

# Számítógép architektúrák

## BSc

1. Gyak.  
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**Készítette:**

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Neptunkód: A3U8XV

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1. feladat – Melyik az aktuális jegyzék?

```
detra@Detra:~$ pwd  
/home/detra
```

2. feladat – Lépjen a gyökérjegyzékbe!

```
detra@Detra:~$ cd /  
detra@Detra:/$ |
```

**3. feladat - Lépjen a saját home jegyzékébe!**

```
detra@Detra:/$ cd ~  
detra@Detra:~$ |
```

**4. feladat - Lépjen a rendszergazda home jegyzékébe!**

```
detra@Detra:~$ cd /root/  
-bash: cd: /root/: Permission denied  
detra@Detra:~$ |
```

**5. feladat - Lépjen a gyökérjegyzékből nyíló etc jegyzékbe!**

```
detra@Detra:~$ cd /etc  
detra@Detra:/etc$ |
```

**6. feladat - Lépjen vissza egy szinttel feljebb!**

```
detra@Detra:/etc$ cd ..  
detra@Detra:/$ |
```

**7. feladat - Jelenítse meg az aktuális jegyzék tartalomjegyzékét!**

```
detra@Detra:/$ ls  
bin  dev  home  lib    lib64  lost+found  mnt  proc  run  snap  sys  usr  
boot  etc  init  lib32  libx32  media      opt  root  sbin  srv   tmp  var  
detra@Detra:/$ |
```

8. feladat - Jelenítse meg a /etc, majd a /var/log jegyzék tartalomjegyzékét is (részletes adatokkal)!

```
detra@Detra:/$ ls /etc
PackageKit
X11
adduser.conf
alternatives
apparmor
apparmor.d
appport
apt
bash.bashrc
bash_completion
bash_completion.d
bindresvport.blacklist
binfmt.d
byobu
ca-certificates
ca-certificates.conf
ca-certificates.conf.dpkg-old
console-setup
cron.d
cron.daily
cron.hourly
cron.monthly
cron.weekly
crontab
dbus-1
debconf.conf
debian_version
default
deluser.conf
depmod.d
dhcp
detra@Detra:/$ |
```

dpkg	locale.gen	perl	subgid
e2scrub.conf	localtime	pm	subgid-
environment	logcheck	polkit-1	subuid
ethertypes	login.defs	profile	subuid-
fstab	logrotate.conf	profile.d	sudo.conf
fuse.conf	logrotate.d	protocols	sudo_logsrvd.conf
gai.conf	lsb-release	python3	sudoers
groff	machine-id	python3.10	sudoers.d
group	magic	rc0.d	sysctl.conf
group-	magic.mime	rc1.d	sysctl.d
gshadow	manpath.config	rc2.d	systemd
gshadow-	mime.types	rc3.d	terminfo
gss	mke2fs.conf	rc4.d	timezone
hdparm.conf	modprobe.d	rc5.d	tmpfiles.d
host.conf	modules	rc6.d	ubuntu-advantage
hostname	modules-load.d	rcS.d	ucf.conf
hosts	mtab	resolv.conf	udev
init.d	nanorc	rmt	ufw
inputrc	netconfig	rpc	update-manager
iproute2	netplan	rsyslog.conf	update-motd.d
issue	networkd-dispatcher	rsyslog.d	vim
issue.net	networks	screenrc	vtrgb
kernel	newt	security	wgetrc
ld.so.cache	nftables.conf	selinux	wsl.conf
ld.so.conf	nsswitch.conf	services	xattr.conf
ld.so.conf.d	opt	shadow	xdg
ldap	os-release	shadow-	zsh_command_not_found
legal	pam.conf	shells	
libaudit.conf	pam.d	skel	
libnl-3	passwd	ssh	
locale.alias	passwd-	ssl	

```
detra@Detra:/$ ls /var/log
alternatives.log  bootstrap.log  dmesg  dmesg.2.gz  dpkg.log  journal  private  ubuntu-advantage.log  wtmp
apt  btup  dmesg.0  dmesg.3.gz  faillog  kern.log  syslog  unattended-upgrades
auth.log  dist-upgrade  dmesg.1.gz  dmesg.4.gz  installer  lastlog  ubuntu-advantage-timer.log  upgrade-policy-changed.log
detra@Detra:/$ |
```

9. feladat - Lépjen a saját home jegyzékébe! Hozzon létre egy új aljegyzéket, a neve legyen Teszt!

```
detra@Detra:/$ cd ~
detra@Detra:~$ mkdir Teszt
detra@Detra:~$ |
```

10. feladat - Egyetlen paranccsal hozzon létre ebben két újabb jegyzéket, T1-et és T2-t!

```
detra@Detra:~$ mkdir T1 T2
detra@Detra:~$ |
```

11. feladat - Rajzoltassa ki a jegyzékstruktúrát a tree paranccsal!

```
detra@Detra:~$ tree
.
├── T1
├── T2
├── Teszt
├── matek
├── snap
│   └── tree
│       ├── 18
│       ├── common
│       └── current -> 18
└── 9 directories, 0 files
detra@Detra:~$ |
```

12. feladat - Egyetlen paranccsal hozzon létre a Teszt jegyzékből nyíló három, egymásból nyíló jegyzéket:  
Unix/Linux/Debian néven!

```
detra@Detra:~$ mkdir -p Teszt/Unix/Linux/Debian
detra@Detra:~$ |
detra@Detra:~$ tree
.
├── T1
├── T2
├── Teszt
│   ├── Unix
│   │   ├── Linux
│   │   └── Debian
│   ├── matek
│   └── snap
│       └── tree
│           ├── 18
│           ├── common
│           └── current -> 18
└── 12 directories, 0 files
detra@Detra:~$ |
```

**13. feladat - Nevezze át a Debian jegyzéket  
Deb-re!**

```
detra@Detra:~$ mv Teszt/Unix/Linux/Debian Teszt/Unix/Linux/Deb
detra@Detra:~$ tree
.
├── T1
├── T2
├── Teszt
│   └── Unix
│       └── Linux
│           └── Deb
├── matek
├── snap
│   └── tree
│       ├── 18
│       ├── common
│       └── current -> 18
└── 12 directories, 0 files
detra@Detra:~$ |
```

**14. feladat - Helyezze át a Deb jegyzéket a  
T1-be!**

```
detra@Detra:~$ mv Teszt/Unix/Linux/Deb T1/
detra@Detra:~$ tree
.
├── T1
│   └── Deb
├── T2
├── Teszt
│   └── Unix
│       └── Linux
├── matek
├── snap
│   └── tree
│       ├── 18
│       ├── common
│       └── current -> 18
└── 12 directories, 0 files
detra@Detra:~$ |
```

**15. feladat - Törölje a T1 jegyzéket!**

```
detra@Detra:~$ rm -Rf T1
detra@Detra:~$ tree
.
├── T2
├── Teszt
│   └── Unix
│       └── Linux
├── matek
├── snap
│   └── tree
│       ├── 18
│       ├── common
│       └── current -> 18
└──
```

10 directories, 0 files  
detra@Detra:~\$ |

**16. feladat - Egyetlen paranccsal törölje a Teszt jegyzéket!**

```
detra@Detra:~$ rm -Rf Teszt
detra@Detra:~$ tree
.
├── T2
├── matek
├── snap
│   └── tree
│       ├── 18
│       ├── common
│       └── current -> 18
└──
```

7 directories, 0 files  
detra@Detra:~\$ |

17. feladat - Jelenítse meg az aktuális jegyzék tartalmát!

```
detra@Detra:~$ tree
```

```
.
├── T2
├── matek
├── snap
│   └── tree
│       ├── 18
│       ├── common
│       └── current -> 18
```

```
7 directories, 0 files
```

```
detra@Detra:~$ |
```

```
detra@Detra:~$ ls
```

```
T2 matek snap
```

```
detra@Detra:~$ |
```

## 18. feladat - Jelenítse meg a /etc jegyzék tartalmát részletesen!

```
detra@Detra:~$ ls -l /etc
total 720
drwxr-xr-x 2 root root 4096 May 1 23:35 PackageKit
drwxr-xr-x 4 root root 4096 May 1 23:35 X11
-rw-r--r-- 1 root root 3028 May 1 23:35 adduser.conf
drwxr-xr-x 2 root root 4096 May 1 23:35 alternatives
drwxr-xr-x 3 root root 4096 May 1 23:35 apparmor
drwxr-xr-x 8 root root 4096 May 1 23:35 apparmor.d
drwxr-xr-x 3 root root 4096 May 1 23:35 apport
drwxr-xr-x 8 root root 4096 May 1 23:36 apt
-rw-r--r-- 1 root root 2319 Jan 6 2022 bash.bashrc
-rw-r--r-- 1 root root 45 Nov 11 2021 bash_completion
drwxr-xr-x 2 root root 4096 May 1 23:35 bash_completion.d
-rw-r--r-- 1 root root 367 Dec 16 2020 bindresvport.blacklist
drwxr-xr-x 2 root root 4096 Apr 7 2022 binfo.d
drwxr-xr-x 2 root root 4096 May 1 23:35 byobu
drwxr-xr-x 3 root root 4096 May 1 23:35 ca-certificates
-rw-r--r-- 1 root root 5532 May 1 23:35 ca-certificates.conf
-rw-r--r-- 1 root root 5529 May 1 23:35 ca-certificates.conf.dpkg-old
drwxr-xr-x 2 root root 4096 May 1 23:35 console-setup
drwxr-xr-x 2 root root 4096 May 1 23:35 cron.d
drwxr-xr-x 2 root root 4096 May 1 23:35 cron.daily
drwxr-xr-x 2 root root 4096 May 1 23:35 cron.hourly
drwxr-xr-x 2 root root 4096 May 1 23:35 cron.monthly
drwxr-xr-x 2 root root 4096 May 1 23:35 cron.weekly
-rw-r--r-- 1 root root 1136 Mar 23 2022 crontab
drwxr-xr-x 4 root root 4096 May 1 23:35 dbus-1
-rw-r--r-- 1 root root 2969 Feb 20 2022 debconf.conf
-rw-r--r-- 1 root root 13 Aug 22 2021 debian_version
drwxr-xr-x 2 root root 4096 May 1 23:35 default
-rw-r--r-- 1 root root 604 Sep 16 2018 deluser.conf
drwxr-xr-x 2 root root 4096 May 1 23:35 depmod.d
drwxr-xr-x 4 root root 4096 May 1 23:35 dhcp
drwxr-xr-x 4 root root 4096 May 1 23:35 dpkg
-rw-r--r-- 1 root root 685 Jan 8 2022 e2scrub.conf
-rw-r--r-- 1 root root 106 May 1 23:35 environment
-rw-r--r-- 1 root root 1816 Dec 27 2019 ethertypes
-rw-r--r-- 1 root root 37 May 1 23:34 fstab
-rw-r--r-- 1 root root 694 Mar 23 2022 fuse.conf
```



## 19. feladat - Jelenítse meg a /etc jegyzék conf kiterjesztésű fájljait!

```
detra@Detra:~$ ls -l /etc/*.conf
-rw-r--r-- 1 root root 3028 May  1 23:35 /etc/adduser.conf
-rw-r--r-- 1 root root 5532 May  1 23:35 /etc/ca-certificates.conf
-rw-r--r-- 1 root root 2969 Feb 20 2022 /etc/debconf.conf
-rw-r--r-- 1 root root  604 Sep 16 2018 /etc/deluser.conf
-rw-r--r-- 1 root root  685 Jan  8 2022 /etc/e2scrub.conf
-rw-r--r-- 1 root root  694 Mar 23 2022 /etc/fuse.conf
-rw-r--r-- 1 root root 2584 Feb  3 2022 /etc/gai.conf
-rw-r--r-- 1 root root 4436 Dec 15 2020 /etc/hdparm.conf
-rw-r--r-- 1 root root   92 Oct 15 2021 /etc/host.conf
-rw-r--r-- 1 root root   34 Dec 16 2020 /etc/ld.so.conf
-rw-r--r-- 1 root root  191 Mar 17 2022 /etc/libaudit.conf
-rw-r--r-- 1 root root  592 Jan 24 2022 /etc/logrotate.conf
-rw-r--r-- 1 root root  744 Jan  8 2022 /etc/mke2fs.conf
-rwxr-xr-x 1 root root  228 Mar 23 2022 /etc/nftables.conf
-rw-r--r-- 1 root root  510 May  1 23:35 /etc/nsswitch.conf
-rw-r--r-- 1 root root  552 Aug 12 2020 /etc/pam.conf
lrwxrwxrwx 1 root root   20 Oct  9 15:41 /etc/resolv.conf -> /mnt/wsl/resolv.conf
-rw-r--r-- 1 root root 1382 Dec 24 2021 /etc/rsyslog.conf
-rw-r--r-- 1 root root 4573 Feb 14 2022 /etc/sudo.conf
-rw-r--r-- 1 root root 9390 Feb 14 2022 /etc/sudo_logsrvd.conf
-rw-r--r-- 1 root root 2355 Feb 25 2022 /etc/sysctl.conf
-rw-r--r-- 1 root root 1260 Jun 16 2020 /etc/ucf.conf
-rw-r--r-- 1 root root   21 Oct  6 14:09 /etc/wsl.conf
-rw-r--r-- 1 root root  681 Mar 23 2022 /etc/xattr.conf
detra@Detra:~$ |
```

## 20.feladat - Jelenítse meg a /etc könyvtár azon fájljait, melyek p-vel kezdődnek!

```
detra@Detra:~$ ls -l /etc/p*
-rw-r--r-- 1 root root  552 Aug 12 2020 /etc/pam.conf
-rw-r--r-- 1 root root 1418 Oct  6 14:11 /etc/passwd
-rw-r--r-- 1 root root 1415 Oct  6 14:10 /etc/passwd-
-rw-r--r-- 1 root root  582 Oct 15 2021 /etc/profile
-rw-r--r-- 1 root root 2932 Apr  1 2013 /etc/protocols
```

**21. feladat - Jelenítse meg a /etc jegyzék azon fájljait, melyek f-re végződnek!**

```
detra@Detra:~$ ls -l /etc/*f
-rw-r--r-- 1 root root 3028 May  1 23:35 /etc/adduser.conf
-rw-r--r-- 1 root root 5532 May  1 23:35 /etc/ca-certificates.conf
-rw-r--r-- 1 root root 2969 Feb 20 2022 /etc/debconf.conf
-rw-r--r-- 1 root root 604 Sep 16 2018 /etc/deluser.conf
-rw-r--r-- 1 root root 685 Jan  8 2022 /etc/e2scrub.conf
-rw-r--r-- 1 root root 694 Mar 23 2022 /etc/fuse.conf
-rw-r--r-- 1 root root 2584 Feb  3 2022 /etc/gai.conf
-rw-r--r-- 1 root root 4436 Dec 15 2020 /etc/hdparm.conf
-rw-r--r-- 1 root root  92 Oct 15 2021 /etc/host.conf
-rw-r--r-- 1 root root  34 Dec 16 2020 /etc/ld.so.conf
-rw-r--r-- 1 root root 191 Mar 17 2022 /etc/libaudit.conf
-rw-r--r-- 1 root root 592 Jan 24 2022 /etc/logrotate.conf
-rw-r--r-- 1 root root 744 Jan  8 2022 /etc/mke2fs.conf
-rwxr-xr-x 1 root root 228 Mar 23 2022 /etc/nftables.conf
-rw-r--r-- 1 root root 510 May  1 23:35 /etc/nsswitch.conf
-rw-r--r-- 1 root root 552 Aug 12 2020 /etc/pam.conf
lrwxrwxrwx 1 root root  20 Oct  9 15:41 /etc/resolv.conf -> /mnt/wsl/resolv.conf
-rw-r--r-- 1 root root 1382 Dec 24 2021 /etc/rsyslog.conf
-rw-r--r-- 1 root root 4573 Feb 14 2022 /etc/sudo.conf
-rw-r--r-- 1 root root 9390 Feb 14 2022 /etc/sudo_logsrvd.conf
-rw-r--r-- 1 root root 2355 Feb 25 2022 /etc/sysctl.conf
-rw-r--r-- 1 root root 1260 Jun 16 2020 /etc/ucf.conf
-rw-r--r-- 1 root root  21 Oct  6 14:09 /etc/wsl.conf
-rw-r--r-- 1 root root 681 Mar 23 2022 /etc/xattr.conf

/etc/groff:
total 8
-rw-r--r-- 1 root root 1048 Mar 23 2022 man.local
-rw-r--r-- 1 root root 1042 Mar 23 2022 mdoc.local
detra@Detra:~$ |
```

**22. feladat - Jelenítse meg a /etc jegyzék azon fájljait, melyek első karaktere p, a harmadik s és d-re végződnek!**

```
detra@Detra:~$ ls -l /etc/p?s*d
-rw-r--r-- 1 root root 1418 Oct  6 14:11 /etc/passwd
detra@Detra:~$ |
```

**23. feladat - Jelenítse meg a home jegyzékének tartalmát a benne levő rejtett fájlokkal együtt!**

```
detra@Detra:~$ ls -a
.  ..  .bash_history  .bash_logout  .bashrc  .cache  .motd_shown  .profile  .sudo_as_admin_successful  T2  matek  snap
detra@Detra:~$ |
```

**24. feladat - Jelenítse meg a /etc jegyzék azon fájljait, melyek második karaktere a vagy n!**

```
detra@Detra:~$ ls -l /etc/?[an]*
-rw-r--r-- 1 root root 2319 Jan 6 2022 /etc/bash.bashrc
-rw-r--r-- 1 root root 45 Nov 11 2021 /etc/bash_completion
-rw-r--r-- 1 root root 5532 May 1 23:35 /etc/ca-certificates.conf
-rw-r--r-- 1 root root 5529 May 1 23:35 /etc/ca-certificates.conf.dpkg-old
-rw-r--r-- 1 root root 106 May 1 23:35 /etc/environment
-rw-r--r-- 1 root root 2584 Feb 3 2022 /etc/gai.conf
-rw-r--r-- 1 root root 1748 Jan 6 2022 /etc/inputrc
-r--r--r-- 1 root root 33 Oct 6 14:10 /etc/machine-id
-rw-r--r-- 1 root root 111 Mar 24 2022 /etc/magic
-rw-r--r-- 1 root root 111 Mar 24 2022 /etc/magic.mime
-rw-r--r-- 1 root root 5217 Mar 17 2022 /etc/manpath.config
-rw-r--r-- 1 root root 11204 Feb 9 2022 /etc/nanorc
-rw-r--r-- 1 root root 552 Aug 12 2020 /etc/pam.conf
-rw-r--r-- 1 root root 1418 Oct 6 14:11 /etc/passwd
-rw-r--r-- 1 root root 1415 Oct 6 14:10 /etc/passwd-
-rw-r--r-- 1 root root 681 Mar 23 2022 /etc/xattr.conf
```

**25. feladat - Jelenítse meg a /etc jegyzék azon fájljait, melyek második karaktere nem a és nem n!**

```
detra@Detra:~$ ls -l /etc/?[!an]*
-rw-r--r-- 1 root root 3028 May 1 23:35 /etc/adduser.conf
-rw-r--r-- 1 root root 367 Dec 16 2020 /etc/bindresvport.blacklist
-rw-r--r-- 1 root root 1136 Mar 23 2022 /etc/crontab
-rw-r--r-- 1 root root 2969 Feb 20 2022 /etc/debconf.conf
-rw-r--r-- 1 root root 13 Aug 22 2021 /etc/debian_version
-rw-r--r-- 1 root root 604 Sep 16 2018 /etc/deluser.conf
-rw-r--r-- 1 root root 685 Jan 8 2022 /etc/e2scrub.conf
-rw-r--r-- 1 root root 1816 Dec 27 2019 /etc/ethertypes
-rw-r--r-- 1 root root 37 May 1 23:34 /etc/fstab
-rw-r--r-- 1 root root 694 Mar 23 2022 /etc/fuse.conf
-rw-r--r-- 1 root root 773 Oct 6 14:11 /etc/group
-rw-r--r-- 1 root root 722 Oct 6 14:10 /etc/group-
-rw-r----- 1 root shadow 649 Oct 6 14:11 /etc/gshadow
-rw-r----- 1 root shadow 598 Oct 6 14:10 /etc/gshadow-
-rw-r--r-- 1 root root 4436 Dec 15 2020 /etc/hdparm.conf
-rw-r--r-- 1 root root 92 Oct 15 2021 /etc/host.conf
-rw-r--r-- 1 root root 6 Oct 9 15:41 /etc/hostname
-rw-r--r-- 1 root root 396 Oct 9 15:41 /etc/hosts
-rw-r--r-- 1 root root 26 Feb 16 2023 /etc/issue
-rw-r--r-- 1 root root 19 Feb 16 2023 /etc/issue.net
-rw-r--r-- 1 root root 14359 Oct 9 15:41 /etc/ld.so.cache
-rw-r--r-- 1 root root 34 Dec 16 2020 /etc/ld.so.conf
-rw-r--r-- 1 root root 267 Oct 15 2021 /etc/legal
-rw-r--r-- 1 root root 191 Mar 17 2022 /etc/libaudit.conf
-rw-r--r-- 1 root root 2996 Mar 4 2022 /etc/locale.alias
-rw-r--r-- 1 root root 9458 May 1 23:35 /etc/locale.gen
lrwxrwxrwx 1 root root 35 Oct 9 15:41 /etc/localtime -> /usr/share/zoneinfo/Europe/Budapest
-rw-r--r-- 1 root root 10734 Nov 11 2021 /etc/login.defs
-rw-r--r-- 1 root root 592 Jan 24 2022 /etc/logrotate.conf
-rw-r--r-- 1 root root 104 Feb 16 2023 /etc/lsb-release
-rw-r--r-- 1 root root 72029 Mar 21 2022 /etc/mime.types
-rw-r--r-- 1 root root 744 Jan 8 2022 /etc/mke2fs.conf
-rw-r--r-- 1 root root 195 May 1 23:35 /etc/modules
lrwxrwxrwx 1 root root 19 May 1 23:35 /etc/mtab -> ../proc/self/mounts
-rw-r--r-- 1 root root 767 Mar 24 2022 /etc/netconfig
-rw-r--r-- 1 root root 91 Oct 15 2021 /etc/networks
-rwxr-xr-x 1 root root 228 Mar 23 2022 /etc/nftables.conf
-rw-r--r-- 1 root root 510 May 1 23:35 /etc/nsswitch.conf
```

## 26. Feladat - Jelenítse meg a rendszer összes fájlját és jegyzékét (hosszan fut)!

```
detra@Detra:~$ ls /*
```

## 27. feladat - Indítsa el a Midnight Commanert!

```
detra@Detra:~$ mc
```

The screenshot shows the Midnight Commander (mc) interface. At the top, there's a menu bar with 'File', 'Command', and 'Options'. Below it, two side-by-side panels display a directory listing. The left panel shows the root directory with files like .cache, .config, .local, /T2, /matek, /snap, .bash\_history, .bash\_logout, .bashrc, .motd\_shown, .profile, and .sudo\_as\_admin\_successful. The right panel shows the same directory listing. At the bottom, there's a status bar with a hint: 'Hint: Want your plain shell? Press C-o, and get back to MC with C-o again.' Below the status bar, there's a command prompt 'detra@Detra:~\$' and a list of keyboard shortcuts: 1)Find, 2)Menu, 3)View, 4)Edit, 5)Copy, 6)RenMov, 7)Mkdir, 8>Delete, 9)FullDn, 10)Quit.

Name	Size	Modify time
UP--DIR		Oct 6 14:10
./		
./cache	4096	Oct 9 16:31
./config	4096	Oct 9 16:31
./local	4096	Oct 9 16:31
/T2	4096	Oct 9 15:57
/matek	4096	Oct 6 14:19
/snap	4096	Oct 9 16:01
.bash_history	55	Oct 6 19:13
.bash_logout	228	Oct 6 14:10
.bashrc	3772	Oct 6 14:10
.motd_shown	9	Oct 9 15:41
.profile	887	Oct 6 14:10
.sudo_as_admin_successful	0	Oct 9 15:59