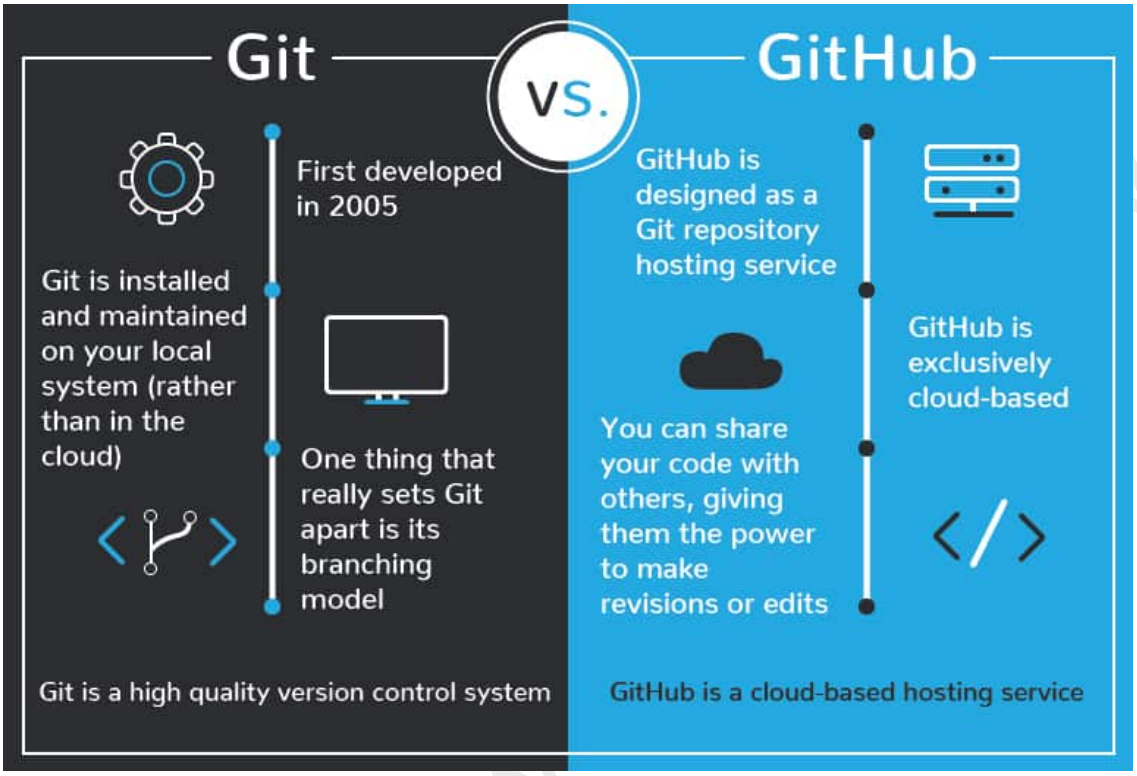
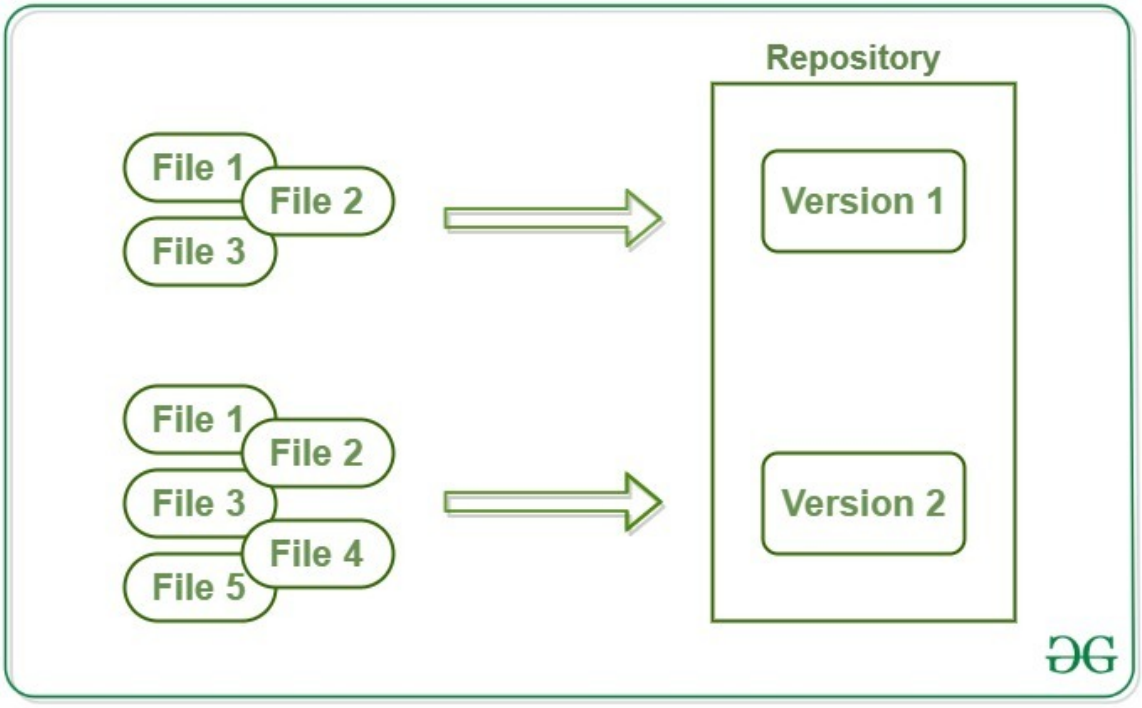
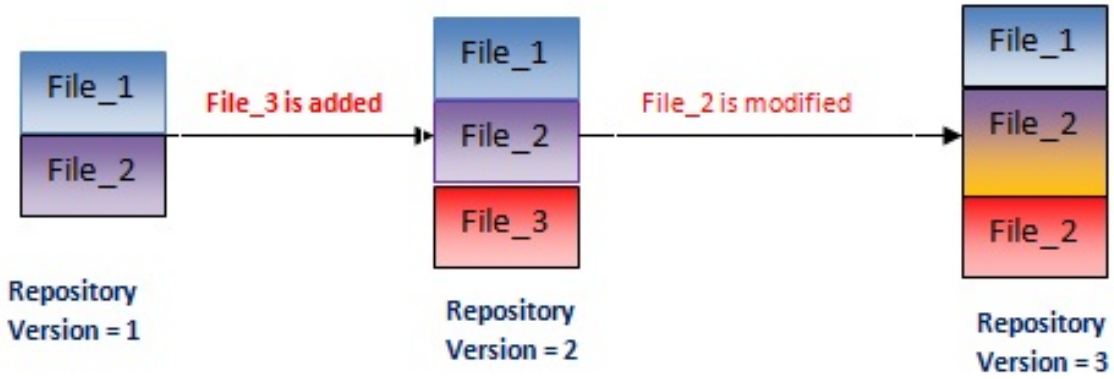
Git vs Github



