cnf),
Gradle build script (*.gradle).

Insert Format Slide Show

ge Quick Styles Play

Slides

1

2

3

4

Register

Click to add notes

Configure Get Help

Normal View

Slide 1 of 4 68%

1.4.pptx

Users/gturnquist/Downloads/learning-spring-boot-video

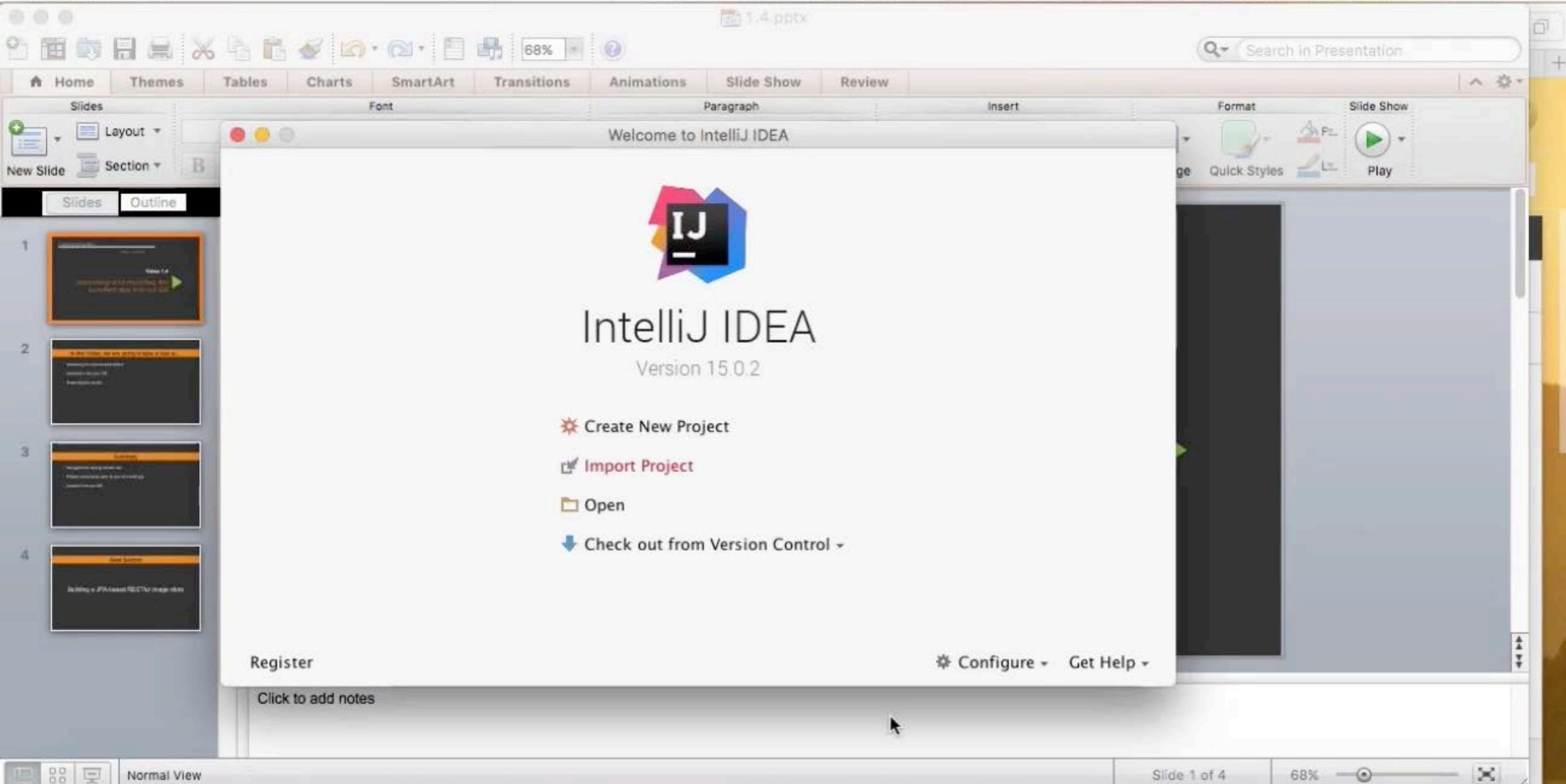
- ▼ Downloads
 - ▶ accesspress-lite-2-45-7
 - ▶ brand guideline logos
 - ▶ DE_TRIPP, TAWONZA
 - ▶ etc
 - ▶ FormOfPayment
 - ▶ hal-browser-9f96c74d66d53f65a98e8cad22
 - ▶ jenkins
 - ▶ learning-spring-boot-video
 - ▶ gradle
 - ▶ src
 - ▶ build.gradle
 - ▶ gradlew
 - ▶ gradlew.bat
 - ▶ logos-and-badges_f-logo_online
 - ▶ opt
 - ▶ Pivotal_Logos

Drag and drop a file into the space above to quickly locate it in the tree

?

Cancel OK

This screenshot shows the IntelliJ IDEA interface with a presentation slide import dialog open. The dialog is titled 'Select File or Directory to Import' and instructs the user to select a directory containing existing sources, specifically Maven project files (pom.xml), Bnd/Bndtools workspace files (workspace/cnf), or Gradle build scripts (*.gradle). The path 'Users/gturnquist/Downloads/learning-spring-boot-video' is selected in the file browser. The file browser shows a tree view of the directory structure, including subfolders like 'Downloads', 'jenkins', and 'learning-spring-boot-video', and files like 'build.gradle', 'gradlew', and 'gradlew.bat'. The IntelliJ IDEA UI includes a navigation bar with tabs like Home, Themes, Tables, Charts, Smart, Slides, Layout, and Section; a toolbar with icons for creating new slides, tables, charts, and smart objects; and a status bar at the bottom showing the current slide number (1 of 4) and zoom level (68%). The main workspace displays four slides, each showing a different step in a Spring Boot video tutorial.





Import Project

Create project from existing sources

Import project from external model

Gradle

Maven

Cancel Previous Finish

This window is titled 'Import Project'. It contains two main sections: 'Create project from existing sources' and 'Import project from external model'. Under 'Import project from external model', 'Gradle' is selected, indicated by a blue highlight. Below this are 'm Maven' and other options like 'Prc' and 'C'. At the bottom of the window are 'Cancel', 'Previous', and 'Finish' buttons. The background of the main workspace shows a presentation slide deck with four slides numbered 1 through 4.





Import Project

Gradle project:

/Users/gturnquist/Downloads/learning-spring-boot-video/build.gradle

Use auto-import

Create directories for empty content roots automatically

Use default gradle wrapper (recommended)

Use customizable gradle wrapper

Use local gradle distribution

Gradle wrapper customization in script, works with Gradle 1.7 or later

Gradle home:

1.8 (java version "1.8.0_51", path: /Library/Java/JavaVirtual...dk1.8.0_51.jdk/Contents/Home)

Project format:

.idea (directory based)

Global Gradle settings

Cancel Previous Finish





learning-spring-boot-video - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

Project Packages + ⚙ ?

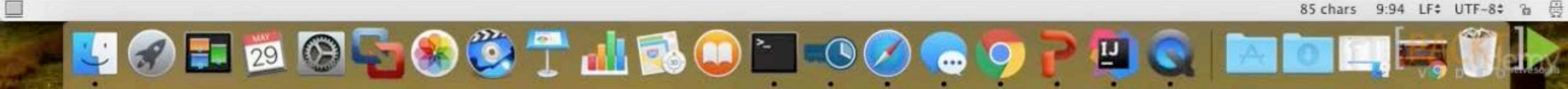
learning-spring-boot-video (~/Downloads/learning-spring-boot-video)

.idea gradle src build.gradle gradlew gradlew.bat External Libraries

learning-spring-boot-video x

You can configure Gradle wrapper to use distribution with sources. It will provide IDE with Gradle API/DSL... [Hide the tip](#) [Ok, apply suggestion!](#)

```
1 buildscript {  
2     ext {  
3         springBootVersion = '1.3.5.RELEASE'  
4     }  
5     repositories {  
6         mavenCentral()  
7     }  
8     dependencies {  
9         classpath("org.springframework.boot:spring-boot-gradle-plugin:${springBootVersion}")  
10    }  
11}  
12  
13     apply plugin: 'java'  
14     apply plugin: 'eclipse'  
15     apply plugin: 'spring-boot'  
16  
17     jar {  
18         basePath = 'learning-spring-boot-video'  
19         version = '0.0.1-SNAPSHOT'  
20     }  
21     sourceCompatibility = 1.8  
22     targetCompatibility = 1.8  
23  
24     repositories {  
25         mavenCentral()  
26     }  
27  
28     dependencies {  
29         compile('org.springframework.boot:spring-boot-starter-actuator')  
30         compile('org.springframework.boot:spring-boot-starter-data-jpa')  
31     }
```



learning-spring-boot-video - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

learning-spring-boot-video build.gradle

Project Packages + ⚙ ?

learning-spring-boot-video (~/Downloads/learning-spring-boot-video)

- .idea
- gradle
- src
- build.gradle
- gradlew
- gradlew.bat

External Libraries

learning-spring-boot-video x

You can configure Gradle wrapper to use distribution with sources. It will provide IDE with Gradle API/DSL... [Hide the tip](#) [Ok, apply suggestion!](#)

```
15 apply plugin: 'spring-boot'  
16  
17 jar {  
18     baseName = 'learning-spring-boot-video'  
19     version = '0.0.1-SNAPSHOT'  
20 }  
21 sourceCompatibility = 1.8  
22 targetCompatibility = 1.8  
23  
24 repositories {  
25     mavenCentral()  
26 }  
27  
28  
29 dependencies {  
30     compile('org.springframework.boot:spring-boot-starter-actuator')  
31     compile('org.springframework.boot:spring-boot-starter-data-jpa')  
32     compile('org.springframework.boot:spring-boot-devtools')  
33     compile('org.springframework.boot:spring-boot-starter-remote-shell')  
34     compile('org.springframework.boot:spring-boot-starter-thymeleaf')  
35     runtime('com.h2database:h2')  
36     testCompile('org.springframework.boot:spring-boot-starter-test')  
37 }  
38  
39  
40 eclipse {  
41     classpath {  
42         containers.remove('org.eclipse.jdt.launching.JRE_CONTAINER')  
43         containers 'org.eclipse.jdt.launching.JRE_CONTAINER/org.eclipse.jdt.internal.debug.ui.launcher.StandardVMType/JavaSE-1.8'  
44     }  
45 }
```



learning-spring-boot-video - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

