**GIT**

GIT is a version control tool is used maintain the history of the projects.

Suppose you made changes to you code and the application breaks because of the new feature and you wanted to go back in time and access previous code where that application is working fine. GIT will help you achieve that.

And 100 developers are working on the same projects GIT will be used to maintain the project with GIT we can see at what time which developer made what change to the code base and also with GIT we can set approvers so that only when the code is approved by reviewers the code can be merged into main code base.

GIT is a service provider like email just like email has different applications like Gmail and Outlook GIT also has different applications to provide version control service like GitHub, GitLab

**GIT commands:**

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| Command | Description |
| git init | creates .git folder where all history of current folder is being saved |
| git status | to know what changes are made in our project |
| git add . | Adds all the files that are untracked to the staging area |
| git add filename.txt | adds specific files to staging area |
| git commit -m “add text here” | to commit the staged changes |
| git restore --staged filename.txt | to restore staged files/ to unstage staged files |
| git log | History of all the commits |
| git reset hashcode (eg of hashcode afgdtehvbchdu) | Removes all the commits above the hashcode given after git reset command and the above commits are sent to unstaged state |
| git stash | Helps if we don’t want to commit the changes right now but use at a later point of time |
| git stash pop | All the commits in the stash area will be applied |
| git stash clear | All the changes in the background will be cleared |
| git remote add origin https://websitename | Add our folder to github repo |
| git remote remove origin | Remove the origin website |
| git remote -v | Displays the origin URL |
| git push origin main | Pushes our changes to github |
| git pull --rebase origin main | If any ref errors occur |

**Some Basic Linux Commands**:

* ls : list all things in current folder
* ls – a : list all the files including hidden files
* touch : create a new file eg: touch file.txt
* cat : open content of file