**Git And GitHub Session No.02**

Summary 26-02-2022

- If you create code as we know we store all the code or data in the file then this file we need to give the developer to run or execute the code
- The developer writes the code every day based on the client's requirements developer changes the code and saves it in the file format
- This thing developers do every day and we need a backup of all the files
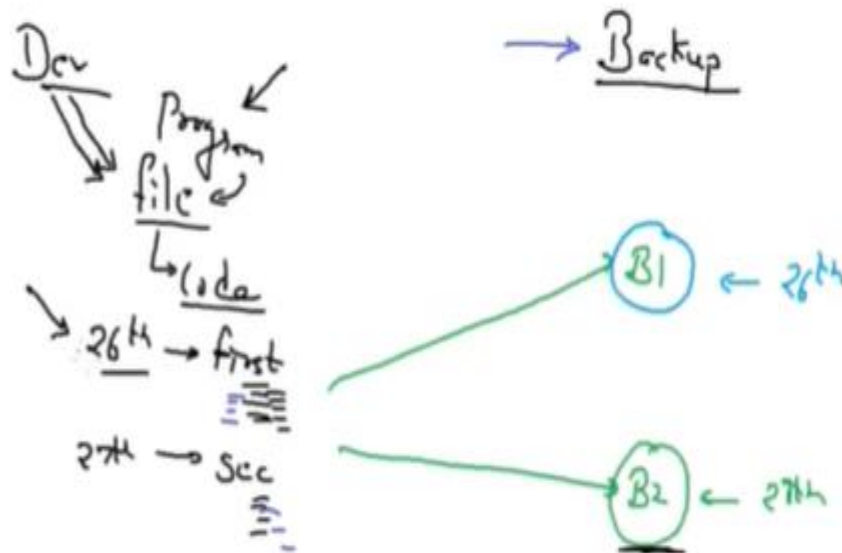
- For example your developer writes code on the first day the client has different requirements the developer changes the code again but on your second day code is not working fine then we need backup for that problem to solve this problem we use older code and this concept is call as rollback concept
- With help backup we store our data daily
- The conclusion is we always need a backup because if you don't have a backup then your website or web app goes down if your website or web app is down then no one comes to your website
- To optimize the storage

- As Developer we do a lot of coding, hence we need to store our codes somewhere in the persistent storage, Now one way could be, can store our code on our laptop, but it is not sure that it would be always available, because a laptop Hard disk can be failed anytime, so we need a solution which can give guarantee to store my code with almost 100% availability, And here GitHub came, which store our codes with almost 100% availability.
- As developers, we work in a team, and for this, we need everyone to have a sync of the current code, so in this, we will have to store our code in a centralized location like GitHub
- As a developer, we do make a change in our codes a lot, and we do create a lot of versions of our code for easy management, now to store this version we can use a typical way to keep on saving a version in HD(backup or snapshot), But it would take a lot of space as well as it would be very hard to know what I have changed between two versions, So here Git will help us as an SCM (source code management) tool to manage our versions of code, And provide us feasibility to go back to any particular version at any time, And it will only store the "diff" part in hard disk(means the difference we created between two codes version) so here it saves a lot of space.
- Git is a VCS(version control system) that helps us manage the versions of our code, It keeps an eye on every line of our code, And remembers which line is been Deleted, Added, or Modified.
- A Git repository has-> working area + staging area + commit area
- Git is software
- To install Git we need to download the software
- Go to the browser and search Git download
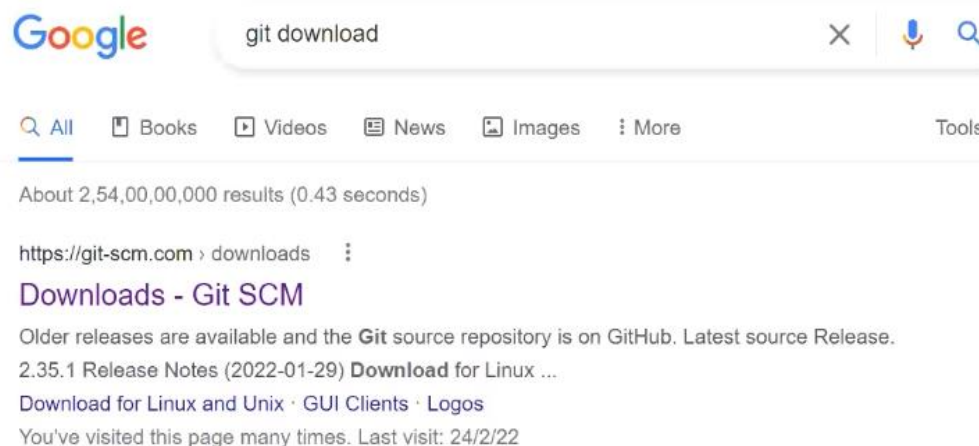
● Then click on the git official website link after clicking on the windows

● After installing Git on your local system the good thing about Git is it gives on terminal

● To use this terminal go to the Windows search bar and search the git bash
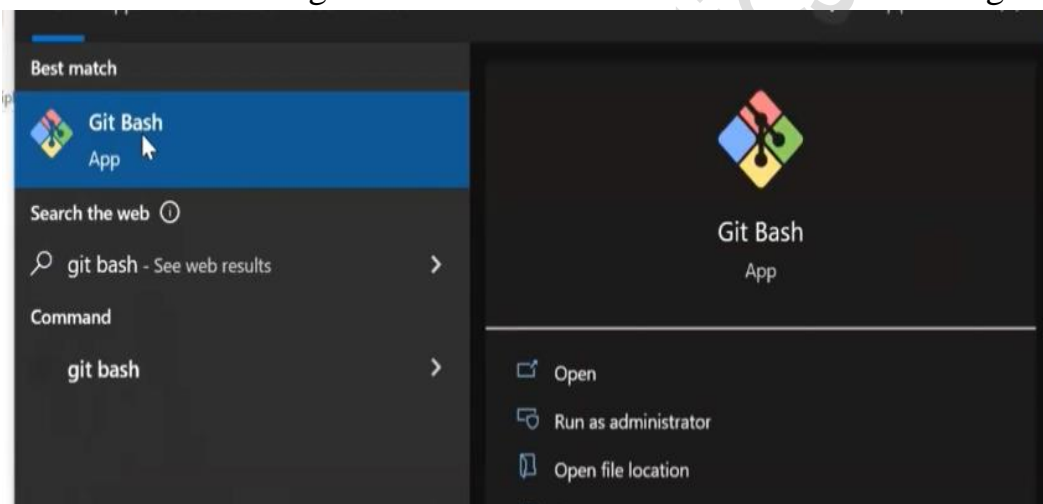
● Click on the git bah and open the terminal git bash gives some Linux command