learning-spring-boot-video build.gradle

Project Packages Project Files Problems

Gradle: org.springframework.boot:spring-boot-starter-data-jpa:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-jdbc:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-logging:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-remote-shell:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-test:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-thymeleaf:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-tomcat:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-validation:1.3.3.RELEASE
Gradle: org.springframework.boot:spring-boot-starter-web:1.3.3.RELEASE
Gradle: org.springframework.data:spring-data-commons:1.11.4.RELEASE
Gradle: org.springframework.data:spring-data-jpa:1.9.4.RELEASE
Gradle: org.springframework:spring-aop:4.2.5.RELEASE
Gradle: org.springframework:spring-aspects:4.2.5.RELEASE
Gradle: org.springframework:spring-beans:4.2.5.RELEASE
Gradle: org.springframework:spring-context:4.2.5.RELEASE
Gradle: org.springframework:spring-core:4.2.5.RELEASE
Gradle: org.springframework:spring-expression:4.2.5.RELEASE
Gradle: org.springframework:spring-jdbc:4.2.5.RELEASE
Gradle: org.springframework:spring-orm:4.2.5.RELEASE
Gradle: org.springframework:spring-test:4.2.5.RELEASE
Gradle: org.springframework:spring-tx:4.2.5.RELEASE
Gradle: org.springframework:spring-web:4.2.5.RELEASE
Gradle: org.springframework:spring-webmvc:4.2.5.RELEASE
Gradle: org.thymeleaf:thymeleaf:2.1.4.RELEASE
Gradle: org.thymeleaf:thymeleaf-spring4:2.1.4.RELEASE
Gradle: org.unescape:unescape:1.1.0.RELEASE

learning-spring-boot-video x

You can configure Gradle wrapper to us... Hide the tip Ok, apply suggestion!

```
buildscript {  
    ext {  
        springBootVersion = '1.3.3.RELEASE'  
    }  
    repositories {  
        mavenCentral()  
    }  
    dependencies {  
        classpath("org.springframework.boot:spring-boot-gradle-pl  
    }  
  
    apply plugin: 'java'  
    apply plugin: 'eclipse'  
    apply plugin: 'spring-boot'  
  
    jar {  
        baseName = 'learning-spring-boot-video'  
        version = '0.0.1-SNAPSHOT'  
    }  
    sourceCompatibility = 1.8  
    targetCompatibility = 1.8  
  
    repositories {  
        mavenCentral()  
    }  
  
    dependencies {  
        compile('org.springframework.boot:spring-boot-starter-actuator')  
        compile('org.springframework.boot:spring-boot-starter-data-jp  
    }
```



J LearningSpringBootVideoApplication.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

learning-spring-boot-video src main java com gregturnquist learningspringboot LearningSpringBootVideoApplication

Project Packages + - ?

learning-spring-boot-video (~/Downloads/lea)

- .idea
- gradle
- src
 - main
 - java
 - com.gregturnquist.learningspringbo
- LearningSpringBootVideoApplication.java
- resources
- test
- build.gradle
- gradlew
- gradlew.bat
- learning-spring-boot-video.iml

Z: Structure

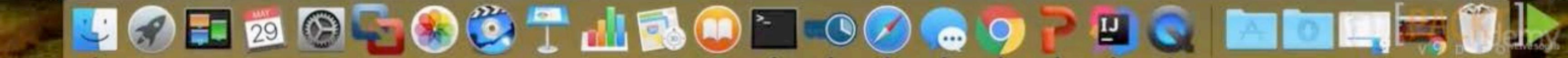
Maven Projects

Database

Grade

Bean Validation

```
1 package com.gregturnquist.learningspringboot;
2
3 import ...
4
5 @SpringBootApplication
6 public class LearningSpringBootVideoApplication {
7
8     public static void main(String[] args) {
9         SpringApplication.run(LearningSpringBootVideoApplication.class, args);
10    }
11 }
12
13 }
```



J LearningSpringBootVideoApplicationTests.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

learning-spring-boot-video src test java com gregturnquist learningspringboot LearningSpringBootVideoApplicationTests

Project Packages

learning-spring-boot-video (~/Downloads/learning) .idea gradle src main java com.gregturnquist.learningspringboot LearningSpringBootVideoApplication resources test java com.gregturnquist.learningspringboot LearningSpringBootVideoApplication

build.gradle gradlew gradlew.bat learning-spring-boot-video.iml External Libraries

```
1 package com.gregturnquist.learningspringboot;
2
3 import ...
4
5 @RunWith(SpringJUnit4ClassRunner.class)
6 @SpringApplicationConfiguration(classes = LearningSpringBootVideoApplication.class)
7 @WebAppConfiguration
8
9 public class LearningSpringBootVideoApplicationTests {
10
11     @Test
12     public void contextLoads() {
13
14     }
15
16 }
17
18
19 }
```



J LearningSpringBootVideoApplicationTests.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

learning-spring-boot-video src test

Project Packages Le

learning-spring-boot-video (~/Downloads/learning-spring-boot-video)

- .idea
- gradle
- src
 - main
 - java
 - com.greglturnquist.learningspringboot
 - LearningSpringBootVideoApplication
 - resources
 - test
 - java
 - com.greglturnquist.learningspringboot
 - LearningSpringBootVideoApplication
- build.gradle
- gradlew
- gradlew.bat
- learning-spring-boot-video.iml
- External Libraries

Delete

Delete directory "test"?
All files and subdirectories in "test" will be deleted.
You might not be able to fully undo this operation!