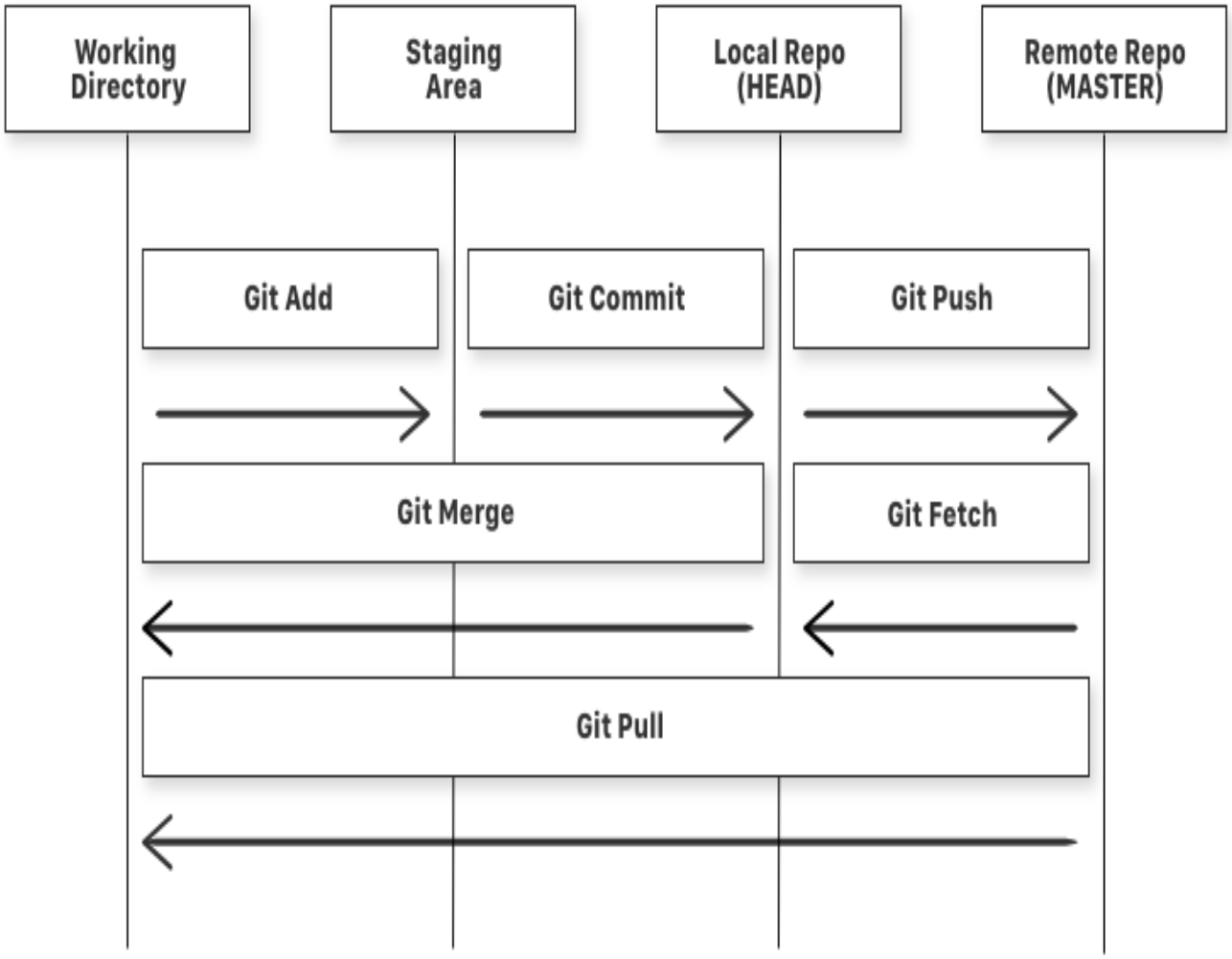


What is git?

