دانشکده مهندسی کامپیوتر

آزمایشگاه سیستم عامل

امتحان عملی

استاد : دکتر شیخی

پوریا رحیمی (۹۹۵۲۱۲۸۹)

```bash
$ Q5.sh
 1    #!bin/bash
 2
 3
 4    read -p "Enter interface Name: " iname
 5
 6
 7    mac_add=$(ifconfig $iname | grep "ether" | awk '{print $2}')
 8    IP_add=$(ifconfig $iname | grep "inet " | awk '{print $2}')
 9
10    echo "Physical address of $iname: $mac_add"
11    echo "IP address of $iname: $IP_add"
12
13
```

```
rahimi_99521289@99521289:~/Desktop/cloner/Final$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.88.128  netmask 255.255.255.0  broadcast 192.168.88.255
        inet6 fe80::33b2:181f:54b7:abdb  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:1f:85:b3  txqueuelen 1000  (Ethernet)
        RX packets 49937  bytes 54113518 (54.1 MB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 24060  bytes 5068200 (5.0 MB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 3328  bytes 325740 (325.7 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 3328  bytes 325740 (325.7 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q5.sh
Enter interface Name: ens33
Physical address of ens33: 00:0c:29:1f:85:b3
IP address of ens33: 192.168.88.128
rahimi_99521289@99521289:~/Desktop/cloner/Final$
```

```
rahimi_99521289@99521289:~/Desktop/cloner/Final$
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q6.sh
Enter n: 10
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rahimi_99521289@99521289:~/Desktop/cloner/Final$
```

```
rahimi_99521289@99521289:~$ ls /etc/
acpi                        ca-certificates.conf.dpkg-old   environment.d   host.conf       libao.conf          modules-load.d         polkit-1                sensors3.conf        timezone
adduser.conf                chatscripts                     ethertypes      hostid          libaudit.conf       mtab                   ppp                     sensors.d            tmpfiles.d
alsa                        consfile                        firefox         hostname        libblockdev         nanorc                 printcap                services             ubuntu-advantage
alternatives                console-setup                   fonts           hosts           libnl-3             netconfig              profile                 sgml                 ucf.conf
anacrontab                  cracklib                        fprintd.conf    hosts.allow     libpaper.d          netplan                profile.d               shadow               udev
apache2                     cron.d                          fstab           hosts.deny      libreoffice         network                protocols               shadow-              udisks2
apg.conf                    cron.daily                      fuse.conf       hp              lighttpd            networkd-dispatcher    pulse                   shells               ufw
apm                         cron.hourly                     fwupd           ifplugd         locale.alias        NetworkManager         python3                 skel                 update-manager
apparmor                    cron.monthly                    gai.conf        init            locale.gen          networks               python3.10              snmp                 update-motd.d
apparmor.d                  crontab                         gassoc          init.d          localtime           newt                   rc0.d                   speech-dispatcher    update-notifier
apport                      cron.weekly                     gdb             initramfs-tools logcheck            nftables.conf          rc1.d                   ssh                  UPower
appstream.conf              cups                            gdm3            inputrc         login.defs          nsswitch.conf          rc2.d                   ssl                  usb_modeswitch.conf
apt                         cupshelpers                     geoclue         insserv.conf.d  logrotate.conf      openvpn                rc3.d                   subgid               usb_modeswitch.d
at.deny                     dbus-1                          ghostscript     ipp-usb         logrotate.d         opt                    rc4.d                   subgid-              vdpau_wrapper.cfg
avahi                       dconf                           glvnd           iproute2        lsb-release         os-release             rc5.d                   subuid               vim
bash.bashrc                 debconf.conf                    gnome           issue           machine-id          PackageKit             rc6.d                   subuid-              vmware-tools
bash_completion             debian_version                  groff           issue.net       magic               pam.conf               rcS.d                   sudo.conf            vtrgb
bash_completion.d           default                         group           java-11-openjdk magic.mime          pam.d                  resolv.conf             sudoers              vulkan
bindresvport.blacklist      deluser.conf                    group-          kernel          mailcap             papersize              rmt                     sudoers.d            wgetrc
binfmt.d                    depmod.d                        grub.d          kernel-img.conf mailcap.order       passwd                 rpc                     sudo_logsrvd.conf    wpa_supplicant
bluetooth                   dhcp                            gshadow         kerneloops.conf manpath.config      passwd-                rsyslog.conf            sysctl.conf          X11
brlapi.key                  dictionaries-common             gshadow-        ldap            mime.types          pcmcia                 rsyslog.d               sysctl.d             xattr.conf
brltty                      dpkg                            gss             ld.so.cache     mke2fs.conf         perl                   rygel.conf              systemd              xdg
brltty.conf                 e2scrub.conf                    gtk-2.0         ld.so.conf      ModemManager        pki                    sane.d                  terminfo             xml
ca-certificates             emacs                           gtk-3.0         ld.so.conf.d    modprobe.d          pm                     security                thermald             zsh_command_not_found
ca-certificates.conf        environment                     hdparm.conf     legal           modules             pnm2ppa.conf           selinux                 thunderbird
rahimi_99521289@99521289:~$ ls /etc/ | grep ".txt"
rahimi_99521289@99521289:~$ 
```

```
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q8.sh
Enter n: 123
6
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q8.sh
Enter n: 555
125
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q8.sh
Enter n: 654
120
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q8.sh
Enter n: 521
10
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q8.sh
Enter n: 100
0
rahimi_99521289@99521289:~/Desktop/cloner/Final$ bash Q8.sh
Enter n: 111
1
rahimi_99521289@99521289:~/Desktop/cloner/Final$
```

```bash
S#!bin/bash


read -p "Enter n: " n
res=''
ans=''
for ((i=1 ; i <= n ; i++))
do

    res=$res'. '
    echo $res
    ans=$ans'|_'
    echo $ans
done


```

```bash
#!bin/bash

read -p "Enter n: " n
a=${n:0:1}
b=${n:1:1}
c=${n:2:1}
product=$((a*b*c))
echo $product
```