Cancel Delete

```
1
2
3
8
9 @RunWith(SpringJUnit4ClassRunner.class)
10 @SpringApplicationConfiguration(classes = LearningSpringBootVideoApplication.class)
11 @WebAppConfiguration
12 public class LearningSpringBootVideoApplicationTests {
13
14     @Test
15     public void contextLoads() {
16
17
18
19 }
```





learning-spring-boot-video src

Project Packages

learning-spring-boot-video (~/Downloads/learning)

- .idea
- gradle
- src
 - main
 - java
 - com.greglturnquist.learningspringboot
 - LearningSpringBootVideoApplication
 - resources

build.gradle

gradlew

gradlew.bat

learning-spring-boot-video.iml

External Libraries

LearningSpringBootVideoApplication.java

```
1 package com.greglturnquist.learningspringboot;
2
3 import ...
4
5
6 @SpringBootApplication
7 public class LearningSpringBootVideoApplication {
8
9     public static void main(String[] args) {
10         SpringApplication.run(LearningSpringBootVideoApplication.class, args);
11     }
12 }
13
```

Maven Projects

Database

Gradle

Bean Validation

2: Favorites

Terminal Application Servers

6: TODO

Event Log

38 chars, 3 lines 16:8 LF UTF-8



J LearningSpringBootVideoApplicationTests.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

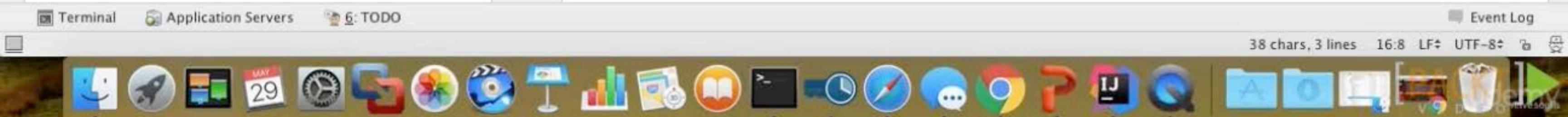
learning-spring-boot-video src main resources templates

Project Packages

learning-spring-boot-video (~/Downloads/learning...) .idea gradle src main java com.greglturnquist.learningspringboot LearningSpringBootVideoApplication resources static templates application.properties build.gradle gradlew gradlew.bat learning-spring-boot-video.iml External Libraries

LearningSpringBootVideoApplication.java

```
1 package com.greglturnquist.learningspringboot;
2
3 import ...
4
5
6 @SpringBootApplication
7 public class LearningSpringBootVideoApplication {
8
9     public static void main(String[] args) {
10         SpringApplication.run(LearningSpringBootVideoApplication.class, args);
11     }
12 }
13
```



application.properties - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

learning-spring-boot-video src main resources application.properties

Project Packages LearningSpringBootVideoApplication.java application.properties

learning-spring-boot-video (~/Downloads/learning...)

- .idea
- gradle
- src
 - main
 - java
 - com.greglturnquist.learningspringboot
 - LearningSpringBootVideoApplication
 - resources
 - static
 - templates
 - application.properties
- build.gradle
- gradlew
- gradlew.bat
- learning-spring-boot-video.iml

External Libraries

2: Favorites



J LearningSpringBootVideoApplication.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

Project Packages

learning-spring-boot-video (~/Downloads/learning-spring-boot-video)

- .idea
- gradle
- src
 - main
 - java
 - com.greglturnquist.learningspringboot
 - LearningSpringBootVideoApplication- resources
 - static
 - templates
 - application.properties
- build.gradle
- gradlew
- gradlew.bat
- learning-spring-boot-video.iml
- External Libraries

Copy Reference ⌘C

Paste ⌘V

Paste from History... ⌘V

Paste Simple ⌘V

Column Selection Mode ⌘*

Find Usages ⌘F7

Refactor ▾

Folding ▾

Analyze ▾

Go To ▾

Generate... ⌘N

Compile '...deoApplication.java' ⌘F9

Run 'LearningSpring....main()' ⌘F10

Debug 'LearningSpring....main()' ⌘F9

Run 'LearningSpring....main()' with Coverage

Create 'LearningSpring....main()'...