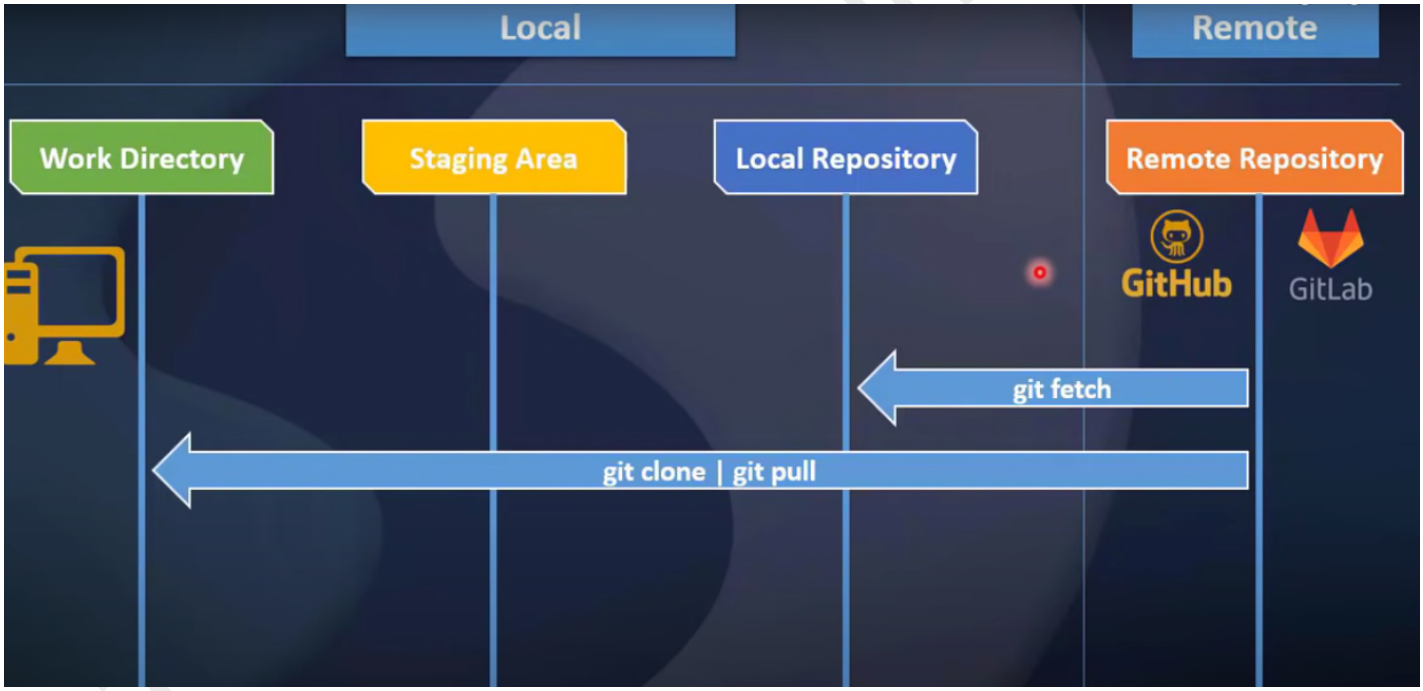
Business Organization
Developer 1
git
Distributed Server
Developer 2
Developer 3

