

Creating RESTful APIs for your mobile apps

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MAVEN POM FILE

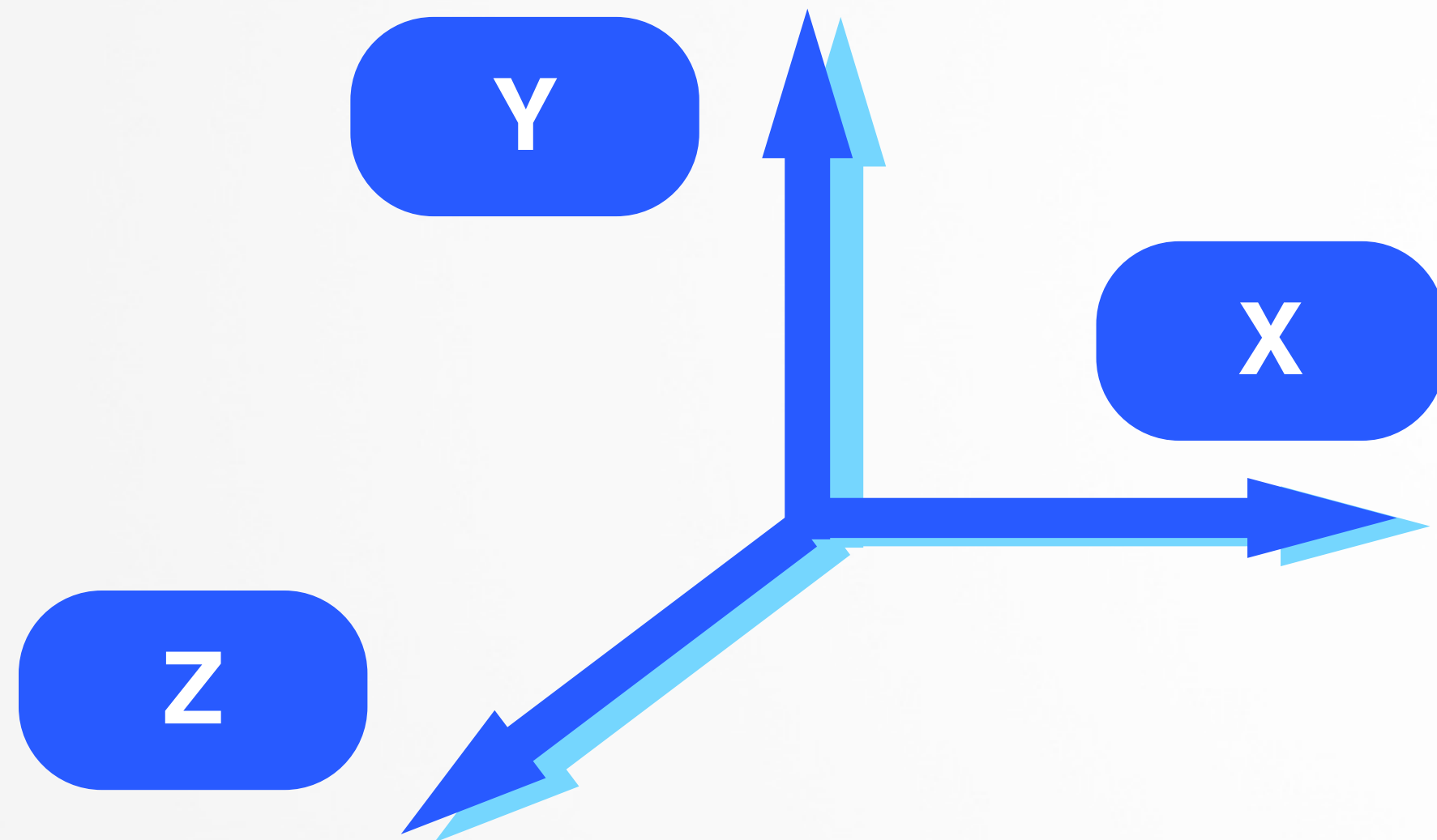
The Maven logo, featuring the word "maven" in a bold, italicized sans-serif font. The letter "a" is colored orange, while the letters "m", "v", "e", and "n" are black.

- 1 Maven Coordinates
- 2 The Maven POM file
- 3 Adding Dependencies
- 4 Wrap up

This video provides an introduction to Maven.

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<http://www.deegeu.com>

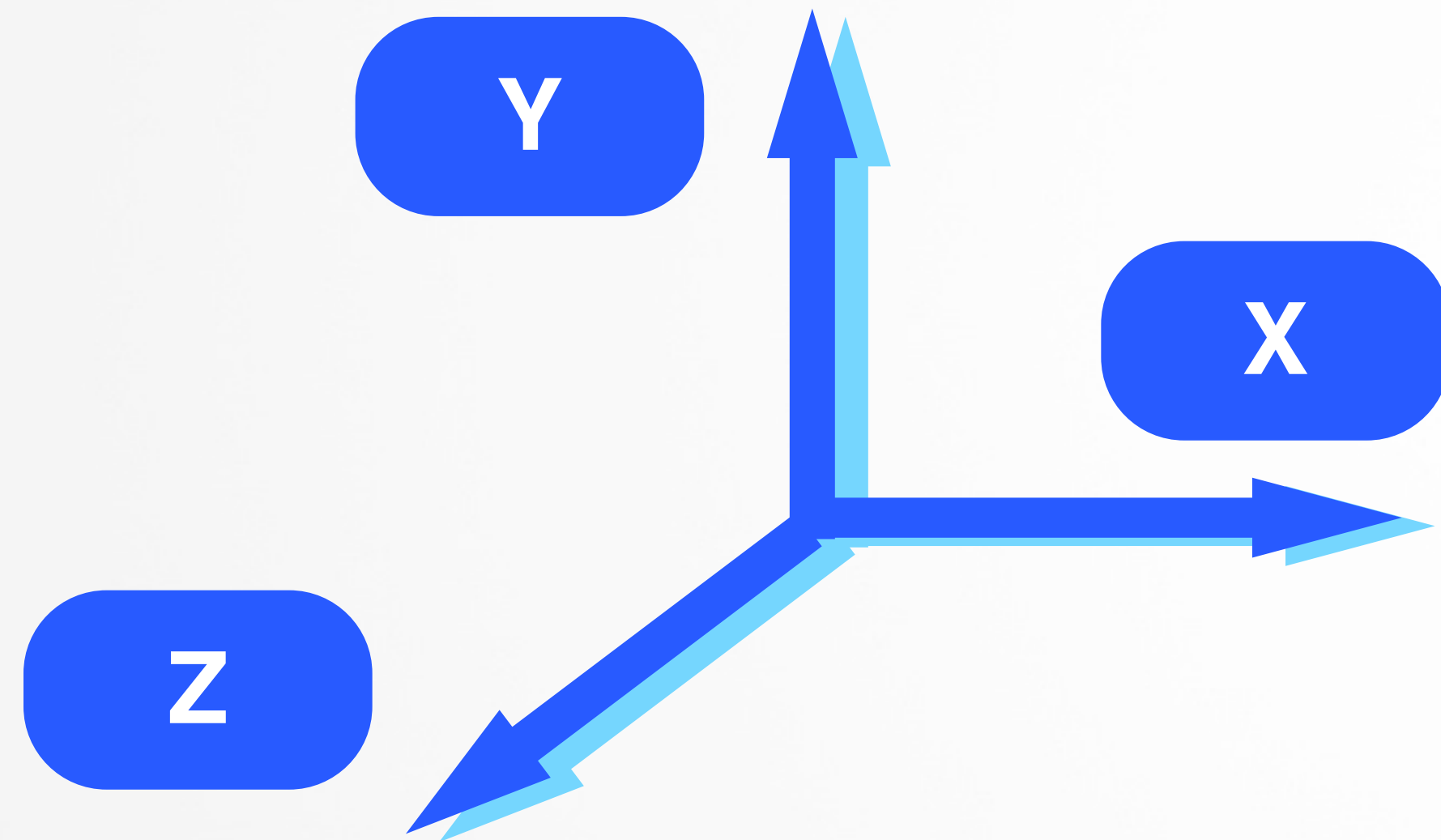
MAVEN COORDINATES



COORDINATES

```
1 <project>
2   <groupId>com.deegeu.app</groupId>
3   <artifactId>my-app</artifactId>
4   <version>1.0-SNAPSHOT</version>
5 </project>
```