Local History ▾

Compare with Clipboard

File Encoding

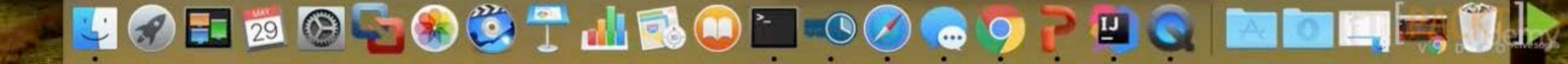
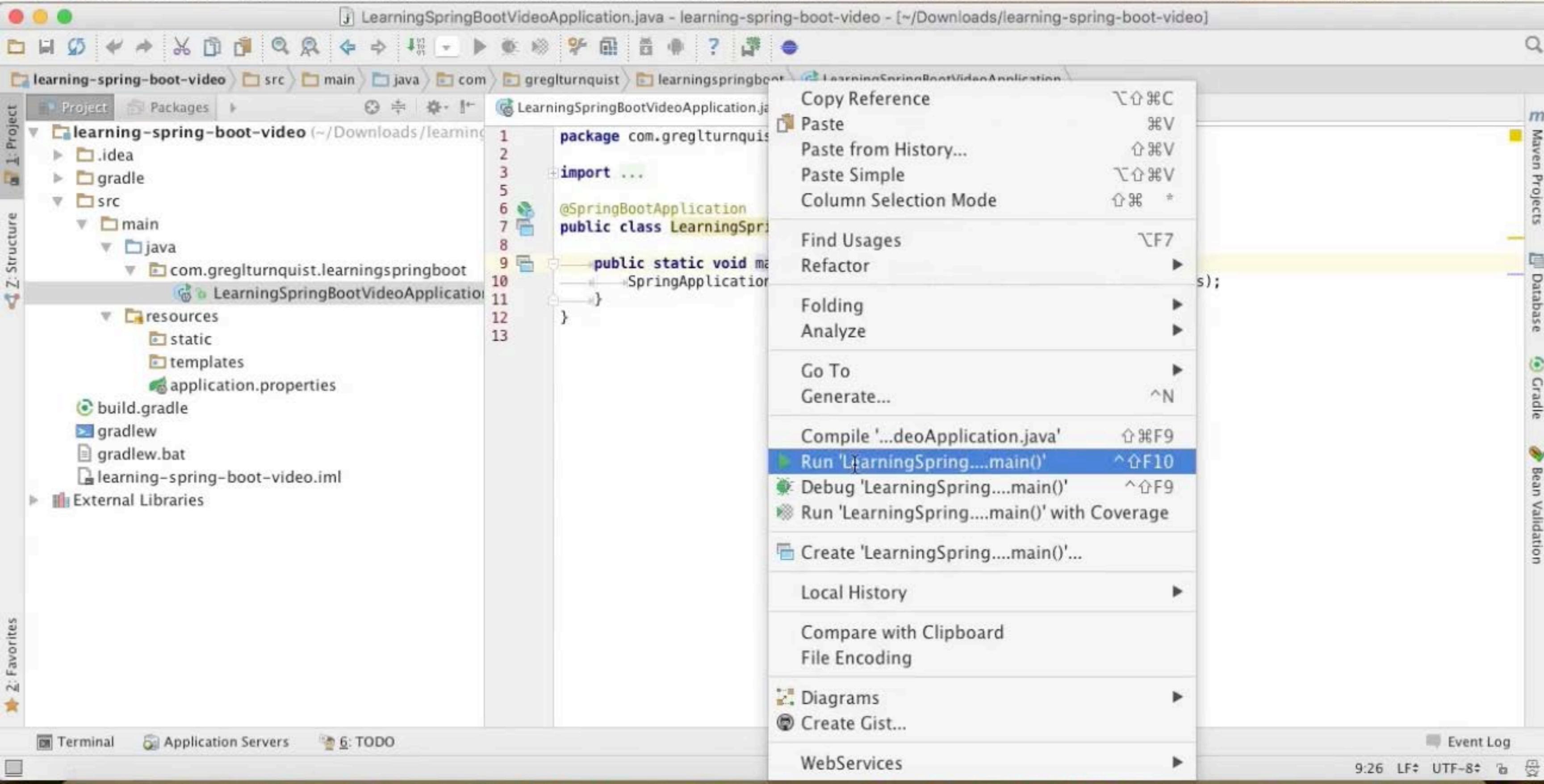
Diagrams ▾

Create Gist...

WebServices ▾

Terminal Application Servers TODO Event Log

9:26 LF UTF-8



J LearningSpringBootVideoApplication.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

LearningSpringBootVideoApplication

learning-spring-boot-video src main java com gregturnquist learningspringboot LearningSpringBootVideoApplication

Project Packages

learning-spring-boot-video (~/Downloads/learning)

Run LearningSpringBootVideoApplication

/Library/Java/JavaVirtualMachines/jdk1.8.0_51.jdk/Contents/Home/bin/java ...

Structure

Spring Boot (v1.3.5.RELEASE)

2016-05-29 22:54:00.297 INFO 3564 --- [restartedMain] c.g.l.LearningSpringBootVideoApplication : Starting LearningSpringBootVideoApplication on retina with PID 3564

2016-05-29 22:54:00.299 INFO 3564 --- [restartedMain] c.g.l.LearningSpringBootVideoApplication : No active profile set, falling back to default profiles: default

2016-05-29 22:54:00.655 INFO 3564 --- [restartedMain] o.s.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext : Refreshing org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext@533e0f: startup date [2016-05-29 22:54:00.655 +0000 UTC]; root factory: org.springframework.boot.context.embedded.EmbeddedServletContainerCustomizer\$BeanPostProcessorChecker

2016-05-29 22:54:02.297 INFO 3564 --- [restartedMain] o.s.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext\$BeanPostProcessorChecker : Bean 'org.springframework.transaction.annotation.ProxyTransactionM'

2016-05-29 22:54:02.754 INFO 3564 --- [restartedMain] org.apache.catalina.core.StandardService : Tomcat initialized with port(s): 8080 (http)

2016-05-29 22:54:02.771 INFO 3564 --- [restartedMain] org.apache.catalina.core.StandardService : Starting service Tomcat

2016-05-29 22:54:02.772 INFO 3564 --- [restartedMain] org.apache.catalina.core.StandardEngine : Starting Servlet Engine: Apache Tomcat/8.0.33

2016-05-29 22:54:02.871 INFO 3564 --- [ost-startStop-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext

2016-05-29 22:54:02.871 INFO 3564 --- [ost-startStop-1] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed in 2220 ms

2016-05-29 22:54:03.250 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.ServletRegistrationBean : Mapping servlet: 'dispatcherServlet' to [/]

2016-05-29 22:54:03.252 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.ServletRegistrationBean : Mapping servlet: 'webServlet' to [/h2-console/*]

2016-05-29 22:54:03.255 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'metricFilter' to: [/]*

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'characterEncodingFilter' to: [/]*

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'hiddenHttpMethodFilter' to: [/]*

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'httpPutFormContentFilter' to: [/]*

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'requestContextFilter' to: [/]*

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'webRequestLoggingFilter' to: [/]*

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'applicationContextIdFilter' to: [/]*

