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 mave ...
 - How to Build Java Project including all Dependencies Using Maven? maven-resources, maven-dependency and maven-jar Plugins

Last Updated on July 14th, 2018 by App Shah

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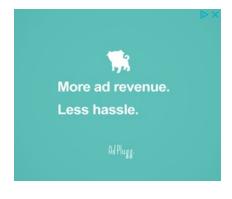


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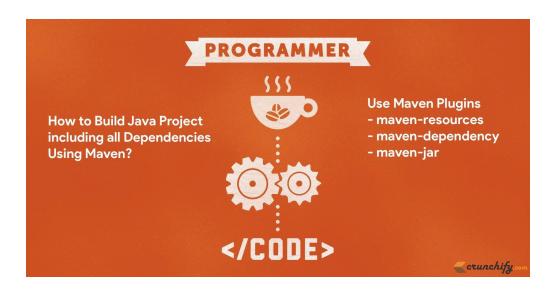






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SEARCH



Are you working on enterprise level Java Project? Using Maven POM.xml file to keep all dependancies up-to date? In your project do you have src folder, resources folder, lib folder, etc? Well, what if you want to deploy this project to 3rd party client? Any other standalone hardware?

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Well, there is a simple way to build and create your Java Project's executable with Maven Plugins. Take a look at below sample Java Project.

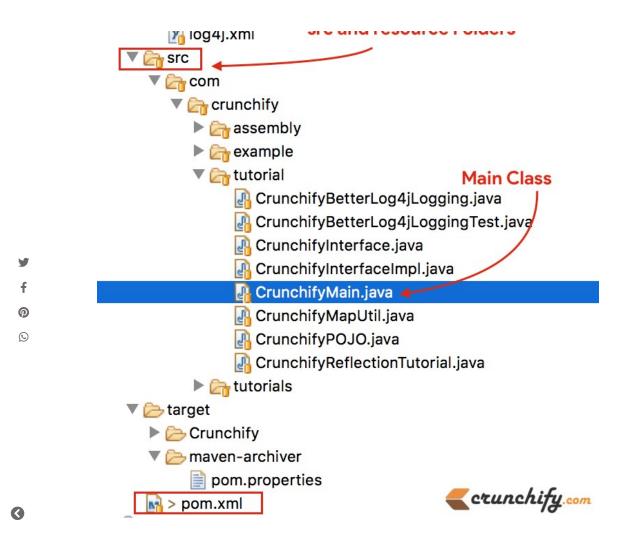


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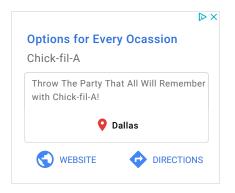
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Let's get started and let me explain all parts of project:

- 1. CrunchifyMavenBuildPlugins is a Maven Project. If you have Java project and wanted to convert it into Maven project then follow this tutorial.
- 2. We do have two folders. src and resources.



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- 3. Inside resources folder we do have a folder called Scripts which contains one executable shell script file.
- 4. CrunchifyMain.java is a main starting point which has main(String args[]) method inside.
- 5. pom.xml file in which we will add Maven Plugins which will build executable .jar project with all included dependancies.

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Open your pom.xml file and add below under <build>. Note: I've added 3 plugins below below.

- maven-resources-plugin: The Resources Plugin handles the copying of project resources to the output directory. The main resources are the resources associated to the main source code.
- 2. maven-dependency-plugin: The dependency plugin provides the capability to manipulate artifacts. It can copy and/or unpack artifacts from local or remote repositories to a specified location.
- 3. maven-jar-plugin: This plugin provides the capability to build and sign jars.

Here is a complete pom.xml file. Mainly you would be interested in <build> tag.

Please update directory location, filename and path as per your need below.

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```
<artifactId>CrunchifyMavenBuildPlugins</artifactId>
<version>0.0.1-SNAPSHOT
<name>CrunchifyMavenBuildPlugins
properties>
       </properties>
<dependencies>
       <dependency>
              <groupId>log4j
              <artifactId>log4j</artifactId>
              <version>1.2.17
       </dependency>
       <dependency>
              <groupId>com.googlecode.json-simple</groupId>
              <artifactId>json-simple</artifactId>
              <version>1.1</version>
       </dependency>
       <dependency>
              <groupId>axis</groupId>
              <artifactId>axis</artifactId>
              <version>1.4</version>
       </dependency>
       <dependency>
              <groupId>commons-beanutils</groupId>
              <artifactId>commons-beanutils</artifactId>
              <version>1.8.3
       </dependency>
       <dependency>
              <groupId>commons-collections</groupId>
              <artifactId>commons-collections</artifactId>
              <version>3.2.1
       </dependency>
       <dependency>
              <groupId>commons-configuration</groupId>
              <artifactId>commons-configuration</artifactId>
              <version>1.10</version>
       </dependency>
       <dependency>
              <groupId>commons-io</groupId>
              <artifactId>commons-io</artifactId>
```

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```
<version>2.4</version>
       </dependency>
       <dependency>
               <groupId>javax.mail</groupId>
               <artifactId>mail</artifactId>
               <version>1.4.7
       </dependency>
       <dependency>
               <groupId>javax.servlet</groupId>
               <artifactId>servlet-api</artifactId>
               <version>2.5</version>
       </dependency>
       <dependency>
               <groupId>org.json</groupId>
               <artifactId>json</artifactId>
               <version>20140107</version>
       </dependency>
       <dependency>
               <groupId>axis
               <artifactId>axis-saaj</artifactId>
               <version>1.4</version>
       </dependency>
       <dependency>
               <groupId>wsdl4j</groupId>
               <artifactId>wsdl4j</artifactId>
               <version>1.6.3
       </dependency>
       <dependency>
               <groupId>com.google.zxing</groupId>
               <artifactId>core</artifactId>
               <version>2.0</version>
       </dependency>
</dependencies>
<build>
       <pluginManagement>
               <plugins>
                       <plugin>
                               <groupId>org.apache.maven.plugins</groupId>
                               <artifactId>maven-compiler-plugin</artifact</pre>
                               <version>2.3.1
                               <configuration>
```

