



## CSE484(Cloud Computing)

### Assignment 1: Lets familiar with Linux

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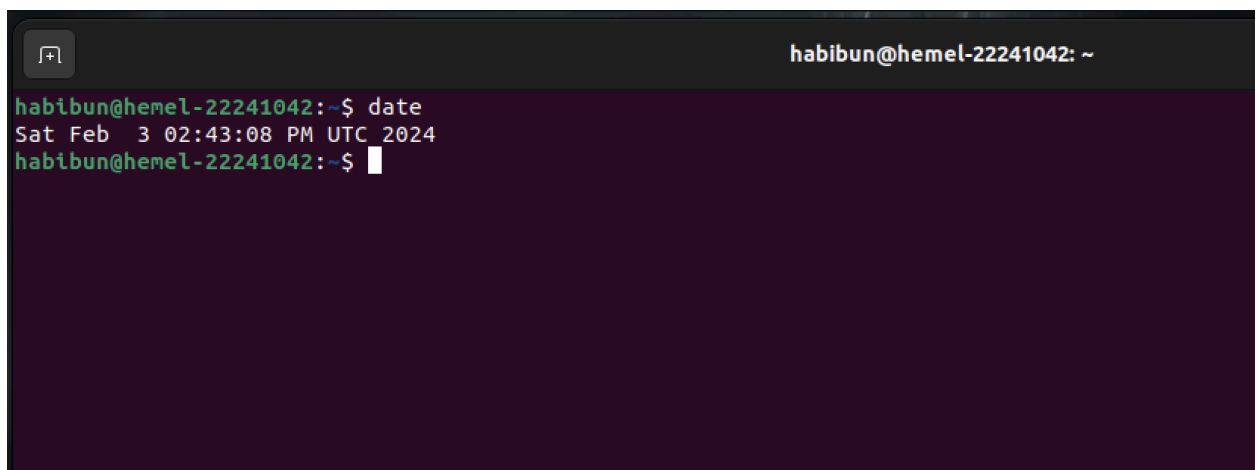
### Part1: Some different kinds of cloud computing applications

1. **Cloud controlled smart mirror** for undetify emation is a unic application of cloud computing. In this process the mirror camera capture picture or video stream which are analysis by powerful cloud servers,and sent the result in the mirror display.
2. **Cloud-Powered Plant Watering**, using cloud-connected iot sensors to find soil moisture and automatically water to the plants based on real time data to maintain ideal water level.

3. **Store Date:** Most of the time we CSE students use the pirated courses to learn new technologies where the course content is saved in mega,dropbox (cloud storage) which is important
4. **Online Cloud-Powered Compliment Giver:**  
Creating a cloud-based AI system that generates personalized positive affirmation for users based on their facebook activity, ensuring daily positive feeling.
5. **Cybersecurity Cloud Computing:**Cloud based security company strive to outmaneuver hackers and save sensitive data from cyber threats, improve overall security measures
6. **Digital Marketing Analytics Platforms:** Adobe Analytics and similar cloudbased platforms offer insights into user behavior,campaign performance and customer engagement for digital marketing.which can make the business grow faster and make more profit.

## Part2: Some different kinds of cloud computing applications

1. **date:** This command will show the time and date in details

A terminal window with a dark background. The title bar shows a window icon and the text 'habibun@hemel-22241042: ~'. The terminal content shows the prompt 'habibun@hemel-22241042:~\$' followed by the command 'date'. The output is 'Sat Feb 3 02:43:08 PM UTC 2024'. The prompt 'habibun@hemel-22241042:~\$' is shown again with a cursor.

```
habibun@hemel-22241042:~$ date
Sat Feb 3 02:43:08 PM UTC 2024
habibun@hemel-22241042:~$
```

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2. **cd:** this command refers to Change Directory. I have changed the directory to home to Assignment1 by using cd multiple times.

