

22.01Jul.Build Tools

Saturday, July 1, 2023 4:21 PM

1. Convert Source Code --> Build --> Output Artifact

Source Code(Syntax --> .class), Test Cases, List of Library Names(3 Libraries = xml) = .java
|
Build Tool(**Apache Maven**) = Process = .class ---> Package/Artifact --> .war/.jar(Java Archival File)
|
Outputs(Artifacts/Package, Reports, Documentation)

```
$ git clone https://github.com/NubeEra-Samples/Java-Welcome-HelloWorld.git
```

```
$ cd Java-Welcome-HelloWorld
```

```
$ javac -version (Translator .java --> .class)
```

```
$ java -version
```

```
$ javac WelcomeWorld.java #Compile .java(any error, NO- Generate .class file)
```

```
$ java WelcomeWorld
```

Programming Language Supports Build Tool:

1. Java = Apache Ant, **Apache Maven**, Gradle
2. MS.Net(**C#.Net**, VB.Net, F#.Net) = MSBuild, dotnet
3. Scala = SBT-Scala Build Tool

Programming Language doesn't support Build Tool:

1. Python

Apache Maven = POM.xml

Huge classes

Dependencies

POM.xml

- Instruction file --> Maven Command (mvn clean install)
- To Run Project
- List out all dependencies with version

POM.xml Includes:

1. Project Detail
2. Meta Data(Java Version, Maven Version)
3. Dependencies
4. Plugins

\$ mvn clean : delete previous output files(target folder)

\$ mvn compile:

Check Errors -->

If Found then

Print Errors

Else

Generate .class Files

OR

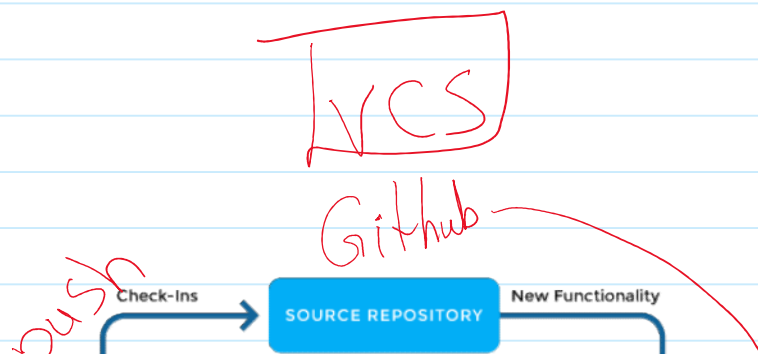
\$

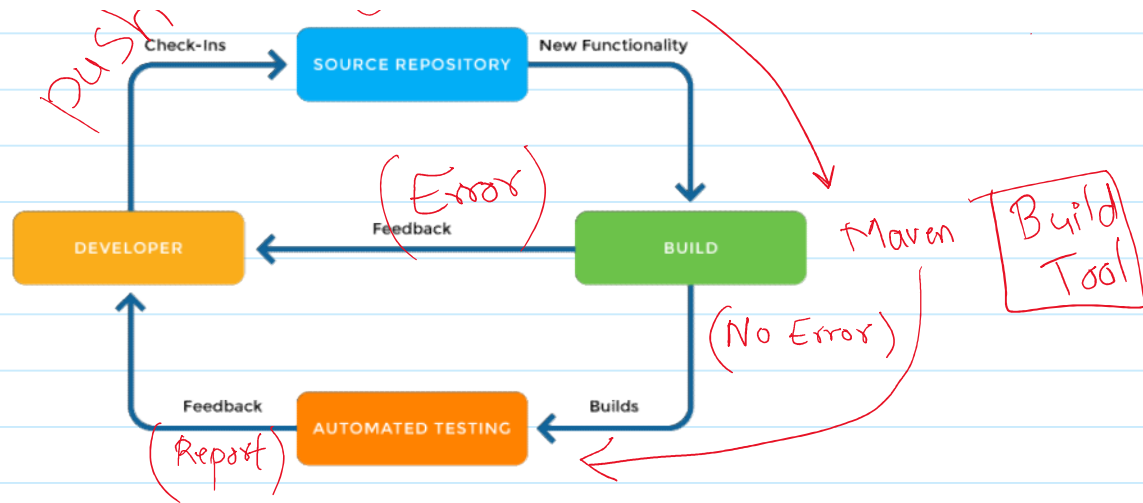
Run Project(File/Files)

\$ cd target\classes

\$ java com.mycompany.app.Calculator

1. Clone Git Project
 - a. \$ git clone <https://github.com/NubeEra-Samples/JavaMvnJUnit.git>
2. Go Inside Project --> Clean Pervious Version
 - a. \$ cd JavaMvnJUnit/
 - b. \$ mvn clean
3. Compile Project
 - a. \$ mvn compile
4. Run Project
 - a. \$ cd target/classes/
 - b. \$ java com.mycompany.app.Calculator





Wed- 9PM EST
Tue - 6.30AM IST