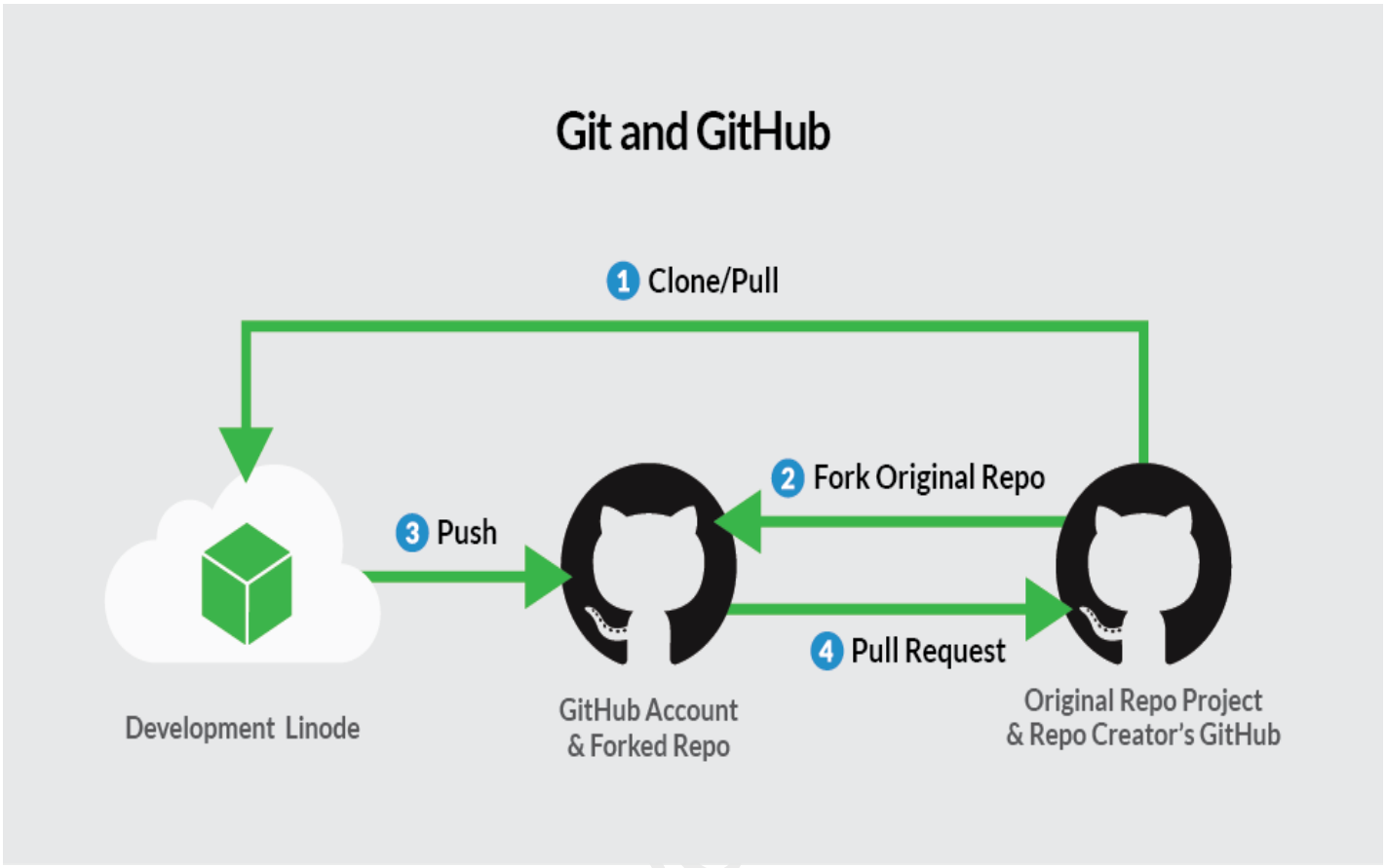

File_1
File_2
File_3 is added
File_1
File_2
File_3
File_2 is modified
File_1
File_2
File_2
