**What is version management?**

For example you are creating some design say UI design for your app or any website,, say that when designing the 1st time , We choose background color of screen purple and foreground in white we applied those changes to interface . Now after some break, I think nah I would be nicer if background in yellow and foreground in black, okay now removing the last interface we come up with this new interface , but when you discussed with your team mates they suggested the 1st one was a better option now , you can’t go back to that previous version .

Same way while working in software industries we undergoes many file version and keeping their track and control is called version management or version control .

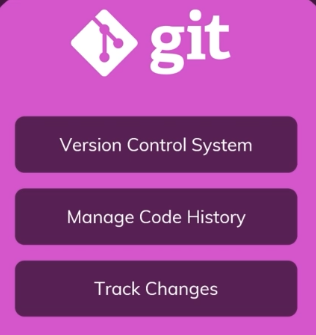
Version management solve the problem like

**Multiple files Approach (**Creating multiple file and handling them separately**)**

**Single File Approach (**Creating a single file which contain all versions in it **)**

**Version management solves this by ->>** Inthis approach , though you have single file or you can say the latest codebase But you don’t loose any previous version all thanks to these management platform such as GitHub or GitLab .

**Git is all about Control\* & tracking of code changes over time**

So in nutshell Git helps in

Git has one disadvantages , Git is a local tool means git installed in my computer and system so only I can use those files and all locally , not from anywhere else remotely .

So Git is not useful in this type of scenarios ,, To overcome this **GitHub** comes in play .

**So what is GitHub?**

[On the website of GitHub](https://github.com/)  they stated it is the largest development platform , means developer all around the world use the GitHub for daily work from Development to collaboration , how this all is possible , It is due to its another Characteristic which is cloud hosting and collaboration provider. , which means where git is local , github makes code available in cloud in purpose to control and collaborate among developers . So in nutshell **GitHub is Git Repository** (git managed projects)**hosting provider .**

**So how we can make most out of this?**

By using Local capabilities of Git like code management , Tracking changes with capabilities of GitHub - To collaborate with others in cloud hosted environment and accessing code base anywhere We can make most out of both to do **Version control .**

**Text based computer interaction**

: In Operating system we have two modes of interaction

One is Graphical User Interface (GUI) which is User Friendly and Easy to Explore

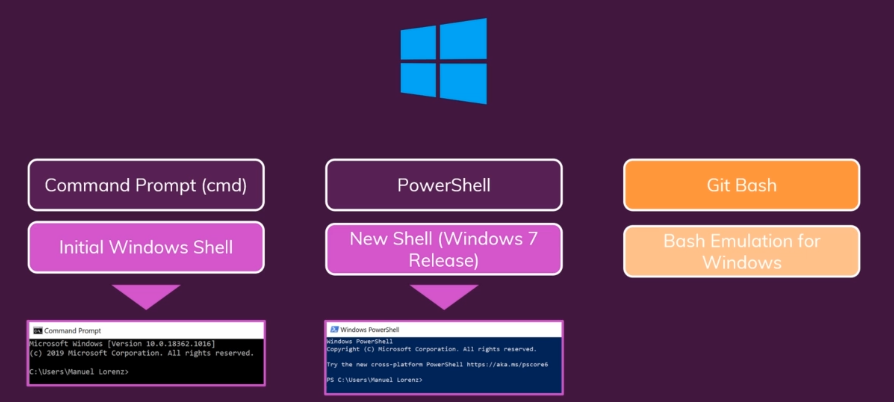
another is Text Based Interaction We can Say Command Line Interface ( CLI ) , These are more time saving and Some more efficient in scenarios like Starting Servers , Download Tools , Testing and execution of programs and mainly **We use git in CLI or by Text based Interaction**

On Windows we use Command prompt (cmd) which is Initial Windows Shell

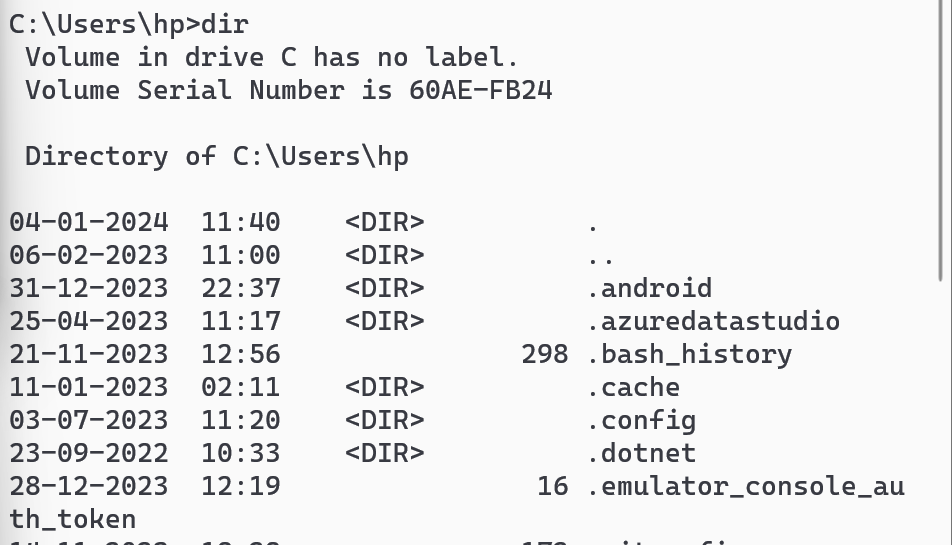
And new one is Powershell there are some difference in terms of commands between both

