

# Homework\_01

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## 1. What is the basic steps to init a git repo in you local?

Get token, fork and copy reop from others, clone to local computer, create a branch and switch to it, edit.

## 2. How to clone a repo from Github?

After fork and copy others reop to your Github, use command line:

```
git clone url_from_your_own_repo
```

## 3. How to create a new branch and checkout to that branch?

After cloning the repo to the local computer, use command line:\*\*

```
git checkout -b branch_name
```

## 4. How to merge the new-branch to master branch? show me the commands.

Use the following two command lines first, then on your own Github, "compare" and "pull request" to merge.

```
git commit -m "message about update"  
git push -u origin branch_name
```

## 5. What is maven role? what it be used to do?

Maven is a powerful management tool used primarily for Java projects. It is based on POM (project object model), used for projects build, dependency and documentation.

## 6. What is the lifecycle of maven? could you tell me the details?

Lifecycles refers to a well-defined sequence of phases, which define the order in which the goals are to be executed. There are three built-in lifecycles, default, clean and site. The default lifecycle handles your project deployment, the clean lifecycle handles project cleaning, while the site lifecycle handles the creation of your project's web site.

## 7. what is the difference between package and install in maven lifecycle?

Package and install are two different phases/steps in maven lifecycle.

Package: This step packages the compiled code in distributable format like JAR or WAR.

Install: This step installs the packaged code to the local Maven repository.

## 8. What is difference between passing by value and passing by reference? Could you design a code to verify your understanding and screenshot it to me?

Passing by value: variables are independently modified.

