

Version Control with GIT/GITLAB:  
Basics of version control, using Git for project management,  
Github Basics , introduction to GitLab for collaboration.

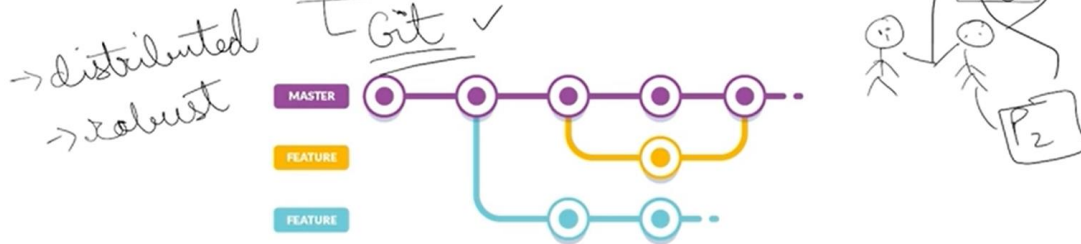


## Version Control- Git, Github and Gitlab



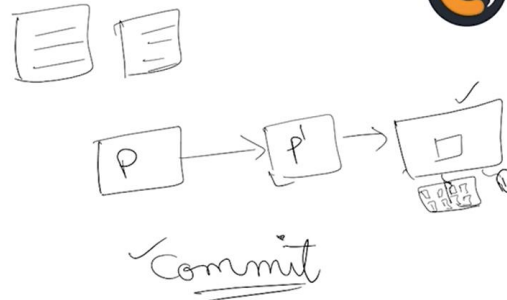
# Introduction to Version Control

- What is version control? ✓
- Why is version control crucial for software development? ✓
- Common version control systems.

