What is Linux?

* Best known and most used OS.
* An [operating system](https://www.redhat.com/en/technologies/linux-platforms/old-enterprise-linux) is the software that directly manages a system’s hardware and resources, like CPU, memory, and [storage](https://www.redhat.com/en/topics/data-storage/software-defined-storage).

How does linux work?

Every Linux-based OS involves the [Linux kernel](https://www.redhat.com/en/topics/linux/what-is-the-linux-kernel)—which manages hardware resources—and a set of software packages that make up the rest of the operating system.

Why Linux?

Free

Open source

Highly secure

Stability and performance

Commands in Linux

* “man” – helps to find the description about any command in linux
  + Eg: “man ls” this command will be shown details of “ls” command in the terminal
* “clear” – clears the terminal
* “pwd” – current working directory
* “cd” - change the directory
* “echo” – print on terminal
* “whoami” – current user
* “sudo bash” – switch to the root user
* “su kasun” – back to user kasun
* “sudo useradd Akin” – add a new user
* “sudo passwd Akin” – create password to added user
* “sudo userdel Akin” – delete a user
* “sudo groupadd techgroup”-add a group.A group can have many users
* “sudo touch index.html” – create new file
* Vi index.html – edit content of a file , press “i” to insert anything.after writing in the file press Esc and write “:wq”
* “cat index.html” preview file content
* “cp index.html /path/”
* “mv index.html /path/”
* “rm index.html” “rmdir foldername”
* “mkdir new” -create folder
* “grep cat index.html”
* “sort index.html” - sort words in file alphabetically
* “chown index.html” – change the user or group
* “tar -cvf filename source folder” – zip a file
* “tar -xvf tar-filename”
* “free” – memory usage
* “ifconfig” – ip address
* “env”-all the environment variables
* “service iptables stop”- disable the firewall
* “df -h” – disk space used by files

Shell scripting

What is shell?

Shell is a command line interpreter .It translates commands entered by the user and converts in to a language that is understood by kernel.

Create a file named test.sh ,write the bash script code inside the file.Save and exit the editor.

Run the test file using “bash test.sh” the output will be shown on the terminal.