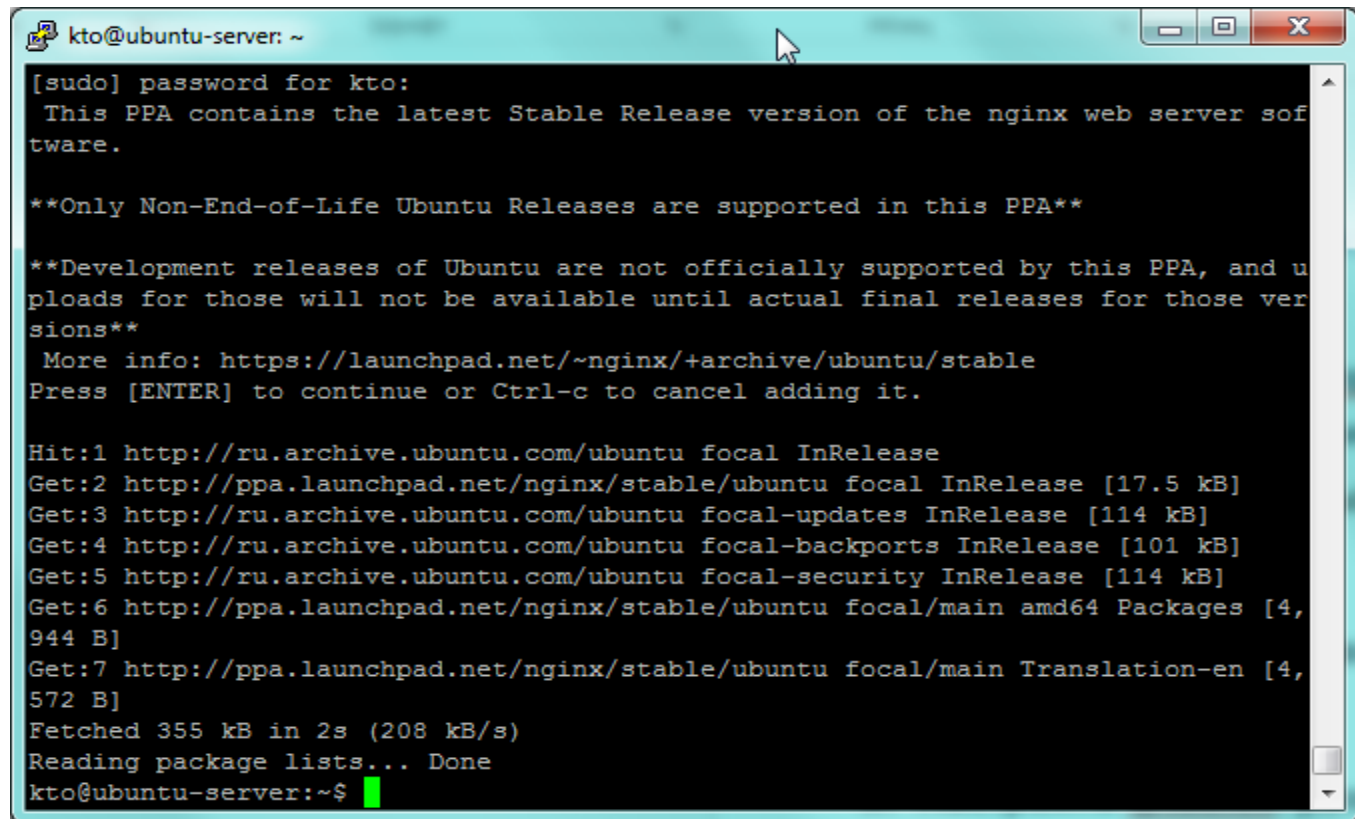


Домашнее задание Урок 7

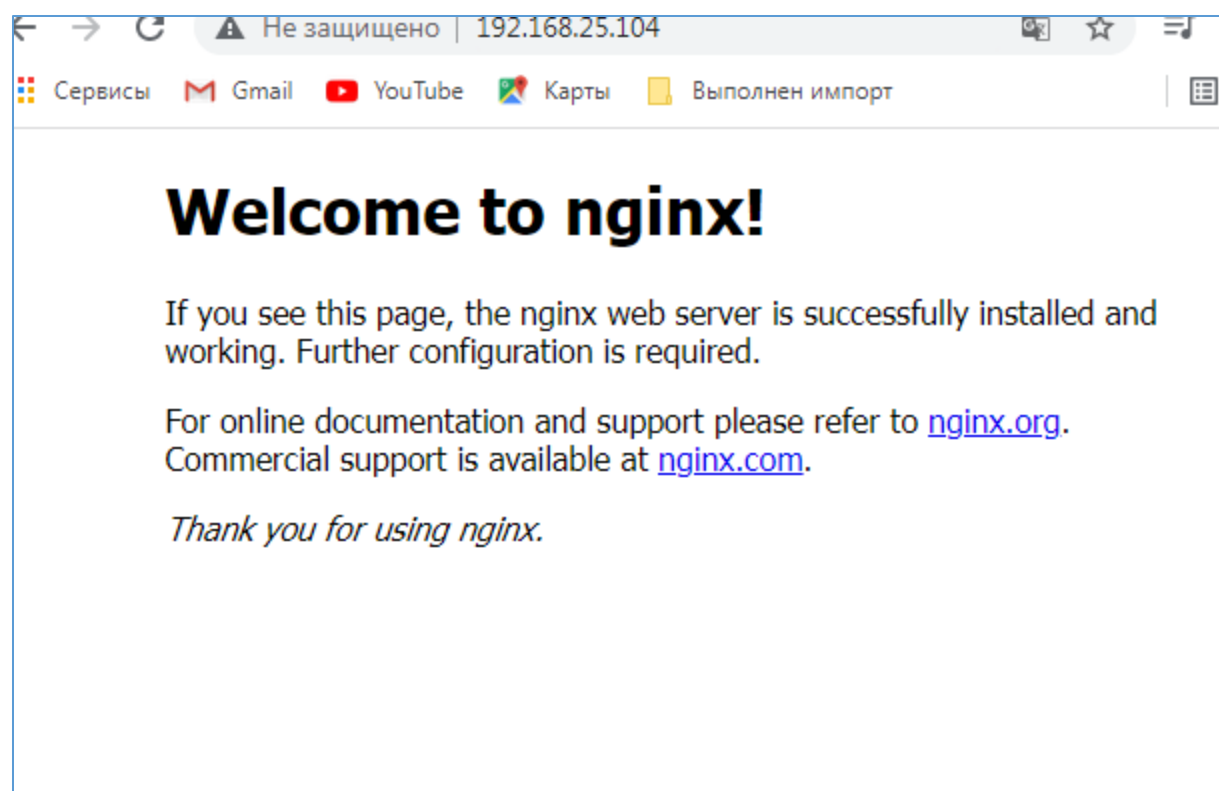
1. Подключить репозиторий с nginx любым удобным способом, установить nginx и потом удалить nginx, используя утилиту dpkg.

sudo apt-add-repository ppa:nginx/stable



```
kto@ubuntu-server: ~  
[sudo] password for kto:  
This PPA contains the latest Stable Release version of the nginx web server software.  
  
**Only Non-End-of-Life Ubuntu Releases are supported in this PPA**  
  
**Development releases of Ubuntu are not officially supported by this PPA, and uploads for those will not be available until actual final releases for those versions**  
More info: https://launchpad.net/~nginx/+archive/ubuntu/stable  
Press [ENTER] to continue or Ctrl-c to cancel adding it.  
  
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease  
Get:2 http://ppa.launchpad.net/nginx/stable/ubuntu focal InRelease [17.5 kB]  
Get:3 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]  
Get:4 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]  
Get:5 http://ru.archive.ubuntu.com/ubuntu focal-security InRelease [114 kB]  
Get:6 http://ppa.launchpad.net/nginx/stable/ubuntu focal/main amd64 Packages [4,944 B]  
Get:7 http://ppa.launchpad.net/nginx/stable/ubuntu focal/main Translation-en [4,572 B]  
Fetched 355 kB in 2s (208 kB/s)  
Reading package lists... Done  
kto@ubuntu-server:~$
```

apt install nginx

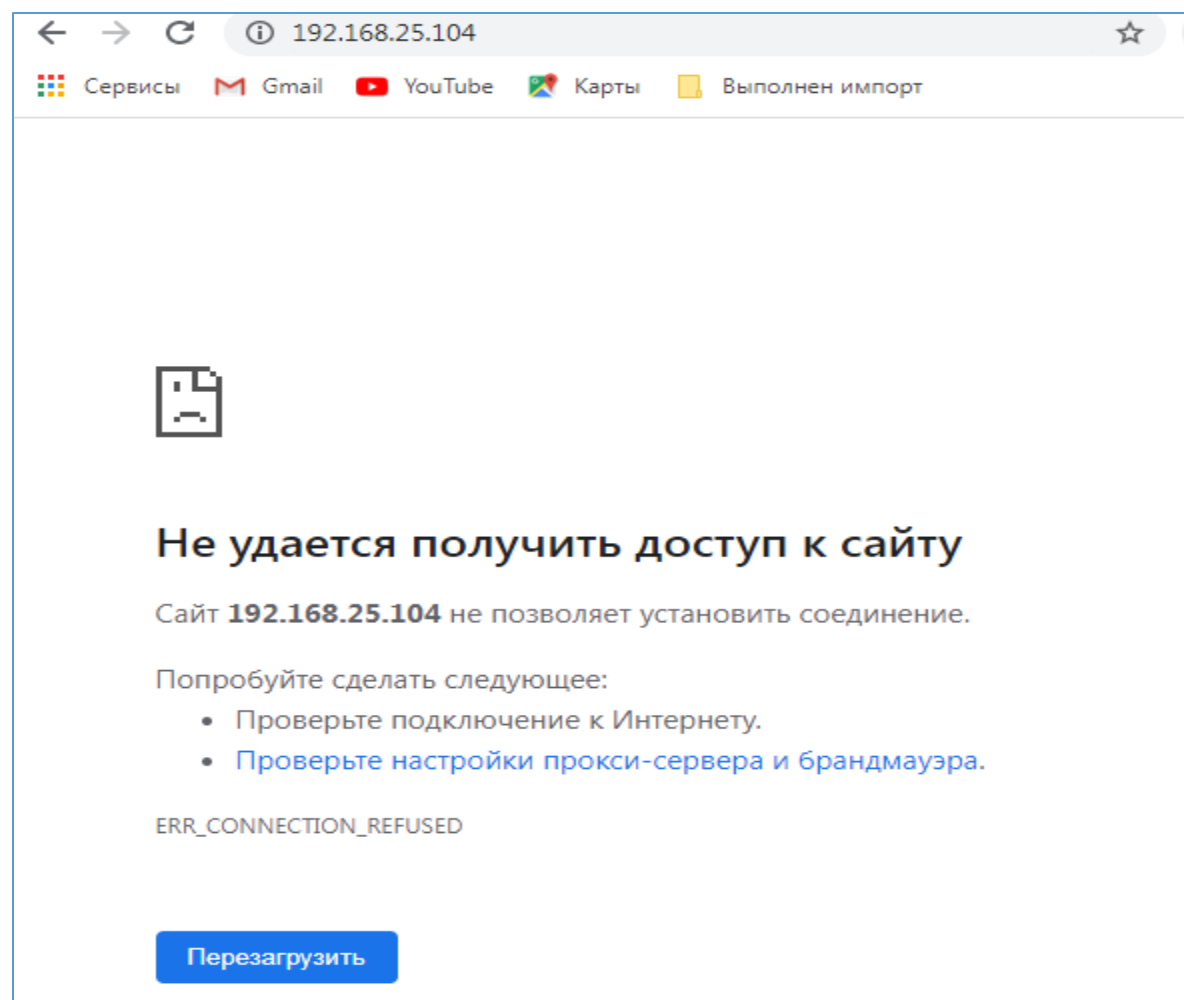


```
dpkg --list | grep nginx
```

```
sudo dpkg -P libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream  
libnginx-mod-stream-geoip nginx nginx-common nginx-core
```

```
dpkg --list | grep nginx
```

```
kto@ubuntu-server: ~  
Removing libnginx-mod-http-image-filter (1.18.0-3ubuntu1+focal2) ...  
Purging configuration files for libnginx-mod-http-image-filter (1.18.0-3ubuntu1+focal2) ...  
Removing libnginx-mod-http-xslt-filter (1.18.0-3ubuntu1+focal2) ...  
Purging configuration files for libnginx-mod-http-xslt-filter (1.18.0-3ubuntu1+focal2) ...  
Removing libnginx-mod-mail (1.18.0-3ubuntu1+focal2) ...  
Purging configuration files for libnginx-mod-mail (1.18.0-3ubuntu1+focal2) ...  
Removing libnginx-mod-stream-geoip (1.18.0-3ubuntu1+focal2) ...  
Purging configuration files for libnginx-mod-stream-geoip (1.18.0-3ubuntu1+focal2) ...  
Removing libnginx-mod-stream (1.18.0-3ubuntu1+focal2) ...  
Purging configuration files for libnginx-mod-stream (1.18.0-3ubuntu1+focal2) ...  
Removing nginx-core (1.18.0-3ubuntu1+focal2) ...  
Removing nginx-common (1.18.0-3ubuntu1+focal2) ...  
Purging configuration files for nginx-common (1.18.0-3ubuntu1+focal2) ...  
dpkg: warning: while removing nginx-common, directory '/var/www/html' not empty so not removed  
Processing triggers for man-db (2.9.1-1) ...  
Processing triggers for systemd (245.4-4ubuntu3.13) ...  
Processing triggers for ufw (0.36-6) ...  
kto@ubuntu-server:~$ dpkg --list | grep nginx  
kto@ubuntu-server:~$
```