2016-05-29 22:54:03.639 INFO 3564 --- [restartedMain] j.LocalContainerEntityManagerFactoryBean : Building JPA container EntityManagerFactory for persistence unit 'learning'

2016-05-29 22:54:03.647 INFO 3564 --- [restartedMain] o.hibernate.jpa.internal.util.LogHelper : HHH000204: Processing PersistenceUnitInfo [

Terminal Application Servers Messages Run TODO Event Log

Compilation completed successfully in 1s 574ms (moments ago)

70:1 LF UTF-8



J LearningSpringBootVideoApplication.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

LearningSpringBootVideoApplication

learning-spring-boot-video src main java com gregturnquist learningspringboot LearningSpringBootVideoApplication

Project Packages

learning-spring-boot-video (~/Downloads/learning) Run LearningSpringBootVideoApplication

/Library/Java/JavaVirtualMachines/jdk1.8.0_51.jdk/Contents/Home/bin/java ...

Structure

Spring Boot (v1.3.5.RELEASE)

2016-05-29 22:54:00.297 INFO 3564 --- [restartedMain] c.g.l.LearningSpringBootVideoApplication : Starting LearningSpringBootVideoApplication on retina with PID 3564

2016-05-29 22:54:00.299 INFO 3564 --- [restartedMain] c.g.l.LearningSpringBootVideoApplication : No active profile set, falling back to default profiles: default

2016-05-29 22:54:00.655 INFO 3564 --- [restartedMain] o.s.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext : Refreshing org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext@53333333: startup date [2016-05-29 22:54:00.655244]; root of context hierarchy

2016-05-29 22:54:02.297 INFO 3564 --- [restartedMain] o.s.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext\$BeanPostProcessorChecker : Bean 'org.springframework.transaction.annotation.ProxyTransactionM': BeanPostProcessor interface is not present. This typically means that the bean has simply been autowired into the context by dependency injection and does not need to be registered as a bean in the context itself.

2016-05-29 22:54:02.754 INFO 3564 --- [restartedMain] o.s.boot.context.embedded.EmbeddedServletContainerInitializers : Tomcat initialized with port(s): 8080 (http)

2016-05-29 22:54:02.771 INFO 3564 --- [restartedMain] o.apache.catalina.core.StandardService : Starting service Tomcat

2016-05-29 22:54:02.772 INFO 3564 --- [restartedMain] o.apache.catalina.core.StandardEngine : Starting Servlet Engine: Apache Tomcat/8.0.33

2016-05-29 22:54:02.871 INFO 3564 --- [ost-startStop-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext

2016-05-29 22:54:02.871 INFO 3564 --- [ost-startStop-1] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed in 2220 ms

2016-05-29 22:54:03.250 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.ServletRegistrationBean : Mapping servlet: 'dispatcherServlet' to [/]

2016-05-29 22:54:03.252 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.ServletRegistrationBean : Mapping servlet: 'webServlet' to [/h2-console/*]

2016-05-29 22:54:03.255 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'metricFilter' to: [/*]

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'characterEncodingFilter' to: [/*]

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'hiddenHttpMethodFilter' to: [/*]

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'httpPutFormContentFilter' to: [/*]

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'requestContextFilter' to: [/*]

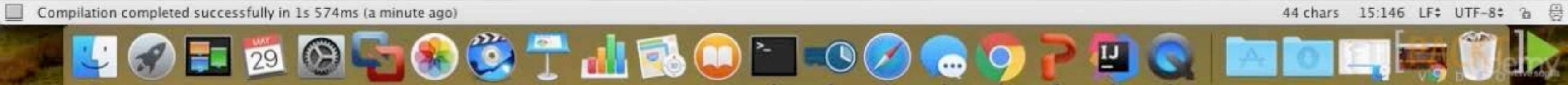
2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'webRequestLoggingFilter' to: [/*]

2016-05-29 22:54:03.256 INFO 3564 --- [ost-startStop-1] o.s.b.c.e.FilterRegistrationBean : Mapping filter: 'applicationContextIdFilter' to: [/*]

2016-05-29 22:54:03.639 INFO 3564 --- [restartedMain] j.LocalContainerEntityManagerFactoryBean : Building JPA container EntityManagerFactory for persistence unit 'learning'

2016-05-29 22:54:03.647 INFO 3564 --- [restartedMain] o.hibernate.jpa.internal.util.LogHelper : HHH000204: Processing PersistenceUnitInfo [

