

## Codenvy Documentation

### 1. Create a new workspace

- a. Go to Dashboard > Create workspace
  - i. Select Source: new from blank
  - ii. Select Workspace: create new workspace from stack
    - Select stack authoring
    - Type in: FROM codenvy/ubuntu\_jdk8\_x11
  - iii. Configure workspace: type in desired workspace name
  - iv. Template: select blank-project
    - NOTE: This project blank project will be later deleted
  - v. Click Create
  - vi. Delete blank project inside workspace
- b. Or go to Workspaces > Add Workspace
  - i. Name workspace
  - ii. Click on the Runtime tab
    - Select Stack Authoring
    - Type in: FROM codenvy/ubuntu\_jdk8\_x11
  - iii. Click Save

### 2. Create a new Maven Project

- a. Click Workspace on the top menu > Create Project
  - i. Choose Maven under JAVA
  - ii. Name project
  - iii. Click next
    - **Artifact ID:** \*whatever you choose you must remember it because it will be used in the pom.xml file
    - **Group ID:** \*better to keep it same as Artifact ID, it will also be used in the pom.xml file
    - **Version:** 1.0
    - **Packaging:** JAR
  - iv. Click create
- b. Right click on project folder > create new folder > name it "lib"

### 3. Upload files

- a. Small files

- i. Click on the folder you want the file to be uploaded into, i.e. lib
  - ii. Click on the Project tab at the top of the menu
  - iii. Choose Upload file
  - iv. Select the file you want to upload from your local computer and click Upload
- b. Big files (around 40 MB or more)
  - i. Save you files in a repository on GitHub or Bitbucket (or whatever you choose)
  - ii. In Codenvy, go to terminal
  - iii. Navigate to your folder, i.e. `cd ProjectName/lib/`
  - iv. Clone your remote repository inside the lib folder by running the following command in the terminal: `git clone link-to-repository.com`

#### 4. Adding Source code

- a. Right Click on src/main/java folder
  - i. Click New
  - ii. Click on Java Package and name it
  - iii. Upload/Add java files inside java package
    - To add java files
      - a. Right click the java package and click New
      - b. Click on Java Class and name it

#### 5. Jar files

- a. Make sure jar files are inside the lib folder
- b. For each jar file come up with a
  - i. **Group ID:** \*this preferably should be the package name of the java file you're referencing from
    - Example:
      - a. From the Dyehard.jar, if you are referencing GameWindow.java from the Engine package, then group id would be Engine
  - ii. **Artifact ID:** \*anything you want
- c. Rename your jars
  - i. `Artifact_ID-1.0.jar`
- d. In the terminal, navigate to your project folder: `cd ProjectName`
  - i. For each jar run this command

```
mvn install:install-file -Dfile=/projects/ProjectName/lib/nameOfJar.jar -DgroupId=GroupIDForJar -DartifactId=ArtifactIDForJar -Dversion=1.0 -Dpackaging=jar
```

**\*NOTE:** Make sure the main class doesn't inherit from any class from your jar files, or else the executable jar created by Maven will not execute.

## 6. Modify pom.xml file

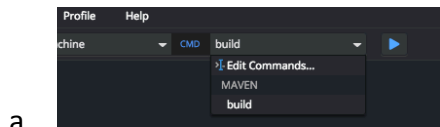
```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
    http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>Project_Group_ID</groupId>
  <artifactId>Project_Artifact_ID</artifactId>
  <version>1.0-SNAPSHOT</version>
  <packaging>jar</packaging>
  <properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
  </properties>
  <dependencies>
    <dependency>
      <groupId>Jar1_Group_ID</groupId>
      <artifactId>Jar1_Artifact_ID</artifactId>
      <version>1.0</version>
    </dependency>
    <dependency>
      <groupId>Jar2_Group_ID</groupId>
      <artifactId>Jar2_Artifact_ID</artifactId>
      <version>1.0</version>
    </dependency>
    <dependency>
      ...
    </dependency>
  </dependencies>
  <build>
<plugins>
  <plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-install-plugin</artifactId>
    <version>2.5.2</version>
    <executions>
      <execution>
        <id>install-external</id>
        <phase>clean</phase>
        <configuration>
          <file>${basedir}/lib/nameOfJar1.jar</file>
```

```

<repositoryLayout>default</repositoryLayout>
<groupId>Jar1_Group_ID</groupId>
<artifactId>Jar1_Artifact_ID</artifactId>
<version>1.0</version>
<packaging>jar</packaging>
<generatePom>true</generatePom>
<file>${basedir}/lib/nameOfJar2.jar</file>
<repositoryLayout>default</repositoryLayout>
<groupId>Jar2_Group_ID</groupId>
<artifactId>Jar2_Artifact_ID</artifactId>
<version>1.0</version>
<packaging>jar</packaging>
<generatePom>true</generatePom>
...
</configuration>
<goals>
  <goal>install-file</goal>
</goals>
</execution>
</executions>
</plugin>
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-jar-plugin</artifactId>
  <version>2.3.1</version>
  <configuration>
    <archive>
      <manifest>
        <mainClass>packageOfMainClass.NameOfMainClass</mainClass>
        <addClasspath>true</addClasspath>
        <classpathPrefix>${basedir}/lib/</classpathPrefix>
      </manifest>
    </archive>
  </configuration>
</plugin>
</plugins>
</build>
</project>

```

## 7. Create Maven build command



- b. Go to the commands tab and click on the drop down button
- c. Click Edit Command
- d. Add a Maven Command
  - i. **Name:** build
  - ii. **Preview URL:** [http://\\${server.port}.6080](http://${server.port}.6080)

## 8. Run Java Swing Project

- a. In the command tab, choose the Maven build command
- b. Click the blue play button
- c. After build is done, click on the preview URL
  - i. noVNC window will open
- d. In the noVNC window
  - i. Right click and choose Terminal
  - ii. Do the following commands
    - Navigate to target folder inside the project folder: `cd ProjectName/target`
    - Run executable jar file inside target: `java -jar projectGroupID-1.0-SNAPSHOT.jar`
- e. If you make a change in the code
  - i. Close noVNC window
  - ii. Build the project again
  - iii. Click on the preview URL
  - iv. Do those commands in noVNC all over again