**Q-1: How to check if git is available on your system ?**

solnL: Git is available on your system, you can run a simple command in your terminal or command prompt.

\*\* type cmd, and press Enter.]

git --version

**Q -2: how to initialize a new git repository?**

Soln:

**Open Terminal or Command Prompt**:

* Navigate to the directory where you want to initialize the Git repository. You can use the cd command to change directories.

git init : This command initializes a new Git repository in the current directory.

**Verify Initialization:**

After running git init, you should see a message like this

Initialized empty Git repository in /path/to/your/directory/.git/

This confirms that Git has been successfully initialized in the specified directory.Now, you can start adding files to your repository, commit changes, and utilize other Git commands to manage your version control.

**Q-3: how to tell git about your name and email ?**

Soln: git config --global user.name "Your Name"

git config --global user.email "your\_email@example.com"

**Q-4: how to add a file to the staging area ?**

Soln : To add a file to the staging area in Git, you'll use the git add command. Here's how to do it:

**Open Terminal or Command Prompt**:

* Navigate to the directory of your Git repository if you're not already there.

**Run the following command**:

git add <file\_name>

Replace <file\_name> with the name of the file you want to add to the staging area. If you want to add all files, you can use . instead of <file\_name>.

**Verify the Staging Status:**

* To see the files that are staged for the next commit, you can run:

git status

**Q -5: how to remove a file from the staging area ?**

Soln: To remove a file from the staging area in Git, you can use the git reset command. Here's how to do it:

**Open Terminal or Command Prompt:**

* Navigate to the directory of your Git repository if you're not already there.

**Run the following command:**

**git reset HEAD <file\_name>**

**eplace** <file\_name> **with the name of the file you want to remove from the staging area.**

**Verify the Staging Status:**

* To see the files that are staged for the next commit, you can run:

**git status**

**After running** git reset HEAD <file\_name>**, the specified file will be removed from the staging area while keeping the changes in your working directory.**

**Q-6: how to make a commit?**

Soln**: Stage Your Changes:**

* Use the git add command to stage the changes you want to include in the commit. For example, to stage all changes, you can use:

git add .

**commit Your Changes**:

* Once your changes are staged, you can commit them using the git commit command. This command opens your default text editor where you can enter a commit message.

Git commit

git commit -m "Your commit message here"

**Q-7: how to send your changes to a remote repository ?**

Soln: To send your changes to a remote repository in Git, typically hosted on services like GitHub, GitLab, or Bitbucket, you'll use the git push command. Here's how to do it:

Add a Remote Repository (if you haven't already):

* If you haven't connected your local repository to a remote repository yet, you need to add it. You can do this using the git remote add command followed by the name you want to give to the remote repository (commonly named origin) and the URL of the remote repository.

git remote add origin <remote\_repository\_url>

Push Your Changes:

Once your changes are committed locally, you can push them to the remote repository using the git push command followed by the name of the remote repository (often origin) and the branch name. For example, to push changes from your current branch to the main branch on the remote repository:

git push origin main

**Q-8: what is difference between clone and pull ?**

Soln: git clone and git pull are both Git commands used for interacting with remote repositories, but they serve different purposes:

* git clone:
  + git clone is used to create a copy of a remote repository on your local machine.
  + It copies the entire repository, including all branches and commit history, to your local machine.
  + This command is typically used when you want to start working on a project that already exists remotely.
  + Example

git clone <repository\_url>

* git pull:
  + git pull is used to fetch the latest changes from a remote repository and merge them into your local branch.
  + It's essentially a combination of two commands: git fetch (to retrieve the latest changes from the remote repository) and git merge (to merge those changes into your local branch).
  + This command is used when you want to update your local repository with the latest changes from the remote repository.
  + ,git pull origin main
  + This command fetches changes from the main branch of the remote repository named origin and merges them into your current local branch.