# Assignment 4

**Name: Vidya K N**

1. **What is a repository in GIT? Answer:**
   * A Git repository tracks and saves the history of all changes made to the files in a Git project.
   * It saves this data in a directory called . git , also known as the repository folder.
   * Git uses a version control system to track all changes made to the project and save them in the repository.

# What is GIT? Answer:

Git is distributed version control system.

Git allows the users to perform a operations of projects, it always trace of any changes make in our files. It makes easy to save our work files.

# What is the command you can use to write a commit message?

**Answer:**

**git commit**

Usage: Git commit – m “[Type in the commit

message] “

This command records or snapshots the file permanently in the version history.

Usage: Git commit - a

This command commits any files you’ve added with the git add command and also commits any files you’ve changed since then.

# What are the advantages of using GIT? Answer:

* + Git performs very strongly and reliably

when compared to other version control systems.

* + Git is designed specially to maintain the integrity of source code. File contents are secured.
  + Git is a widely supported open source project.
  + Git offers the type of performance, functionality, security, and flexibility that most developers and teams need to develop their projects.

# What is the function of 'GIT PUSH' in Git?

**Answer:**

* + The git push command is used to upload

local repository content to a remote repository. Pushing is how we transfer commits from our local repository to a remote repo.

# What is "Staging Area" or "Index" in GIT?

**Answer:**

* + These files are also referred to as "untracked files." Staging area is files that are going to be a part of the next commit, which lets git know what changes in the file are going to occur for the next commit. The repository contains all of a project's commits.

# What is the function of git clone? Answer :

* + git clone is a git command line utility used to target an existing repository and create a clone, or copy of the target repository.

# What is the function of 'git config'? Answer:

* The git config command is a convenience function that is used to set Git configuration values on a global or local project level.
* These configuration levels correspond to . gitconfig text files. Executing git

config will modify a configuration text

file.

# What is the purpose of branching in GIT?

**Answer:**

a branch in Git is a way to keep developing and coding a new feature or modification to the software and still not affecting the main part of the project. We can also say that branches create another line of development in the project.

# What is 'git status' is used for? Answer:

* + The git status command displays the state of the working directory and the staging area. It lets we see which changes

have been staged, which haven't, and

which files aren't being tracked by Git.

# 1 1 .What is 'git add' is used for? Answer:

The git add command is used to add file contents to the Index (Staging Area). This command updates the current content of the working tree to the staging area. It also prepares the staged content for the next commit.

# What does 'git pull' command in GIT do internally?

**Answer:**

Incorporates changes from a remote repository into the current branch. In its default mode, git pull is shorthand for git

fetch followed by git merge FETCH\_HEAD .

More precisely, git pull runs git fetch with the given parameters and calls git merge to merge the retrieved branch heads into the current branch.

# How can we see the configuration settings of GIT installation?

**Answer:**

If we want to check our configuration settings, we can use the **git config --list command** to list all the settings Git can find at that point: $ git config --list user.name=Vidya user.

# How will you write a message with commit command in GIT?

**Answer:**

git commit -m

The quickest way to write a git commit is

to use the command **git commit -m** "Git commit message here" .

# How will you create a new branch in Git?

**Answer:**

On GitHub.com, navigate to the main page of the repository. Click the branch selector menu. Type a unique name for our new branch, then select Create branch.

# What command will you use to delete a branch?

**Answer:**

The -D flag, with a capital D (which is an alias for **-- delete --force** ), forcefully deletes the local branch, regradless of its merged

status. But note that we should use this

command should with caution, as there is no prompt asking us to confirm our actions.

# What is the use of git rm command in git?

**Answer:**

git rm is used to remove a file from a Git repository. It is a convenience method that combines the effect of the default shell rm command with git add . This means that it will first remove a target from the filesystem and then add that removal event to the staging index.

# 1 8.Difference between Git and GitHub? Answer :

S.No. **Git GitHub**

1. Git is a software. GitHub is a service.
2. Git is a command-line tool

GitHub is a graphical user interface

Git is installed locally on the

1. system

GitHub is hosted on the web

1. Git is maintained by Linux. GitHub is maintained by Microsoft.

Git is focused on version control GitHub is focused on centralized

1. and code sharing. source code hosting.

# 1 9.GIT is written in which language? Answer:

* C is the programming language in which Git is written. C language makes Git fast by evading runtime overheads linked with other high-level programming languages.

# 20.What is a 'conflict' in git? Answer:

A conflict arises when two separate branches have made edits to the same line in a file, or when a file has been deleted in one branch but edited in the other.

Conflicts will most likely happen when working in a team environment.