# Algorithms And Programming

## Week-2 (Git)

## Spring Semester, 2022-2023

Download DOC, SLIDE, PPTX

## Git

- How to use Git?

# How to use Git?

## Git

- **Here is a basic overview of how Git works**

  1.Create a "repository" (project) with a git hosting tool (like Bitbucket)

  2.Copy (or clone) the repository to your local machine

  3.Add a file to your local repo and "commit" (save) the changes

  4."Push" your changes to your main branch

  5.Make a change to your file with a git hosting tool and commit

  6."Pull" the changes to your local machine

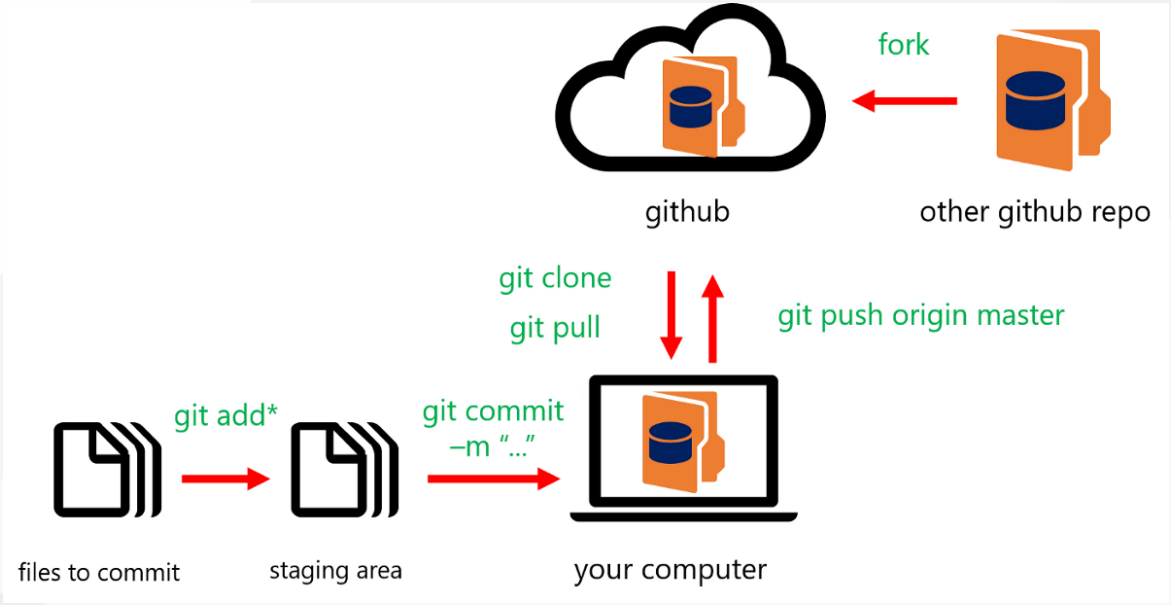
  7.Create a "branch" (version), make a change, commit the change

  8.Open a "pull request" (propose changes to the main branch)

  9."Merge" your branch to the main branch

# Git

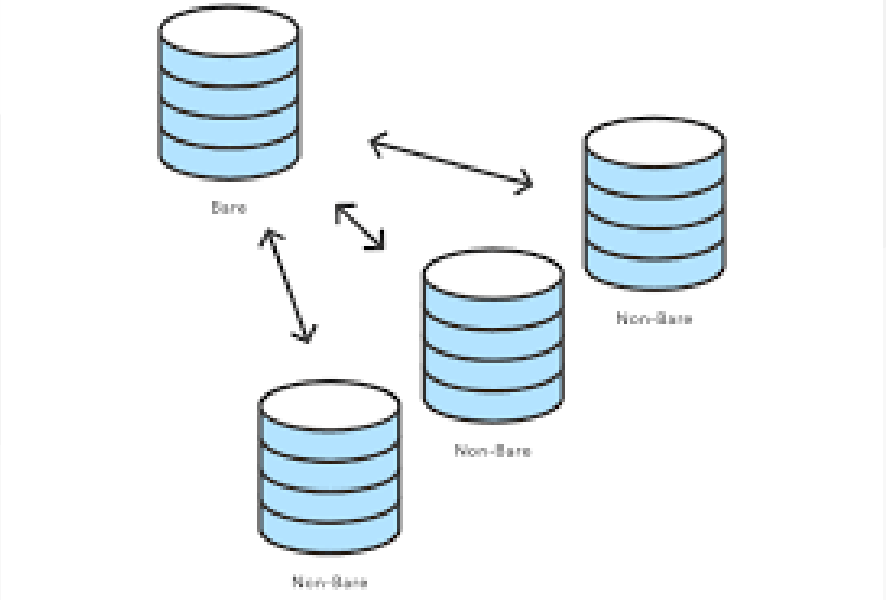
- **Sample git notation**
  A simple modeled version of the git shown in this image.



## Git

- **Simple "git init" notation**

The git init command creates a new Git repository. It can be used to convert an existing, unversioned project to a Git repository or initialize a new, empty repository.



```
Akash Jha@LAPTOP-LJJ1U61G MINGW64 ~/Desktop/Git/SetUp (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file1.txt
        file2.txt

nothing added to commit but untracked files present (use "git add" to track)

Akash Jha@LAPTOP-LJJ1U61G MINGW64 ~/Desktop/Git/SetUp (master)
$ git add .

Akash Jha@LAPTOP-LJJ1U61G MINGW64 ~/Desktop/Git/SetUp (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1.txt
        new file:   file2.txt
```

## Git

- **How to use "git add"**
  Here you see using a git add from the command line.

```
HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ touch newfile4.txt

HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory
        modified:   newfile3.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        newfile4.txt

no changes added to commit (use "git add" and/or "git commit -a")

HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ git commit -a
[master fc66f84] updated newfile3
 1 file changed, 1 insertion(+)
```

## Git

- **How to use "git commit"**
  Here you see using a git commit from the command line.

# **TODO** DO MORE LEARN

# References


- https://www.atlassian.com/git/tutorials/learn-git-with-bitbucket-cloud
- https://www.atlassian.com/git/tutorials/setting-up-a-repository/git-init
- https://www.atlassian.com/git/tutorials/learn-git-with-bitbucket-cloud
- https://medium.com/swlh/an-introduction-to-git-and-github-22ecb4cb1256
- https://git-scm.com/

$$End - Of - Week - 2 - Module$$