

# Bootstrapping the Java EE Application

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**Antonio Goncalves**

JAVA CHAMPION

@agoncal [www.antoniogoncalves.org](http://www.antoniogoncalves.org)



# Previous Module



**Setup Java EE development environment**

**Code editor**

**Building tool**

**Application server**

**Database**

**Testing frameworks**



# Overview



**Maven archetype**

**Bootstrap an empty Java EE application**

**Compile and package**

**Deploy to Wildfly**

**Execute**



# Bootstrapping a Java EE Application



1. **Create an application folder**
2. **Create Maven directory structure**
3. **Add pom.xml**
4. **Install Java EE dependencies**
5. **Add minimum Java code**

# Maven Archetype

***maven***

Project templating toolkit

Generating Maven projects

Using best practices

Create archetypes

Reuse existing archetypes



# Maven Directory Structure

## ▼ bookstore-back

▼ src	
▼ main	
▶ java	<u>Java EE code</u>
▶ resources	<u>Java EE configuration</u>
▶ webapp	<u>Java EE web configuration</u>
▼ test	<u>Tests classes and configuration</u>
▶ java	
▶ resources	
▶ target	<u>Generated artifacts</u>
<u>m pom.xml</u>	<u>Configuration and dependencies</u>



# Java EE Dependencies

```
<project xmlns:xsi="...">
  <groupId>com.pluralsight.javaee-getting-started</groupId>
  <artifactId>bookstore-back</artifactId>
  <version>1.0</version>
  <packaging>war</packaging>

  <dependencies>
    <dependency>
      <groupId>javax</groupId>
      <artifactId>javaee-web-api</artifactId>
      <version>7.0</version>
    </dependency>
  </dependencies>
```