Repository Version = 1
Repository Version = 2
Repository Version = 3

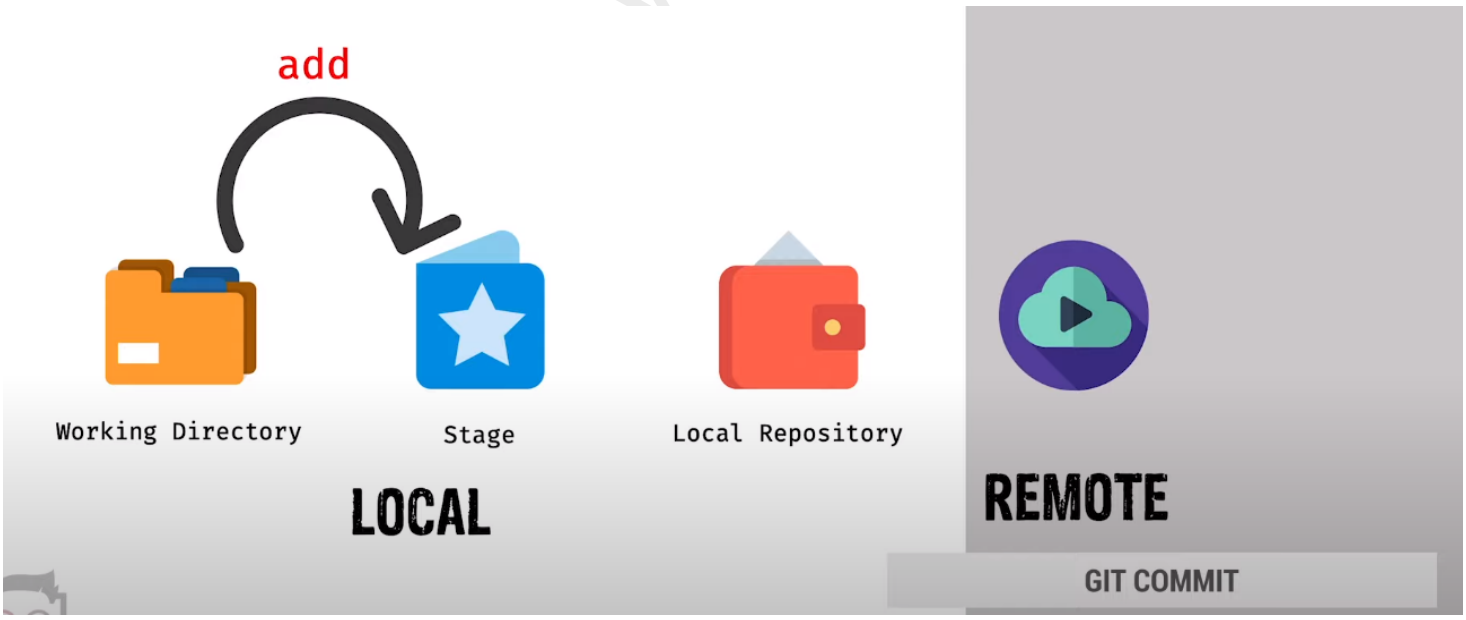
How git Works?



