**Create Swap Partition**

* **Swap** space is the area on a hard disk which is part of the Virtual Memory of your machine, Swap space in Linux is used **when** the amount of physical memory (RAM) is full and If the system needs more memory resources in that case inactive pages in memory are moved to the swap space. That time swap used as a RAM.
* **Is SWAP necessary ?**

If you have enough RAM there is no need for swap partition. Actually swap is needed if you are running any applications which may run out of memory with your current RAM configuration, then additional memory will be taken from SWAP partition. If you dont have a swap partition, you system may suddenly restart of shutdown. Sometimes the app is simply killed automatically.

* Linux as a two forms : Swap partition and Swap file.

**1. Creating a Swap partition :-**

1. Frist Check the Partition table using “fdisk” Command

# fdisk –l

1. Partitioning Device

# fdisk /dev/sdb

N

P

1 ## Enter partition no. (1,2,3)

+1G ## (Swap Space)

L

T

82 ## (linux swap code)

P

W

# fdisk –l

# partprobe (For Partition table refresh without reboot system)

1. Format Swap partition

# mkswap /dev/sdb1

1. To enable the swap partition

# swapon /dev/sdb1

1. Check the following File

# cat /proc/swaps

1. To make it available

# vim /etc/fstab

/dev/sdb1 swap swap defaults 0 0

1. After adding the new swap file and enabling it, verify it is enabled by viewing the output of the command free Or swapon -s or
2. To check Total swap swap space

# grep SwapTotal /proc/meminfo

**Deleting a Swap partition :-**

1. Frist remove entry from /etc/fstab.

# vim /etc/fstab

remove our entry for swap partition and save the file

1. Use fdisk Command to delete the Partition

# fdisk /dev/sdb

M

D

Select Partition which you want to delete

P

Wq

# partprobe

1. After Deleting the swap file , verify it is disable by viewing the output of the command using free Or # cat /proc/swaps command.

**2. Creating a Swap File using dd Command** :-

1. Determine the size of the new swap file in megabytes and multiply by 1024 to determine the number of blocks. For example, the block size of a 64 MB swap file is 65536.
2. At a shell prompt as root, type the following command with count being equal to the desired block size:

**# dd if=/dev/zero of=/swapfile bs=1024 count=65536**

1. Setup the swap file with the command:

# mkswap /swapfile

1. To enable the swap file immediately but not automatically at boot time:

# swapon /swapfile

1. To enable it at boot time, edit /etc/fstab to include the following entry:

/swapfile swap swap defaults 0 0

1. After adding the new swap file and enabling it, verify it is enabled by viewing the output of the command cat /proc/swaps or free. Or swapon -s
2. Check Total swap Space

# grep SwapTotal /proc/meminfo