Yesterday's session : What is Operating System ?

-> Operating System is acting as mediator between users and computer hardware components

-> Operating System is mandatory to use any computer

-> OS provides environment to run other applications

        (browser, notepad, paint, calc)

-> The OS came into market in 1950

-> Microsoft released it's first OS in 1981 (MS DOS)

Windows OS

-> Developed by Microsoft

-> It is having GUI

-> It is single user based Operating System

-> It is commercial (paid)

-> Less Security

-> It is recommended for personal use

Linux OS

-> Linux is Community Based OS

-> Linux is Free & Open Source

-> Linux is Multi User Based OS

-> High Security

-> Recommended to use for Applications, Servers, Databases etc..

Note: In realtime, we will use Linux OS only to setup infrastructure required to run our
application

-> Linux OS is not only for Administrators, even developers and testers also will use Linux OS in
realtime to monitor our application and application servers.

History Of Linux

-> In 1991, a student 'Linus Torvalds' developed this Linux OS

-> Linux Torvalds identified some challenges in UNIX OS and he suggested some changes
   for Unix OS but UNIX OS Team rejected 'Linux Torvalds 'suggestions

-> Linus Torvalds used Minux OS to develop Linux

                Linus + Minux

-> First Two letters from his name and last 3 letters from Minux OS

                LI + NUX => LINUX

-> Linus Torvalds released LINUX OS with source code into market so that anybody can modify LINUX OS thatys why it is called as Open Source Operating System.

-> As Linux OS is open source, so many people and companies taken that Linux OS and modified according to their requirement and released into market with different names those are called as Linux Distributions.

RHEL -- RED HAT
Ubuntu OS
Cent OS
Fedora
Open SUSE
Kali Linux
Debian

Note : 200+ Linux Distributions are available in the market.

Environment Setup

=> We can setup Linux Machine in 2 ways

1) By using Hypervisor with Virtual Box

2) Cloud VM

-> Documents shared to create AWS account & Linux VM Launching in AWS
   (Follow the given docs and complete the assignment)

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1) Create account in AWS (it will ask debit/credit card) - selected cards are accepted

2) Create Linux VM using AWS EC2 service (download key pair)

3) Convert .pem to .ppk using puttygen software

4) Open putty S/w and connect to EC2 VM using IP & PPK file

Linux VM is ready. It is up and running in AWS Cloud

We are able to connect with Linux VM using Putty S/w

Linux Commands
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whoami : It will display currently logged in username

pwd : present working directory

date : To display current date

cal : To display calendar

-> In Linux everything everything will be represented as file

-> We have 3 types of files in linux

1) Ordinary File / Normal File

2) Directory File
3) Link File

-> The file which contains data is called as ordinary file

-> Directory file is equal to folder (it can contain files and folders)

-> The file which is having linking is called as Link File

=> touch : it is used to create empty file

                $ touch f1.txt
                $ touch f2.txt
                $ touch f3.txt f4.txt

=> To display files we will use 'ls' command

                $ ls

=> To create a file with data we will use 'cat' command

                $ cat > hello.txt
                //write data
                press CTRL + d (to save and exit)

                $ cat hello.txt   (To display file data)

                $ cat >> hello.txt (To append data in the file)
                //write data
                press CTRL + d (to save and exit)

-> To create directory we will use 'mkdir' command

                $ mkdir dirname

-> To remove the file we will use 'rm' command

                $ rm filename

-> To remove empty directory we will use 'rmdir' command

                $ rmdir dirname

===
     1 clear
     2 whoami
     3 pwd
     4 date
     5 cal
     6 clear
     7 touch f1.txt
     8 ls
     9 touch f2.txt
    10 ls
    11 touch f3.txt f4.txt
    12 ls
    13 cat > hello.txt
    14 ls
    15 cat hello.txt
    16 cat > hello.txt
    17 cat hello.txt
    18 cat >> hello.txt
    19 cat hello.txt
    20 clear
    21 ls
    22 touch f5.txt
    23 ls

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24  cat > f6.txt
25  cat f6.txt
26  cat >> f6.txt
27  cat f6.txt
28  clear
29  mkdir movies
30  ls
31  cat f1.txt
32  cat > f1.txt
33  cat f1.txt
34  rm f2.txt
35  ls
36  rmdir movies
37  ls
38  history
```