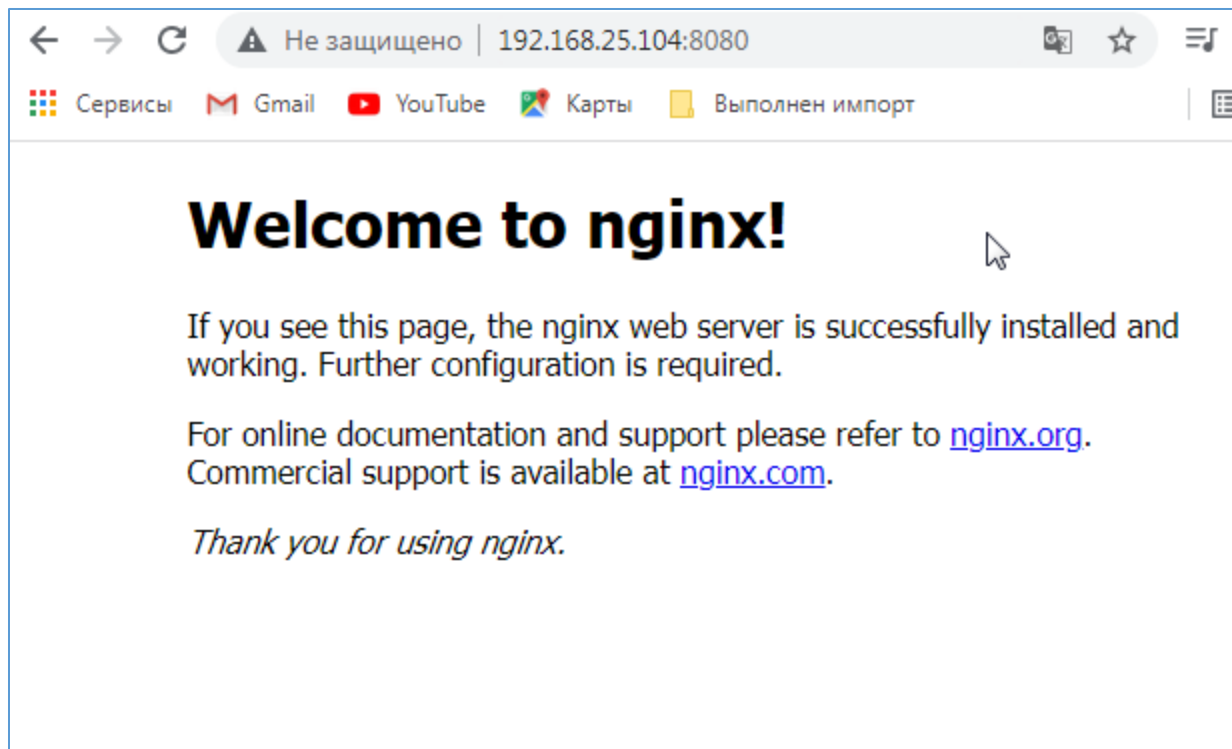


2. Установить пакет на свой выбор, используя snap.

```
snap search nginx
```

```
snap install nginxrtmp-minsikl
```

```
nginxrtmp-minsikl.start