*pom.xml*



# Demo



## BookStore

- bookstore-back
- bookstore-front

## GroupId

- `com.pluralsight.javaee-getting-started`

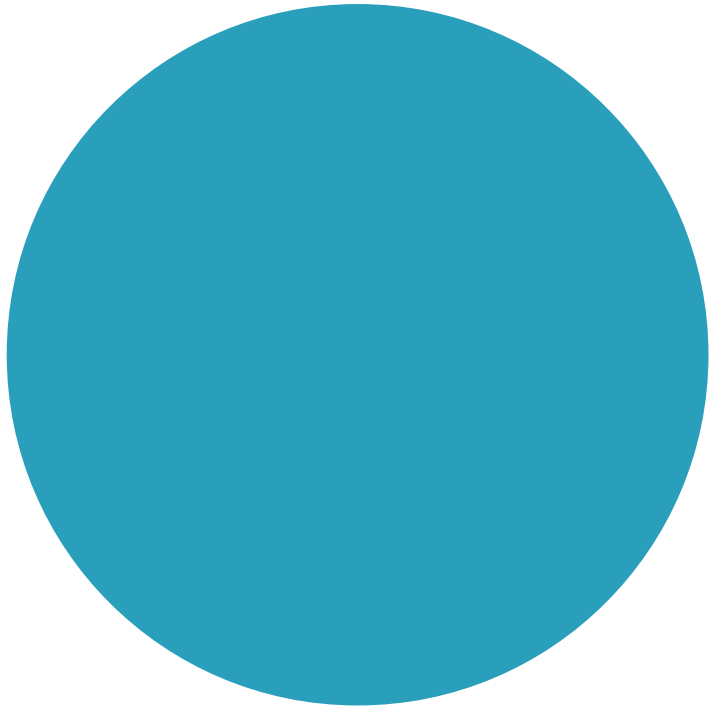
## ArtifactId

- bookstore-back





# Running the Java EE Application



**WildFly**

**Java EE runtime**

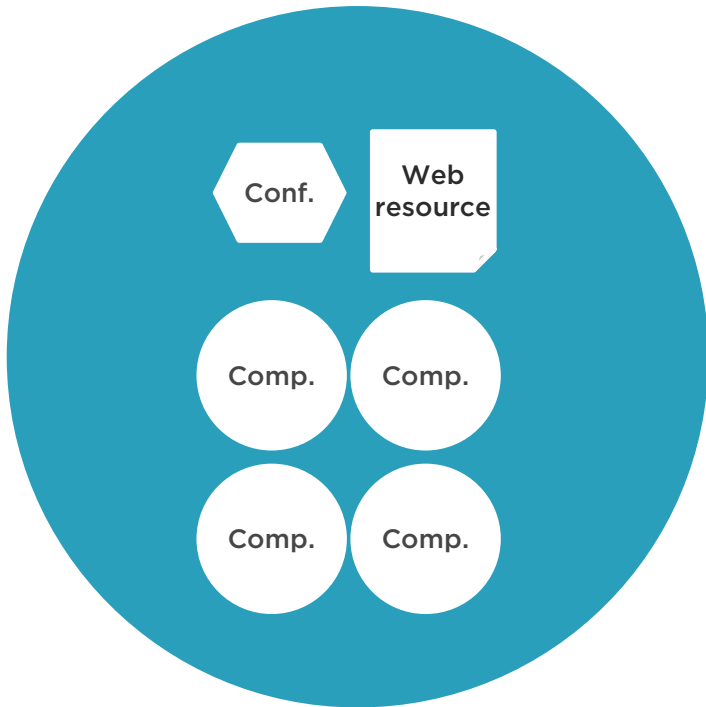
**Hide technical complexity**

**Host applications**

**Handle complex low-level details**

**Administrates the applications**

# Application



**Aggregation of components**

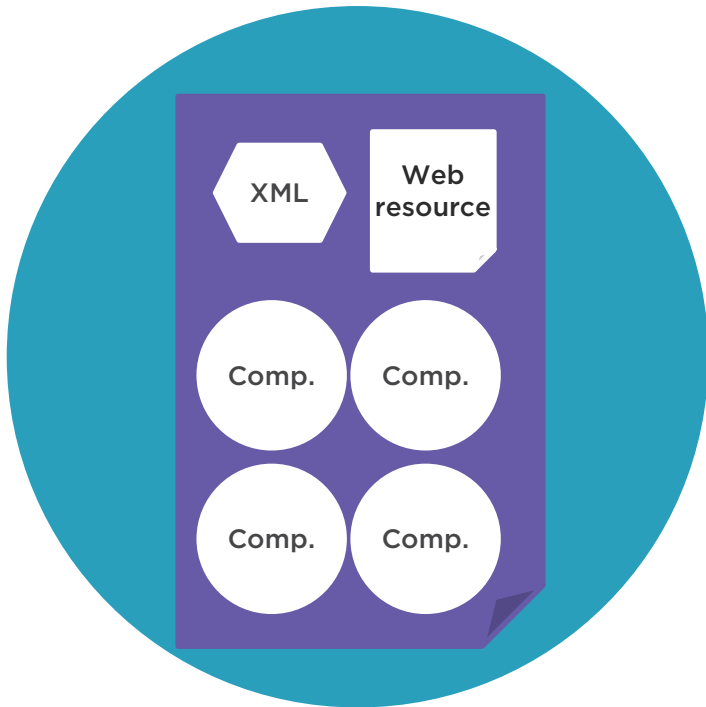
**Configuration**

**Web resources**

**Business components**

**Database access components**

# Packaging



**Assemble components together**

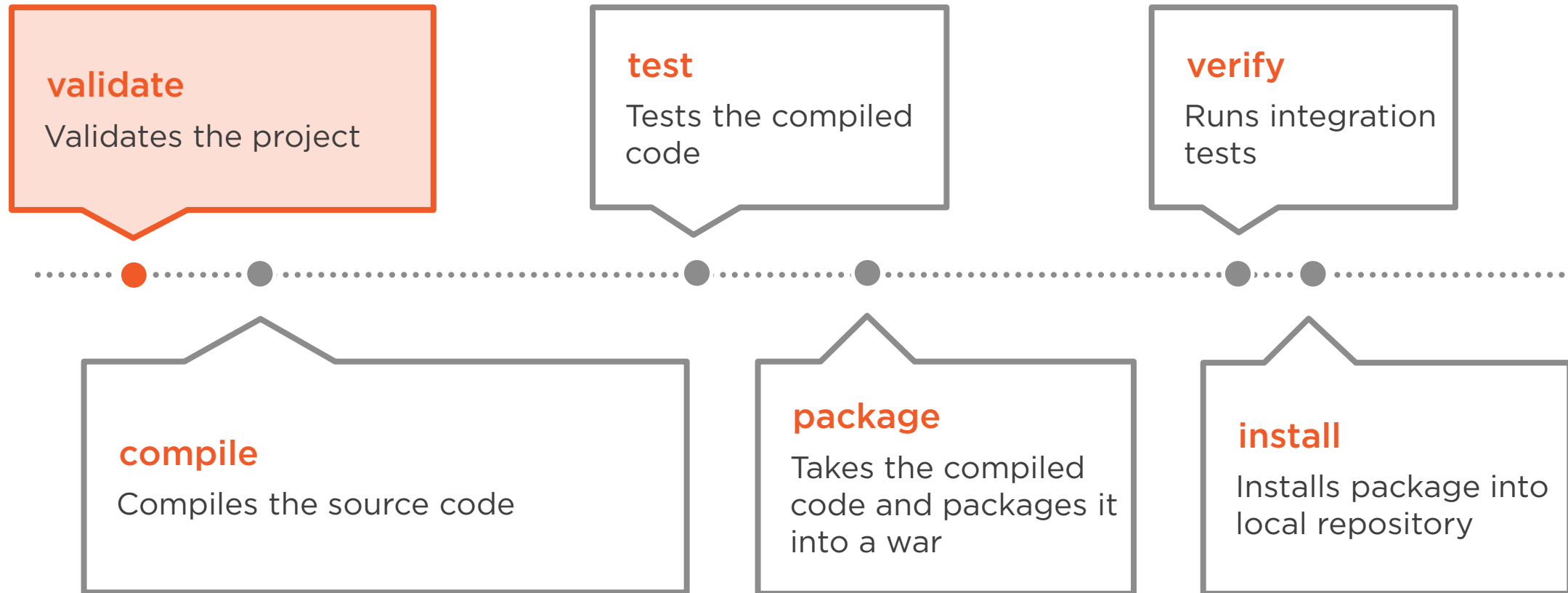