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```
<source>1.7</source>
                               <target>1.7</target>
                       </configuration>
               </plugin>
       </plugins>
</pluginManagement>
<plugins>
       <plugin>
               <artifactId>maven-resources-plugin</artifactId>
               <version>2.6
               <executions>
                       <execution>
                               <id>copy-resources</id>
                               <phase>validate</phase>
                               <goals>
                                      <goal>copy-resources</goal>
                               </goals>
                               <configuration>
                                      <outputDirectory>${basedir}
                                      <resources>
                                              <resource>
                                                      <directory>
                                                      <filtering>
                                              </resource>
                                      </resources>
                               </configuration>
                       </execution>
               </executions>
       </plugin>
       <plugin>
               <groupId>org.apache.maven.plugins
               <artifactId>maven-dependency-plugin</artifactId>
               <executions>
                       <execution>
                               <id>copy-dependencies</id>
                               <phase>prepare-package</phase>
                               <goals>
                                      <goal>copy-dependencies
                               </goals>
                               <configuration>
                                      <outputDirectory>${project.}
                                      <overWriteReleases>false
```

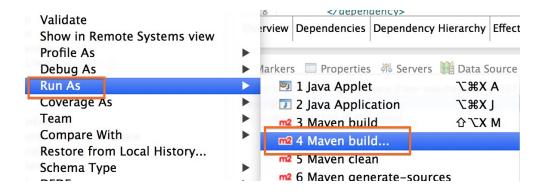
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```
<overWriteSnapshots>false
                                                       <overWriteIfNewer>true
                                               </configuration>
                                       </execution>
                               </executions>
                       </plugin>
                       <plugin>
                               <groupId>org.apache.maven.plugins</groupId>
                               <artifactId>maven-jar-plugin</artifactId>
                               <configuration>
                                       <archive>
                                               <manifest>
                                                       <addClasspath>true</addClassp
                                                       <classpathPrefix>lib/</classp
                                                       <mainClass>com.crunchify.tuto
                                               </manifest>
                                               <manifestEntries>
                                                       <Class-Path>.</Class-Path>
                                               </manifestEntries>
                                       </archive>
                                       <finalName>Crunchify/Crunchify</finalName>
                               </configuration>
                       </plugin>
               </plugins>
       </build>
</project>
```

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Right Click on Project -> Run As -> Maven Build

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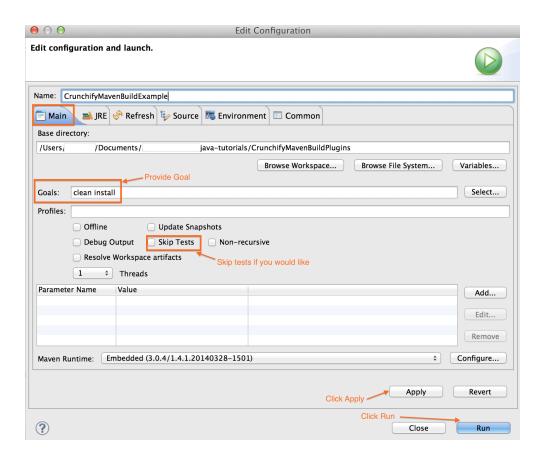


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f Provide argument " clean install "

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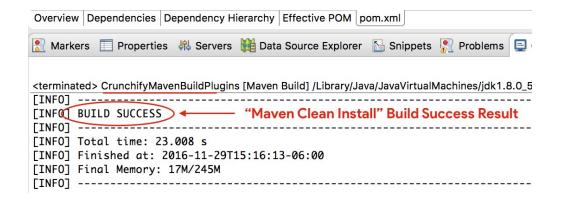


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You should see result something like this.

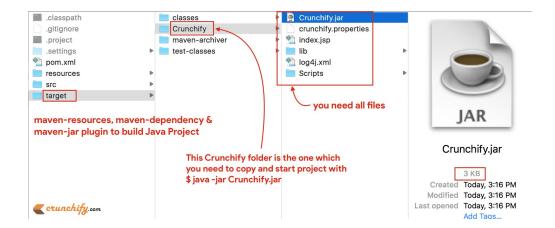


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Now check out the folder folder /target/Crunchify to check everything under that.



Step-6

Now just run your project with below command \$bash> java -jar Crunchify.jar

Do let me know if you have any problem building project. Enjoy and Happy Coding.

Join the Discussion

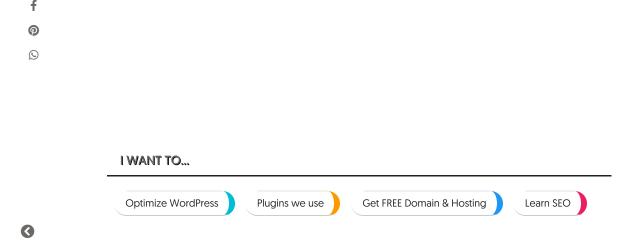
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About App Shah

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