Also there is a bash dedicated to Windows to use git 🡪

**Git Bash ,,**  not necessary to download the git bash .

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**Window Command Prompt Basics**

**Dir command :**  use to list the items in the directory

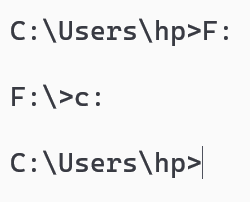
**Changing directory -> (same as linux)**

**cd .. ->** move one directory back

**cd DirectoryName ->** to navigate into a specific directory from the list of Directories .

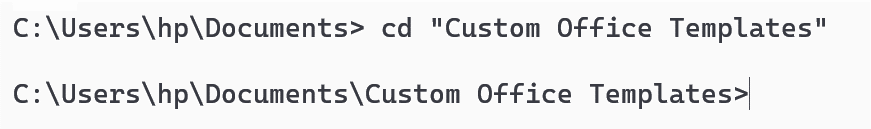
**To Navigate to whole another drive(D drive , E drive etc.)**

To navigate just Write Drive name followed by :

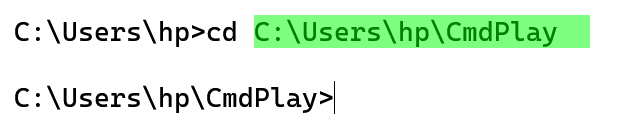
Example

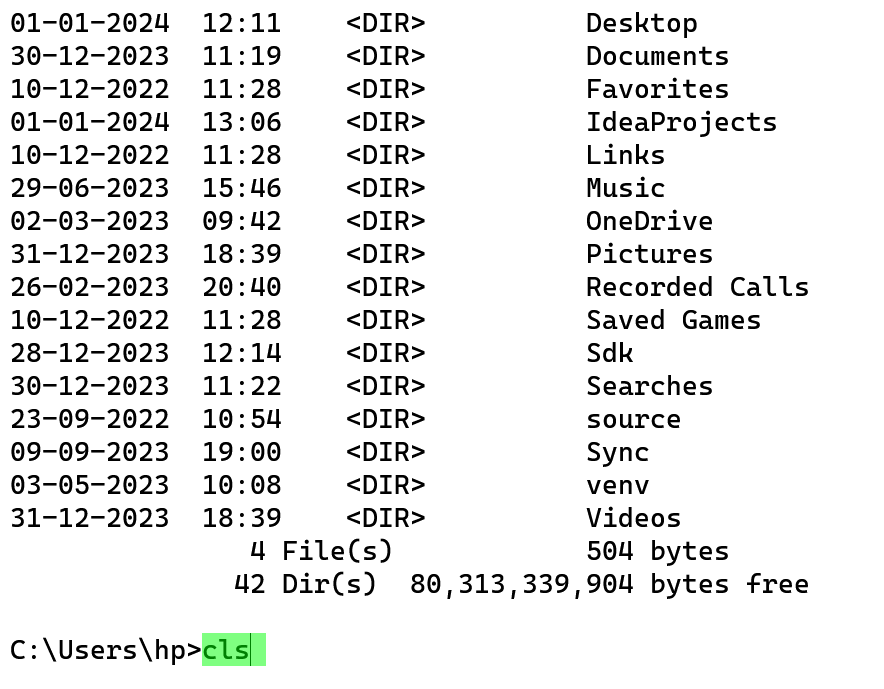
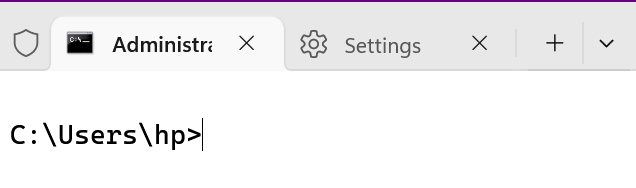
**Absolute and Relative Paths :**

