SWAP PARTITION ON RAM(MEMORY)

Define :

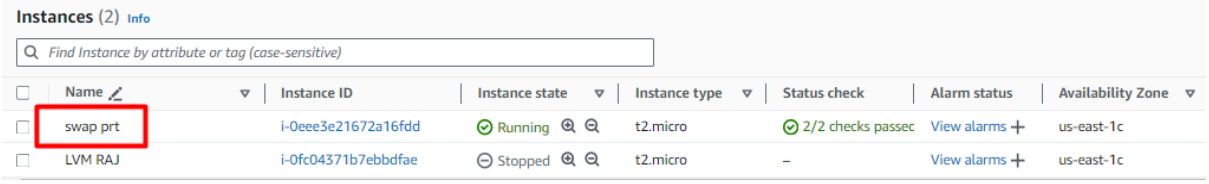
When physical RAM is already in use, Amazon EC2 instances use swap space as a short-term replacement for physical RAM.

Contents of RAM that aren't in active use or that aren't needed as urgently as other data or instructions can be temporarily paged to a swap file. This frees up RAM for more immediate use.

You can also create swap space on a partition

STEP 1 : Create EC2 Instance

- Choose AMI Linux 2023/Linux 2 kernal/ubuntu
- Attach a Security Group
- Attach a Key Pair
- And Create the EC2 Instance



STEP 2 : Check Swap Partition

Command used :

❖ Check if there is any partition done

#sudo swapon -s

❖ Check if there is a Free memory or not

#sudo free -m

STEP 3 : Setup a Swap Partition

Command Used:

- This command create a Swap file for the Partition
- The block size you specify should be less than the available memory on the instance or you receive a "memory exhausted" error.

```
#sudo fallocate -l 4G /swapfile
```

OR

```
#sudo dd if=/dev/zero of=/swapfile bs=128M count=32
```

- This above command will create a swap file of 4G size
- Now we will udate the read and write permissions for the swap file:

```
#sudo chmod 600 /swapfile
```

- This command will setup the swap partition area for the sever

```
#mkswap /swapfile
```

- This command will enable/process the Swap

```
#sudo swapom /swapfile
```

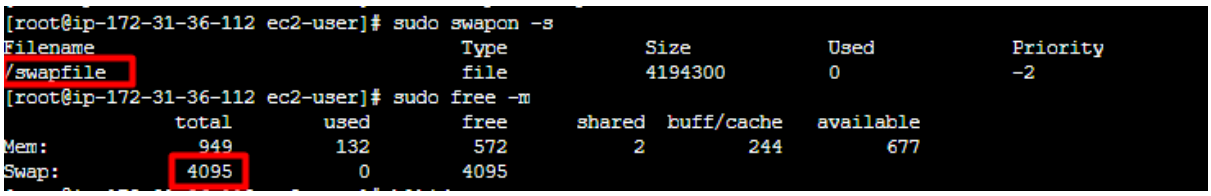
STEP 4 : Display the partition

- Hence we have successfully parted the Memory

Command used :

```
#sudo swapon -s
```

```
#sudo free -m
```



STEP 5 : Permanently store

❖ To permanently store the swap we will store the swap in /etc/fstab

Commad used :

#blkid //this commad will display the UUID for the sever for the partition

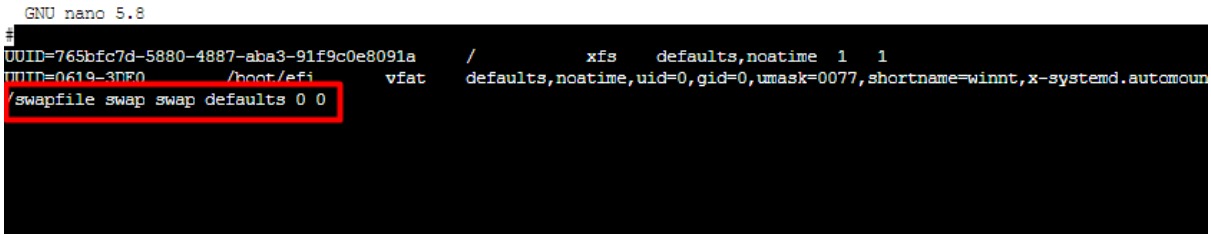
#nano /etc/fstab

❖ Add this in the fstab file and save

“

/swapfile swap swap defaults 0 0

”



REFERENCE LINK :

DOCS:

https://repost.aws/knowledge-center/ec2-memory-swap-file

https://tecadmin.net/add-swap-partition-on-ec2-linux-instance/

VIDIO:

https://youtu.be/oHW0quS4pV4?si=73Ui6_25n4CdK7Vr

https://youtu.be/uAr_EIlTIxs?si=tRJ2zzb8HKXSXKhE

COMMAD USED :

```
#sudo su
#sudo swapon -s
#sudo free -m
#lsblk
#sudo fallocate -l 4G /swapfile
#sudo chmod 600 /swapfile
#sudo mkswap /swapfile
#sudo swapon /swapfile
#sudo swapon -s
#sudo free -m
#blkid
#nano /etc/fstab
```