26th June: Linux question

1. **You have a file with permissions -rw-r--r--, and you run chmod +x file.sh. What happens?**

**Answer:** initial permissions include: owner read and write, group read and others read.

afte-rwxr-xr-xall the users can execute the file.

1. **What is the difference between chmod 744 file.txt and chmod u=rwx,go=r file.txt?**

**Answer:** 744=-rwxr--r--,octal notation

u=rwx,go=r=744 symbolic notation.

1. **What is the sticky bit, and when should you use it?**

**Answer:** when a sticky bit is set on a directory, it restricts deletion and renaming of a file to the owner

1. **You are told to give the owner full access, group only execute, and others no permissions. What symbolic command achieves this?**

**Answer:** -rwx : owner

--x : group

---: others

-rwx—x---

1. **What is umask, and why is it important?**

**Answer:** It sets default permissions for newly created files and directories

1. Directories rwx: 777
2. Files rw: 666
3. **If the umask is 022, what are the default permissions for a new file and a new directory?**

**Answer:**

666 - 022 = 644 → rw-r--r--

Owner: read and write

group, others: read

b)directory

777 - 022 = 755 → rwxr-xr-x

Owner: read,write and execute

group,other: read and execute

1. **Why is umask often set to 002 in development environments but 027 or 077 in production?**

**Answer:**

002-so that develeopers who collaborate can work together with all permissions and the rest can not access the authorized ones

027-limits the write and execution access to groups protect files

077-only owner can have all permissions

1. **useradd vs adduser**

**Answer:**

useradd- creates users with basic default functions but must manually configure password and directory. It is safe to use.

add user-set basic defaults, prompts automatically for the password and home directory setting, and the values must be provided for the prompts, otherwise the user is locked