Passing by reference: variables are pointing to the same reference, change one of the variables will affect the rest.

```

public class Demo{
    public static void main(String[] args) {

        //passing by value:
        int a = 10;
        int b = 10;
        b = 20
        System.out.println(a); // 10
        System.out.println(b); // 20

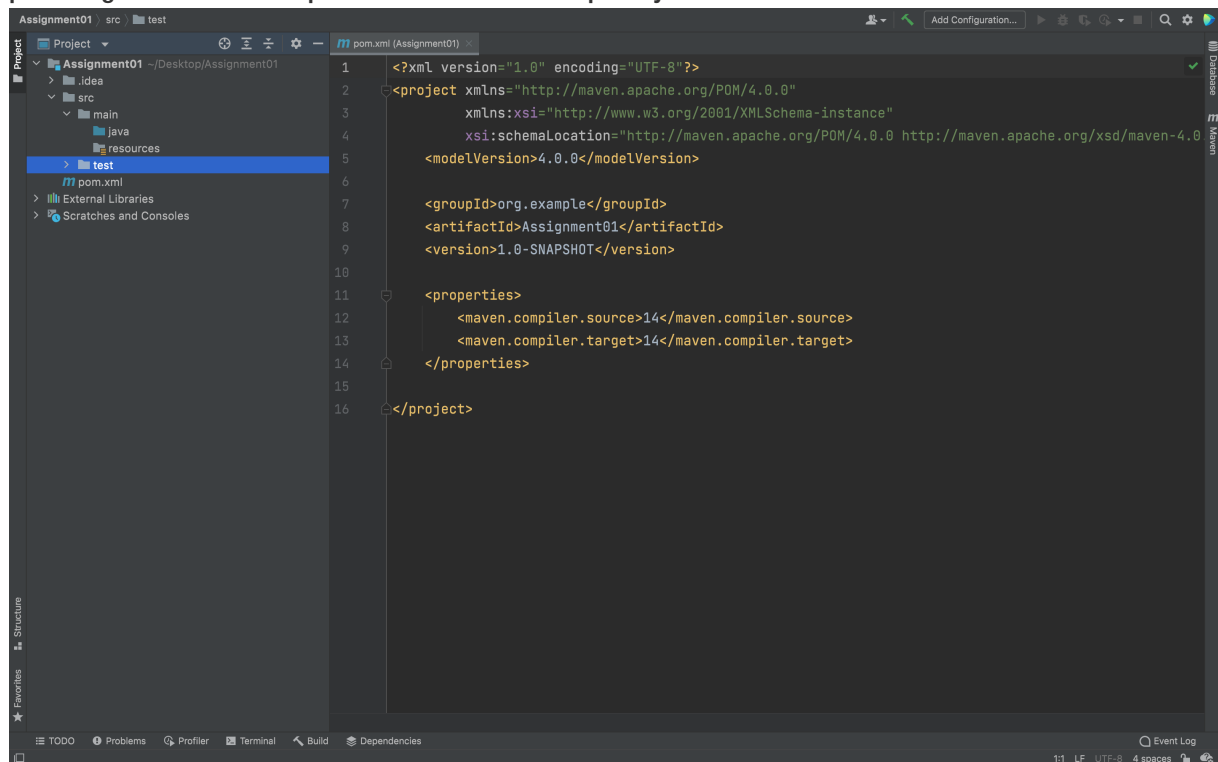
        //passing by reference:
        int[] ns = { 68, 79, 91, 85, 62 };
        int[] c = ns;
        int[] d = ns;

        d[0] = 20;
        System.out.println(c[0]); // 20
        System.out.println(c[0]); // 20

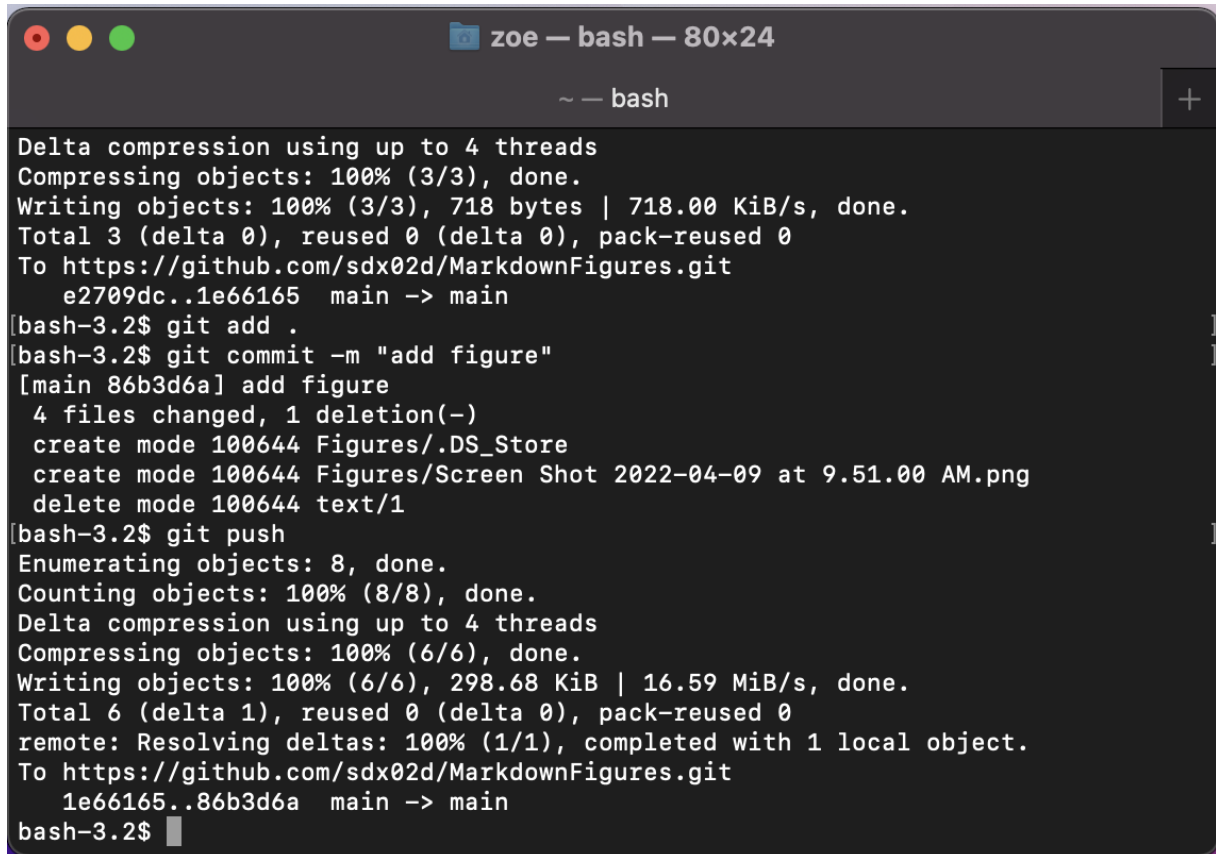
    }
}

```

9. practice git and Github then provide one screenshot to prove you have done it.



10. create a maven project using IntelliJ like the teacher did in the class, send screenshot to me.



```
zoe — bash — 80x24
~ — bash

Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 718 bytes | 718.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/sdx02d/MarkdownFigures.git
   e2709dc..1e66165  main -> main
[bash-3.2$ git add .
[bash-3.2$ git commit -m "add figure"
[main 86b3d6a] add figure
   4 files changed, 1 deletion(-)
   create mode 100644 Figures/.DS_Store
   create mode 100644 Figures/Screen Shot 2022-04-09 at 9.51.00 AM.png
   delete mode 100644 text/1
[bash-3.2$ git push
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 4 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 298.68 KiB | 16.59 MiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/sdx02d/MarkdownFigures.git
   1e66165..86b3d6a  main -> main
bash-3.2$
```