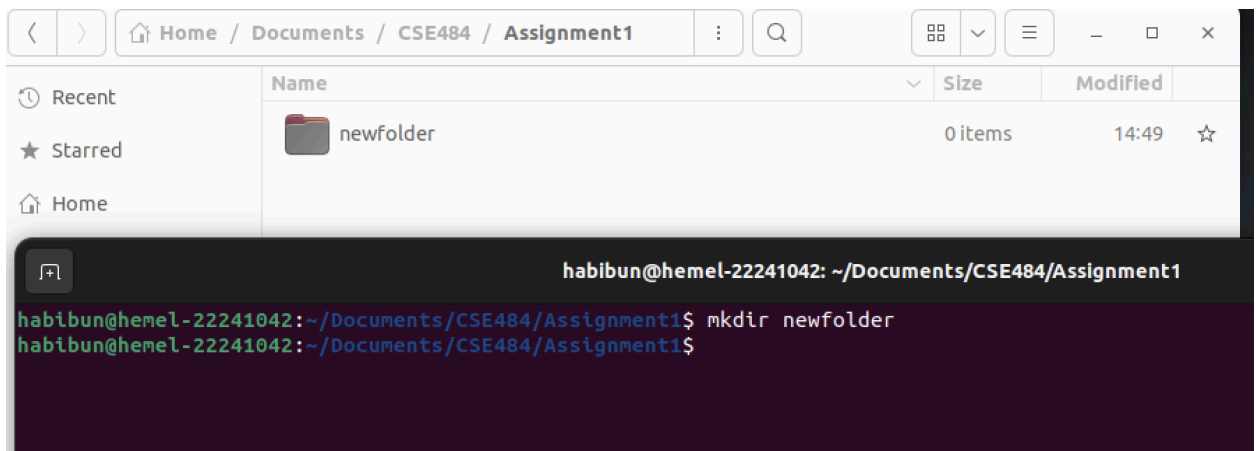
```
habibun@hemel-22241042: ~/Documents/CSE484/Assignment1
habibun@hemel-22241042:~$ cd documents
bash: cd: documents: No such file or directory
habibun@hemel-22241042:~$ cd Documents
habibun@hemel-22241042:~/Documents$ cd CSE484
habibun@hemel-22241042:~/Documents/CSE484$ assignment1
assignment1: command not found
habibun@hemel-22241042:~/Documents/CSE484$ cd Assignment1
habibun@hemel-22241042:~/Documents/CSE484/Assignment1$
```



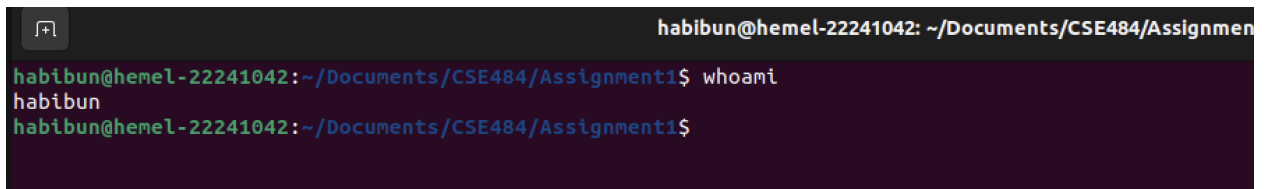
3. **history**: this will tell me the commands that are executed by the previous commands.

```
habibun@hemel-22241042: ~/Documents/CSE484/Assignmen
habibun@hemel-22241042:~/Documents/CSE484/Assignment1$ history
 1 sudo apt update && sudo apt upgrade -y
 2 sudo apt install ubuntu-desktop
 3 reboot
 4 sudo apt install spice-vdagent spice-webdavd -y
 5 reboot
 6 sudo mkdir /media/Hostshared
 7 clear
 8 sudo mkdir /media/HostShared
 9 sudo mount -t 9p -o trans=virtio share /media/HostShared -oversion=9p2000.L
10 sudo nano /etc/fstab
11 sudo chown -R $USER /media/HostShared
12 sudo chown -R $USER /media/HostShared/
13 reboot
14 date
15 ds -s
16 du -s
17 clear
18 date
19 clear
20 su - username
21 su - hemel
22 clear
23 hostnamectl set hostname hemel-22241042
24 clear
25 hostnamectl set-hostname hemel-22241042
26 hostname
27 sudo su
28 usermode -l habibun -d /home/hemel -m hemel
29 usermod -l habibun -d /home/hemel -m hemel
30 sudo su
31 whoami
32 pwd
33 sudo su
34 sudo gedit /etc/passwd
35 sudo adduser temporaryuser
36 sudoadduser temporaryuser sudo
37 sudo adduser temporaryuser sudo
38 sudo userdel temporaryuser
39 datw
40 clear
41 date
42 clear
43 cd documents
44 cd Documents
```