**Web Archive (war)**

**Deploy it into WildFly**

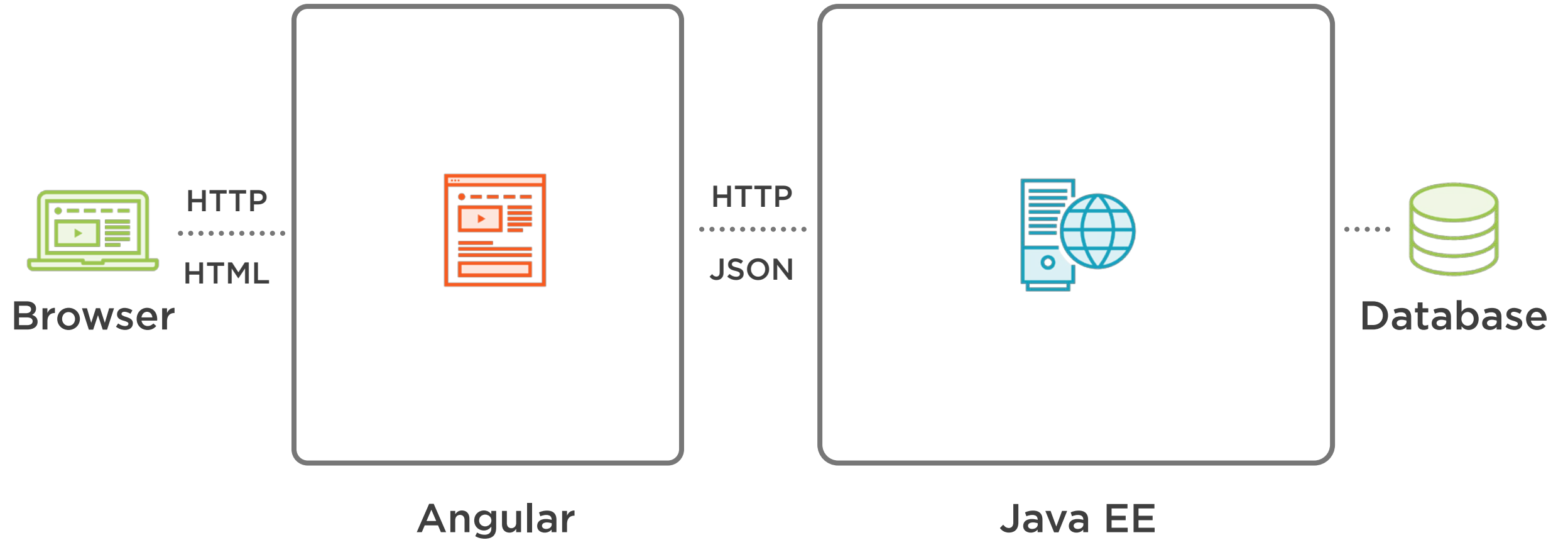
**Standard format**

**Ready to run**

# Maven Build Lifecycle



# BookStore Application Deployment



# BookStore Application Deployment



# Demo



Compile

Package

Start WildFly

Deploy the war

Execute the application

Check WildFly admin console



# Summary



**Maven archetype**

**Bootstrap a Java EE application**

**Standard directory structure**

**Appropriate pom.xml**

**Java EE dependencies**

**Maven build lifecycle**

**Deployed into WildFly**





# Next Module



**Define the domain model**

**Books**

**Map to a relational database**

**Java Persistence API**