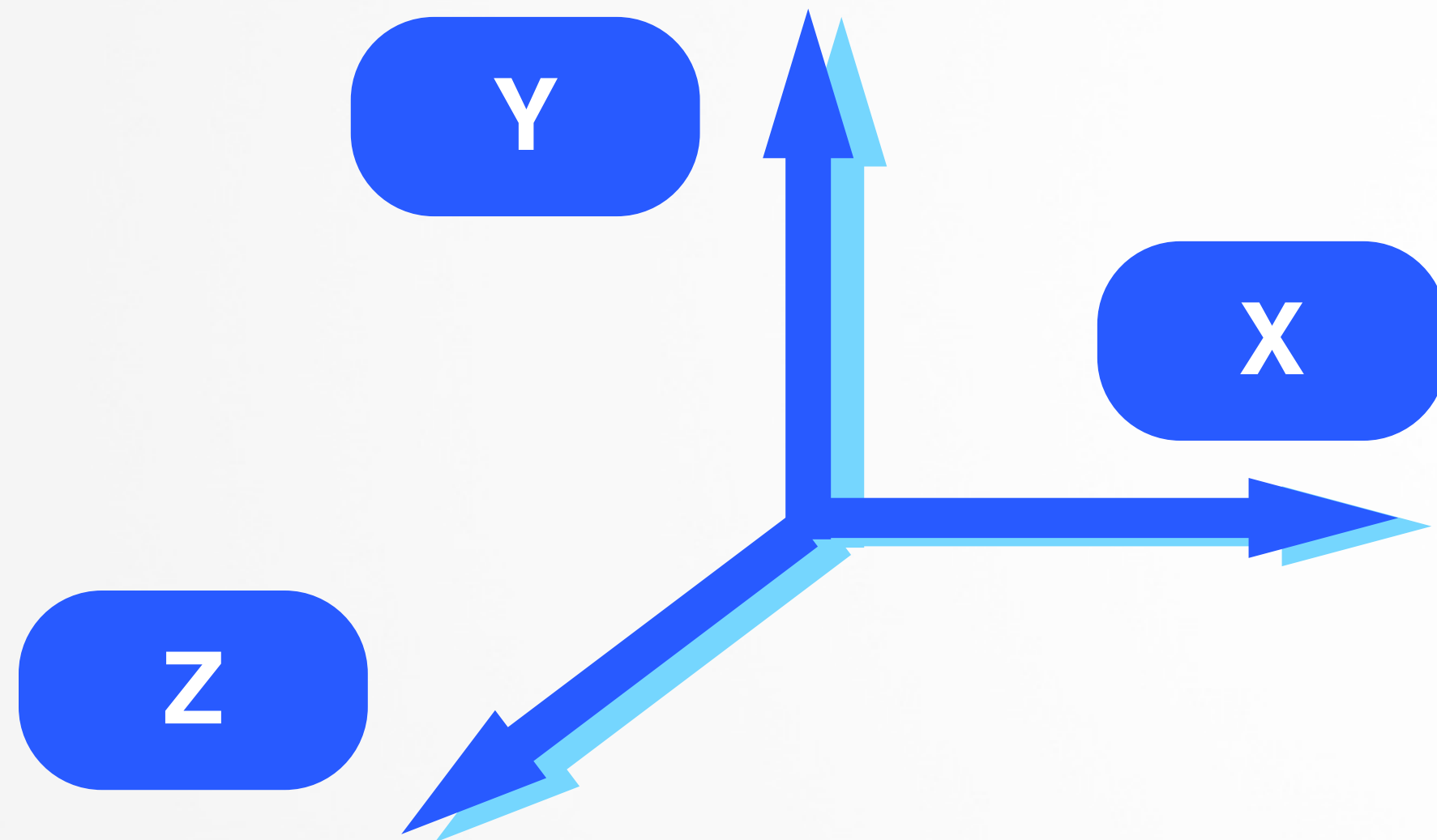
MAVEN COORDINATES



GROUP ID

```
1 <project>
2   <groupId>com.deegeu.app</groupId>
3   <artifactId>my-app</artifactId>
4   <version>1.0-SNAPSHOT</version>
5 </project>
```

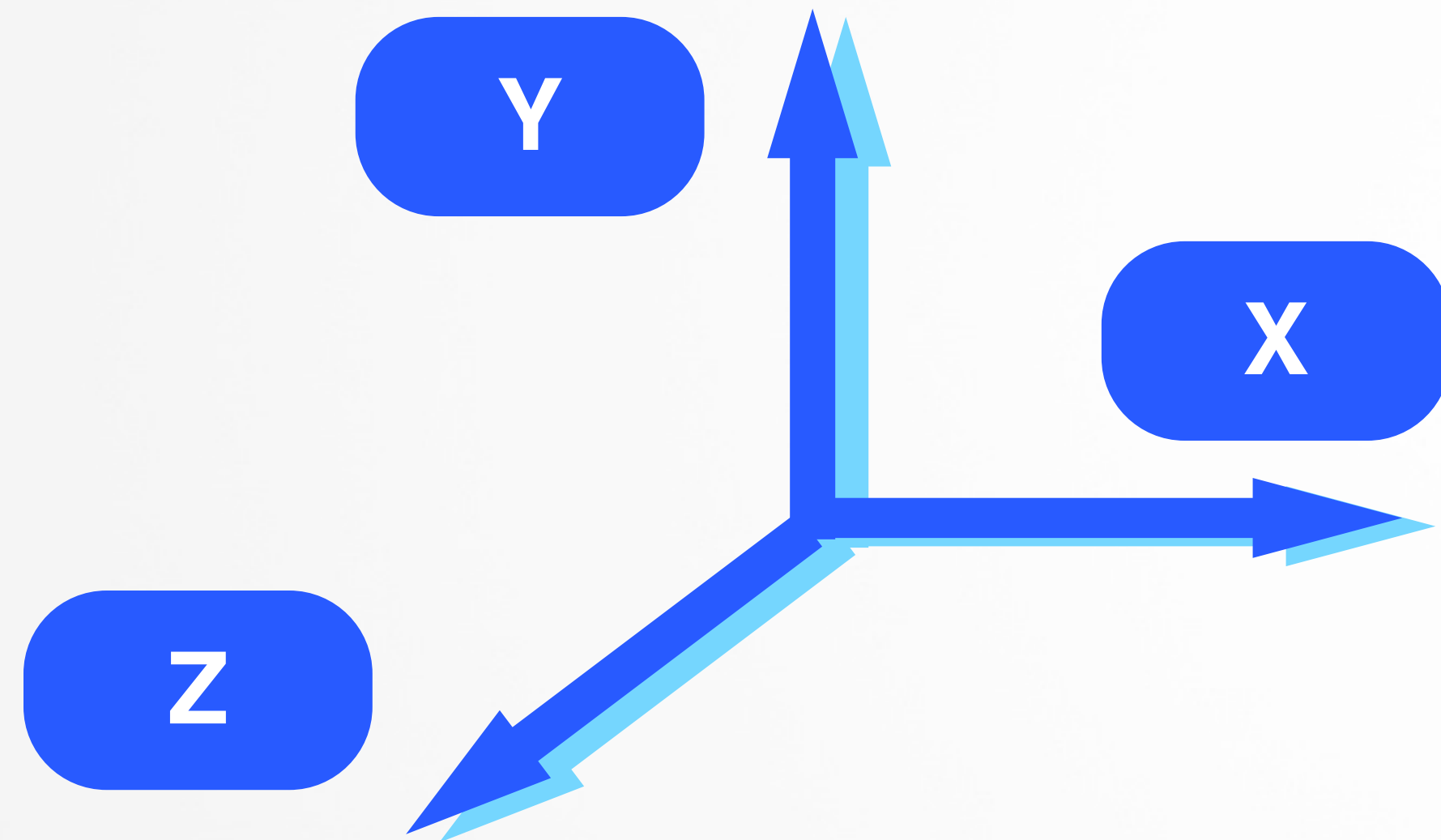
MAVEN COORDINATES



ARTIFACT ID

```
1 <project>
2   <groupId>com.deegeu.app</groupId>
3   <artifactId>my-app</artifactId>
4   <version>1.0-SNAPSHOT</version>
5 </project>
```

