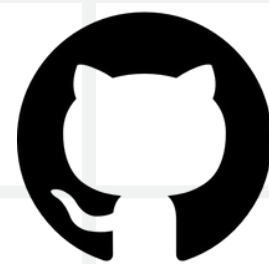




# **GIT & GITHUB**

**A BASIC INTRODUCTION**



# WHO IS HE?



## Linus Torvalds

# WHAT IS GIT

**Git is a distributed version control system.**

- Track of changes
- Rollback
- Collaboration





# CMD COMMANDS



## 🔍 **dir / ls**

-Displays a list of files and directories in the current directory.

## 🔍 **cd**

-Changes the current directory.

## 🔍 **mkdir**

-Creates a new directory.

# HOW GIT WORKS

```
graph TD; Title[HOW GIT WORKS] --- Workspace[WORKSPACE]; Title --- Staged[STAGGED]; Title --- LocalRepo[LOCAL REPO];
```

## WORKSPACE

- `git init`
- `git status`

## STAGGED

- `git add`
- `git diff`

## LOCAL REPO

- `git commit`
- `git log`



# CONFIG & INIT



- 🔍 **git config --global user.name “[firstname lastname]”**  
-set a user name globally
- 🔍 **git config --global user.email “[valid-email]”**  
-set an email address
- 🔍 **git init**  
-initialize an existing directory as a Git repository

# STAGGING



- 🔍 **git add .**  
-stage all changed file in directory
- 🔍 **git add -A**  
-stage all changed file in directory and subdirectories
- 🔍 **git add \*.py**  
-stage all files with same extension



# COMMIT



- 🔍 **git commit -m “[descriptive message]”**  
-commit your staged content
- 🔍 **git commit -a -m "Fixed bug in feature X"**  
-stage and commit at a time



# REPOSITORY

## LOCAL REPOSITORY

The Local Repository is stored on your personal computer or workstation.


## REMOTE REPOSITORY

The remote repository is stored on a server, typically a hosting service like GitHub, GitLab, Bitbucket or self-hosted Git server.

# GITHUB



GitHub is a Web-based platform that provides version control service using git. Also it provides hosting for software development. It allows developers to store, manage, and collaborate on code projects



# REMOTE TO LOCAL



- 🔍 **Create a repository in GitHub.**
- 🔍 **git clone <repository-url>**
  - Copy the url of the repository and paste here.



# LOCAL TO REMOTE



- 🔍 **git init**
- 🔍 **git add README.md**
- 🔍 **git commit -m "first commit"**
- 🔍 **git branch -M main**
- 🔍 **git remote add origin <repo-url>**
- 🔍 **git push -u origin main**



# THANK YOU



CHONCHOL KUMAR RAY

CAM-SUST