GIT is a version control system used in the software development industry to manage changes to source code. It helps keep track of changes, who made them, and why.

SETUP GIT:

To set up GIT, you need to install it on your system. You can download the latest version from https://git-scm.com/downloads. Once installed, you can configure your username and email using the following commands:

$ git config --global user.name "Your Name"

$ git config --global user.email [youremail@domain.com](mailto:youremail@domain.com)

COMMANDS:

git init - Initialize a new Git repository.

git status - Check the status of files in the working directory and the staging area.

git add - Add files to the staging area.

git rm --cached - Remove a file from the staging area.

git commit - Record changes to the repository.

git log - View the commit history.

git diff - View the changes between commits, the staging area, and the working directory.

git show - Show details of a specific commit.

git checkout - Change to a specific branch or restore files in the working directory.

git branch - Manage branches in a Git repository.

git merge - Combine changes from multiple branches.

git rebase - Reapply commits to the current branch.

git remote - View and manage remote repositories.

git push - Send changes to a remote repository.

git pull - Fetch and merge changes from a remote repository.

WORKING WITH REMOTES:

git remote add origin <repository\_url> - Add a remote repository to your local Git repository.

git remote -v - View the remote repository details.

git push -u origin <branch\_name> - Push changes to a remote repository.

git pull origin <branch\_name> - Fetch and merge changes from a remote repository.

git remote rm <remote\_name> - Remove a remote repository.

BRANCHING AND MERGING:

git branch <branch\_name> - Create a new branch.

git checkout <branch\_name> - Switch to a specific branch.

git merge <branch\_name> - Merge changes from a branch into the current branch.

git rebase <branch\_name> - Reapply changes from the current branch onto another branch.