

Task2 - Files and directories in the current location, including hidden files

```
[ec2-user@ip-172-31-33-127 test_folder]$ ls -a
.  ..
[ec2-user@ip-172-31-33-127 test_folder]$
```

Task 3 - New folder - test_folder

move inside it, confirm your location, and then delete the folder

```
[ec2-user@ip-172-31-42-205 ~]$ mkdir test_folder
[ec2-user@ip-172-31-42-205 ~]$ cd test_folder
[ec2-user@ip-172-31-42-205 test_folder]$ pwd
/home/ec2-user/test_folder
[ec2-user@ip-172-31-42-205 test_folder]$
```

Folder deleted

```
[ec2-user@ip-172-31-42-205 ~]$ pwd
/home/ec2-user
[ec2-user@ip-172-31-42-205 ~]$ cd test_folder
[ec2-user@ip-172-31-42-205 test_folder]$ ls
[ec2-user@ip-172-31-42-205 test_folder]$ pwd
/home/ec2-user/test_folder
[ec2-user@ip-172-31-42-205 test_folder]$ sudo rm -rf test_folder
[ec2-user@ip-172-31-42-205 test_folder]$ ls
[ec2-user@ip-172-31-42-205 test_folder]$ pwd
/home/ec2-user/test_folder
[ec2-user@ip-172-31-42-205 test_folder]$ ls -l
total 0
[ec2-user@ip-172-31-42-205 test_folder]$
```

```
[ec2-user@ip-172-31-33-127 test_folder]$ cd ..
[ec2-user@ip-172-31-33-127 ~]$ pwd
/home/ec2-user
[ec2-user@ip-172-31-33-127 ~]$ ls
test_folder
[ec2-user@ip-172-31-33-127 ~]$ rmdir test_folder
[ec2-user@ip-172-31-33-127 ~]$ ls
[ec2-user@ip-172-31-33-127 ~]$
```

Task 4- hello.txt file created

The file contains "Hello Amazon Linux"

then display its contents on the screen

```
'Hello Amazon Linux'  hello.txt  test_folder
[ec2-user@ip-172-31-42-205 ~]$ echo "Hello Amazon Linux" >> /home/ec2-user/hello.txt
[ec2-user@ip-172-31-42-205 ~]$ ls
'Hello Amazon Linux'  hello.txt  test_folder
[ec2-user@ip-172-31-42-205 ~]$ cat /home/ec2-user/hello.txt
Hello Amazon Linux
[ec2-user@ip-172-31-42-205 ~]$
```

Task 5- Check how much disk space is being used and how much is available on your system

```
[ec2-user@ip-172-31-33-127 ~]$ df
Filesystem            1K-blocks      Used Available Use% Mounted on
devtmpfs               4096          0       4096   0% /dev
tmpfs                  463276        0     463276   0% /dev/shm
tmpfs                  185312       432     184880   1% /run
/dev/nvme0n1p1        8310764    1606092     6704672  20% /
tmpfs                  463276        0     463276   0% /tmp
/dev/nvme0n1p128       10202       1314       8888  13% /boot/efi
tmpfs                  92652        0     92652   0% /run/user/1000
[ec2-user@ip-172-31-33-127 ~]$
```

Task 6- Find out how much memory (RAM) is available and currently being used

```
[ec2-user@ip-172-31-42-205 ~]$ free -m
              total        used        free      shared  buff/cache   available
Mem:           904          166          522           0         215         608
Swap:           0            0            0
[ec2-user@ip-172-31-42-205 ~]$
```