Terminal Application Servers Messages Run TODO Event Log



```
LearningSpringBootVideoApplication
```

```
learning-spring-boot-video src main java com gregturnquist learningspringboot LearningSpringBootVideoApplication
```

```
Project Packages < LearningSpringBootVideoApplication.java
```

```
learning-spring-boot-video (~/Downloads/learning) 1 package com.gregturnquist.learningspringboot;
```

```
Run LearningSpringBootVideoApplication
```

```
2016-05-29 22:54:03.698 INFO 3564 --- [ restartedMain] org.hibernate.Version : HHH000412: Hibernate Core {4.3.11.Final}
2016-05-29 22:54:03.699 INFO 3564 --- [ restartedMain] org.hibernate.cfg.Environment : HHH000206: hibernate.properties not found
2016-05-29 22:54:03.700 INFO 3564 --- [ restartedMain] org.hibernate.cfg.Environment : HHH000021: Bytecode provider name : javassist
2016-05-29 22:54:03.926 INFO 3564 --- [ restartedMain] o.hibernate.annotations.common.Version : HCANN000001: Hibernate Commons Annotations {4.0.5.Final}
2016-05-29 22:54:03.992 INFO 3564 --- [ restartedMain] org.hibernate.dialect.Dialect : HHH000400: Using dialect: org.hibernate.dialect.H2Dialect
2016-05-29 22:54:04.026 INFO 3564 --- [ restartedMain] o.h.h.i.ast.ASTQueryTranslatorFactory : HHH000397: Using ASTQueryTranslatorFactory
2016-05-29 22:54:04.090 INFO 3564 --- [ restartedMain] org.hibernate.tool.hbm2ddl.SchemaExport : HHH000227: Running hbm2ddl schema export
2016-05-29 22:54:04.092 INFO 3564 --- [ restartedMain] org.hibernate.tool.hbm2ddl.SchemaExport : HHH000230: Schema export complete
2016-05-29 22:54:04.362 INFO 3564 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerAdapter : Looking for @ControllerAdvice: org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext@535...
2016-05-29 22:54:04.461 INFO 3564 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/error]}" onto public org.springframework.http.ResponseEntity<> handleError(HandlerExceptionRes...
2016-05-29 22:54:04.464 INFO 3564 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/error],produces=[text/html]}" onto public org.springframework.web.reactive.function.server.HandlerFunction handleE...
2016-05-29 22:54:04.499 INFO 3564 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/webjars/**] onto handler of type [class org.springframework.web.reactive.function.server.SimpleHandler]
2016-05-29 22:54:04.499 INFO 3564 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto handler of type [class org.springframework.web.reactive.function.server.SimpleHandler]
2016-05-29 22:54:04.538 INFO 3564 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favicon.ico] onto handler of type [class org.springframework.web.reactive.function.server.SimpleHandler]
2016-05-29 22:54:04.572 WARN 3564 --- [ restartedMain] o.s.b.a.t.ThymeleafAutoConfiguration : Cannot find template location: classpath:/templates/ (please add some曙
2016-05-29 22:54:04.840 INFO 3564 --- [ restartedMain] properties$SimpleAuthenticationProperties :
```

```
Using default password for shell access: 80689cdc-20d8-435a-bf9d-47dc1b257656

2016-05-29 22:54:05.563 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/env/{name:.*}}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.564 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/env || /env.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.564 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/info || /info.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.565 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/autoconfig || /autoconfig.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.565 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/configprops || /configprops.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.565 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/mappings || /mappings.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.567 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/trace || /trace.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.568 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/metrics/{name:.*}}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.568 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/metrics || /metrics.json}},methods=[GET],produces=[application/json]
2016-05-29 22:54:05.568 INFO 3564 --- [ restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{{/health || /health.json}},produces=[application/json}" or
```

A screenshot of the Android Studio interface. The top navigation bar includes tabs for Terminal, Application Servers, Messages, Run, TODO, and Event Log. The status bar at the bottom shows a message about compilation completion, character count, time, file encoding, and a battery icon. A docked toolbar on the right contains icons for various tools like Device Manager, Google Play, and Java Help.

J LearningSpringBootVideoApplication.java - learning-spring-boot-video - [~/Downloads/learning-spring-boot-video]

LearningSpringBootVideoApplication

learning-spring-boot-video src main java com gregturnquist learningspringboot LearningSpringBootVideoApplication

Project Packages

learning-spring-boot-video (~/Downloads/learning)

Run LearningSpringBootVideoApplication

1 package com.gregturnquist.learningspringboot;

2

2016-05-29 22:54:04.362 INFO 3564 --- [restartedMain] s.w.s.m.m.a.RequestMappingHandlerAdapter : Looking for @ControllerAdvice: org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext@535f333e: startup date [2016-05-29T22:54:04.362+0000]; root of context hierarchy

2016-05-29 22:54:04.461 INFO 3564 --- [restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/error]}" onto public org.springframework.http.ResponseEntity<> org.springframework.web.servlet.mvc.method.annotation.ResponseEntityExceptionHandler.handleError()

2016-05-29 22:54:04.464 INFO 3564 --- [restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/error],produces=[text/html]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.web.servlet.mvc.method.annotation.ResponseEntityExceptionHandler.handleError()

2016-05-29 22:54:04.499 INFO 3564 --- [restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/webjars/**] onto handler of type [class org.springframework.web.servlet.handler.SimpleUrlHandlerMapping]

2016-05-29 22:54:04.499 INFO 3564 --- [restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto handler of type [class org.springframework.web.servlet.handler.SimpleUrlHandlerMapping]

2016-05-29 22:54:04.538 INFO 3564 --- [restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favicon.ico] onto handler of type [class org.springframework.web.servlet.handler.SimpleUrlHandlerMapping]

2016-05-29 22:54:04.572 WARN 3564 --- [restartedMain] o.s.b.a.t.ThymeleafAutoConfiguration : Cannot find template location: classpath:/templates/ (please add some using `#layout` or `#parent` attributes in your Thymeleaf components)

2016-05-29 22:54:04.840 INFO 3564 --- [restartedMain] rroperties\$SimpleAuthenticationProperties : Using default password for shell access: 80689cdc-20d8-435a-bf9d-47dc1b257656

2016-05-29 22:54:05.563 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/env/{name:.+}],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.564 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/env || /env.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.564 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/info || /info.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.565 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/autoconfig || /autoconfig.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.565 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/configprops || /configprops.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.565 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/mappings || /mappings.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.567 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/trace || /trace.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.568 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/metrics/{name:.+}],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.568 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/metrics || /metrics.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.568 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/health || /health.json],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.568 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/beans || /beans.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.569 INFO 3564 --- [restartedMain] o.s.b.a.e.mvc.EndpointHandlerMapping : Mapped "{[/dump || /dump.json],methods=[GET],produces=[application/json]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.EndpointHandlerMapping.getEndpointMapping()

