

Primeiro projeto e conceitos

Criando um projeto via linha de comando

1. Abra o cmd
2. Entre na pasta que iremos criar o projeto
Exemplo: `cd C:\Users\Projeto Maven`
3. Execute o comando `mvn archetype:generate -DgroupId=one.digitalinnovation -DartifactId=quick-start-maven -Darchetype=maven-archetype-quickstart -DinteractionMode=false`
4. Para as perguntas que aparecem, basta colocar o que está do lado esquerdo.
Exemplo: Choose a number or apply filter: 1924 : digite 1924

Comandos que auxiliam o dia a dia

Compilar: compile

- Compilar a Aplicação
 - Entre na pasta do seu projeto via cmd e digite o comando **mvn compile**

```
C:\Users\willyan\devtools\projects\java-11>mvn compile
[INFO] Scanning for projects...
[INFO]
[INFO] -----< one.digitalinnovation:java-11 >-----
[INFO] Building java-11 1.0.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ java-11 ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\willyan\devtools\projects\java-11\src\main\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ java-11 ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 2 source files to C:\Users\willyan\devtools\projects\java-11\target\classes
[INFO]
[INFO] < BUILD SUCCESS
[INFO]
[INFO] Total time: 1.036 s
[INFO] Finished at: 2021-08-31T13:41:41-03:00
[INFO] -----
```

Testar: test

- Testar a Aplicação
 - Digite no cmd o comando **mvn test**

```
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ java-11 ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\willyan\devtools\projects\java-11\src\main\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ java-11 ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ java-11 ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\willyan\devtools\projects\java-11\src\test\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ java-11 ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to C:\Users\willyan\devtools\projects\java-11\target\test-classes
[INFO]
[INFO] < --- maven-surefire-plugin:2.22.1:test (default-test) @ java-11 ---
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running one.digitalinnovation.HelloWorldTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.007 s - in one.digitalinnovation.HelloWorldTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 2.692 s
[INFO] Finished at: 2021-08-31T13:42:39-03:00
[INFO] -----
```

Empacotar: package

- Empacotar o software, criar o .jar
 - Digite no cmd o comando **mvn package**

```

C:\Users\willyan\devtools\projects\java-11>mvn package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< one.digitalinnovation:java-11 >-----
[INFO] Building java-11 1.0.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ java-11 ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\willyan\devtools\projects\java-11\src\main\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ java-11 ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ java-11 ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\willyan\devtools\projects\java-11\src\test\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ java-11 ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ java-11 ---
[INFO]
[INFO] T E S T S
[INFO] -----
[INFO] Running one.digitalinnovation.HelloWorldTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.007 s - in one.digitalinnovation.HelloWorldTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- maven-jar-plugin:3.1.1:jar (default-jar) @ java-11 ---
[INFO] Building jar: C:\Users\willyan\devtools\projects\java-11\target\java-11-1.0.0-SNAPSHOT.jar
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 2.622 s
[INFO] Finished at: 2021-08-31T13:44:04-03:00
[INFO]

```

Limpar diretório de trabalho: clean

- Limpar Diretório de Trabalho, apagar a pasta Target
 - digite no cmd **mvn clean**

```

C:\Users\willyan\devtools\projects\java-11>mvn clean
[INFO] Scanning for projects...
[INFO]
[INFO] -----< one.digitalinnovation:java-11 >-----
[INFO] Building java-11 1.0.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ java-11 ---
[INFO] Deleting C:\Users\willyan\devtools\projects\java-11\target
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 0.220 s
[INFO] Finished at: 2021-08-31T13:44:40-03:00
[INFO]

```

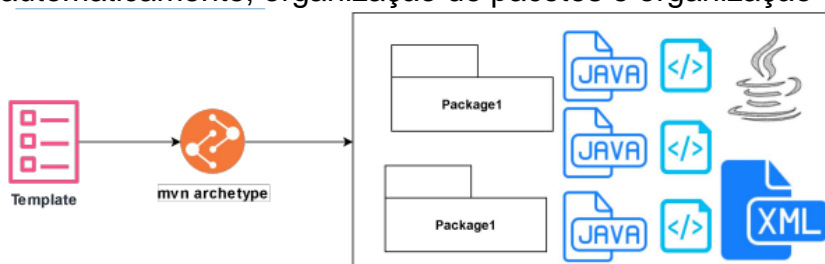
Criando diferentes tipos de projeto

Como?

Maven archetype

Nele decidimos como o projeto vai ser construído.

Nesse template decidimos a versão dos componentes, quais componentes serão inseridos automaticamente, organização de pacotes e organização de arquivos.



- Pesquise na internet por “maven archetype list” para encontrar a opção que faz mais sentido para o seu cenário.
 - O próprio site da Maven disponibiliza alguns archetype (<https://maven.apache.org/archetypes/>)

Maven Archetypes

Maven provides several archetype artifacts:

Archetype Artifacts	Description
maven-archetype-archetype	An archetype to generate a sample archetype.
maven-archetype-j2ee-simple	An archetype to generate a simplified sample J2EE application.
maven-archetype-plugin	An archetype to generate a sample Maven plugin.
maven-archetype-plugin-site	An archetype to generate a sample Maven plugin site.
maven-archetype-portlet	An archetype to generate a sample JSP-268 Portlet.
maven-archetype-quickstart	An archetype to generate a sample Maven project.
maven-archetype-simple	An archetype to generate a sample Maven project.
maven-archetype-site	An archetype to generate a sample Maven site which demonstrates some of the supported document types like APT, Markdown, XDoc, and FML, and demonstrates how to refer your site.
maven-archetype-site-simple	An archetype to generate a sample Maven site.
maven-archetype-site-xml	An archetype to generate a sample Maven Site Skin.
maven-archetype-webapp	An archetype to generate a sample Maven Webapp project.

- E disponibiliza o comando a ser executado

Maven Archetype Archetype

`maven-archetype-archetype` is an archetype which generates a sample archetype:

```

1. project
2. |<-- pom.xml
3. |<-- src
4. |<-- main
5. |<-- resources
6. |<-- archetype-resources
7. |<-- pom.xml
8. |<-- src
9. |<-- main
10. |<-- java
11. |<-- App.java
12. |<-- test
13. |<-- java
14. |<-- AppTest.java
15. |<-- META-INF
16. |<-- maven
17. |<-- archetype-metadata.xml
18. |<-- test
19. |<-- resources
20. |<-- projects
21. |<-- it-basic
22. |<-- archetype.properties
23. |<-- goal.txt
  
```

Usage

To generate a new project from this archetype, type:

```
1. mvn archetype:generate -DarchetypeGroupId=org.apache.maven.archetypes -DarchetypeArtifactId=maven-archetype-archetype -DarchetypeVersion=1.4
```

- Procure pelas instruções de execução do comando `mvn archetype`.