Task 7- Display detailed CPU information – such as model, cores, and architecture

```
aws
[ec2-user@ip-172-31-42-205 ~]$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:          46 bits physical, 48 bits virtual
Byte Order:             Little Endian
CPU(s):                 2
On-line CPU(s) list:   0,1
Vendor ID:              GenuineIntel
Model name:             Intel(R) Xeon(R) Platinum 8259CL CPU @ 2.50GHz
CPU family:             6
Model:                 85
Thread(s) per core:    2
Core(s) per socket:    1
Socket(s):              1
Stepping:               7
BogoMIPS:               5000.04
Flags:                  fpu vme de pae tsc mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ss ht syscall nx pdpe1gb rdtscp lm constant_tsc rep_good nopl xtopology nonstop tsc cpuid tsc_known_freq pni pclmulqdq ssse3 fma cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand hypervisor lahf_lm abm 3dnowprefetch cpuid_fault invpcid_single pti fsgsbase tsc_adjust bmi1 avx2 sm
p bmi2 erms invpcid mpx avx512f avx512dq rdseed adx smap clflushopt clwb avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves ida arat
pku ospke
Virtualization features:
Hypervisor vendor:     KVM
Virtualization type:   full
Caches (sum of all):
L1d:                   32 KiB (1 instance)
L1i:                   32 KiB (1 instance)
L2:                    1 MiB (1 instance)
L3:                   35.5 MiB (1 instance)
```

Task 8- Check the list of running processes on your system and identify which one uses the most CPU.

These are the list of running processes but there is no count for the CPU

```
[ec2-user@ip-172-31-33-127 ~]$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.0 172372 17244 ?        Ss   22:29   0:00 /usr/lib/systemd/systemd --switched-root --system --deserialize=32
root           2  0.0  0.0          0     0 ?        S    22:29   0:00 [kthreadd]
root           3  0.0  0.0          0     0 ?        I<   22:29   0:00 [rcu_gp]
root           4  0.0  0.0          0     0 ?        I<   22:29   0:00 [rcu_par_gp]
root           5  0.0  0.0          0     0 ?        I<   22:29   0:00 [slub_flushwq]
root           6  0.0  0.0          0     0 ?        I<   22:29   0:00 [netns]
root           8  0.0  0.0          0     0 ?        I<   22:29   0:00 [kworker/0:0H-events_highpri]
root          10  0.0  0.0          0     0 ?        I<   22:29   0:00 [mm_percpu_wq]
root          11  0.0  0.0          0     0 ?        I   22:29   0:00 [rcu_tasks_kthread]
root          12  0.0  0.0          0     0 ?        I   22:29   0:00 [rcu_tasks_rude_kthread]
root          13  0.0  0.0          0     0 ?        I   22:29   0:00 [rcu_tasks_trace_kthread]
root          14  0.0  0.0          0     0 ?        S   22:29   0:00 [ksoftirqd/0]
root          15  0.0  0.0          0     0 ?        I   22:29   0:00 [rcu_preempt]
root          16  0.0  0.0          0     0 ?        S   22:29   0:00 [migration/0]
root          18  0.0  0.0          0     0 ?        S   22:29   0:00 [cpuhp/0]
root          19  0.0  0.0          0     0 ?        S   22:29   0:00 [cpuhp/1]
root          20  0.0  0.0          0     0 ?        S   22:29   0:00 [migration/1]
root          21  0.0  0.0          0     0 ?        S   22:29   0:00 [ksoftirqd/1]
root          22  0.0  0.0          0     0 ?        I   22:29   0:00 [kworker/1:0-events]
root          23  0.0  0.0          0     0 ?        I<   22:29   0:00 [kworker/1:0H-events_highpri]
root          26  0.0  0.0          0     0 ?        S   22:29   0:00 [kdevtmpfs]
root          27  0.0  0.0          0     0 ?        I<   22:29   0:00 [inet_frag_wq]
root          28  0.0  0.0          0     0 ?        S   22:29   0:00 [kauditd]
root          29  0.0  0.0          0     0 ?        S   22:29   0:00 [khungtaskd]
root          30  0.0  0.0          0     0 ?        S   22:29   0:00 [oom_reaper]
```

```

root      32  0.0  0.0      0      0 ?      I<  22:29  0:00 [writeback]
root      33  0.0  0.0      0      0 ?      S    22:29  0:00 [kcompactd0]
root      34  0.0  0.0      0      0 ?      SN   22:29  0:00 [khugepaged]
root      35  0.0  0.0      0      0 ?      I<  22:29  0:00 [cryptd]
root      36  0.0  0.0      0      0 ?      I<  22:29  0:00 [kintegrityd]
root      37  0.0  0.0      0      0 ?      I<  22:29  0:00 [kblockd]
root      38  0.0  0.0      0      0 ?      I<  22:29  0:00 [blkcg_punt_bio]
root      40  0.0  0.0      0      0 ?      I<  22:29  0:00 [tpm_dev_wq]
root      41  0.0  0.0      0      0 ?      I<  22:29  0:00 [md]
root      42  0.0  0.0      0      0 ?      I<  22:29  0:00 [edac-poller]
root      43  0.0  0.0      0      0 ?      S    22:29  0:00 [watchdogd]
root      44  0.0  0.0      0      0 ?      I<  22:29  0:00 [kworker/0:1H-kblockd]
root      67  0.0  0.0      0      0 ?      S    22:29  0:00 [kswapd0]
root      70  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfsalloc]
root      71  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs_mru_cache]
root      74  0.0  0.0      0      0 ?      I<  22:29  0:00 [kthrotld]
root     121  0.0  0.0      0      0 ?      I<  22:29  0:00 [nvme-wq]
root     123  0.0  0.0      0      0 ?      I<  22:29  0:00 [nvme-reset-wq]
root     125  0.0  0.0      0      0 ?      I<  22:29  0:00 [nvme-delete-wq]
root     132  0.0  0.0      0      0 ?      I    22:29  0:00 [kworker/u4:4-events_unbound]
root     133  0.0  0.0      0      0 ?      I<  22:29  0:00 [mld]
root     156  0.0  0.0      0      0 ?      I<  22:29  0:00 [ipv6_addrconf]
root     172  0.0  0.0      0      0 ?      I<  22:29  0:00 [kstrp]
root     182  0.0  0.0      0      0 ?      I<  22:29  0:00 [zswap-shrink]
root     183  0.0  0.0      0      0 ?      I<  22:29  0:00 [kworker/u5:0]
root     305  0.0  0.0      0      0 ?      I<  22:29  0:00 [kworker/1:1H-kblockd]
root     769  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-buf/nvme0n1]