MAVEN COORDINATES



VERSION

```
1 <project>
2   <groupId>com.deegeu.app</groupId>
3   <artifactId>my-app</artifactId>
4   <version>1.0-SNAPSHOT</version>
5 </project>
```

MAVEN POM FILE

POM FILE

```
1 <project xmlns="http://maven.apache.org/POM/4.0.0"  
2     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
3     xsi:schemaLocation="http://maven.apache.org/POM/4.0.0  
4     http://maven.apache.org/xsd/maven-4.0.0.xsd">  
5 <modelVersion>4.0.0</modelVersion>
```

Every POM File starts this way. The Model Version element is 4.0.0. There isn't any other version.

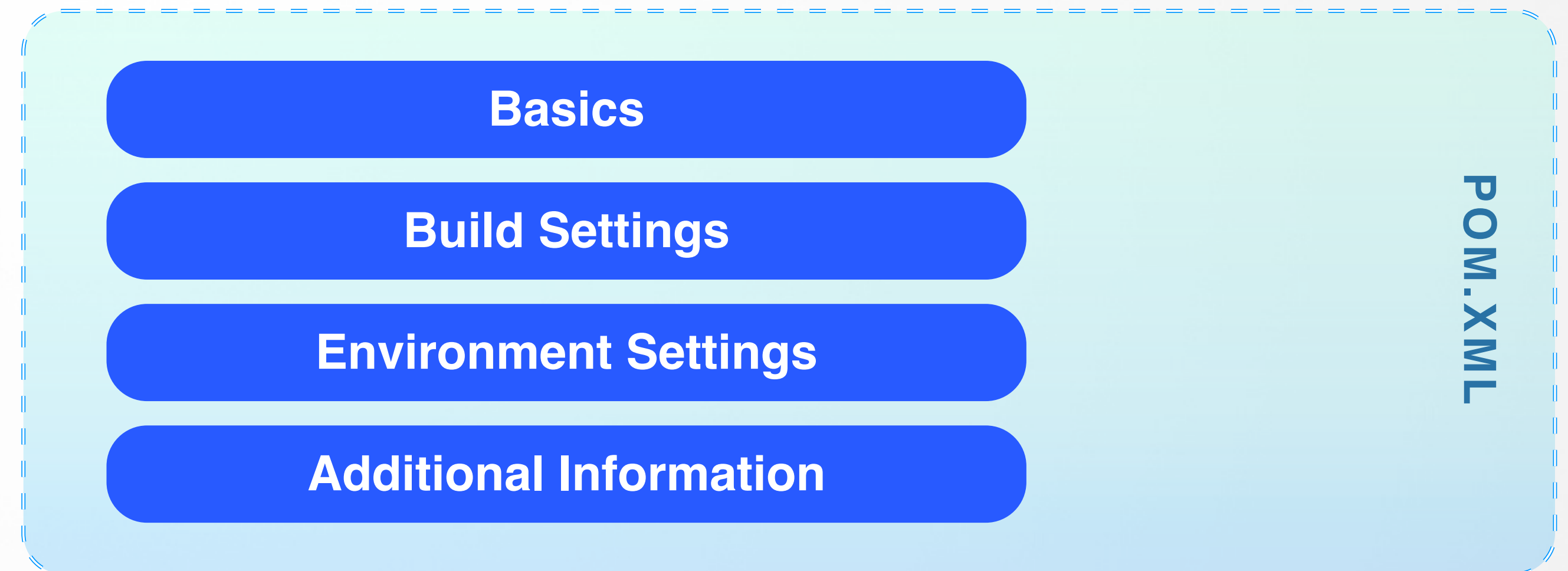
MAVEN POM FILE

- Each section collects a group of information
- Only the Maven coordinates and the project type in the Basics section are required

POM FILE STRUCTURE

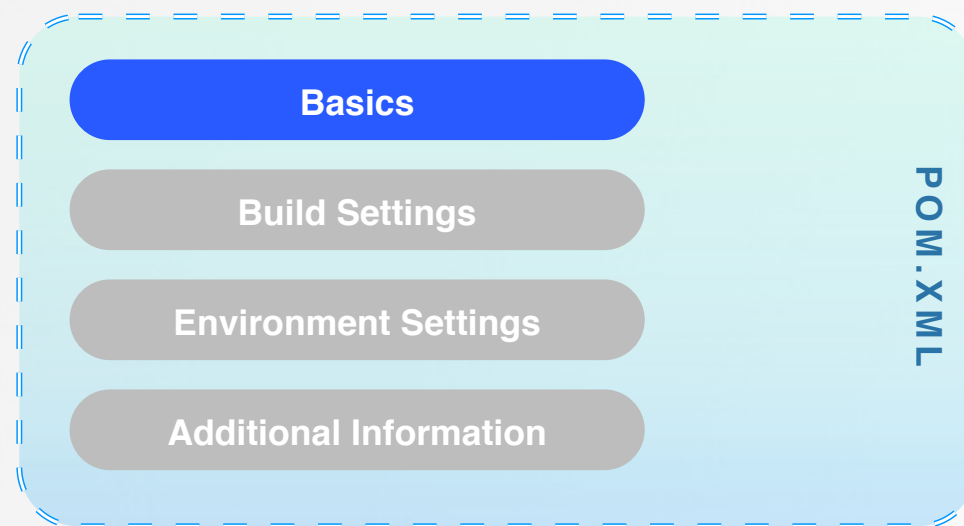
```
1 <project>
2   <modelVersion>4.0.0</modelVersion>
3
4   <!-- The Basics -->
5
6   <!-- Build Settings -->
7
8   <!-- Environment Settings -->
9
10  <!-- Additional Information -->
11
12 </project>
```

