# Git and Github

Git:

* Git is a version control system.
* Git helps you keep track of code changes.
* Git is used to collaborate on code.

Git-hub:

Github is a web-based git-hub repository hosting service.

Git-hub alternatives:

* + - * BitBucket
      * Gitbucket

## Download git from <https://git-scm.com/>

Step1: open cmd

Step2: git enter

//create userid and password in your local system

Step3:git config --global user.name “[MadhupriyaJ](https://github.com/MadhupriyaJ)”

Step4:git config --global user.email “madhu30071998@gmail.com”

Now you are ready to work with GitHub

Create repository in GitHub  
Push your folder in GitHub with the specified repository

## Clone repository file in your local folder

1. Open your local folder in vscode
2. Open terminal
3. Got to GitHub repository --> click code<> --> copy the link(origin) -->paste in terminal like
4. Command 1: git clone <origin link>  
     
   how to add new created file from local machine cloning app to GitHub repository
5. Command 2: git add <filename>
6. Command 3: Check untracked files with git status   
    The “git add” command is used in git to add changes or new files to the staging area.  
    The staging area is where you prepare your changes before committing them to the repository

Created Filename.js  
  
this is a staging area

Git folder older files

New created js file(Added)

Added to staging area

Git copy folder working folder

1. Do commit the changes only then it will add to the git hub copy folder from staging area  
   Command 4: git commit -m “commit message”
2. Now you need to add the git copy folder(**created filename.js**) to github repository. Only then you will see the changes made in the git hub repository  
   Command 5: git push origin master  
    Insert -> Add -> commit -> push

Any modification(update ,delete) ->Add->commit->push

Pull the changes made from the GitHub repository

1. command 6: git pull  
    =>git pull is used to import the newly created files from github repository

# BRANCHING & Merging

* Create a new folder in the local system.Use Git init(command 7) to create a local git repo.
* Create a repo in github.
* Use a git remote add origin(command 8)to see the origin.
* Add some files in github.
* Use git pull command to see the changes in the local system.

Command 9 : git branch -a

Command 10 : git checkout git-branch-1 => change one branch to another branch

Command11 : git branch

Command12 : create new branch git branch (newbranch name)

Command 13 : if you are working in git branch 2 and need to merge this with main branch git merge git-branch-1 and finaly git push origin main

**git checkout git-branch-1->git status->git add . ->git commit -m”modified”->git push origin git-branch-1**

**Merging: git checkout main -> git merge git-branch-1->git push origin main**