

Operating System Lab

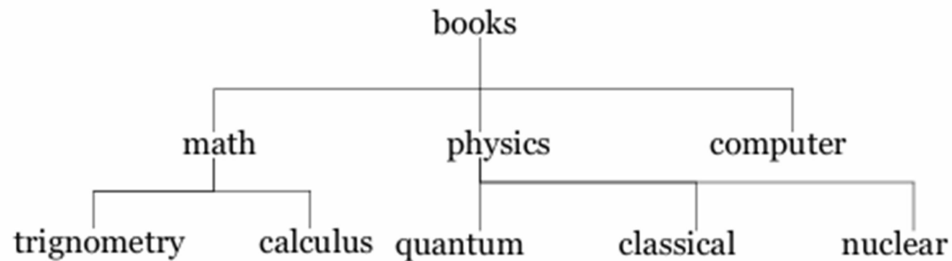
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Task#01

Make the following directory



Answer:

```
[root@localhost ~]# mkdir books
[root@localhost ~]# cd books
[root@localhost books]# mkdir math
[root@localhost books]# mkdir physics
[root@localhost books]# mkdir computer
[root@localhost books]# ls
computer  math  physics
[root@localhost books]# cd math
[root@localhost math]# mkdir trigonometry
[root@localhost math]# mkdir calculus
[root@localhost math]# ls
calculus  trigonometry
[root@localhost math]# cd ..
[root@localhost books]# cd physics
[root@localhost physics]# mkdir quantum
[root@localhost physics]# mkdir classical
[root@localhost physics]# mkdir nuclear
[root@localhost physics]# ls
classical  nuclear  quantum
[root@localhost physics]# cd
[root@localhost ~]# ls
bench.py  books  hello.c
[root@localhost ~]#
```

Task # 02

Which are the Linux Directory Commands? Explain the understanding of commands in your own words. Also define what is BASH?

Answer:

Linux Directory Commands

1. pwd :

It shows where you are in the file system.

Example: If you're in the "Documents" folder, it will show the full path, like `/home/username/Documents``.

2. ls :

It lists all the files and folders in the current directory.

Example: Running ``ls`` will show the names of files and folders in your current location.

3. cd :

It changes your current directory to another one.

Example: Typing ``cd /home/username`` moves you to the "username" folder in the "home" directory.

4. mkdir :

It creates a new folder.

Example: ``mkdir new_folder`` makes a new folder named "new_folder" in your current directory.

5. rmdir:

It deletes an empty folder.

Example: ``rmdir old_folder`` will remove the folder "old_folder" if it's empty.

6. rm :

It deletes files or folders.

Example: ``rm file.txt`` deletes the file named "file.txt". Use ``rm -r folder_name`` to delete a folder and everything inside it.

7. cp:

It copies files or folders to another location.

-Example: ``cp file.txt /home/username/`` copies "file.txt" to the "username" folder.

8. mv :

It moves or renames files or folders.

Example: ``mv file.txt /home/username/`` moves "file.txt" to the "username" folder. You can also use it to rename files, like ``mv old_name.txt new_name.txt``.

What is BASH?

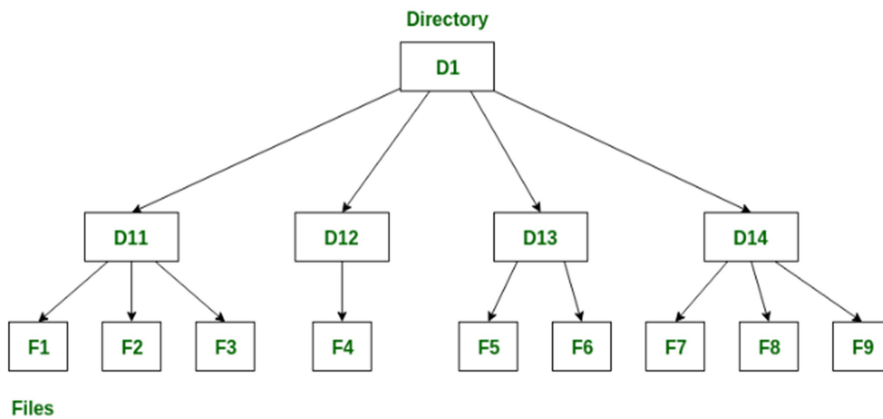
BASH stands for "Bourne Again Shell".

BASH is a command-line tool that lets you interact with your computer by typing commands.

What you can do:

- Run commands to manage files and folders.
- Write scripts (a list of commands) to automate tasks.
- Use features like command history to reuse previous commands and tab completion to quickly complete file names.

Task # 03



Answer:

```
[root@localhost ~]# mkdir D1
[root@localhost ~]# cd D1
[root@localhost D1]# mkdir D11
[root@localhost D1]# mkdir D12
[root@localhost D1]# mkdir D13
[root@localhost D1]# mkdir D14
[root@localhost D1]# ls
D11 D12 D13 D14
[root@localhost D1]# cd D11
[root@localhost D11]# touch F1
[root@localhost D11]# touch F2
[root@localhost D11]# touch F3
[root@localhost D11]# ls
F1 F2 F3
[root@localhost D11]# cd ..
[root@localhost D1]# cd D12
[root@localhost D12]# touch F4
[root@localhost D12]# ls
F4
[root@localhost D12]# cd ..
[root@localhost D1]# cd D13
[root@localhost D13]# touch F5
[root@localhost D13]# touch F6
[root@localhost D13]# ls
```

```
[root@localhost D13]# cd ..
[root@localhost D1]# cd D14
[root@localhost D14]# touch F7
[root@localhost D14]# touch F8
[root@localhost D14]# touch F9
[root@localhost D14]# ls
F7 F8 F9
```