What is git and github?

**Git**

* Git is a version control system
* Git is open source
* Multiple people work on the same projects
* Developer can modify the code
* Get can be used in the collaboration
* Git is a local server

**Github**

* Github is a remote based server
* It is presented in cloud
* We can create multiple repository
* We can retrieve the data in github
* Github is remote server
* We can access the data from any place

Create a project of any and push the project

**Step1:**

Check the version

git –version

**step2:**

create a new repository

git init

**step3:**

adding a file to the repository

git add filename

**step4:**

committing a file giving message to the file

git commit -m “new project”

**step5:**

check the status of the file

git status

**step6:**

create the path of the repository

git add remote origin url

**step7:**

push the file to the repository

git push -u origin branchname

Create 3 branches and 5 tags

**Step1:**

Create a new branch

git branch new\_branch

**step2:**

switching to the new branch

git checkout new\_branch

**step3:**

switching a branch to other branch

git checkout -b new\_branch

**step4:**

push new branch to the github

git push -u origin new\_branch

**step5:**

create a new tag

git tag version

**step6:**

pushing tag to github

git push -u origin version

Create a Keygen and push using ssh

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

**Step1:**

Create a branch

git branch new\_branch

**step2:**

switching to the new branch

git checkout new\_branch

**step3:**

switching a branch to other branch

git checkout -b subbranch

**step4:**

switch from subbranch to mainbranch

git checkout -b mainbranch

What is the importance of git checkout?

* Checkout is used to jumping with in the branches
* Checkout is used to switching to the new branches
* Checkout is used to switching within the branches

git checkout new\_branch

git checkout -b new\_branch

What is the importance of git merge?

* Merge command is used to merge the two branch files
* Merge is used to switch from subbranch to mainbranch
* Merge is used combine two repository’s

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

* Linux is the one of the operating system
* It is open source
* It is easy to understand
* Compare to other operating system it is secured
* It is difficult to execute
* Linux is same as unix

What are the basic Linux commands for file operations?

Creating a file

touch <new file>

display a file

nano <new file>

change directory

cd <filename>

make a directory

mkdir <file name>

open a file

open <file name>

echo is used text

echo “hii”

What is the difference between chmod and chown?

· chmod is used for **modifying file permissions**.

· chown is used for **changing ownership**

Explain the use of grep command.

grep is a powerful tool for **searching** text, files, and logs. It’s essential for:

**Finding specific strings** in files.

**Pattern matching** using regular expressions.

**Efficiently searching** through large amounts of data.

How do you schedule a cron job in Linux?

· **Cron jobs** automate tasks like backups, system updates, and script execution at regular intervals.

· The crontab format is highly flexible and supports a wide range of scheduling options.

Explain the basic features of the Linux OS.

* The basic features of the linux operating system is secured
* It is open source
* It is a plat form independent
* If the memory space is less also it can take other files
* Easy to understand commands

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

**Linux**

* **Linux is secured**
* **It is a plat\_form independent**
* If the memory space is less also it can take other files

**Windows**

* **Windows is not secured than linux**
* **It is not a plat\_form independent**
* **It will not allow the files it the memory is full**

**Define the basic components of Linux.**

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

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

Creating a file

touch <new file>

display a file

nano <new file>

change directory

cd <filename>

make a directory

mkdir <file name>

open a file

open <file name>

**remove a file**

**re <file name>**

**delete a file**

**del <file name>**

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

**Create a file**

**Touch <new file>**

**Copy a file**

**Cp <file name>**

**Remove a file**

**Re <file name>**

**What is ssh?**