Git Class 01

1.Why do we need GIT?

2.What is GIT?
GIt is a version control tool,
that keep tracks of all the changes that we make in our code and store them in the "LOCAL" repository

What is the version?
Versions: Any changes that we make in a code creates a new version of it

PROBLEM! How to communicate with git?
We can use commands to communicate to GIT
These are unix style commands

Where to give these commands?
On windows we can give commands on GIT BASH
On MAC we have TERMINAL where we can give these commands

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Lets learn basic UNIX commands to navigate into our machine.

1.Open your git bash in windows or in Mac open your TERMINAL

type in whoami ==> will return you your computer name

2.Lets assume that Terminal is MR TERMINAL
We want to know where the MR terminal is in our computer. So we ask him to use the command.

pwd

What does PWD stand for?? (print working directory)

ls

3.Ls (hey mr terminal can you please tell us that in your current location where you are standing what are the files and folders present over there)

Note: folders are also called directories
4.We want to ask MR terminal to move into another location from its current location (change the folder)

cd: folder name
cd stands change directory

5.Hey Mr. Terminal, can you move one folder back ?
cd ..   can be used to ask MR terminal to do that

commands that we learned

pwd ==>it gives the current location/folder/directory
ls -->lists out all the content of the current directory/folder
cd folder name ==> change the location to the specified folder name (if the folder is not present
in the location)
where terminal is it will say no such file or directory)
cd .. ==>go back one folder
cd ~ ==> to move back Mr terminal to home directory

Git Class 02

What is a version?
any changes in the code

Why do we need git and github?
makes our life very easy in order to manage our codes

What is git?
git is a version control tool.

What is a repository?
it is a storage area

local repo--> git
remote repo-->github

What is github?
Storage of our local repo on the internet./ remote repository

How to communicate with git?
Unix commands
The first step whenever we want to keep track(store our codes using git)?
The location where we will have the repository!

Why do we need navigation commands?
To move our Mr terminal to the location where we want to have the repository.

Commands for navigation:

pwd → it tells us the current location of the terminal!
ls → to list all the files and folders present in the current location
cd → move our terminal to another directory/folder.
cd .. --> to move our terminal one step back
cd ~ --> to move the terminal to home directory

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Configuring our git (one time procedure)

Track our first project using GIT
1.create a brand new java project
a.tell the location where our project is (navigate to the location of our project using terminal)

Initialize the repository
git init

Important concept---> Architecture of GIT
3- stage architecture
working directory -->the place where we have files of our project

**git status--> tells us the current status of our staging area, repo and working directory
untracked file--> appear in red color and it means that git is not tracking them right now
tracked files(in staging area)--> appear in green color

** git add filename or git add . -->tells git which files to track

commit--> saving your file in the repository

**git commit -m "commit message"--> takes a snapshot of all files in staging area and save them
to repo

**git log--> it shows all the commits that we have in the repo

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How to track our project using git?

Approach:
1. The correct location for creation of the repository (local)---> inside the project folder
2. Navigate the terminal to the right location--> pwd ,cd ,ls
3. Initialize a repo --> git init
4. Sending the files to the staging area --> git add .
5. Send files to the repository --> git commit -m "Message"

Steps to create the repo on github?
1. Goto github
2. Click on the drop down and select repositories
3. Click on new
4. Give a name
5. Press next

What is the url?
url is the address of ur repo in github.

Java Basics--> 7 classes

you want to track this project (backup on git and github)

1. Decide the location of the repo. (javaBasics)
2. Navigate your terminal to the right location.
3. Make sure u are in correct location (pwd and match the paths)
4. git init
5. git add .
6. git commit -m "all java classes"

you need to backup on github
1. Go to github.com
2. Create a brand new repo (name it , create it)
3. Connect the local repo with the remote repo (git remote add origin URL)
4. git remote -v --> check if connection is there
5. git branch -M main --> will tell later why we use
6. git push -u origin main (the first time)

Now let's assume you worked on V! and slept by closing your laptop ,
next day u woke up and u want to work on the same project

1. Open the project and code in it.Once the version is ready and u need to backup
2. Navigate your terminal to right location
3. git add .
4. git commit -m "v2"
and now if u want to push to github
5. git push

Note: Accidently u connected to a wrong remote repository.

1. Delete the wrong connection   "git remote remove origin"
2. Add a new connection using the command "git remote add origin URL" you can get the URL from the github, go to your repository click on CODE in green, make sure https is selected and then copy the URL