Assignment - 1   Athul u c.
                                            21/04/2022

1) Boot process 6 styer.
     powerup / reset
     system startup.

1) BIOS (Basic ap lop System executn NBR
     → performy some systom intgry checks
     → searching locly & execun boot loadly
     puyianer
     → of looks for boot locly in floprs, cd-rom
     or hardwall
     → DIOS locels execuly MBR loadr.

2) MBR (master Boot record).
     → searher Boot record locelu & exectus
     arelb boot locely
     → It located in 1st elauee of bootarle
     disk.
     → MBR is lou then 512 bytes in sme of
     heer 3 comp

3) GRUB (Grand unified bootloeln or execlon.
     kernel)
     → BIOS searh for grand unideve/
     Bootloely
     → GRUB disply a splan ecreen wern
     deer daw ceconey if we done enter anpy
     it locels to defalt kerul inuje ay
     spullal in he grude configureto n file

4) kernel
     → mounts he root fle sysun ay fraved
     in renoot=" in grub-conf.

→ kernel executes to /sbin/init program
→ initial stands for initial name dile.

5. Init
→ looks at to /etc/inittab file to.
decide to linux your level.
→ follow are to override non level
→ 0 - hall
→ 1 - Single user node
→ 2 - Multi user node
→ 3 - full multiuser node
→ 4 - Unuse
→ 5 - X11
→ 6 - Reboot.
→ Init credentials to deluut init kernel knory
/etc/init tab and user put to local
all appropriate program

6) Run level program
→ when to linux system is booting
up, you might see reasons force setting.
Starting ... its ey it want say & starting kernel
level .... OK!
→ Depending on your deluut init level
really, to system will execute to program

2) Function of operating system

1) Security
→ to operating system will password
protection to protect user data and similar
other technique
of who prints anou und cunus
to program & us data.

2) control over system
→ monitor overall system health and help imprece personnel.
→ they can help improve personnel provide important information needed to troubleshoot problem

3) Job security
→ Generally system keeps track of time and resource used by various tasks & users, this information can be used to troubleshoot, resource billing user & v group of user

4) Error detection aids
→ the operating system constantly monitor to detect error and aid recovery of a computer system

5) Co-ordination between other sw & user
→ operating system also coordinate and assign interpreters, compilers, assemblers and sw to be various user of the computer system.

6) Memory management
→ the operating system manages the primary memory or main memory
→ it keeps track of primary memory

7) process management
→ In a multi processing environment, the OS decides the order in which process have access to the processor.
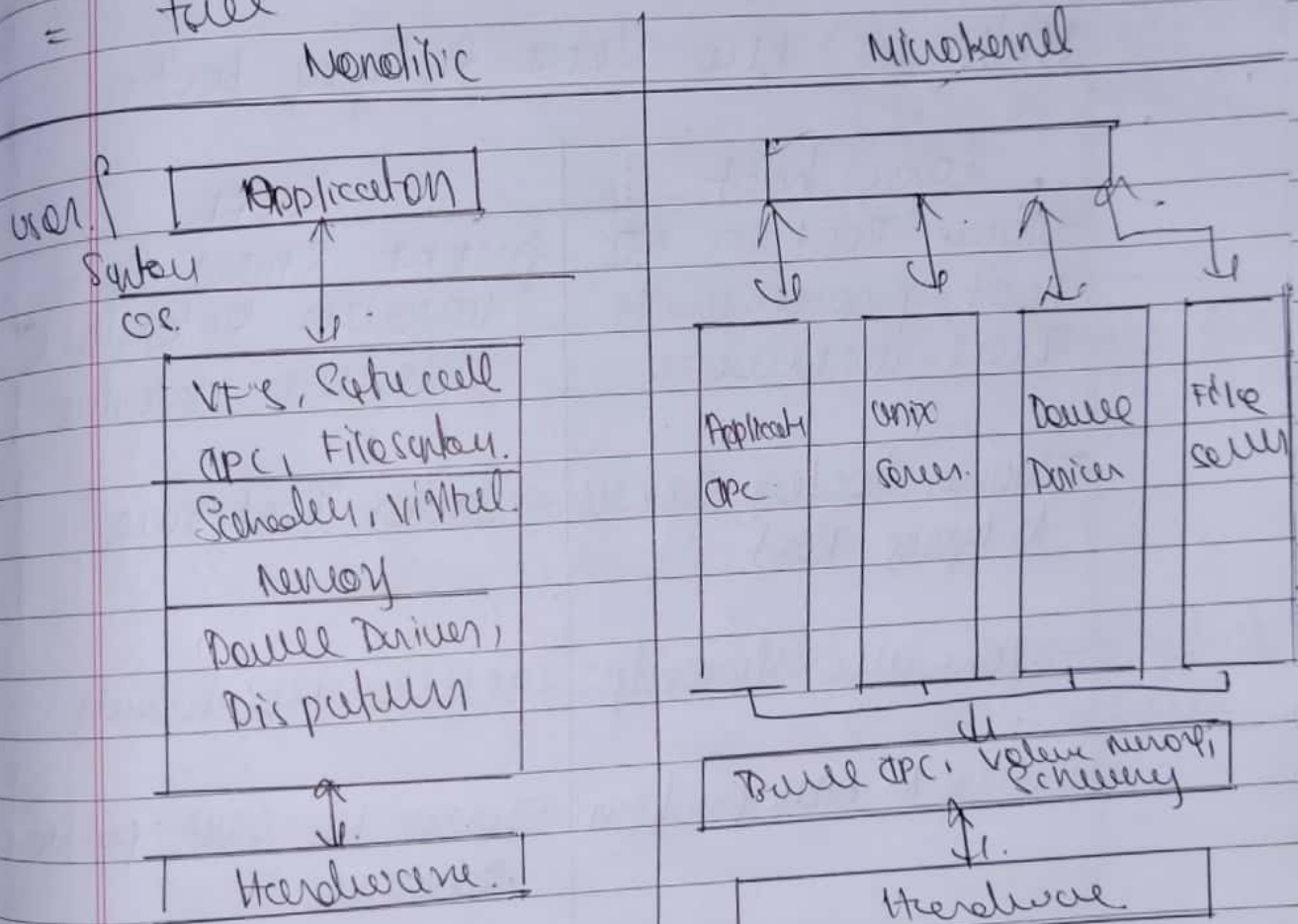
8) Device Management:
→ An OS manages devices communicate via their remote devices
→ keep track of devices connected to, to system

9) File management:
→ A file System in organised and directory for effect on easy retrieval & usage

3). With a neat diagram explain the difference b/w monolithic & microkernel.

	Monolithic		Microkernel

User
System
OS.

VFS, Systemcall		Applicati	Unix	Device	File
APC, Filesystem.		APC	Server.	Driver	server
Scheduler, Virtual					
memory					
Device Driver,					
Dispatcher					

Basic APC, Virtual memory schemes

Hardware   Hardware

→ layer in size   → smaller in size
→ fast execution.   → Slow execution
→ hard to extend   → easy extend

→ In monolithic kernel, both user server & kernel, server are kept in same address space	→ In micro kernel server and kernel server are kept in seperate address space
→ low code is required	→ more code is required
→ e.g- linux, solaris BSDs, open VMS	→ QNX, symbian, minux, symphony, Hurd

Difference b/w UEFI & legacy boot

legacy boot	UEFI
→ legacy boot in the boot process run by BIOS firmware	→ UEFI stands for unified extensible firmware interface
→ slower booting compared to legacy boot	→ faster boot time
→ less user friendly	→ more user friendly
→ uses the MBR partition	→ uses the GPT partition scheme
→ uses BIOS firmware for boot process	→ uses UEFI firmware for boot process

5) Discuss on to operating system linux windows.
& Macas.

linux	window	Mac OS.
→ open source	→ closel source	→ Closel source
→ does not have a central registry of its own.	→ registry is a central database which is stored all the setting.	→ shows all approple settings in a form of plist files
→ process terminal	→ terminal is command prout	→ process console or terminal
→ more secured and safer.	→ not enter chypattee Entolee ree wirest	→ has a directly to build virtuell netwell system

6. commonly an windows as to Challe disk partition
    Step1: open command prompt
    Step2: use diskpart command

Active: Marks te selected partion on active
Add: Add a Mirror to a single volume
Attribu: manipulur disc/volum attribures
Break: Break a Mirror list
Clean: Clean informir all ree click.
Delete: Delete an object
Detail: Details of an object
Extend: Extend a volume
Import: Import disc group.

7. list the commands to clear screen in window
= → open command prompt
   → clear nec.
   → press enter.

8. list the steps to clear disk partition in window
= Step1: open file explorer.
   Step2: right click on "This PC"
   Step3: choose "manage" from the pop-up menu
   Step4: Navigate to Storage → Disk Management in new screen panel

9. List the steps to create or stop screen in window.
= Step1: press windows key + R to open new window
   Step2: type in screen name in the open box
   Step3: screen dialog new window will open
   Step4: select the source to create/stop
   Step5: choose the relevant option the operation

Commands

#direct : search for files in a directory tree.
   find-H : list all the files.

#cut : process section from each line of file → to select cut-H 123 -f1. tab-d

#grep : to search for patern in each file
scep Aold t: text

#sed : Stream editor for filter and toce by
text
sed   ls | unix | linux | filename.

#src : write parted concatenn of all file
to standard output
cat   -r file name

head : outputs the first part of file head
filename.txt

tail : output the last part of file
tail   file.txt
tail -n 2 file.txt

#disk : Manipulate disk partion table
fdisk   /disk

kon abt : used to carry the contents of file
Synchee or control by Sylead -Jouded.
salel
ProUnnetel

#avantur : is pmg used to install, uninstall
on list the tables used to decide to
Cron decides in VIU error

#dmy : print or control the permll ms byles
th also called "driver msl"
dmesg | less
dmesg | grep " text to search.

kil:

(illegible handwritten text)