```

```

root      771  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-conv/nvme0n]
root      774  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-reclaim/nvm]
root      776  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-blockgc/nvm]
root      778  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-inodegc/nvm]
root      779  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-log/nvme0n1]
root      780  0.0  0.0      0      0 ?      I<  22:29  0:00 [xfs-cil/nvme0n1]
root      781  0.0  0.0      0      0 ?      S    22:29  0:00 [xfsaild/nvme0n1p1]
root      830  0.0  1.6  53524 14920 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-journald
root     1240  0.0  1.2  31972 11540 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-udev
systemd+ 1263  0.0  1.6  22548 14908 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-resolved
root     1265  0.0  0.2  21180  2296 ?      S<sl  22:29  0:00 /sbin/auditd
root     1274  0.0  0.0      0      0 ?      I<  22:29  0:00 [rpciod]
root     1277  0.0  0.0      0      0 ?      I<  22:29  0:00 [xprtiod]
root     1338  0.0  0.0      0      0 ?      I<  22:29  0:00 [ena]
root     1402  0.0  0.6  16348  6400 ?      Ss   22:29  0:00 /usr/bin/systemd-inhibit --what=handle-suspend-key:handle-hibernate-key
root     1405  0.0  0.3  81420  3160 ?      Ssl  22:29  0:00 /usr/sbin/irqbalance --foreground
libstor+ 1406  0.0  0.2   2772  1980 ?      Ss   22:29  0:00 /usr/bin/lsmc -d
root     1409  0.0  0.8  16852  7944 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-homed
root     1410  0.0  1.0  18688  9900 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-logind
dbus     1432  0.0  0.4   8480  4116 ?      Ss   22:29  0:00 /usr/bin/dbus-broker-launch --scope system --audit
systemd+ 1434  0.0  1.0  236940  9940 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-networkd
dbus     1436  0.0  0.3   5376  2908 ?      S    22:29  0:00 dbus-broker --log 4 --controller 9 --machine-id ec24da0932a4cf1b85bc583
dbus     1436  0.0  0.3   5376  2908 ?      S    22:29  0:00 dbus-broker --log 4 --controller 9 --machine-id ec24da0932a4cf1b85bc583
root     1437  0.0  0.1   2684  1136 ?      S    22:29  0:00 /usr/sbin/acpid -f
root     1441  0.0  0.4  281944  3720 ?      Ssl  22:29  0:00 /usr/sbin/gssproxy -D
root     1569  0.0  1.9 1240436 18440 ?      Ssl  22:29  0:00 /usr/bin/amazon-ssm-agent
root     1573  0.0  0.8  14372  7884 ?      Ss   22:29  0:00 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
root     1583  0.0  0.2   4760  2592 ?      Ss   22:29  0:00 /usr/sbin/atd -f

```

```

systemd+ 1434  0.0  1.0  236940  9940 ?      Ss   22:29  0:00 /usr/lib/systemd/systemd-networkd
dbus     1436  0.0  0.3   5376  2908 ?      S    22:29  0:00 dbus-broker --log 4 --controller 9 --machine-id ec24da0932a4cf1b85bc583
root     1437  0.0  0.1   2684  1136 ?      S    22:29  0:00 /usr/sbin/acpid -f
root     1441  0.0  0.4  281944  3720 ?      Ssl  22:29  0:00 /usr/sbin/gssproxy -D
root     1569  0.0  1.9 1240436 18440 ?      Ssl  22:29  0:00 /usr/bin/amazon-ssm-agent
root     1573  0.0  0.8  14372  7884 ?      Ss   22:29  0:00 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
root     1583  0.0  0.2   4760  2592 ?      Ss   22:29  0:00 /usr/sbin/atd -f
root     1590  0.0  0.1  221360  1076 tty1  Ss+  22:29  0:00 /sbin/agetty -o -p -- \u --noclear - linux
root     1593  0.0  0.1  221404  1076 ttyS0 Ss+  22:29  0:00 /sbin/agetty -o -p -- \u --keep-baud 115200,57600,38400,
chrony   1603  0.0  0.3   86328  3112 ?      S    22:29  0:00 /usr/sbin/chronyd -F 2
root     1752  0.0  1.1  15972 10220 ?      Ss   22:31  0:00 sshd: ec2-user [priv]
root     2083  0.0  0.7   16348  6872 ?      Ss   22:31  0:00 /usr/lib/systemd/systemd-userdbd
ec2-user 2088  0.0  1.5  21832 13932 ?      Ss   22:31  0:00 /usr/lib/systemd/systemd --user
ec2-user 2090  0.0  0.7  108172  6616 ?      S    22:31  0:00 (sd-pam)
ec2-user 2097  0.0  0.6  15972  6288 ?      S    22:31  0:00 sshd: ec2-user@pts/0
ec2-user 2098  0.0  0.5  224044  5004 pts/0  Ss   22:31  0:00 -bash
root     2223  0.0  0.0      0      0 ?      I    22:35  0:00 [kworker/0:0-events]
root     2587  0.0  0.0      0      0 ?      I    22:48  0:00 [kworker/u4:1-events_unbound]
root     2588  0.0  0.0      0      0 ?      I    22:48  0:00 [kworker/0:2-events]
root     2687  0.0  0.0      0      0 ?      I    22:51  0:00 [kworker/1:1-cgroup_free]
root     2688  0.0  0.7   16708  6808 ?      S    22:52  0:00 systemd-userwork: waiting...
root     2689  0.0  0.7   16708  6756 ?      S    22:52  0:00 systemd-userwork: waiting...
root     2690  0.0  0.7   16708  6808 ?      S    22:52  0:00 systemd-userwork: waiting...
root     2790  0.0  0.0      0      0 ?      I    22:55  0:00 [kworker/u4:0-events_unbound]
root     2791  0.0  0.0      0      0 ?      I    22:56  0:00 [kworker/0:1-events_power_efficient]
ec2-user 2792  0.0  0.3  223592  2824 pts/0  R+   22:57  0:00 ps aux
[ec2-user@ip-172-31-33-127 ~]$

```

Task 9- Find out how long the system has been running since last reboot, along with the average load.

```

[ec2-user@ip-172-31-33-127 ~]$ uptime
23:08:29 up 39 min,  1 user,  load average: 0.00, 0.00, 0.00
[ec2-user@ip-172-31-33-127 ~]$

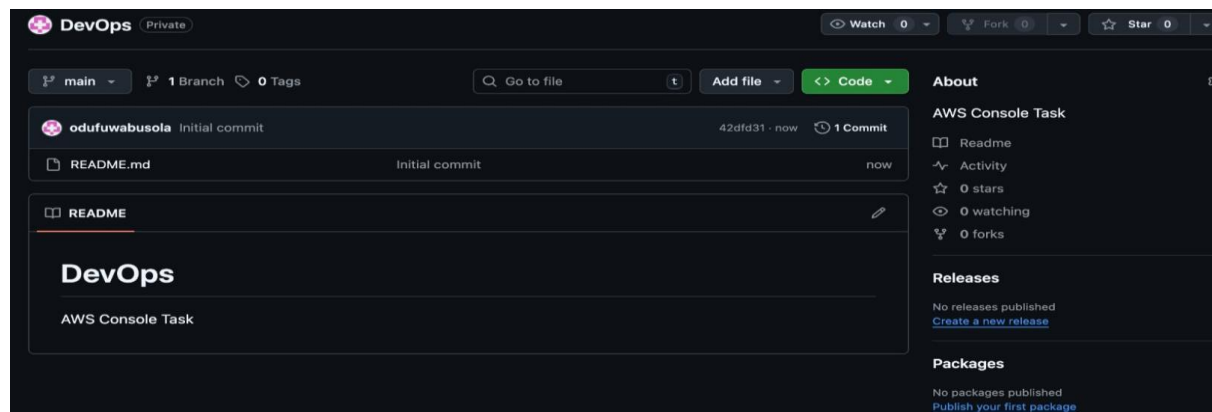
```

Task 10- View the latest entries in the system log to observe recent activity or errors.

```
[ec2-user@ip-172-31-33-127 ~]$ journalctl -r
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal audit[1]: SERVICE_STOP pid=1 uid=0 audit=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal audit[1]: SERVICE_START pid=1 uid=0 audit=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: Finished refresh-policy-routes@ens5.service - Refresh policy routes for ens5.
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: refresh-policy-routes@ens5.service: Deactivated successfully.
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: No networkd reload needed
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: Called trap
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: [get_meta] Querying IMDS for network/interfaces/macros/0a:19:12:ca:05:23/local-ipv4s
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: [get_meta] Querying IMDS for mac
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: [get_meta] Querying IMDS for mac
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: Using existing cgrfile /run/systemd/network/70-ens5.network
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: [get_meta] Querying IMDS for mac
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: [get_meta] Querying IMDS for mac
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: Got IMDSv2 token for interface ens5 from http://169.254.169.254/latest via ens5
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3153]: Starting configuration refresh for ens5
Oct 21 23:11:55 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: Starting refresh-policy-routes@ens5.service - Refresh policy routes for ens5...
Oct 21 23:10:45 ip-172-31-33-127.eu-west-1.compute.internal audit[1]: SERVICE_STOP pid=1 uid=0 audit=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit
Oct 21 23:10:45 ip-172-31-33-127.eu-west-1.compute.internal audit[1]: SERVICE_START pid=1 uid=0 audit=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit
Oct 21 23:10:45 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: Finished systat-collect.service - system activity accounting tool.
Oct 21 23:10:45 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: systat-collect.service: Deactivated successfully.
Oct 21 23:10:45 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: Starting systat-collect.service - system activity accounting tool...
Oct 21 23:09:55 ip-172-31-33-127.eu-west-1.compute.internal audit[1]: SERVICE_STOP pid=1 uid=0 audit=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit
Oct 21 23:09:55 ip-172-31-33-127.eu-west-1.compute.internal audit[1]: SERVICE_START pid=1 uid=0 audit=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit
Oct 21 23:09:55 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: Finished refresh-policy-routes@ens5.service - Refresh policy routes for ens5.
Oct 21 23:09:55 ip-172-31-33-127.eu-west-1.compute.internal systemd[1]: refresh-policy-routes@ens5.service: Deactivated successfully.
Oct 21 23:09:55 ip-172-31-33-127.eu-west-1.compute.internal ec2net[3101]: No networkd reload needed
```

Part 3- Create a GitHub Account

Objective: Set up a free account on **GitHub** to store, manage, and share your code repositories.



Part 4 – Install Git on Your Machine

Objective: Install Git, the version-control tool used to interact with GitHub.

Windows Users