Local
Remote
Work Directory
Staging Area
Local Repository
Remote Repository
GitHub
GitLab
git add [stage files]
git commit
git push


Local
Remote
Work Directory
Staging Area
Local Repository
Remote Repository
GitHub
GitLab
git fetch
git clone | git pull


Git and GitHub
1 Clone/Pull
2 Fork Original Repo
3 Push
4 Pull Request
Development Linode
GitHub Account
& Forked Repo
Original Repo Project
& Repo Creator's GitHub


add
Working Directory
Stage
Local Repository
LOCAL
REMOTE
GIT COMMIT

Operation	Command	phase
Make Folder	mkdir	
Change directory	cd	
Make file	touch	
Current Directory	pwd	
Back to Directory	cd ../	
Git initialize	git init	Working area
Git Add to stage	• git add -A • git add --all	Stage
Check status	git status	
Print File	ls	
Git Add only the file of the current folder	git add . (good practice to add every file from root dir)	Stage

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To add every file except the deleted file	git add *	Stage
To do Unstage	git reset	Working Area
To add one file	git add one.txt	Stage

** we add changes in stage not changed file

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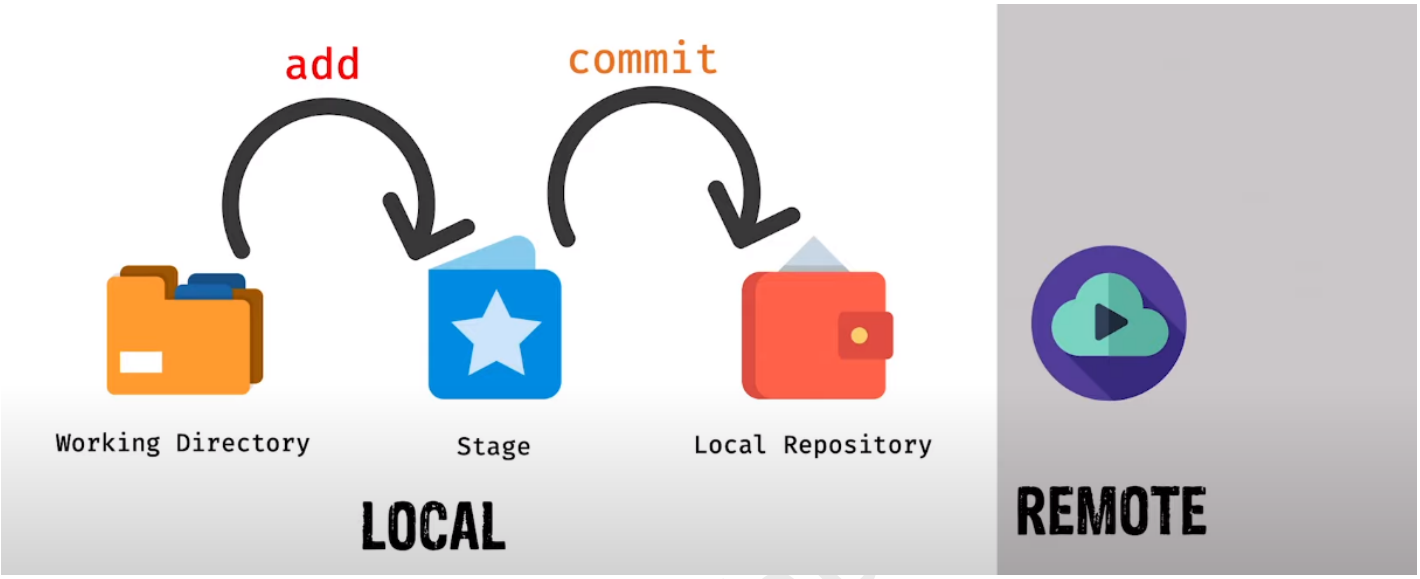
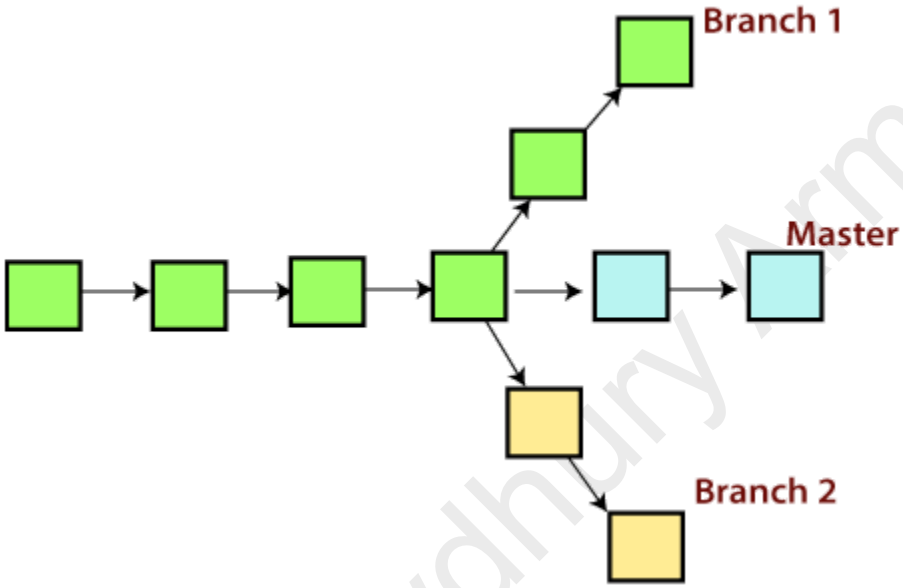
Stage to Local Repository



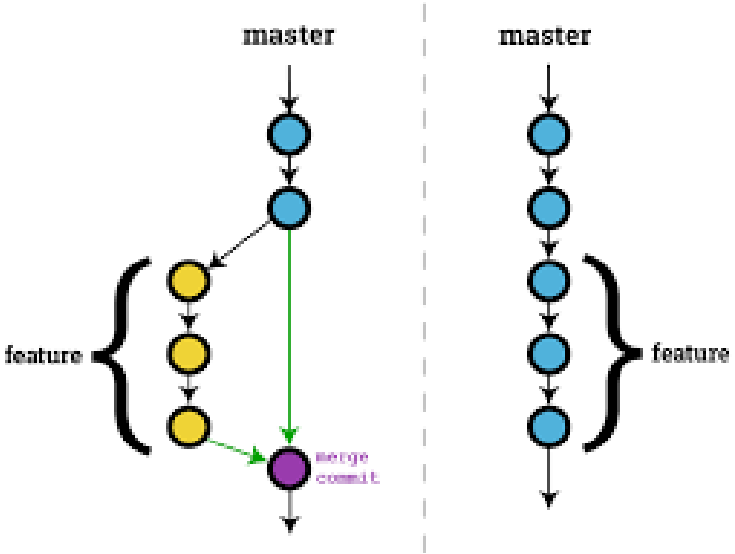
Operation	Command	Phase
Commit	git commit -m “I change the name”	Local repository
To undo everything to working directory	git reset HEAD~	Working Directory
If we rollback the deleted file also	git reset –hard	
Delete & stage up the changes	git rm roll.txt	Stage
Forcefully delete	Git rm roll.txt -f	

