Assignment – Memory Management

1) Setup additional swap space in the system to solve low memory issue. The swap

Step 1:- sudo fallocate -l 1G /swapfile

     ls -l /

     Sudo chmod 700 /swapfile

```
drwxr-xr-x    2 root root        4096 Aug  1 08:35 srv
-rwx------    1 root root 1073741824 Oct  9 11:52 swapfile
```

Step 2:-   sudo mkswap /swapfile

Step 3:- sudo swapon /swapfile

Note :- to check the swap use

        free / sudo swapon --show

```
ubuntu@ip-172-31-31-163:/$ free
              total        used        free      shared  buff/cache   available
Mem:         980396      419876      170888         900      545344      560520
Swap:       1048572           0     1048572
ubuntu@ip-172-31-31-163:/$
```

which you added should be available post reboot.

Step 1 :- sudo nano /etc/fstab

     Addd this content to fstab

     /swapfile none swap sw 0 0 (save and exit)

```
LABEL=UEFI       /boot/efi       vfat      umask=0077        0 1
/swapfile none swap sw 0 0
```

2) Find out the number of process is in run queue and blocking queue.

Ans -Vmstat 1 5

```
ubuntu@ip-172-31-31-163:/$ vmstat 1 5
procs -----------memory---------- ---swap-- -----io---- -system-- -------cpu------
 r  b   swpd   free   buff  cache   si   so    bi    bo   in   cs us sy id wa st gu
 1  0      0 170424  22060 524416    0    0   304    26  159    1  1  0 98  0  1  0
 0  0      0 170424  22060 524436    0    0     0     0  126  127  0  0 97  0  3  0
 0  0      0 170424  22060 524436    0    0     0     0  120  125  1  0 99  0  0  0
 0  0      0 170424  22060 524436    0    0     0     0  120  121  0  0 100  0  0  0
 0  0      0 170424  22060 524436    0    0     0     0  116  117  0  0 100  0  0  0
ubuntu@ip-172-31-31-163:/$
```