FOUR POM SECTIONS



MAVEN POM FILE

FOUR POM SECTIONS



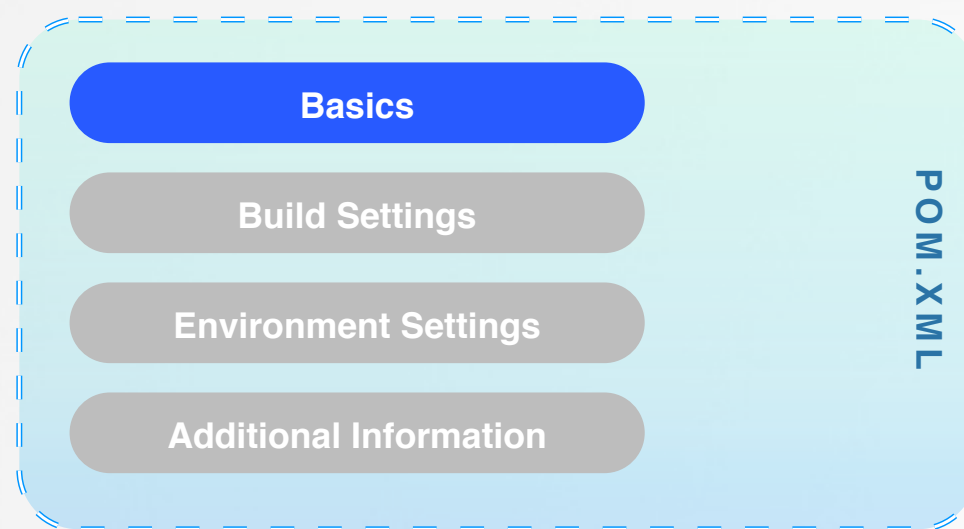
THE BASICS SECTION

```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>...</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

The Basics section of the POM file describes relationships about the project.

MAVEN POM FILE

FOUR POM SECTIONS



THE BASICS SECTION

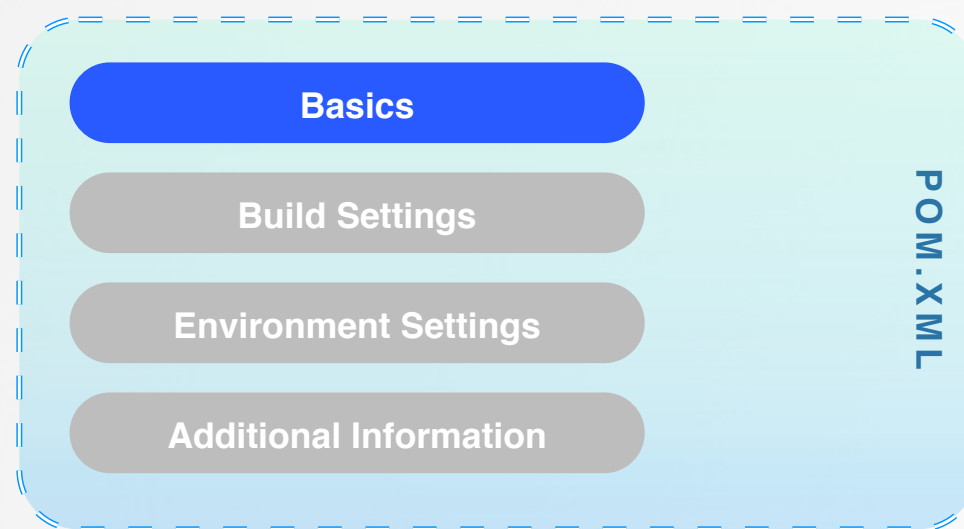
```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>...</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

The Maven Coordinates

The Maven coordinates are used here to uniquely identify your project.

