

ASSIGNMENT 2A

Aim : Create version control account on GitHub and using Git commands to create repository and push your code to GitHub.

- What is Git?

Git is a popular version control system. It was created by Linus Torvalds in 2005, and has been maintained by Junio Hamano since then.

It is used for:

- ☐ Tracking code changes
 - ☐ Tracking who made changes
 - ☐ Coding collaboration
- What does Git do?
 - ☐ Manage projects with Repositories
 - ☐ Clone a project to work on a local copy
 - ☐ Control and track changes with Staging and Committing
 - ☐ Branch and Merge to allow for work on different parts and versions of a project
 - ☐ Pull the latest version of the project to a local copy
 - ☐ Push local updates to the main project
- Working with Git
 - ☐ Initialize Git on a folder, making it a Repository
 - ☐ Git now creates a hidden folder to keep track of changes in that folder
 - ☐ When a file is changed, added or deleted, it is considered modified
 - ☐ You select the modified files you want to Stage
 - ☐ The Staged files are Committed, which prompts Git to store a permanent snapshot of the files
 - ☐ Git allows you to see the full history of every commit.
 - ☐ You can revert back to any previous commit.
 - ☐ Git does not store a separate copy of every file in every commit, but keeps track of changes made in each commit!
- Why Git?
 - ☐ Over 70% of developers use Git!
 - ☐ Developers can work together from anywhere in the world.

- ☐ Developers can see the full history of the project.
- ☐ Developers can revert to earlier versions of a project.

- What is GitHub

- ☐ Git is not the same as GitHub.
- ☐ GitHub makes tools that use Git.
- ☐ GitHub is the largest host of source code in the world, and has been owned by Microsoft since 2018.

- Steps to Push and PULL version control repository to GitHub

Step No	Command	Description
1	Git Installation	Download Git from the website: https://www.git-scm.com/
2	Command line >git --version	If Git is installed, it should show something like gitversion X.Y
3	git config --global user.name "w3schools-test" git config --global user.email "test@w3schools.com"	Configure Git Change the user name and e-mail address to your own
4	mkdir myprojectcd myproject	Creating Git Folder
5	git init	Initialize Git Initialized empty Git repository in /Users/user/myproject/.git/
6	git status	To check the status
7	git add index.html	Add file to staging environment
8	git add --all	add all files in the current directory to the StagingEnvironment:
9	git commit -m "First release of HelloWorld!"	The committ command performs a commit, and the -m "message" adds a message.
10	git commit -a -m "Updated index.htmlwith a new line"	Skips staging environment
11	git log	To view the history of commits for a repository, youcan use the log command

12	git <i>command</i> -help	See all the available options for the specific command
13	git help --all	See all possible commands

14	git commit -help	See help for specific command
15	git branch hello-world-images	a branch is a new/separate version of the main repository. This command creates a new branch hello-world-images
16	git checkout hello-world-images	checkout is the command used to check out/move to a branch
17	git checkout master	Used to switch between branches
18	https://github.com/	Create a new account on github
19		Create a Repository on GitHub
20	git remote add origin https://github.com/w3schools-test/hello-world.git	Push Local Repository to GitHub
21	git push --set-upstream origin master	push master branch to the origin url,
22		go back into GitHub and see that the repository has been updated:
23	git fetch origin	fetch gets all the change history of a tracked branch/repo
24	git merge origin/master	merge combines the current branch, with a specified branch.
25	git pull origin	pull is a combination of fetch and merge It is used to pull all changes from a remote repository into the branch you are working on.

Conclusion:- Thus we have studied about Git, Github and git commands.

```
MINGW64/e/Html/profilecard
$ git init
Initialized empty Git repository in E:/Html/profilecard/.git/
$ git add README.md
fatal: pathspec 'README.md' did not match any files
$ git commit -m "first commit"
on branch main
Initial commit
Untracked files:
  (use "git add <file>..." to include in what will be committed)
  README.md
  bg-pattern-bottom.svg
  bg-pattern-card.svg
  bg-pattern-top.svg
  favicon-32x32.png
  image-victor.jpg
  index.html
  profile.css

nothing added to commit but untracked files present (use "git add" to track)
$ git add
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working directory
$ git commit -m "project initialized"
(main (root-commit) 3581cd8) project initialized
8 files changed, 109 insertions(+)
create mode 100644 README.md
create mode 100644 bg-pattern-bottom.svg
create mode 100644 bg-pattern-card.svg
create mode 100644 bg-pattern-top.svg
create mode 100644 favicon-32x32.png
create mode 100644 image-victor.jpg
create mode 100644 index.html
create mode 100644 profile.css
$ git branch -M main
$ git remote add origin https://github.com/jadhavakshi/sample1.git
$ git push -u origin main
```

- Git init
- Git version
- Git status
- Pull
- Push
- Commit
- Log
- add