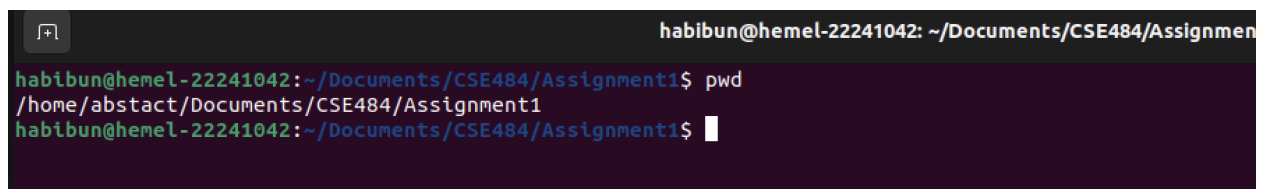
- 
4. **mkdir**: this command will create a new folder/directory . syntax: mkdir <newfolder\_name>



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5. **whoami**: this command will give me the user name which is habibun in here



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6. **pwd**: (print working directory) this command displays the full path name of the current working folder.



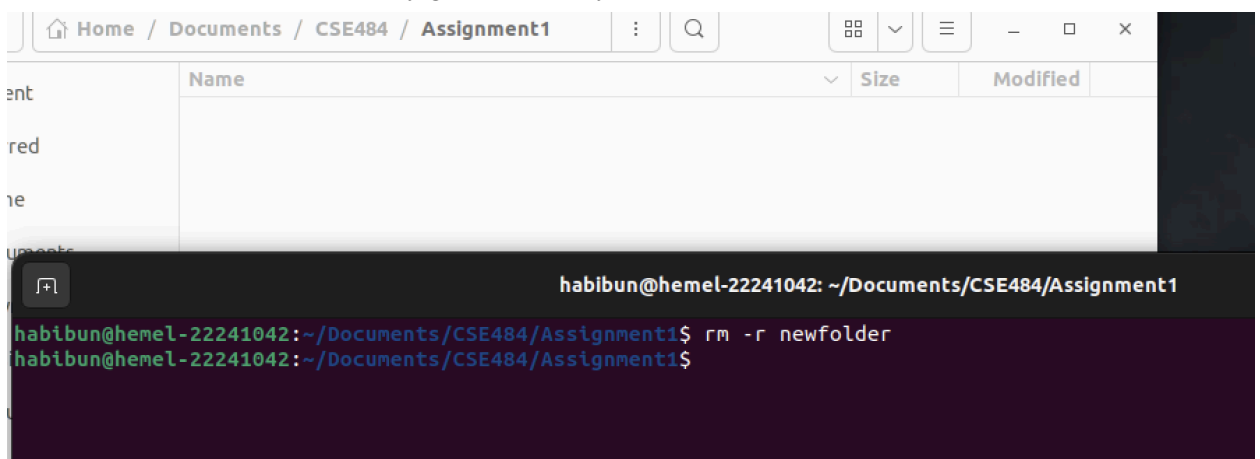
- 
7. **passwd**: the command will help me to change the password. Here i have to put current password then set the new one

```
habibun@hemel-22241042: ~/Documents/CSE484/Assignment1$ passwd
Changing password for habibun.
Current password:
New password:
Retype new password:
passwd: password updated successfully
habibun@hemel-22241042:~/Documents/CSE484/Assignment1$
```

8. **clear**:this command will make the terminal clean and lookslike the starting one

```
50 clear
51 history
52 clear
53 whoami
54 clear
55 pwd
56 clear
57 passwd
58 clear
59 history
60 clear
61 history
habibun@hemel-22241042:~/Documents/CSE484/Assignment1$ clear
```