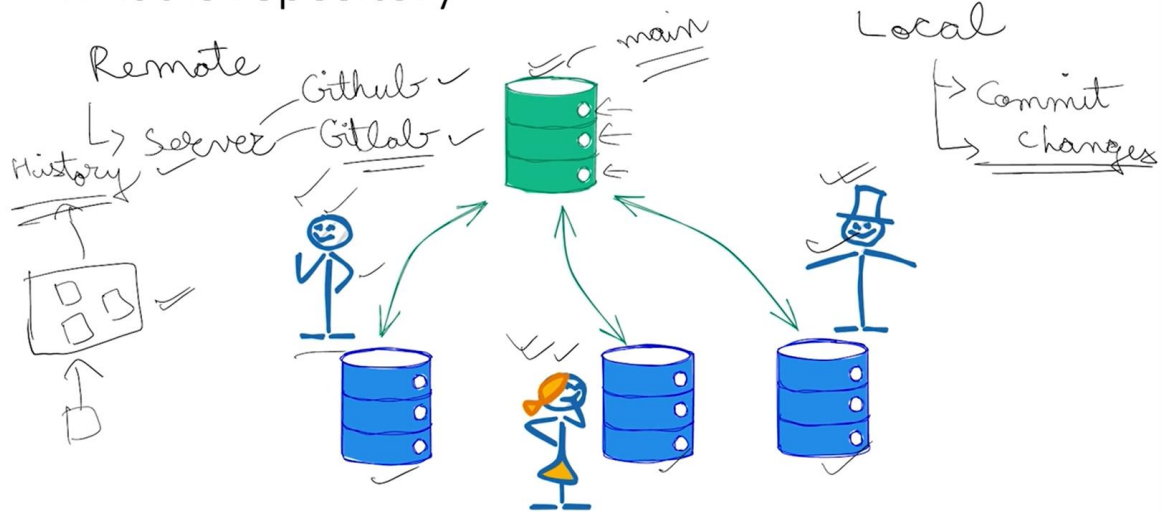


## Basics of Git

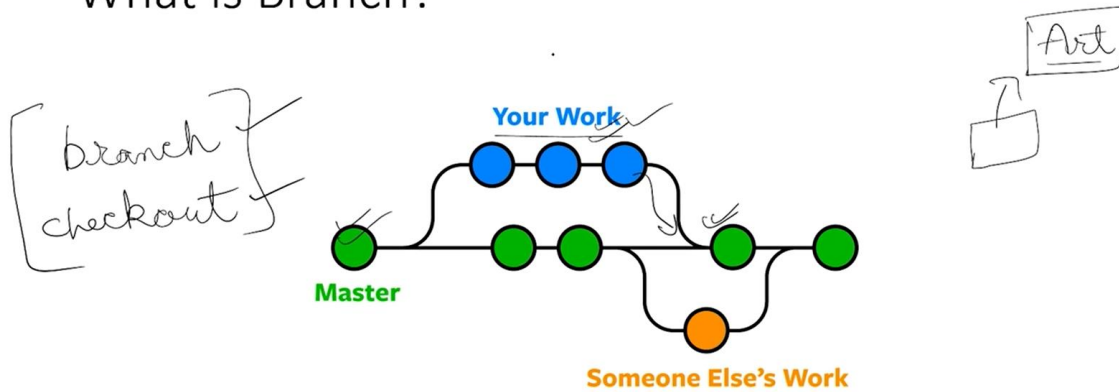
- ✓ What is Git? ✓
- Key Features:
  - Snapshot → Projects
  - Branches → ==
    - local & remote repositories.
- Basic Commands: git init, git add, git commit, git status



## What is repository?



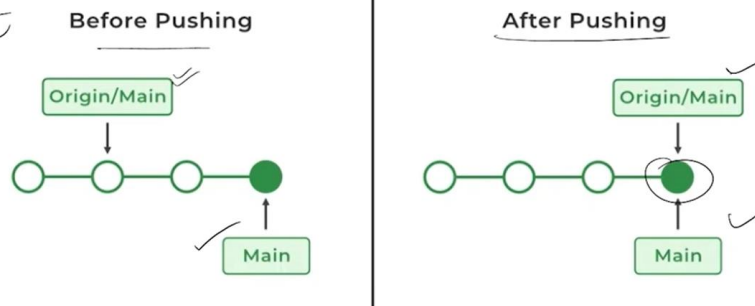
## What is Branch?



## What is Push?

→ add  
→ commit  
→ push

git push



## What is Pull request?

↳ merge code

• What is Git?

• Key Features:

- Snapshot
- Branches
- local & remote repositories.

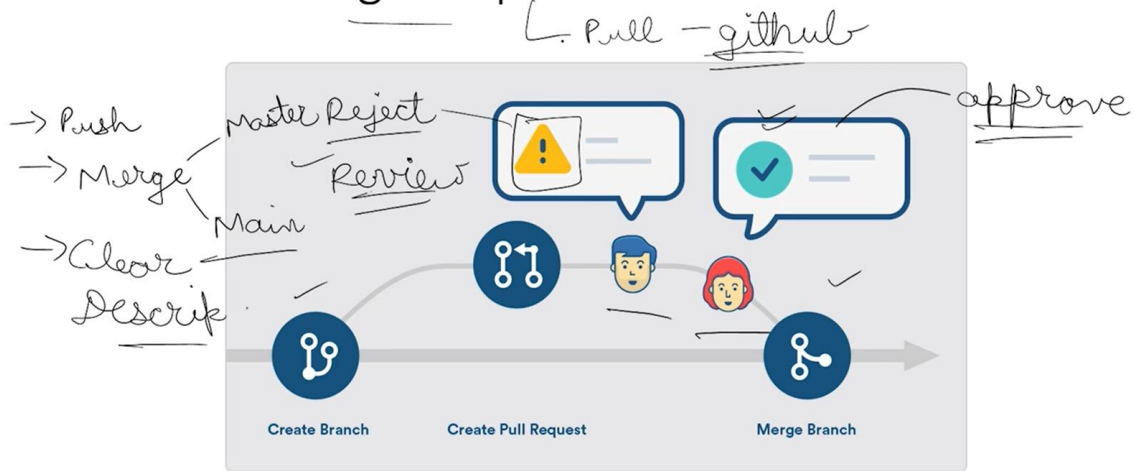
Print

discuss  
review  
enhance

✓ Basic Commands: git init, git add, git commit, git status



## What is Merge Request?



## What is Commit?

- What is Git?
- Key Features:
  - Snapshot
  - Branches
  - local & remote repositories.
- Basic Commands: git init, git add, git commit, git status