MAVEN POM FILE

FOUR POM SECTIONS



THE BASICS SECTION

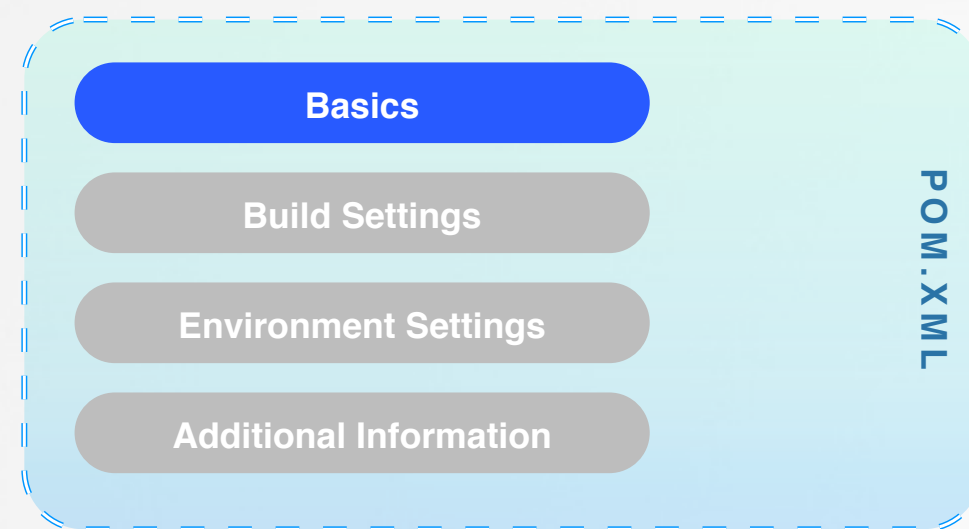
```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>...</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

Packaging Element

The packaging element value can be pom, jar, maven-plugin, ejb, war, ear, rar, or par. It is possible to define your own packaging as well.

MAVEN POM FILE

FOUR POM SECTIONS



THE BASICS SECTION

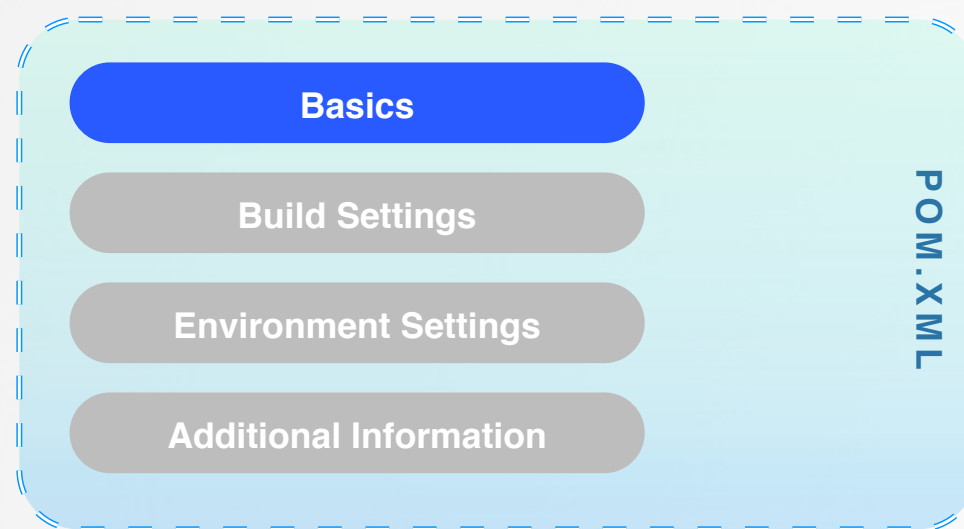
```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>...</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

Dependencies Element

The dependencies element is where you add all the other projects this project depends on.

MAVEN POM FILE

FOUR POM SECTIONS



THE BASICS SECTION

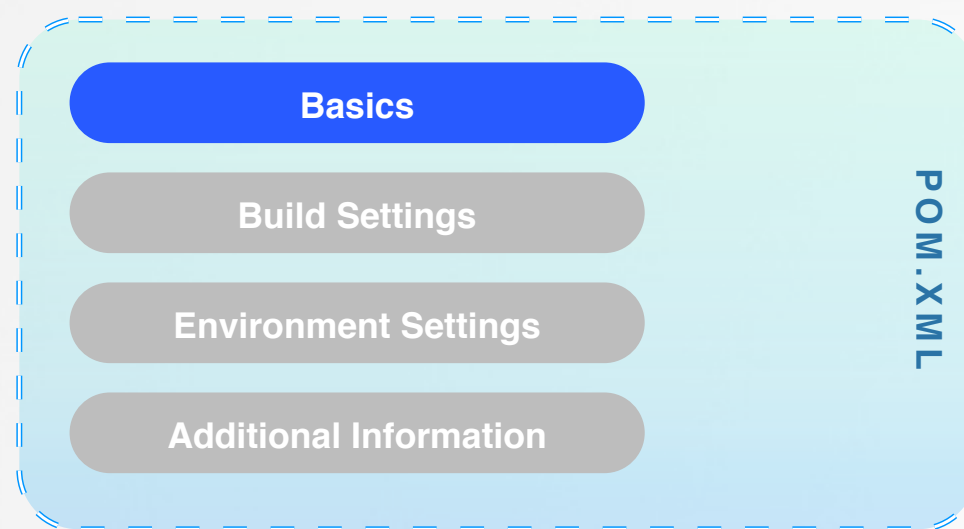
```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>...</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

Parent Element

The parent element allows you to inherit values from a parent POM file.

MAVEN POM FILE

FOUR POM SECTIONS



THE BASICS SECTION

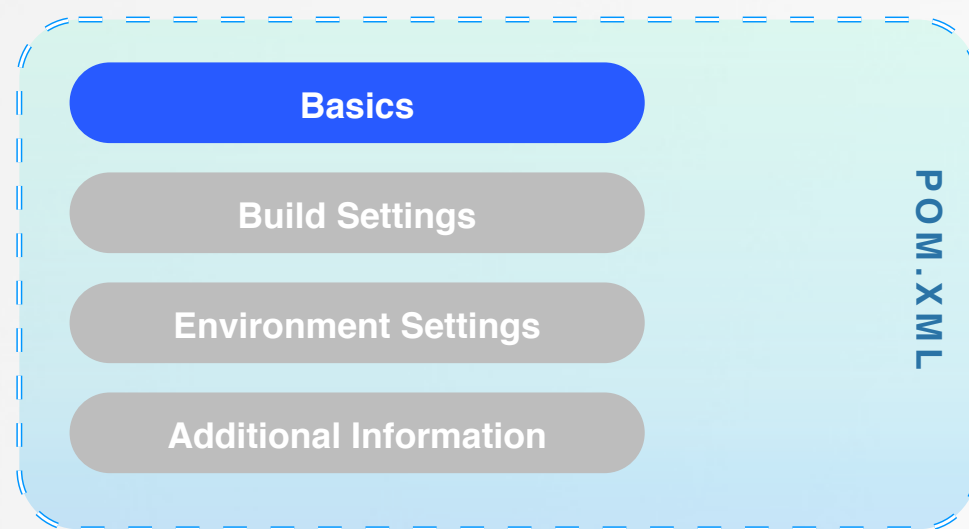
```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>POM</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

