Sepehr Solouki #9627693

Question 1

Output the names of the applications which depend on perl in a file named "perldeps" and then mail the file to the root user.

In [55]:
```
!rpm -q --whatrequires perl \
| awk -F - '/-/ {for(i=1;i<(NF-1);i++)printf("%s-",$i);printf("%c\n",8)}' \
> perldeps \
&& cat perldeps | mail -s PerlDeps root
```

```
Null message body; hope that's ok
```

In [56]:
```
!cat perldeps
```

In [57]:
```
!sudo mail # my mail service is broken right now
```

```
No mail for root
```

Question 2

Print the number of open ports and the name of the application using each one of them.

In [59]:
```
!nmap localhost | awk -v var=999 '/^[0-9]+/ {split($1,a,"/");printf("%s %s\n",a[1],$3)}'
```

```
25 smtp
80 http
443 https
4002 mlchat-proxy
4003 pxc-splr-ft
4005 pxc-pin
5000 upnp
5001 commplex-link
5050 mmcc
5432 postgresql
8001 vcom-tunnel
8002 teradataordbms
8081 blackice-icecap
8888 sun-answerbook
```

Question 3

Write a script which gets an IP as input and mails "system is down" to the root user if the regarding system was "down".

```
#! /bin/sh
read IP
OUT=$(eval "nmap $IP | awk '/Host seems down/ {print 1}'")
if [ $OUT == '1' ]
then
    echo yes
else
    echo no
fi
```

In [99]:
```
!echo "3.3.1.1" | ./isdown.sh
```

```
yes
```

In [3]:
```
!echo "45.149.79.70" | ./isdown.sh
```

```
no
```

Question 4

How to have `/tmp` directory empty every friday at 22:00?

In [14]:
```
!echo "0 22 * * Fri rm -rf /tmp/*" | crontab
```

In [1]:
```
!crontab -l
```

```
0 22 * * Fri rm -rf /tmp/*
```

Question 5

Print your network device's MAC Address

In [37]:
```
!ifconfig eth0 | awk '/ether/ {print $2}'
```

```
8a:8a:ce:77:87:17
```

Question 6

Set two simultaneous ip addresses on your network device.

```
ifconfig eth0 192.168.60.1 && \
ifconfig eth0:0 192.168.60.2
```

note: My SSH connection to the remote CentOS machine dropped as I executed the command; so I had to show the output using VNC console and then reboot the machine.

In [2]:
```
from IPython.display import Image
Image("vnc.png")
```

Out[2]: