# ***ITDEFINED COURSE MATERIAL AWS DEVOPS***

**LINUX-BASICS**

**First class-20/05/2024**

Create an ec2 instance (Server, Virtual Machine, Node)

Launch ec2 instance in AWS

1. Create an AWS account   
2. wait for the account to get activated   
3. Search for EC2 service -> Goto Instances -> Launch Instances   
    a. Give a name to the machine (instance)  
    b. Choose the OS type (AMI type)  
    c. Create and save the Key Pair to login   
4. Create an instance

Note: Follow the video to create ec2 machine.

**Second class-21/05/2024**

Linux keynotes to know

In Linux commands are case-sensitive

A folder is called a Directory in Linux

**pwd (present working directory)**Know your current path/location

**ls (list files and directories)**

To list with details (long format): ls -l

To list with creation time sorted (recent at the top): ls -t

To list reverse order: ls -r

All the above together: ls -lrt (OR) ll

**cd (change directory - cd)**

switch/change to a folder/Directory in Linux  
Syntax: cd <path>/<location>  
 example: 1. To change to a Directory in the current location  
                        cd test

**mkdir (make directory - mkdir)**

To create a directory: mkdir <directory\_name>  
            example: mkdir test

To create multiple directories:

      mkdir <directory\_name> <directory\_name1> <directory\_name2> ..... <directory\_name>  
note: directory names with space separated      
           example: mkdir test test1 test2 ...

**tree (structured and recursive directory listing)**

**Third class 22/05/2024**

**Which**

The which command in Linux is used to locate the executable file associated with a given command by searching in the directories listed in the environment variable PATH.

Syntax : which <command>

**Vi Editor**

Command Mode

we can't add any content. This is used to run vi-related commands.

Initially when we do vi to a file command mode is the default mode.

    Only Save the changes to the file -  ':w'

    To quit from vi - ':q!'

    Save and quit from vi - ':wq!' or (<escape> - Hold shift + zz)

    Save to another file - ':w <new\_file>'

    To search a word - '/<word>'

    To display line numbers - ':set nu'

    To replace word - s/<old\_word>/<new\_word>/g

    To display line numbers - ':nu'

    dd - cut the entire line where the cursor is

    yy - copy the entire line where the cursor is

    p - paste the clipboard content next to the cursor

Insert Mode

Is used to add the content to the file.

Press 'i' to enter to insert mode

Press '<escape>' to exit insert mode and move to command mode.

Linux path   
  Always Linux path is separate with /       
   . -> current directory   
   .. -> one step back / Previous one directory   
   ../.. -> Previous two directory

**tree**

The tree command in Linux is used to display the contents of current directory in a tree-like format. It recursively lists all files and directories within a specified directory.

Display Only Directories: tree -d

List All Files Including Hidden Files: tree -a

Limit the Depth of the Tree: tree -L 2

Display Full Path Prefix for Each File: tree -f

Print the Size of Each File: tree -h

**root**

Root is the superuser account in Unix and Linux which is created automatically at the time of OS installation.

The root user has complete and unrestricted access to the system, including the ability to modify or delete any file or directory and to start or stop any service.

It is a user account for administrative purposes and has the highest access rights on the system.

The default user ID of the root user is 0 (Zero)

**sudo**

The sudo command in Linux stands for "superuser do"

The user can execute any command as the superuser (root).

This is useful for performing administrative tasks that require elevated/root privileges.

sudo <command>

**Package Manager**

apt and yum are package management tools used in Linux distributions to install, update, and manage software packages.

apt is typically used in Debian-based distributions (like Ubuntu)

yum is used in RPM-based distributions (like CentOS and Fedora).

**Update Package List:**

sudo apt update

sudo yum check-update

**Upgrade all Installed Packages:**

sudo apt upgrade

sudo yum update

**Install a Package:**

sudo apt install <package\_name>

sudo yum install <package\_name>

**Remove a Package:**

sudo apt remove <package\_name>

sudo yum remove <package\_name>

**Remove a Package with Its Configuration Files:**

sudo apt purge <package\_name>

sudo yum purge <package\_name>

**Search for a Package:**

sudo apt search package\_name

sudo yum search package\_name

**FOURTH CLASS-23/05/2024**

**chmod**

The chmod command is used to change the access mode of a file.

The name is an abbreviation of change mode.

   example: 1. Read, write and execute permissions to the file owner:

                             chmod u+rwx <file\_name>

                                             (OR)

                             chmod 700 <file\_name>

                   2. Read, write to file owner, Read to groups and Wrtie, Execute to Others:

                             chmod u+rw, g+r, o+wx <file\_name>

                                                     (OR)

                             chmod 643 <file\_name>

**Delete files/directories (rm)**

Use the rm command to delete files and directories. But rm cannot simply delete a directory. Use “rm -r” to delete a directory. In this case, it deletes both the folder and the files in it.  
    To remove/delete a file       
        rm file\_name   
    To remove/delete a Directory      
        rm -r directory

**rename or move the file from one location to another (mv)**

**mv** command to move files and directories through the command line.

We can also use the mv command to rename a file/directory.

 To rename a file/directory  
        mv old\_filename new\_filename  
        mv old\_directory new\_directory

 To move to a different location (cut and paste)      
        mv <source> <destination>

**Copy the file from one location to another (cp)**cp command copies files and directories through the command line.

To copy to a different location

          cp <source> <destination>