9. **rm**:this command will remove any given folder. syntax: `rm -r <foldername>`



```
habibun@hemel-22241042: ~/Documents/CSE484/Assignment1$ rm -r newfolder
habibun@hemel-22241042:~/Documents/CSE484/Assignment1$
```

10. **ls** : list the content of a directory.

```
habibun@hemel-22241042: ~  
habibun@hemel-22241042:~$ ls  
Desktop Documents Downloads Music Pictures Public snap Templates Videos  
habibun@hemel-22241042:~$ ls -a  
. .bash_history .bashrc .config Documents .gnupg Music .profile snap .sudo_as_admin_successful Videos  
.. .bash_logout .cache Desktop Downloads .local Pictures Public .ssh Templates  
habibun@hemel-22241042:~$
```

11. **du -s**: the du command displays the sizes of all directories and files in bytes. But i use the “-s” option to display only the total size of a directory.

```
habibun@hemel-22241042:~$ du -s  
115224 .  
habibun@hemel-22241042:~$
```

12. **free**: Displays the amount of free space available on the system.The free command displays memory (RAM) usage by default in kilobytes.

```
habibun@hemel-22241042:~$ free  
              total        used        free      shared  buff/cache   available  
Mem:           4005116      821188      823860        61188     2360068     2931808  
Swap:          4004860           0      4004860  
habibun@hemel-22241042:~$
```

13. **cp**:copy from one file to another. Syntax: cp <form\_path> <to\_path>

```
habibun@hemel-22241042:~$ cp /home/abstact/Pictures/Wallpapers/wp8939842.jpg home  
habibun@hemel-22241042:~$
```

14. **mv**: move from one folder to another. Syntax: `mv <from_path> <to_path>`

```
habibun@hemel-22241042:~$ mv /home/abstact/home Documents/CSE484
habibun@hemel-22241042:~$
```

15. **cat**: (concatenate) command is a tool that lets view file contents on terminal. I can direct open a file and see what's inside that. Syntax: `cat <path>`

```
habibun@hemel-22241042:~$ cat /home/abstact/.profile
# ~/.profile: executed by the command interpreter for login shells.
# This file is not read by bash(1), if ~/.bash_profile or ~/.bash_login
# exists.
# see /usr/share/doc/bash/examples/startup-files for examples.
# the files are located in the bash-doc package.

# the default umask is set in /etc/profile; for setting the umask
# for ssh logins, install and configure the libpam-umask package.
#umask 022

# if running bash
if [ -n "$BASH_VERSION" ]; then
    # include .bashrc if it exists
    if [ -f "$HOME/.bashrc" ]; then
        . "$HOME/.bashrc"
    fi
fi

# set PATH so it includes user's private bin if it exists
if [ -d "$HOME/bin" ] ; then
    PATH="$HOME/bin:$PATH"
fi

# set PATH so it includes user's private bin if it exists
if [ -d "$HOME/.local/bin" ] ; then
    PATH="$HOME/.local/bin:$PATH"
fi
habibun@hemel-22241042:~$
```

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16. **touch**: touch command allows you to create empty files or update the timestamps of existing files.



```
habibun@hemel-22241042: ~/Documents/CSE484
habibun@hemel-22241042:~$ cd Documents/CSE484
habibun@hemel-22241042:~/Documents/CSE484$ touch example.text
habibun@hemel-22241042:~/Documents/CSE484$
```

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17. **nano**: It is a command-line tool that allows you to create, edit, and save text files

```
habibun@hemel-22241042: ~/Documents/CSE484
habibun@hemel-22241042:~/Documents/CSE484$ nano
```

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**18.Man intro:** this command shows a introduction to Linux commands.Help us to learn commands.

```
habibun@hemel-22241042: ~/Documents/CSE484
habibun@hemel-22241042:~/Documents/CSE484$ man intro
habibun@hemel-22241042:~/Documents/CSE484$
```

```
habibun@hemel-22241042: ~/Documents/CSE484
INTRO(1)                                     Linux User's Manual                                     INTRO(1)
NAME
  intro - introduction to user commands
DESCRIPTION
  Section 1 of the manual describes user commands and tools, for example, file manipulation tools, shells, compilers, web browsers, file and image viewers and editors, and so on.
NOTES
  Linux is a flavor of UNIX, and as a first approximation all user commands under UNIX work precisely the same under Linux (and FreeBSD and lots of other UNIX-like systems).

  Under Linux, there are GUIs (graphical user interfaces), where you can point and click and drag, and hopefully get work done without first reading lots of documentation. The traditional UNIX environment is a CLI (command line interface), where you type commands to tell the computer what to do. That is faster and more powerful, but requires finding out what the commands are. Below a bare minimum, to get started.

Login
  In order to start working, you probably first have to open a session by giving your username and password. The program login(1) now starts a shell (command interpreter) for you. In case of a graphical login, you get a screen with menus or icons and a mouse click will start a shell in a window. See also xterm(1).

The shell
  One types commands to the shell, the command interpreter. It is not built-in, but is just a program and you can change your shell. Everybody has their own favorite one. The standard one is called sh. See also ash(1), bash(1), chsh(1), csh(1), dash(1), ksh(1), zsh(1).

  A session might go like:

      knuth login: aeb
      Password: *****
Manual page intro(1) line 1/151 21% (press h for help or q to quit)
```

**19.sudo apt-get update:** This command will fetch the package information from all configured sources and update the local package index.It can take some time to update depending on the internet speed

```
habibun@hemel-22241042: ~/Documents/CSE484
habibun@hemel-22241042:~/Documents/CSE484$ sudo apt-get update

habibun@hemel-22241042:~/Documents/CSE484$ sudo apt-get update
[sudo] password for habibun:
Sorry, try again.
[sudo] password for habibun:
Get:1 file:/cdrom jammy InRelease
Ign:1 file:/cdrom jammy InRelease
Get:2 file:/cdrom jammy Release
Err:2 file:/cdrom jammy Release
   File not found - /cdrom/dists/jammy/Release (2: No such file or directory)
Hit:3 http://ports.ubuntu.com/ubuntu-ports jammy InRelease
Get:4 http://ports.ubuntu.com/ubuntu-ports jammy-updates InRelease [119 kB]
Hit:5 http://ports.ubuntu.com/ubuntu-ports jammy-backports InRelease
Get:6 http://ports.ubuntu.com/ubuntu-ports jammy-security InRelease [110 kB]
Get:7 http://ports.ubuntu.com/ubuntu-ports jammy-updates/main arm64 Packages [1,153 kB]
Get:8 http://ports.ubuntu.com/ubuntu-ports jammy-updates/main Translation-en [268 kB]
Get:9 http://ports.ubuntu.com/ubuntu-ports jammy-updates/restricted arm64 Packages [916 kB]
Get:10 http://ports.ubuntu.com/ubuntu-ports jammy-updates/restricted Translation-en [220 kB]
Get:11 http://ports.ubuntu.com/ubuntu-ports jammy-updates/universe arm64 Packages [980 kB]
Get:12 http://ports.ubuntu.com/ubuntu-ports jammy-updates/universe Translation-en [235 kB]
Get:13 http://ports.ubuntu.com/ubuntu-ports jammy-security/main arm64 Packages [942 kB]
Get:14 http://ports.ubuntu.com/ubuntu-ports jammy-security/main Translation-en [207 kB]
Get:15 http://ports.ubuntu.com/ubuntu-ports jammy-security/restricted arm64 Packages [900 kB]
Get:16 http://ports.ubuntu.com/ubuntu-ports jammy-security/restricted Translation-en [214 kB]
Get:17 http://ports.ubuntu.com/ubuntu-ports jammy-security/universe arm64 Packages [780 kB]
Get:18 http://ports.ubuntu.com/ubuntu-ports jammy-security/universe Translation-en [160 kB]
Reading package lists... Done
E: The repository 'file:/cdrom jammy Release' no longer has a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
habibun@hemel-22241042:~/Documents/CSE484$
```

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20. **sudo apt-get clean:** This command clears out the local repository of retrieved package files, freeing up disk space. For that reason i can have some extra space in my system

```
habibun@hemel-22241042:~$ sudo apt-get clean
habibun@hemel-22241042:~$
```

**THE END**