2016-05-29 22:54:05.679 INFO 3564 --- [restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729

2016-05-29 22:54:05.731 INFO 3564 --- [restartedMain] o.s.j.e.a.AnnotationMBeanExporter : Registering beans for JMX exposure on startup

2016-05-29 22:54:05.741 INFO 3564 --- [restartedMain] o.s.c.support.DefaultLifecycleProcessor : Starting beans in phase 0

2016-05-29 22:54:05.869 INFO 3564 --- [restartedMain] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat started on port(s): 8080 (http)

2016-05-29 22:54:05.875 INFO 3564 --- [restartedMain] c.g.l.LearningSpringBootVideoApplication : Started LearningSpringBootVideoApplication in 5.812 seconds (JVM running since 2016-05-29T22:54:04.362+0000)

Terminal

Application Servers

Messages

Run

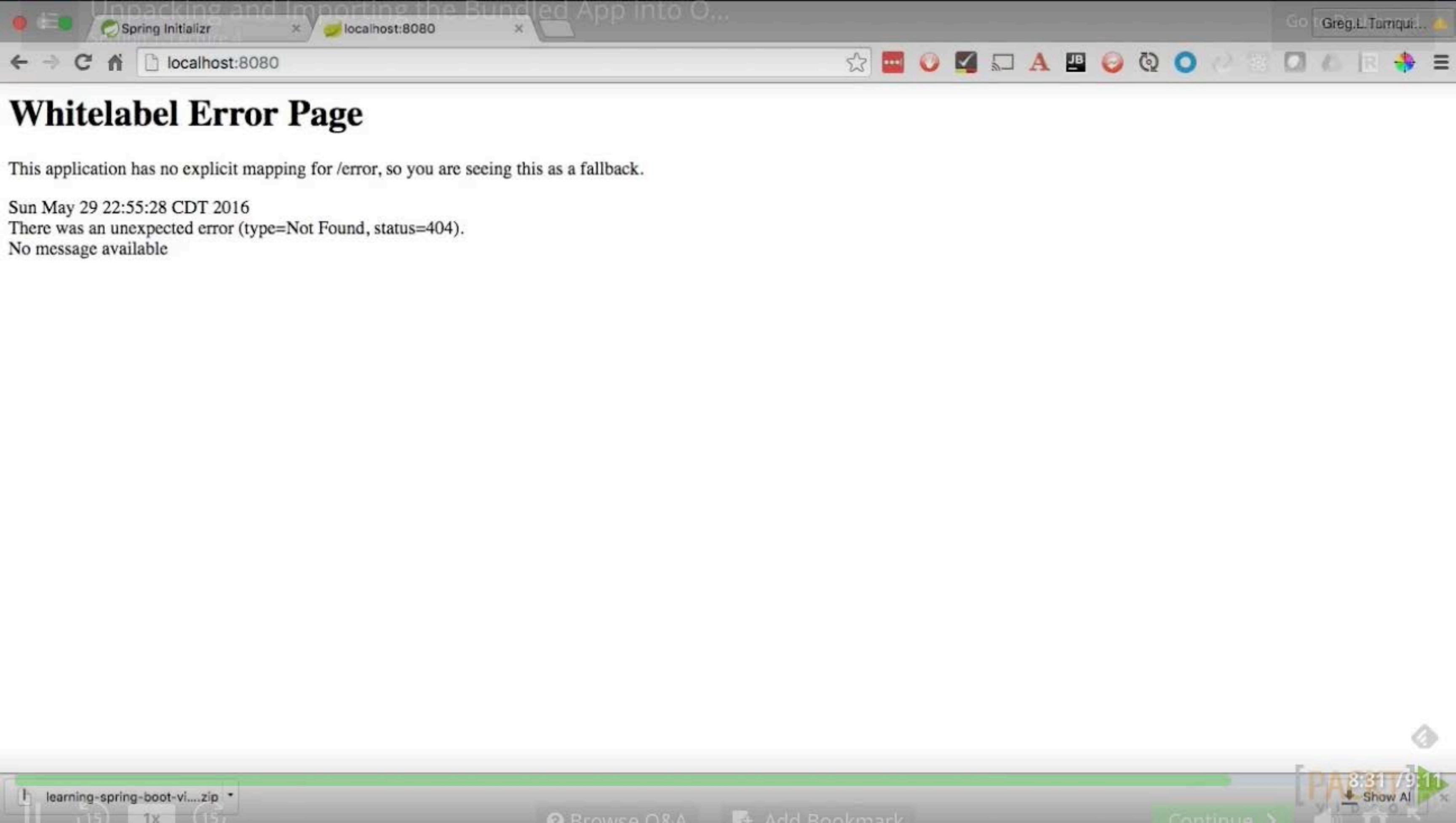
TODO

Event Log

Compilation completed successfully in 1s 574ms (a minute ago)

3,186 chars, 12 lines 64:147 LF# UTF-8#





Whitelabel Error Page

This application has no explicit mapping for /error, so you are seeing this as a fallback.

Sun May 29 22:55:28 CDT 2016

There was an unexpected error (type=Not Found, status=404).

No message available

Summary

- Navigated the Spring Initializr site
- Picked components used for any rock solid app
- Loaded it into our IDE

Next Section

Defining the Domain