→ safety net

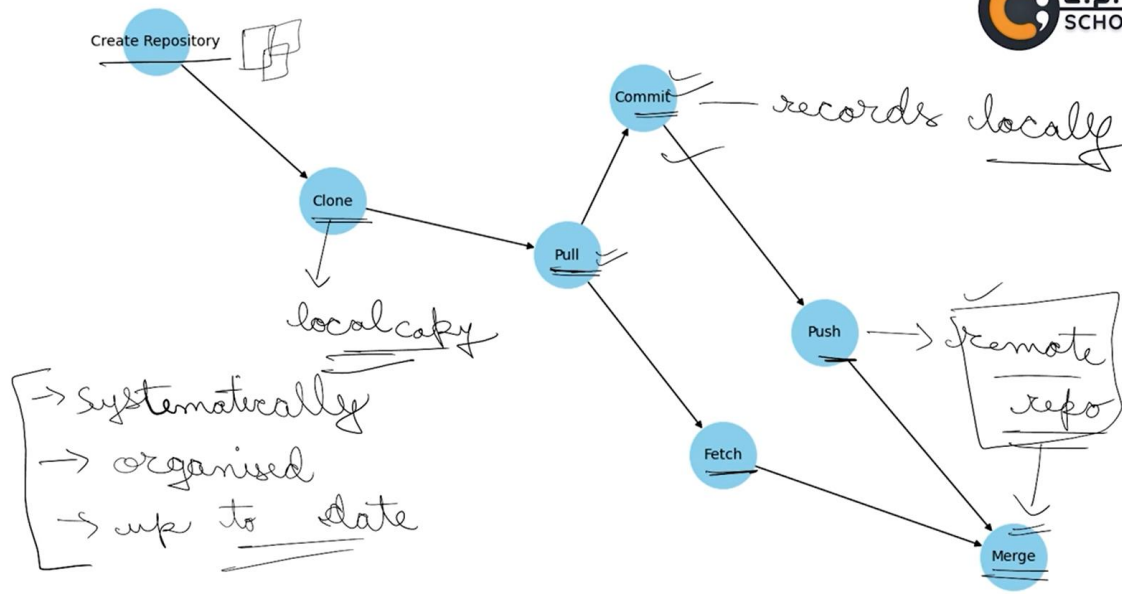
↳ checkpoint

→ git commit

all files  
HTML  
CSS



## Basic Git Actions Flowchart



## Using Git for Project Management



- ✓ Branch Management
- Merging and Conflicts
- Version Tracking

Handwritten notes:

- git log* → *Conflicts*
- git diff* → *Changes*
- git blame*



## Introduction to GitHub

- What is GitHub?
- Key Features:
  - Pull requests ✓
  - Forks ✓ → *copy & modify*
  - social networking features for developers



→ *GitHub actions* → *run tests*  
*deploy code* }

## Introduction to GitLab

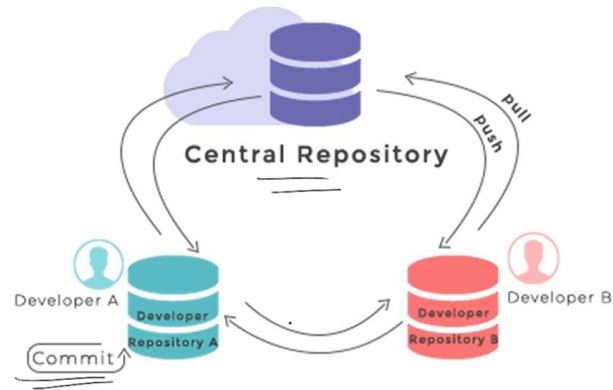
- What is GitLab?
- Core Features:
  - Issue tracking ✓
  - CI/CD pipelines ✓
  - merge requests ✓



↳ *PM*  
→ *SD*

## Summarizing core working

→ speed  
→ eff.



## When to use what?

 **GitLab**

↳ CI/CD

 **GitHub**

↳ Collaborative

 **git**