Modules Element

The modules element allow you to list other sub-POM files for this POM file. The packaging type must be POM for the aggregator.

MAVEN POM FILE

FOUR POM SECTIONS



THE BASICS SECTION

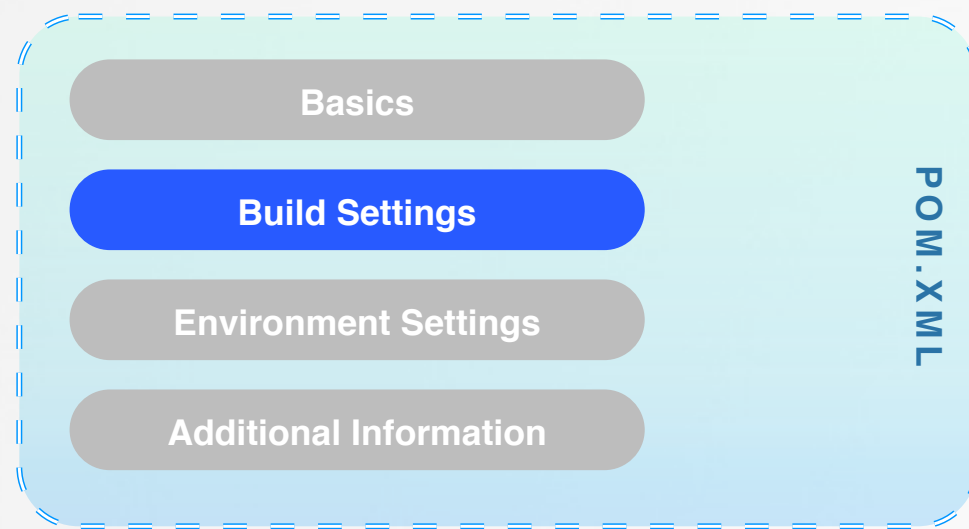
```
1 <!-- The Basics -->
2 <groupId>...</groupId>
3 <artifactId>...</artifactId>
4 <version>...</version>
5 <packaging>...</packaging>
6 <dependencies>...</dependencies>
7 <parent>...</parent>
8 <dependencyManagement>...</dependencyManagement>
9 <modules>...</modules>
10 <properties>...</properties>
```

Properties Element

The properties element allows you to create properties for use in the POM, child POMs, or sub POMs. There are also system properties available.

MAVEN POM FILE

FOUR POM SECTIONS



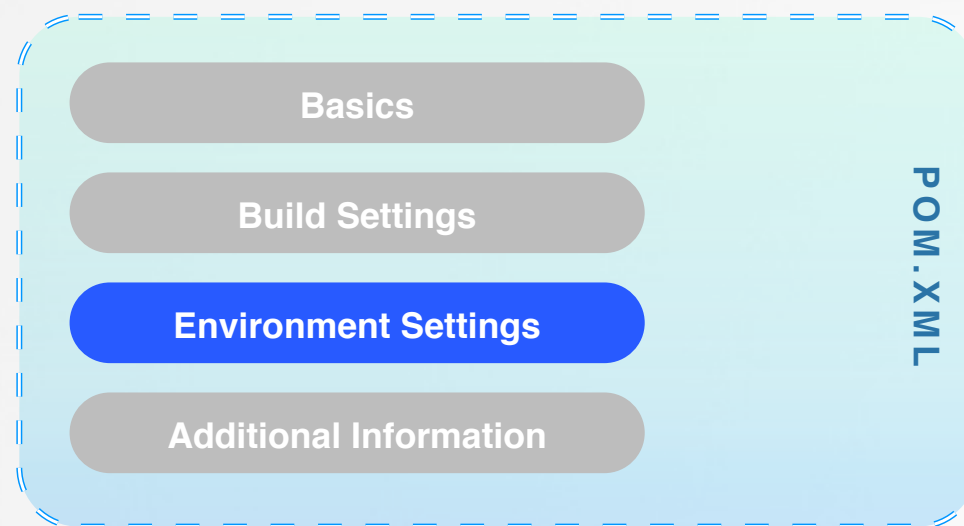
THE BUILD SETTINGS SECTION

```
1 <!-- Build Settings -->
2 <build>...</build>
3 <reporting>...</reporting>
```

This section allows you to change the behavior of the Maven build. We won't make many changes here, since it's a good idea to stick with the default settings.

