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SYS-255

Deliverable 1. Provide a screenshot similar to the one below:

```
[david@web01-david ~]$ awk -F '[:]' '{ print "group:" $1, " groupid:" $3 " members:" $4 }' /etc/group | grep wheel
group:wheel  groupid:10 members:champuser,david
```

Deliverable 2. Provide the one liner that you used to produce the output above.

```
[david@web01-david ~]$ awk -F '[:]' '{ print "name:" $1, " uid:" $3 " group_id:" $4, " homedir:" $6, " shell:" $7 }' /etc/passw
d
name:root  uid:0 group_id:0  homedir:/root  shell:/bin/bash
name:bin  uid:1 group_id:1  homedir:/bin  shell:/sbin/nologin
name:daemon  uid:2 group_id:2  homedir:/sbin  shell:/sbin/nologin
name:adm  uid:3 group_id:4  homedir:/var/adm  shell:/sbin/nologin
name:lp  uid:4 group_id:7  homedir:/var/spool/lpd  shell:/sbin/nologin
name:sync  uid:5 group_id:0  homedir:/sbin  shell:/bin/sync
name:shutdown  uid:6 group_id:0  homedir:/sbin  shell:/sbin/shutdown
name:halt  uid:7 group_id:0  homedir:/sbin  shell:/sbin/halt
name:mail  uid:8 group_id:12  homedir:/var/spool/mail  shell:/sbin/nologin
name:operator  uid:11 group_id:0  homedir:/root  shell:/sbin/nologin
name:games  uid:12 group_id:100  homedir:/usr/games  shell:/sbin/nologin
name:ftp  uid:14 group_id:50  homedir:/var/ftp  shell:/sbin/nologin
name:nobody  uid:99 group_id:99  homedir:/  shell:/sbin/nologin
name:systemd-network  uid:192 group_id:192  homedir:/  shell:/sbin/nologin
name:dbus  uid:81 group_id:81  homedir:/  shell:/sbin/nologin
name:polkitd  uid:999 group_id:998  homedir:/  shell:/sbin/nologin
name:libstoragemgmt  uid:998 group_id:997  homedir:/var/run/lsm  shell:/sbin/nologin
name:abrt  uid:173 group_id:173  homedir:/etc/abrt  shell:/sbin/nologin
name:rpc  uid:32 group_id:32  homedir:/var/lib/rpcbind  shell:/sbin/nologin
name:sshd  uid:74 group_id:74  homedir:/var/empty/sshd  shell:/sbin/nologin
name:postfix  uid:89 group_id:89  homedir:/var/spool/postfix  shell:/sbin/nologin
name:chrony  uid:997 group_id:995  homedir:/var/lib/chrony  shell:/sbin/nologin
name:ntp  uid:38 group_id:38  homedir:/etc/ntp  shell:/sbin/nologin
name:tcpdump  uid:72 group_id:72  homedir:/  shell:/sbin/nologin
name:champuser  uid:1000 group_id:1000  homedir:/home/champuser  shell:/bin/bash
name:david  uid:1001 group_id:1001  homedir:/home/david  shell:/bin/bash
name:apache  uid:48 group_id:48  homedir:/usr/share/httpd  shell:/sbin/nologin
name:tss  uid:59 group_id:59  homedir:/dev/null  shell:/sbin/nologin
name:sssd  uid:996 group_id:993  homedir:/  shell:/sbin/nologin
name:alice  uid:1002 group_id:1002  homedir:/home/alice  shell:/bin/bash
```


Deliverable 3. Ping Sweeper. Convert the script above, using both the echo and possibly the ping command on the following line (1 ping only). Attempt to ping 192.168.4.1-10. Provide a screenshot showing your updated bash script syntax, and its output. It should have output similar to that shown below. For a challenge, filter out the failed pings.

```
[david@web01-david ~]$ bash loop.sh
64 bytes from 192.168.4.4: icmp_seq=1 ttl=126 time=1.46 ms
64 bytes from 192.168.4.5: icmp_seq=1 ttl=126 time=0.805 ms
64 bytes from 192.168.4.6: icmp_seq=1 ttl=62 time=0.752 ms
64 bytes from 192.168.4.8: icmp_seq=1 ttl=62 time=1.25 ms
```

david@web01-david:~

```
for i in $(seq 1 10)
do
 ping 192.168.4.$i -c1 | grep from

done
```

Deliverable 4. Create an nslookup script (nslu.sh) that provides just the DNS names for those systems found. Use your Virtual LAN address space this time 10.0.5.x. Provide a screenshot showing your updated bash script syntax, and your output should look similar to the figure below.

```
[david@web01-david ~]$ bash nslu.sh
2.5.0.10.in-addr.arpa    name = fw02-david.david.local.
4.5.0.10.in-addr.arpa    name = web01-david.david.local.
6.5.0.10.in-addr.arpa    name = ad02-david.david.local.
8.5.0.10.in-addr.arpa    name = fs01-david.david.local.
33.5.0.10.in-addr.arpa   name = dhcp02-david.david.local.
100.5.0.10.in-addr.arpa  name = wks02-david.david.local.
```

Deliverable 5. Modify one of your previous scripts to take an input parameter (perhaps a network prefix). Provide a screenshot of both the output and the shell script syntax.

david@web01-david:~

```
echo "type the ip for the Machine youd like to look up"

read ip

nslookup $ip
```

```
[david@web01-david ~]$ bash input.sh
type the ip for the Machine youd like to look up
10.0.5.100
100.5.0.10.in-addr.arpa name = wks02-david.david.local.
```

Deliverable 6: Install nmap and create a bash script that will ask for user input on nmap parameters (hint: look up command switches for nmap parameters), and then execute those parameters after nmap is installed. Run an nmap quickscan against your **10.0.5.0/24** network. Provide a screenshot of your script output, as well as the script syntax.