```



3. Настроить iptables: разрешить подключения только на 22-й и 80-й порты

Sudo su -

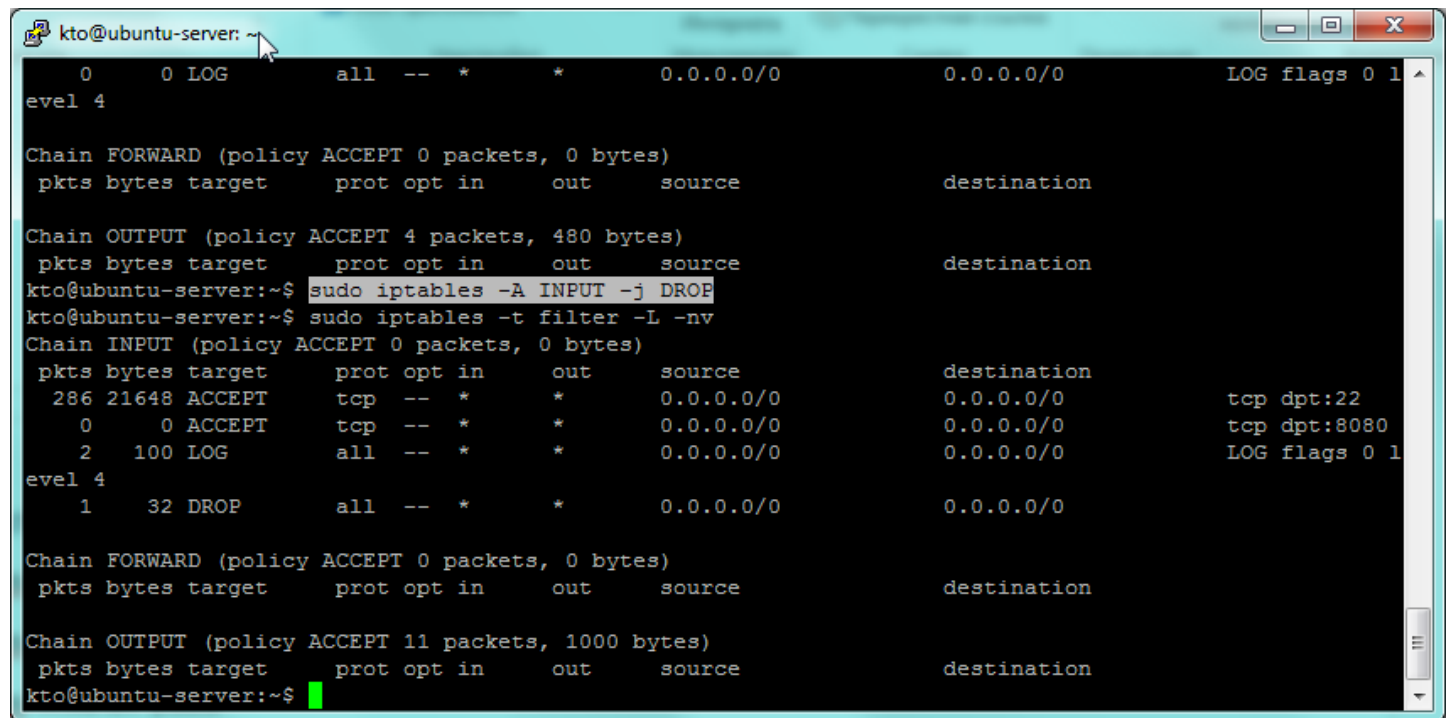
iptables -A INPUT -p tcp --dport 22 -j ACCEPT

