What is linux

1. Developed in 1991 by Linus Torvalds,

2. Torvalds aimed to create a free, open-source operating system with superior performance and multitasking capabilities.

3. Linux gained popularity due to its open-source nature, customizability, and stability.

Amazon Linux 2023

Amazon Linux 2023 Timeline

Year	Amazon Linux 2023	Amazon Linux 2025	Amazon Linux 2027	Amazon Linux 2029
2023	✓ Standard support			
2024	✓ Standard support			
2025	Maintenance	✓ Standard support		
2026	Maintenance	✓ Standard support		
2027	Maintenance	Maintenance	✓ Standard support	
2028	✗ EOL	Maintenance	✓ Standard support	
2029	✗ EOL	Maintenance	Maintenance	✓ Standard support
2030	✗ EOL	✗ EOL	Maintenance	✓ Standard support
2031	✗ EOL	✗ EOL	Maintenance	Maintenance

Linux Commands

1. **pwd (Print working directory)**

   pwd: Shows the current working directory.

   pwd --help : Used to see details about the pwd command

   Note: linux is case sensitive so we need to be careful when typing commands

2. ls (List Files)

- **ls --help :** Used to see details about the ls command.

- **ls :** Lists files and folders in the current directory.

- **ls -l :** Shows detailed list of files and folders.

- **ls -a :** It also lists hidden files and folders. Hidden files begin with a period (.) at the beginning of their name.

- **ls -la :** This way we can merge and see details in hidden files

- **ls -r :** lists the file directory alphabetically in reverse

- **ls -lh :** Displays file and folder sizes in a more readable format.

- **ls -R** : Recursive lists all files and folders in the current directory, including subdirectories. This will traverse all subdirectories within the current directory, listing their contents as well.

3. cd (Change Directory)

- **cd --help :** Used to see details about the cd command

- **cd :** We use it to move from the current directory to a different directory.

- **cd .. :** Used to move up one directory

4. touch

- **touch --help :** Used to see details about the "touch" command.

- **touch "filename" :** Used to create a new file

- **touch "filename.extension" :** Used to create a new file with extension.

5. mkdir (Make Directory)

- **mkdir --help :** Used to see details about the "mkdir" command.

- **mkdir :** Used to create new directory(folder).

- **mkdir -p mydir/first/second :** If we want to create a nested folder

6. rm and rmdir (Remove File or Directory)

- **rm and rmdir :** Used to delete files and directories.

- **rmdir :** This command only deletes empty directories.

- **rm -r:** The "rm -r" command, when used with the "-r" option, is used to delete directories along with their contents.

- **rm --help :** Used to see details about the "rm" command.

- **rm "foldname.extension" :** To delete file named "foldname.extension"

- **rm * :** Deletes everything in the directory. (!)

7. cp (Copy)

- **cp --help :** Used to see details about the "cp" command.

- **cp "file.extension" "destination folder":** Copies files and directories

8. mv (Move)

- **mv --help :** Used to see details about the "mv" command.

- **mv :** Used to move or rename files or directories

- **mv "file.extension" "destination folder":**

- **mv "filename" "newfilename":** Used to change file name.

9. cat (Concatenate)

- **cat -- help :** Used to see details about the "cat" command.

- **cat "filename.extension"** : Used to view file content and combine files

- **cat > "filename.extension" :** To write data to file contents.

9. cat (Concatenate)

- **cat "filename.extension" "filename.extension" > "filename.extension"** : Used to combine files

11. nano

- **nano -- help :** Used to see details about the "nano" command.

12. more and less

more "filename" : Used for large files and opens page by page

less "filename.extension" : Used for large files and opens page by page

Note: These two commands are used for the same purpose, but they have visual differences.

13. tail

- **tail "filename.extension" :** Used to see recently added files

```
[root@ip-10-0-1-106 ec2-user]# tail metin1.txt
Bugün güzel bir gün
Bu metin nano ile eklendi
[root@ip-10-0-1-106 ec2-user]# tail -n 1 metin1.txt
Bu metin nano ile eklendi
```

14. echo

- **echo "Text" > "filename.extension" :** To write inside the target file

```
[root@ip-10-0-1-106 ec2-user]# cat metin2.txt
Bu güzel pazarın tadını çıkaralım
[root@ip-10-0-1-106 ec2-user]# echo "Yeni yazı" > metin2.txt
[root@ip-10-0-1-106 ec2-user]# cat metin2.txt
Yeni yazı
```

15. shutdown and reboot

- **shutdown :** to shut down the machine

```
[root@ip-10-0-1-106 ec2-user]# shutdown -h +15
Shutdown scheduled for Sat 2023-09-02 17:52:18 UTC, use 'shutdown
 -c' to cancel.
[root@ip-10-0-1-106 ec2-user]# shutdown -c
```

- **reboot :** to restart the machine

```
[root@ip-10-0-1-106 ec2-user]# shutdown -r +30
Reboot scheduled for Sat 2023-09-02 18:08:55 UTC, use 'shutdown -
c' to cancel.
```

16. hostname

- **hostname :**shows the network name of the machine

```
[root@ip-10-0-1-106 ec2-user]# hostname
ip-10-0-1-106.eu-north-1.compute.internal
```

17. date

- **date :** Used to show system date

```
[root@ip-10-0-1-106 ec2-user]# date
Sat Sep  2 17:55:44 UTC 2023
```

18. History

- **history :** Used to see command line history

```
[root@ip-10-0-1-106 ec2-user]# history
```

19. clear and reset

- **clear :** clears the command line

- **reset :** resets the command line

20. tar

- **tar :** to allow files and directories to be archived as archives

```
[root@ip-10-0-1-106 ec2-user]# tar -cvf archive1.tar test.txt mydir
test.txt
mydir/
mydir/first/
mydir/first/second/
mydir/aws6.txt
mydir/test.txt
[root@ip-10-0-1-106 ec2-user]# ls
archive1.tar  aws6.txt          metin2.txt  photos    test3
```

21. Yum

- **yum :** The "yum" command is a package management tool.

- yum install packet_name

```
[root@ip-10-0-1-106 ec2-user]# yum install htop
```

```
[root@ip-10-0-1-106 ec2-user]# yum remove htop
```

sudo systemctl status sshd

sudo systemctl start sshd

sudo systemctl stop sshd

sudo systemctl restart sshd

sudo systemctl enable sshd

sshd port change

```
sudo nano /etc/ssh/sshd_config
```

```
Port 60022
```

```
ssh -i test.pem ec2-user@13.49.80.209 -p 60022
```

sudo dnf install -y mariadb105-server
sudo systemctl start mariadb
sudo systemctl enable mariadb
nano /etc/my.cnf.d/mariadb-server.cnf

[mysqld]
port=63306
 [galera]
bind-address=0.0.0.0

sudo systemctl restart mariadb

```
sudo ss —tln
```

```
sudo lsof -i tcp
```

```
CREATE USER 'new_us'@'%' IDENTIFIED BY 'password';
```

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