**Relative path :**  It is simply like back and forth of the directory neighboring directories

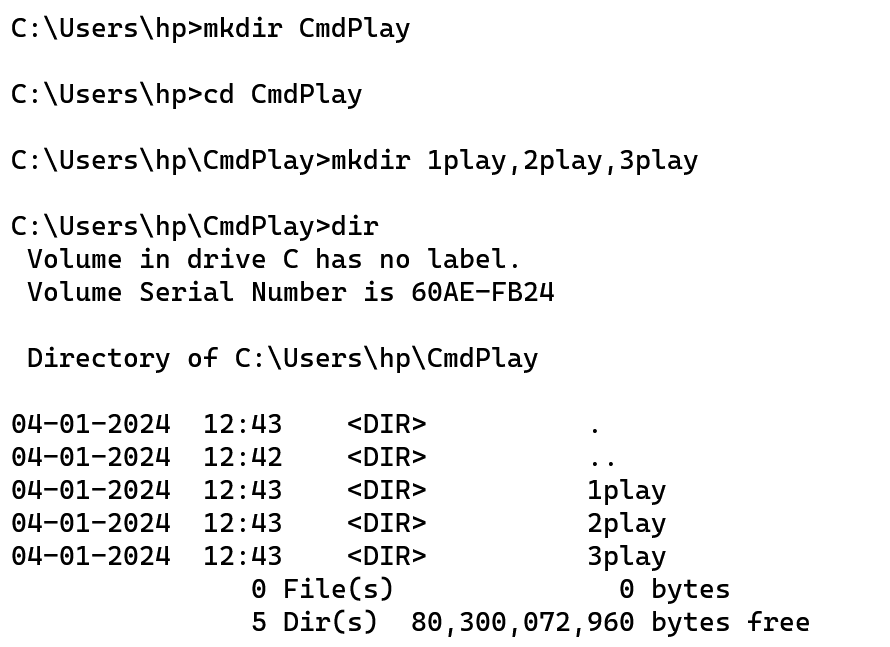
**Like -**:

**Absolute path:** In this we have to enter cd followed by full path location from drive name to that specific directory name in which you wanna navigate



**Cls :** to clean the command promptwindow

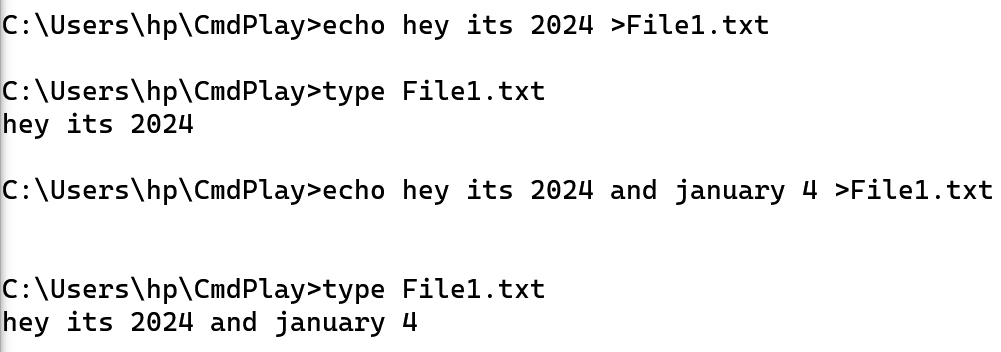
**Creating & Deleting files and folders**

**mkdir NewDirectoryName/Names(**same as linux)- to create directory

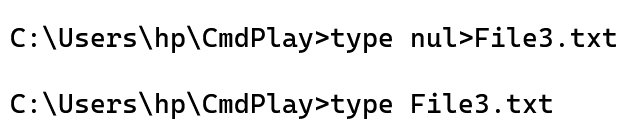
**echo and type :**

**echo 🡪** to create a file with some content in it . You can write like echo **ContentOfFile** > FileName.txt

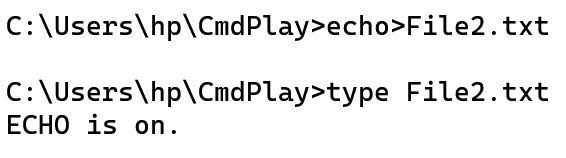
**type 🡪**  Use to check the content inside the file .

to use this write type FileName.txt

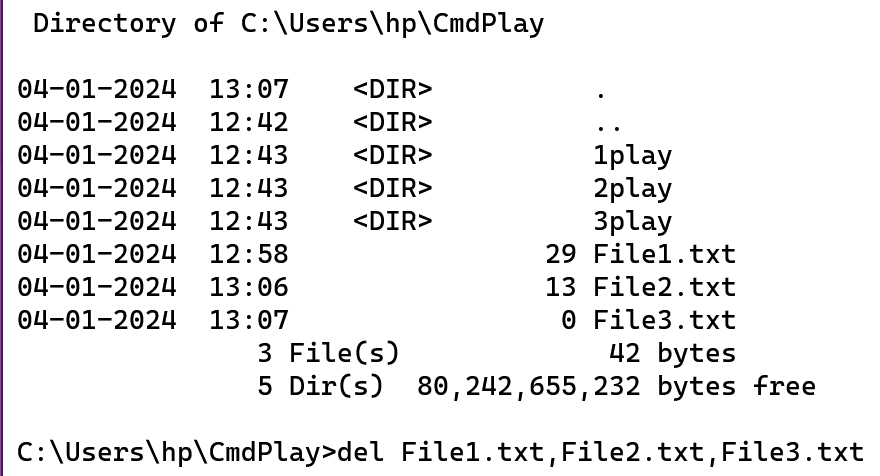
**To create just files with no content in it 🡪**

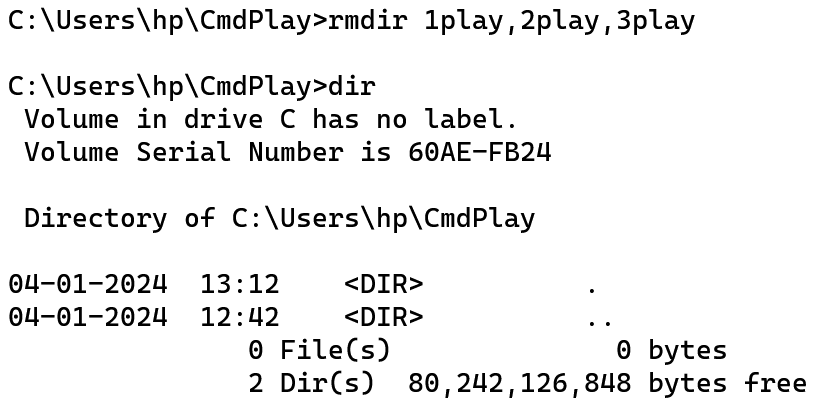
type nul >FileName

**\*\*If you write like** echo>filename

And when you open this file there will be by default some text present like “ECHO IS ON” not it will create a empty file , you need to overwrite this.

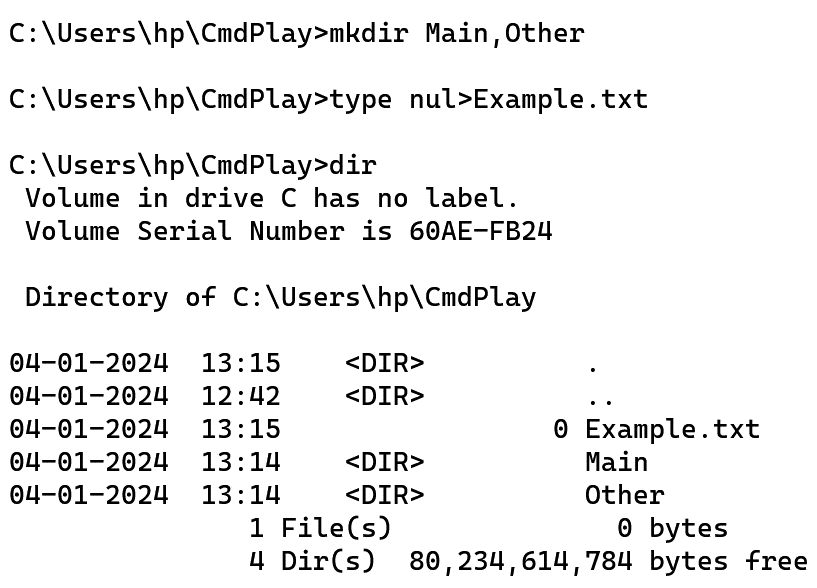
**del and rmdir :**

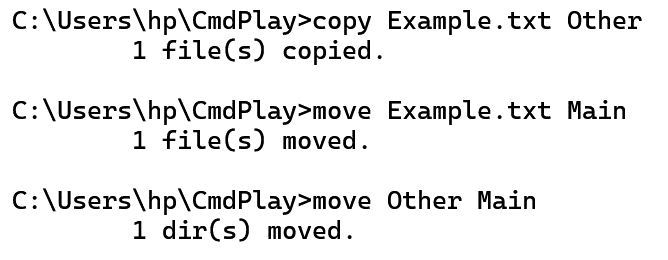
**del :**  del FileName/Names to delete file or files

**rmdir :** rmdir DirectoryName/Names to remove directory

**move and copy :**

**move :** used to move folder/file into another folder

**copy :** used to copy folder/file into another folder



Git Working (theory perspective) -: