Md Sajid Ali : Day 1 : Learning Git and GitHub

Pdf : pro git second edition

Starting from : vcs -> version control system to track changes in code (like bank statement credit debit) tracks all the history .

Main task of git:

1. To track the history

2 . to collaborate

Github : help user to store their code using git

Git thinks of its data more like a series of snapshots of a filesystem.

Point: Most operations in Git need only local files and resources to operate — generally no information is needed from another computer on your network.

Point : Everything in Git is checksummed before it is stored and is then referred to by that checksum. This means it’s impossible to change the contents of any file or directory without Git knowing about it.

Point : The mechanism that Git uses for this checksumming is called a SHA-1 hash. This is a 40-character string composed of hexadecimal characters (0–9 and a–f) and calculated based on the contents of a file or directory structure in Git. A SHA-1 hash looks something like this: 24b9da6552252987aa493b52f8696cd6d3b00373.

The Three States of git : Git has three main states that your files can reside in: modified, staged, and committed:

Git branching : Branching means you diverge from the main line of development and continue to do work without messing with that main line. In many VCS tools, this is a somewhat expensive process, often requiring you to create a new copy of your source code directory, which can take a long time for large projects.

Created git hub account with trueIgtech email.

Installation of git, git bash

Configuration : git config user.name “mohammad sajid ali”

Git config user.email [msajidali@trueigtech.com](mailto:msajidali@trueigtech.com)

Git config –list

Git commands : clone and status

Clone : to clone a repo on a local machine (pc)

Git clone <link>

Status: display the status of code

Git clone <https://github.com/sajidigtech/day1atigtech.git> (before this use cd to set local directory)

/d/GitDemo/folder1/day1atigtech (main)

git statusOn branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

command : ls -

a : gives the list of all hidden files like .git

after cloning I changed readmefile and there was warning showed as modified changes in readme

when checked status.

Create new file in cloned repo : index.html -> git status -> untracked file found

Staged area : git add index.html

Again after this we can check status

We can also use “git add .” command

git commit -m "in this commit i have cloned repo , done with status check adding etc"

status :

Your branch is ahead of 'origin/main' by 1 commit.

Means all file as compared to prev version og github repo is ahead of 1 commit as we did in local environment after cloning

Till now I had issues as my gitbash was registered with old account instead of igtech account

git remote set-url origin <https://github.com/sajidigtech/day1atigtech.git> i used this command to set new authentication and removed old account from windows credentials.

And then I :

Git commit -m”commit msgs”

git push origin main: the github folder on server was updated

now talking about branch :

commad to create branch : git branch branch1 # create

git checkout feature-branch1 switch to that branch