Branching

Master changed into Main Now



Merging



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Check How many branches	git branch
Create new branch	git branch name
To work in new branch	git checkout name
If want to merge main branch with development	git merge main (-m “merge..”)
Merge conflict(change in same line in two branch)	

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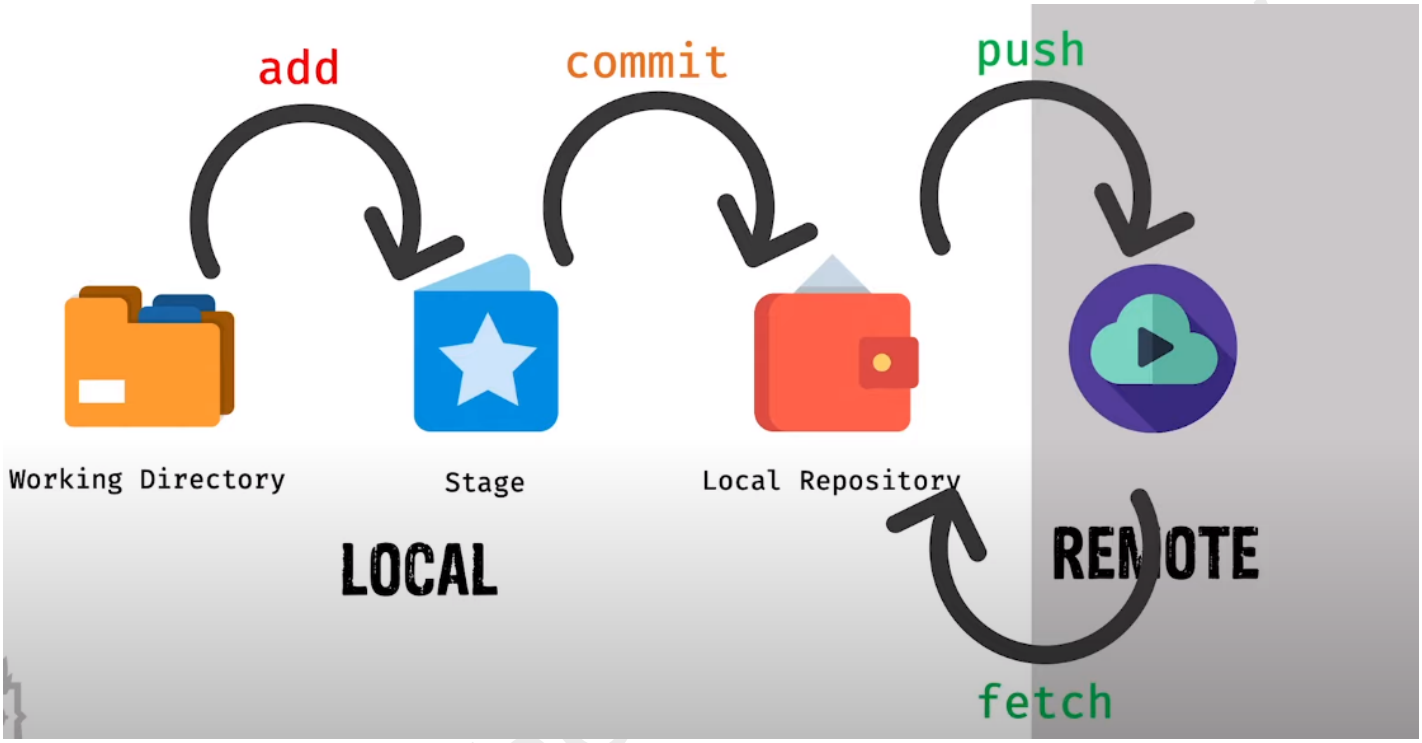
Remote

Fetch



To bring changes to local we have to use fetch .
Fetch doesn't bring changes to Working directory.
If we want to bring changes directly to working directory hen we use pull(fetch + merge).

To push the code from stage to remote(origin means remote)	git push origin main	
pull to working directory	git pull	

If we want to upload whole local branch to remote in same name:

git push --set-upstream origin localbranchname

If we want to push files from local branch to different remote branch:

git push origin localbranch:remotebranch

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