Memory management

1) Setup additional swap space in the system to solve low memory issue.  The swap which you added should be available post reboot.

First Way :

root@ip-172-31-26-56:/# free

total used free shared buff/cache available

Mem: 1002104 160580 81952 760 759572 683060

Swap: 0 0 0

root@ip-172-31-26-56:/# mkswap /dev/xvdf4

root@ip-172-31-26-56:/# swapon /dev/xvdf4

root@ip-172-31-26-56:/# free

total used free shared buff/cache available

Mem: 1002104 160580 81952 760 759572 683060

Swap: 1048572 1536 1047036

Second Way :

root@ip-172-31-26-56:/# free

total used free shared buff/cache available

Mem: 1002104 201536 63652 832 736916 607536

Swap: 0 0 0

root@ip-172-31-26-56:/# sudo fallocate -l 1G /swapfile

root@ip-172-31-26-56:/# sudo chmod 600 /swapfile

root@ip-172-31-26-56:/# sudo mkswap /swapfile

Setting up swapspace version 1, size = 1024 MiB (1073737728 bytes)

no label, UUID=f55e8b29-a510-4036-b390-6470595ccac3

root@ip-172-31-26-56:/# sudo swapon /swapfile

root@ip-172-31-26-56:/# sudo nano /etc/fstab

root@ip-172-31-26-56:/# sudo swapon --show

NAME TYPE SIZE USED PRIO

/swapfile file 1024M 256K -2

root@ip-172-31-26-56:/# sudo free -h

total used free shared buff/cache available

Mem: 978Mi 195Mi 74Mi 0.0Ki 708Mi 594Mi

Swap: 1.0Gi 0.0Ki 1.0Gi  
  
2) Find out the number of process is in run queue and blocking queue.

root@ip-172-31-26-56:/# sar -q 1 3

vmstat 1

Linux 5.4.0-1029-aws (ip-172-31-26-56) 12/18/20 \_x86\_64\_ (1 CPU)

04:10:54 runq-sz plist-sz ldavg-1 ldavg-5 ldavg-15 blocked

04:10:55 0 144 0.00 0.00 0.00 0

04:10:56 0 142 0.00 0.00 0.00 0

04:10:57 0 142 0.00 0.00 0.00 0

Average: 0 143 0.00 0.00 0.00 0