MAVEN POM FILE

FOUR POM SECTIONS



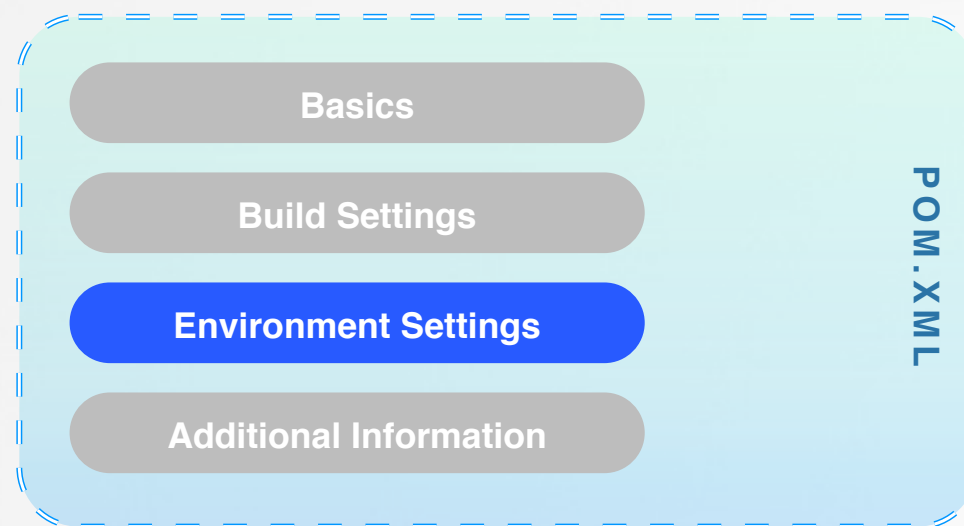
ENVIRONMENT SETTINGS SECTION

```
1 <!-- Environment Settings -->
2 <issueManagement>...</issueManagement>
3 <ciManagement>...</ciManagement>
4 <mailingLists>...</mailingLists>
5 <scm>...</scm>
6 <prerequisites>...</prerequisites>
7 <repositories>...</repositories>
8 <pluginRepositories>...</pluginRepositories>
9 <distributionManagement>...</distributionManagement>
10 <profiles>...</profiles>
```

The environment settings are most often used for specifying additional repositories.

MAVEN POM FILE

FOUR POM SECTIONS



ENVIRONMENT SETTINGS SECTION

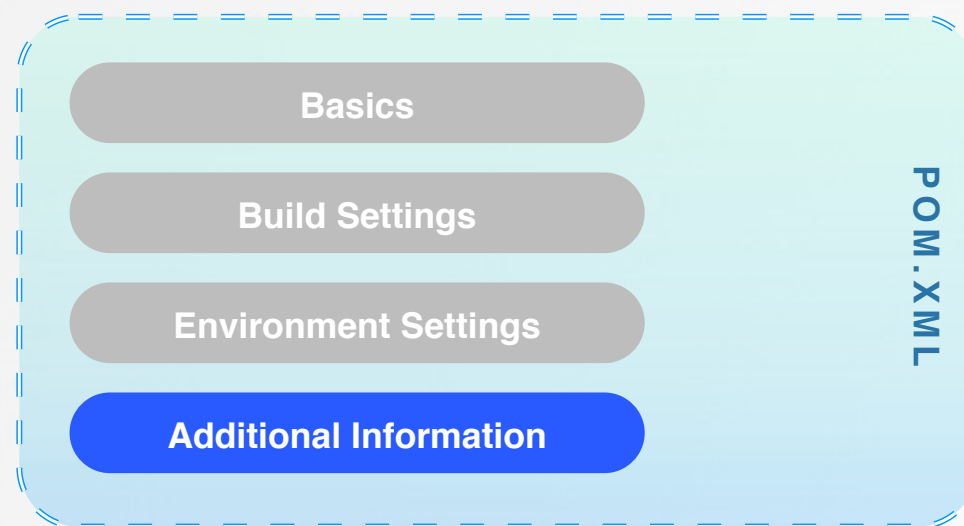
```
1 <!-- Environment Settings -->
2 <issueManagement>...</issueManagement>
3 <ciManagement>...</ciManagement>
4 <mailingLists>...</mailingLists>
5 <scm>...</scm>
6 <prerequisites>...</prerequisites>
7 <repositories>...</repositories>
8 <pluginRepositories>...</pluginRepositories>
9 <distributionManagement>...</distributionManagement>
10 <profiles>...</profiles>
```

Repositories Element

The repositories element is used to add repositories other than the local repository or the default central Maven repository.

MAVEN POM FILE

FOUR POM SECTIONS



ADDITIONAL PROJECT INFO SECTION

```
1 <!-- More Project Information -->
2 <name>...</name>
3 <description>...</description>
4 <url>...</url>
5 <inceptionYear>...</inceptionYear>
6 <licenses>...</licenses>
7 <organization>...</organization>
8 <developers>...</developers>
9 <contributors>...</contributors>
```

The additional project information section contains other metadata about the project. The elements in this section are self descriptive.

ADDING DEPENDENCIES

```
1 <dependencies>
2   <dependency>
3     <groupId>junit</groupId>
4     <artifactId>junit</artifactId>
5     <version>3.8.1</version>
6     <scope>test</scope>
7   </dependency>
8 </dependencies>
```

This section is added here
for each dependency you
want to add

The Maven coordinates are required for each dependency you need to add. A second dependency would be included after the JUnit dependency,

ADDING DEPENDENCIES

```
1 <dependencies>
2   <dependency>
3     <groupId>junit</groupId>
4     <artifactId>junit</artifactId>
5     <version>3.8.1</version>
6     <scope>test</scope>
7   </dependency>
8 </dependencies>
```



Scope

The scope tells Maven when to use the dependency. Valid values for the scope are test, provided, runtime, system, or compile.

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Next Video

JAXRS 1-0015

Eclipse