**What is git and github?**

**Git:**

🡪Git is a distributed version control system.

🡪It works in the local machine.

🡪It uses Command Line Interface.

**Github:**

🡪Github is a remote repository. It hosts the repositories.

🡪It works in the remote repository.

🡪It uses Web UI and Command Line Interface.

**What is CVCS and DVCS ?**

**Create a project of any and push the project**

**Add.py**

a=int(input(‘Enter a value :’))

b=int(input(‘Enter a value :’))

print(‘Addition of 2 numbers :’,a+b)

print(‘Subtarction of 2 numbers :’a-b)

**Steps to push the project:**

**1.Initialize the repository:**

🡪Initialize the repository using init.

**git init**

**2.Add the files:**

🡪There are 2 types to add the files.

**git add filename**

🡪It adds specified file.

**git add .**

🡪It adds all the files.

**3.Commit the changes:**

🡪There are 2 types to commit the changes.

**git commit -m ‘Commit message’**

🡪It is used for the first commit.

**git commit -a -m ‘Modified commit’**

🡪It is used for the modified commit changes.

**4.Add origin:**

🡪By using the ssh url or https url we can add the origin.

**git remote add origin <url>**

**5.Push the files.**

**git push -u origin main/master**

🡪It pushes the files from the local repository to the remote repository.

**Create 3 branches and 5 tags**

**Branches:**

1.git checkout -b branch1

2.git checkout -b branch2

3.git checkout -b branch3

**Tags:**

1.git tag tag1(lightweight tag)

2.git tag -a tag2 -m ‘Message’(annotated tag)

3.git tag tag3

4.git tag -a tag4 -m ‘Message’

5.git tag tag5

**Create a Keygen and push using ssh**

**Create a sub branch in a git and switch from subbanch to mainbranch(hit: use merge concept)**

🡪By using checkout we can create a sub-branch and swithches to it directly.

**git checkout -b new\_branch**

🡪To switch from the new branch to main branch.

**Git checkout main**

**What is the importance of git checkout?**

**git checkout <branch\_name>**

🡪It switches to the specified branch.

**git checkout -b <branch\_name>**

🡪It creates a new branch and switches to the new branch.

**What is the importance of git merge?**

**git merge <branch>**

🡪It merges the specified branch into the current branch.

**What is Linux and how is it different from other operating systems?**

🡪Linux is also an operating system.

🡪It is secured operating system.

🡪It is faster as compared to other operating systems.

🡪It is open source and free.

**What are the basic Linux commands for file operations?**

🡪To create a file.

**touch filename.txt**

🡪It is used to create an empty file.

**echo ‘This is my first file’ > ‘file.txt’**

🡪It is used to create a file with the content.

🡪To add the content to the file.

**echo ‘This is second line of the file’ >>file.txt**

🡪To read the data from the file.

**cat file.txt**

🡪To delete a file.

**rm myfile.txt**

**What is the difference between chmod and chown?**

**chmod:**

🡪You can change the permissions of the file using the chmod command.

🡪It uses symbolic and numeric arguments to change the permissions.

**chown:**

🡪You can change the owner of the file or directory.

**chown <owner> <file>**

🡪It is used to change the owner.

**chown user:group1 file.txt**

🡪It is used to change the owner and group to group1.

**Explain the use of grep command.**

**grep:**

🡪It searches for a pattern in a file.

**grep document.getelementbyid index.txt**

🡪For case-insensitive

**grep -i document.getelementbyid index.txt**

🡪To add the line numbers.

**grep -n document.getelementbyid index.txt**

**How do you schedule a cron job in Linux?**

**Explain the basic features of the Linux OS.**

🡪Linux is also an operating system.

🡪It is secured operating system.

🡪It is faster as compared to other operating systems.

🡪It is open source and free.

**What are the major differences between Linux and Windows?**

|  |  |
| --- | --- |
| **Linux** | **Windows** |
| **🡪It is operating system** | **🡪It is also a operating system** |
| **🡪It is secured.** | **🡪It is also secured but not than Linux.** |
| **🡪It is faster** | **🡪It is slower than linux** |
| **🡪It is free and open source** | **🡪It is commercial.** |
| **🡪It uses commands and stores the data.** | **🡪It uses files and folders to store the data** |

**Define the basic components of Linux.**

**What is the chmod command in Linux, and how do you use it?**

**chmod:**

🡪You can change the permissions of the file using the chmod command.

🡪It uses symbolic and numeric arguments to change the permissions.

**What are the most important Linux commands?**

**ls – It lists all the files or directories.**

**pwd – It gives the present working directory.**

**cd – It is used to change the directory.**

**mkdir – It is used to make or create the directory.**

**touch – It is used to create a file**

**rm – It is used to remove the file or folder.**

**cp – it is used to copy the file .**

**cat – It is used to read the content in the file.**

**mv -- move or rename the files.**

**find – It is used to find the files or folders according to the given search pattern.**

**ln – It is used to create the links.**

**gzip – It is used to compress the file.**

**gunzip – It is used to decompress the file.**

**tar – It is used to create an archive of the files.**

**grep – Searches for a pattern ina file.**

**chown – It is used to change the owner.**

**chowd – it is used to change the permissions.**

**How do you create,remove and copy files in linux?**

**Create:**

**🡪To create a file.**

**touch file.txt**

**echo ‘This is first file’ >myfile.txt**

**remove:**

**🡪To remove a file or directory**

**rm file.txt**

**rm -r folder.txt**

**copy:**

**🡪To copy a file.**

**Cp <src> <dest>**

**What is ssh?**