



National Textile University

Department of Computer Science

Subject:

Operating System

Submitted to:

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Submitted by:

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Reg number:

23-NTU-CS-FL-1158

Lab number:

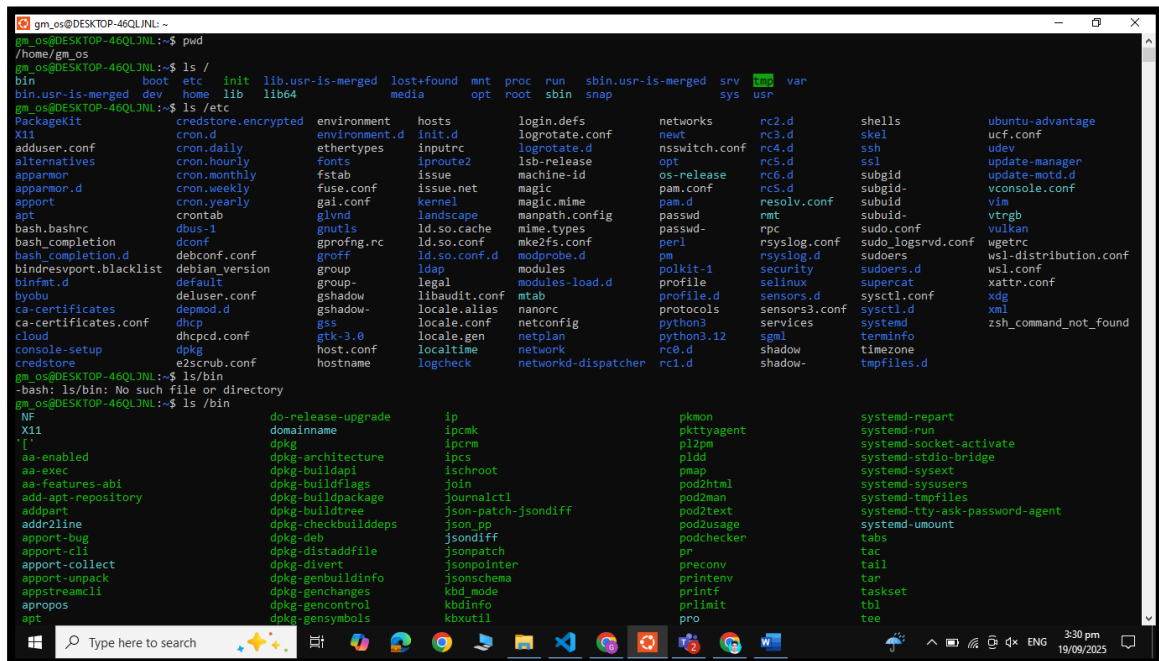
1st

Semester:

4th

Task 1: Installation

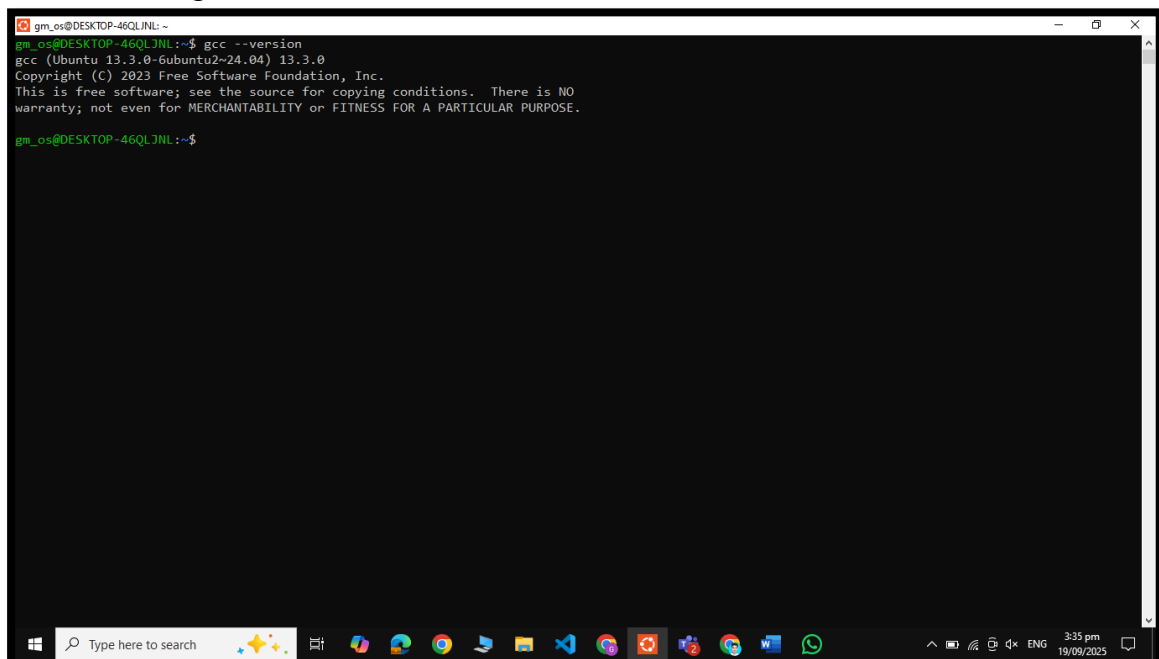
- ❖ Open PowerShell
- ❖ Type command to install both WSL2 and Ubuntu 24.04
- ❖ Create a Username gm_os, and set password
- ❖ Update and upgrade
- ❖ Integrate VS Code with Ubuntu
- ❖ Use Ubuntu in VS code by typing command of Ubuntu



```
gm_os@DESKTOP-46QLJNL:~$ pwd
/home/gm_os
gm_os@DESKTOP-46QLJNL:~$ ls /
bin      boot  etc    init  lib.usr-is-merged  lost+found  mnt  proc  run  sbin.usr-is-merged  srv  var
bin.usr-is-merged  dev  home  lib  lib64
gm_os@DESKTOP-46QLJNL:~$ ls /etc
PackageKit  credstore.encrypted  environment  hosts  login.defs  networks  rc2.d  shells  ubuntu-advantage
X11         cron.d               environment.d  init.d  logrotate.conf  newt      rc3.d  skel    ucf.conf
adduser.conf  cron.daily           ethertypes   inputrc  logrotate.d     nsswitch.conf  rc4.d  ssh    udev
alternatives  cron.hourly          fonts        iproute2  lsb-release     opt        rc5.d  ssl    update-manager
apparmor      cron.monthly         fstab        issue    machine-id      os-release  rc6.d  subgid  update-metd.d
apparmor.d    cron.weekly          fuse.conf    issue.net  magic           pam.conf    rcS.d  subuid  vconsole.conf
apport        cron.yearly          gai.conf     kernel    magic.mime       pam.d       resolv.conf  subuid  vim
apt           cronstab            glvnd       landscape  manpath.config  passwd      rmt     sudo.conf  vtrgb
bash.bashrc   dbus-1              gnutls       ld.so.cache  mime.types       passwd      rpc     sudo_logsrvd.conf  vulkan
bash_completion  debconf             gprofng.rc  ld.so.conf  mke2fs.conf     perl        rsyslog.conf  sudo_logsrvd.conf  wgetrc
bash_completion.d  debconf.conf       group       ld.so.conf.d  modprobe.d      pm          rsyslog.d    sudo_logsrvd.conf  wsl.conf
bindresport.blacklist  default            group       ldapp        modules          polkit-1    security     sudo_logsrvd.conf  xattr.conf
binfmt.d       deluser.conf        gshadow     legal       modules-load.d  profile     sensors.d    sysctl.conf      xdg
byobu          depmod.d            gss         libaudit.conf  mtab             profile.d   sensors3.conf  sysctl.d         xml
ca-certificates  dhcp               gtk-3.0     locale.alias  nanorc           protocols  sensors3.conf  sysctl.d         xz
ca-certificates.conf  dhcpd.conf         host.conf   locale.conf   netplan          python3     shadow       systemd          zsh_command_not_found
cloud          dhcpcd.conf        hostname    locale.gen    netplan          python3.12  shadow       systemd          zsh
console-setup  dpkg               logcheck    localime     networkd-dispatcher  rc1.d      shadow       systemd          zsh
credstore      e2scrub.conf       logcheck    localime     networkd-dispatcher  rc1.d      shadow       systemd          zsh
gm_os@DESKTOP-46QLJNL:~$ ls /bin
-bash: ls/bin: No such file or directory
gm_os@DESKTOP-46QLJNL:~$ ls /usr/bin
NF      ds-release-upgrade  ip      pkmon      systemd-repart
X11     domainname          ipcmk   pkttyagent  systemd-run
[       dpkg               ipcrm   pl2pm      systemd-socket-activate
aa-enabled  dpkg-architecture  ipcs    pldd        systemd-stdio-bridge
aa-exec    dpkg-buildapi       ischroot  pmapp       systemd-sysext
aa-features-abi  dpkg-buildflags    join      pod2html    systemd-sysusers
add-apt-repository  dpkg-buildpackage  journalctl  pod2man     systemd-tmpfiles
addpart    dpkg-buildtree      json-patch-jsondiff  pod2text    systemd-tyask-password-agent
addr2line  dpkg-checkbuilddeps  json_pp   pod2usage   systemd-umount
apport     dpkg-deb            jsondiff  podchecker  tabs
apport-bug  dpkg-distaddfile    jsonpatch  pr           tac
apport-cli  dpkg-divert         jsonpointer  preconv     tall
apport-collect  dpkg-divert        jsonpointer  printenv    tar
apport-unpack  dpkg-genbuildinfo  jsonschema  printf      taskset
apportstreamci  dpkg-genchanges    kbdinfo    prlimit     tft
apropos     dpkg-gencontrol     kbxutil    pro         tee
apt         dpkg-gensymbols    kbxutil    pro         tee
```

Task 2: Install GCC Build Tools

- ❖ Install Build essential using the following commands:
 - o `sudo apt update && sudo apt upgrade -y`
 - o `sudo apt install build-essential -y`
- ❖ Check the GCC version using this command:
 - o `gcc --version`



```
gm_os@DESKTOP-46QLJNL:~$ gcc --version
gcc (Ubuntu 13.3.0-6ubuntu2~24.04) 13.3.0
Copyright (C) 2023 Free Software Foundation, Inc.
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

gm_os@DESKTOP-46QLJNL:~$
```

Task 3: Run Basic Command

whoami -> Show the username

ls -> List file and folder in the current directory.

ls / -> List of root directories

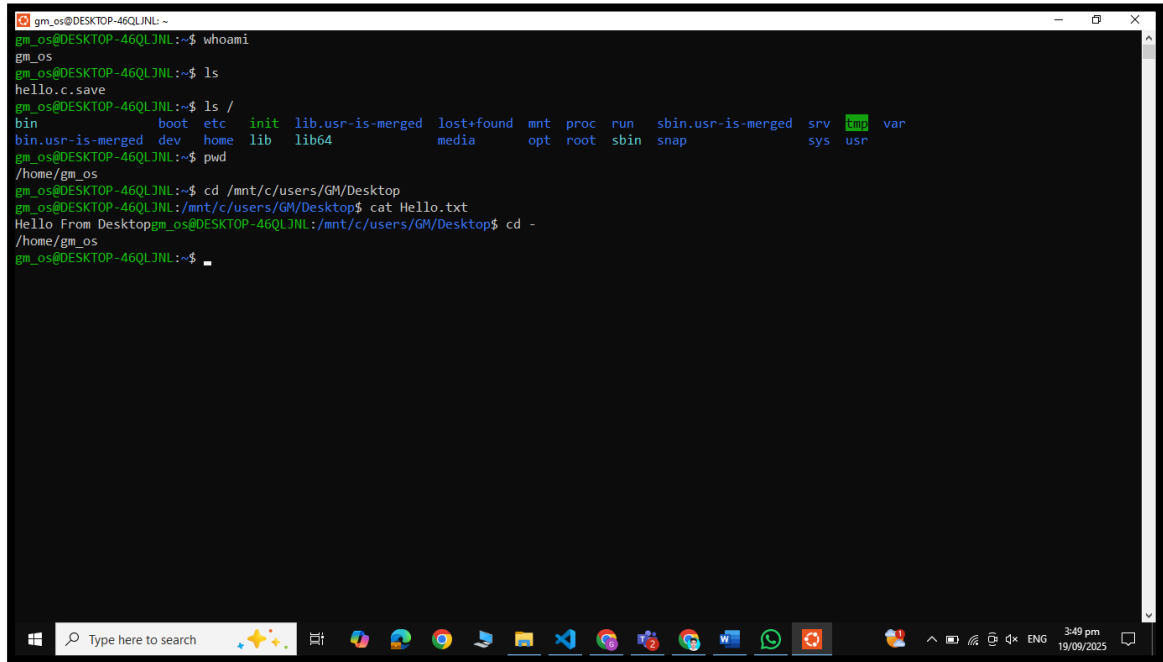
ls -l -> detailed list about size, date owner.

pwd -> For current directory

cd -> for change the directory

cat -> Display the content of .txt file

cd -> Back to previous directory



```
gm_os@DESKTOP-46QLJNL: ~  
gm_os@DESKTOP-46QLJNL:~$ whoami  
gm_os  
gm_os@DESKTOP-46QLJNL:~$ ls  
hello.c.save  
gm_os@DESKTOP-46QLJNL:~$ ls /  
bin          boot  etc    init  lib.usr-is-merged  lost+found  mnt  proc  run  sbin.usr-is-merged  srv  tmp  var  
bin.usr-is-merged  dev  home  lib  lib64             media      opt  root  sbin  snap                sys  usr  
gm_os@DESKTOP-46QLJNL:~$ pwd  
/home/gm_os  
gm_os@DESKTOP-46QLJNL:~$ cd /mnt/c/users/GM/Desktop  
gm_os@DESKTOP-46QLJNL:/mnt/c/users/GM/Desktop$ cat Hello.txt  
Hello From Desktopgm_os@DESKTOP-46QLJNL:/mnt/c/users/GM/Desktop$ cd -  
/home/gm_os  
gm_os@DESKTOP-46QLJNL:~$
```