Introduction to Linux commands

What is Linux?

- Linux is a community of **open-source** Unix like operating systems that are based on the Linux Kernel.
- Sept 1991
- Initially, Linux was created for personal computers and
- Gradually used in other machines like Servers, mainframe computers, supercomputers, etc.
- Also used in embedded systems like routers, televisions, digital video recorders, video game consoles, smartwatches, etc.

Some basic Linux Commands

1. pwd command:

- Use the pwd command to find out the path of the current working directory.
- **Syntax:** pwd

2. cd command:

- To navigate through the Linux files and directories, use the cd command. It requires either the full path or the name of the directory, depending on the current working directory that you're in.
- Syntax: cd filename/

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3. ls command:

- The ls command is used to view the contents of a directory. By default, this command will display the contents of your current working directory.
- If you want to see the content of other directories, type ls and then the directory's path. For example, enter ls /home/username/Documents to view the content of Documents.
- Syntax: ls -R will list all the files in the sub-directories as well
- ls -a will show the hidden files
- ls -al will list the files and directories with detailed information like the permissions, size, owner, etc.

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4. cat command

- cat (short for concatenate) is one of the most frequently used commands in Linux. It issued to list the contents of a file on the standard output.
- To run this command, type cat followed by the file's name and its extension.
- Syntax: Cat > filename.txt

5. cp command

- Use the cp command to copy files from the current directory to a different directory.
- Syntax: cp file.txt /home/username/Documents

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6**. mv command**

The primary use of the mv command is to move files, although it can also be used to rename files.

- The arguments in mv are similar to the cp command. You need to type mv, the file's name, and the destination's directory.
- Syntax: mv junu.txt /home/username/Documents.

7. mkdir command

- Use mkdir command to make a new directory — if you type mkdir Movie it will create a directory called Movie.
- Syntax: mkdir Movie

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8. rm command

- The rm command is used to delete directories or files.
- Syntax: rm filename

9. touch command

- The touch command allows you to create a blank new file through the Linux command line.
- Syntax: touch filename.txt

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10. ping command

- Use the ping command to check your connectivity status to a server.
- Syntax: ping google.com

11.history command

- When you've been using Linux for a certain period of time, you'll quickly notice that you can run hundreds of commands every day.
- As such, running history command is particularly useful if you want to review the commands you've entered before.
- Syntax: history

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12. sudo command

- Short for “SuperUser Do”, this command enables you to perform tasks that require administrative or root permissions.
- Syntax: sudo apt install editor

13. Alias Command

- The command Alias is an amazing way to personalize and organize all your commands.
- It allows users to designate a name to a single command or even a string of commands. So, programmers can give a short name before executing it.
- Syntax: alias cls=clear

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14. date command

- used to check the date and time
- Syntax: $date

15. cal Command

- used to display the calendar
- Syntax: $cal

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16. chmod command

- used to change the permissions of a file or directory. Syntax:$chmod category operation permission file
  - Where, Category–is the user type
  - Operation–is used to assign or remove permission
  - Permission–is the type of permission
  - File–are used to assign or remove permission all Syntax: $cal
- Examples: $chmodu-wx student Removes write and execute permission for users
- $chmodu+rw,g+rwstudent Assigns read and write permission for users and groups
- $chmodg=rwx student Assigns absolute permission for groups of all read, write and execute permissions