iptables -A INPUT -p tcp --dport 8080 -j ACCEPT

iptables -A INPUT -j LOG

iptables -A INPUT -j DROP

iptables -t filter -L -nv



```
kto@ubuntu-server: ~  
0 0 LOG all -- * * 0.0.0.0/0 0.0.0.0/0 LOG flags 0 1  
level 4  
Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)  
pkts bytes target prot opt in out source destination  
Chain OUTPUT (policy ACCEPT 4 packets, 480 bytes)  
pkts bytes target prot opt in out source destination  
kto@ubuntu-server:~$ sudo iptables -A INPUT -j DROP  
kto@ubuntu-server:~$ sudo iptables -t filter -L -nv  
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)  
pkts bytes target prot opt in out source destination  
286 21648 ACCEPT tcp -- * * 0.0.0.0/0 0.0.0.0/0 tcp dpt:22  
0 0 ACCEPT tcp -- * * 0.0.0.0/0 0.0.0.0/0 tcp dpt:8080  
2 100 LOG all -- * * 0.0.0.0/0 0.0.0.0/0 LOG flags 0 1  
level 4  
1 32 DROP all -- * * 0.0.0.0/0 0.0.0.0/0  
Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)  
pkts bytes target prot opt in out source destination  
Chain OUTPUT (policy ACCEPT 11 packets, 1000 bytes)  
pkts bytes target prot opt in out source destination  
kto@ubuntu-server:~$
```

Так же при этом стоит разрешить трафик сетевой карты, DNS и ICMP:

iptables -I INPUT -s 127.0.0.1 -j ACCEPT

iptables -I INPUT -d 127.0.0.1 -j ACCEPT

iptables -I INPUT -p tcp --dport 53 -j ACCEPT

iptables -I INPUT -p udp --dport 53 -j ACCEPT

iptables -I INPUT -p tcp --sport 53 -j ACCEPT

iptables -I INPUT -p udp --sport 53 -j ACCEPT

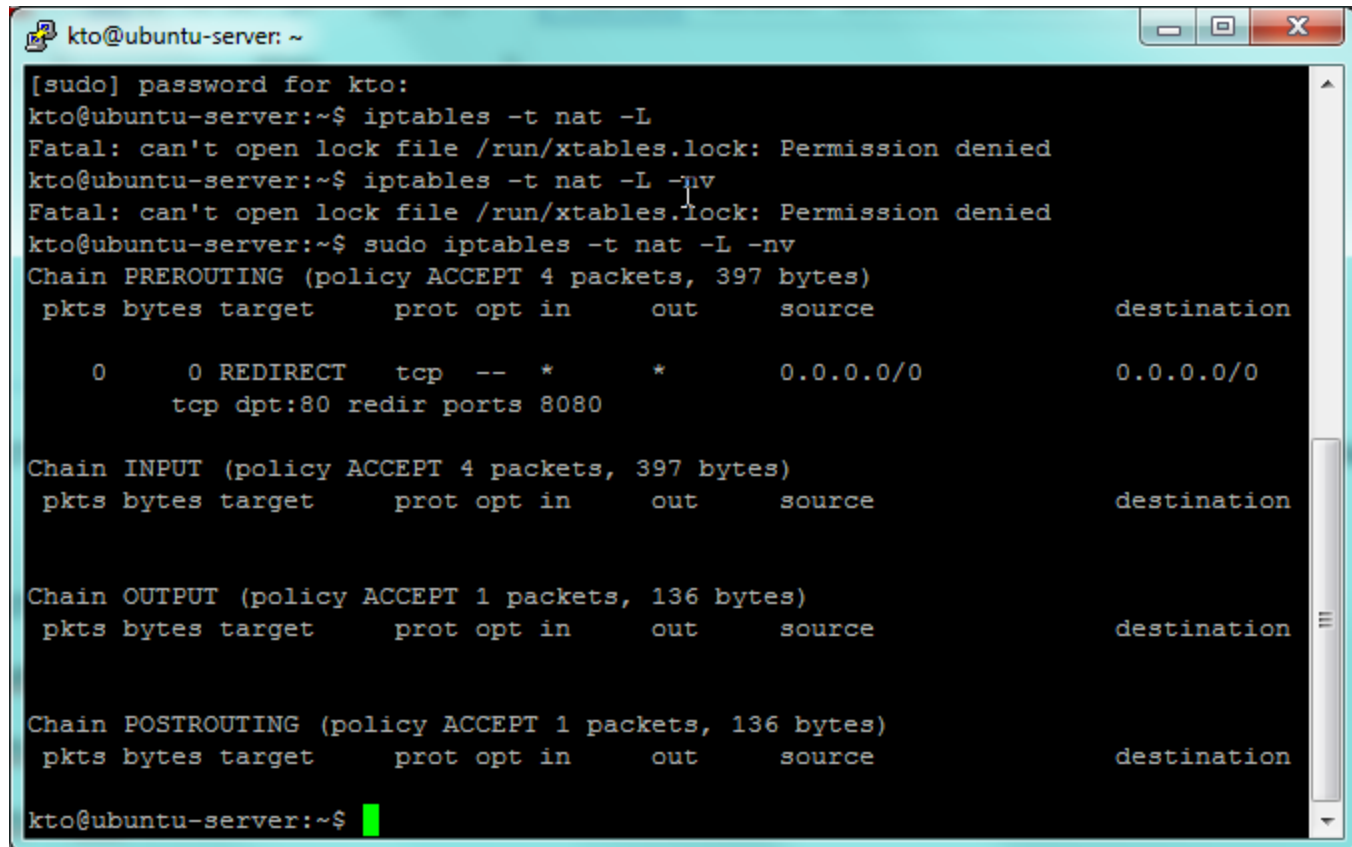
iptables -I INPUT -p icmp -j ACCEPT

4. Настроить проброс портов локально с порта 80 на порт 8080.

В таблицу nat в цепочку PREROUTING добавить редирект.

```
Sudo iptables -t nat -A PREROUTING -p tcp -m tcp --dport 80 -j REDIRECT --to-port 808
```

```
Sudo iptables -t nat -L
```



```
kto@ubuntu-server: ~  
[sudo] password for kto:  
kto@ubuntu-server:~$ iptables -t nat -L  
Fatal: can't open lock file /run/xtables.lock: Permission denied  
kto@ubuntu-server:~$ iptables -t nat -L -nv  
Fatal: can't open lock file /run/xtables.lock: Permission denied  
kto@ubuntu-server:~$ sudo iptables -t nat -L -nv  
Chain PREROUTING (policy ACCEPT 4 packets, 397 bytes)  
  pkts bytes target    prot opt in     out     source destination  
      0      0 REDIRECT  tcp  --  *      *       0.0.0.0/0  0.0.0.0/0  
          tcp dpt:80 redir ports 8080  
  
Chain INPUT (policy ACCEPT 4 packets, 397 bytes)  
  pkts bytes target    prot opt in     out     source destination  
  
Chain OUTPUT (policy ACCEPT 1 packets, 136 bytes)  
  pkts bytes target    prot opt in     out     source destination  
  
Chain POSTROUTING (policy ACCEPT 1 packets, 136 bytes)  
  pkts bytes target    prot opt in     out     source destination  
  
kto@ubuntu-server:~$
```

