**LINUX**

Linux – open source operating system 1991

Running on virtual machine

Better performance

Servers build on linux

Most of the work of the cloud is based on linux

Commands used in linux

1. ls to list the file and the directories of the current directory
2. ls -a to show all the files (including the hidden directories)
3. ls -l shows all the directories with all the details like modified date and time
4. mkdir <directoryname > to make a new directory in the current directory
5. cd <directoryname> to change the directory
6. pwd to show the path of the current directory
7. touch <filename> used for creating an empty file with the extension
8. cat <filename> to show the content of the file
9. cat >> <filename> to write multiple lines into the file (end the writing of the content in the file with Ctrl+D)
10. cd .. is used to go to the previous directory
11. rmdir <filename> is used to remove the empty directory
12. rm <filename> to remove the file not directory(folder)
13. rm -r <directoryname> is used to remove a non-empty directory
14. cp <sourcepath> <destinationpath> to copy the content of one file to another file
15. mv <source\_file> <destination\_directory> to move one file to another directory and can also be used for renaming the file while moving Example- mv test/hi.txt test1/hello.txt name changed from hi to hello
16. grep "pattern" <filename> used to find the given pattern in the particular location
17. grep -i "pattern" <filename> to remove the case sensitiveness from the search
18. grep -r "pattern” <directorypath> search the pattern in all the files in the directory
19. set <variable name>-<value> to create an environmental variable
20. echo

Question:- Create a new directory test1 and then create 2 directories inside test1 named mydetails and mypersonal then add content to both the files then print it onto the terminal

mkdir test1

cd test1

touch mydetails.txt

touch mypersonal.txt

cat >> mydetails.txt

cat >> mypersonal.txt

cat mydetails.txt

cat mypersonal.txt

**Git**

Q1. What is the difference between git and github?

Local repo(local machine) -> staging area(present in local machine) -> global repo

1. Crete a local folder, add the data and initialize the folder (to add staging area) using the following command:-

git init

1. Adding file to staging area using the following command:-

git add <filename> to add a particular file

git add . to add all the files

To save it use the following command:-

git commit -m "message"

1. To establish the connection between the local and global repository

git remote add origin https://github.com/manuvarshneyy/prac.git

1. To send the data from local repo to global repo

git push origin master

Task of the day:- how to resolve the conflict

**Day-2**

To clone the repo in the second local machine for the use of another person follow the steps:-

1. Get the URL of the global repo
2. Use the command in the new local machine

git clone <https://github.com/Lakshay-Goyal-19/Prac2.git>

After cloning the repo by the second developer’s and he make changes into it then pushes the code into the repo (it does not give any errors)

BUT when the first developer wants to make changes again in his local machine then tries to push the code the MERGE CONFLICT arrives which is solved by the following command:-

git pull origin main

**Steps everytime to push the code to the global repo:-**

1. **git add .**
2. **git commit -m “message”**
3. **git push origin main**

To solve the merge conflict first pull the code using above command and then make changes in the file(ONLY KEEP THE REQUIRED IN THE FILE) then push the code with the above bold three steps.

**Branching**

Creating a branch in the local system(changing the branch in the local system) using the following command:-

git checkout -b src

Steps to follow:-

1. git checkout -b src
2. git checkout -b dev
3. git checkout -b <yourname>

then while pushing the code add,commit and then while pushing use <yourname> instead of the main branch

**for example:-** git push origin <yourname>

Now to raise the pull request use github

Task

1

Create a new repo

Folder -> file

Push to the master branch

Add collaborator

Create sub branches src->dev

2

Clone

Make changes

Checkout to your name branch