



دانشکده مهندسی کامپیوتر

آزمایشگاه سیستم عامل

تمرین جلسه نهم

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Q1)

```
rahimi_99521289@99521289: ~  
Selecting previously unselected package nmap-common.  
Preparing to unpack .../nmap-common_7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1_all.deb ...  
Unpacking nmap-common (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...  
Selecting previously unselected package nmap.  
Preparing to unpack .../nmap_7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1_amd64.deb ...  
Unpacking nmap (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...  
Setting up lua-lpeg:amd64 (1.0.2-1) ...  
Setting up liblinear4:amd64 (2.3.0+dfsg-5) ...  
Setting up nmap-common (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...  
Setting up nmap (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
rahimi_99521289@99521289:~$ nmap 8.8.8.8  
Starting Nmap 7.80 ( https://nmap.org ) at 2023-05-23 20:54 +0330  
Nmap scan report for dns.google (8.8.8.8)  
Host is up (0.038s latency).  
Not shown: 998 filtered ports  
PORT      STATE SERVICE  
53/tcp    open  domain  
443/tcp   open  https  
  
Nmap done: 1 IP address (1 host up) scanned in 54.21 seconds  
rahimi_99521289@99521289:~$ nmap 8.8.8.8 | awk 'NR > && NR < 8 { print $1 " " $3 }'  
awk: line 1: syntax error at or near &&  
rahimi_99521289@99521289:~$ nmap 8.8.8.8 | awk 'NR > 4 && NR < 8 { print $1 " " $3 }'  
PORT SERVICE  
53/tcp domain  
443/tcp https  
rahimi_99521289@99521289:~$
```

Q2)

```
$ Q2.sh  x
$ Q2.sh
1  #!/bin/bash
2
3  state="Done"
4  badstate="is unreachable"
5  ping -c 12 $1
6  if (( $? == 0 ))
7  then
8      echo $state
9  else
10     echo $1 $badstate
11 fi
12
13
14
```

Q2)

```
rahimi_99521289@99521289: ~/Desktop/cloner/HW9
rahimi_99521289@99521289:~$ cd Desktop/
rahimi_99521289@99521289:~/Desktop$ cd cloner/
rahimi_99521289@99521289:~/Desktop/cloner$ cd HW9/
rahimi_99521289@99521289:~/Desktop/cloner/HW9$ bash Q2.sh 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=128 time=37.6 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=128 time=36.6 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=128 time=33.9 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=128 time=34.3 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=128 time=34.8 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=128 time=35.2 ms
64 bytes from 8.8.8.8: icmp_seq=7 ttl=128 time=36.8 ms
64 bytes from 8.8.8.8: icmp_seq=8 ttl=128 time=39.2 ms
64 bytes from 8.8.8.8: icmp_seq=9 ttl=128 time=34.8 ms
64 bytes from 8.8.8.8: icmp_seq=10 ttl=128 time=35.3 ms
64 bytes from 8.8.8.8: icmp_seq=11 ttl=128 time=36.9 ms
64 bytes from 8.8.8.8: icmp_seq=12 ttl=128 time=34.8 ms

--- 8.8.8.8 ping statistics ---
12 packets transmitted, 12 received, 0% packet loss, time 11022ms
rtt min/avg/max/mdev = 33.912/35.837/39.174/1.493 ms
Done
rahimi_99521289@99521289:~/Desktop/cloner/HW9$
```

Q2)

```
rahimi_99521289@99521289: ~/Desktop/cloner/HW9
rahimi_99521289@99521289:~/Desktop/cloner/HW9$ bash Q2.sh 8.5.8.5
PING 8.5.8.5 (8.5.8.5) 56(84) bytes of data.

--- 8.5.8.5 ping statistics ---
12 packets transmitted, 0 received, 100% packet loss, time 11269ms

8.5.8.5 is unreachable
rahimi_99521289@99521289:~/Desktop/cloner/HW9$
```

Q3)

```
rahimi_99521289@99521289: ~  
rahimi_99521289@99521289:~$ arp | awk 'NF > 3 { print $3 " " $NF}'  
HWaddress Iface  
00:50:56:fc:1c:08 ens33  
00:50:56:e2:18:80 ens33  
rahimi_99521289@99521289:~$ arp  
Address HWtype HWaddress Flags Mask Iface  
192.168.88.254 ether 00:50:56:fc:1c:08 C ens33  
_gateway ether 00:50:56:e2:18:80 C ens33  
rahimi_99521289@99521289:~$
```