AMASS

Amass is an open source network mapping and attack surface discovery tool that uses information gathering and other techniques such as active reconnaissance and external asset discovery to scrap all the available data. In order to accomplish this, it uses its own internal machinery and it also integrates smoothly with different external services to increase its results, efficiency and power.

This tool maintains a strong focus on DNS, HTTP and SSL/TLS data discovering and scrapping.

It also uses different web archiving engines to scrape the bottom of the internet's forgotten data deposits.

FEATURES OF AMASS

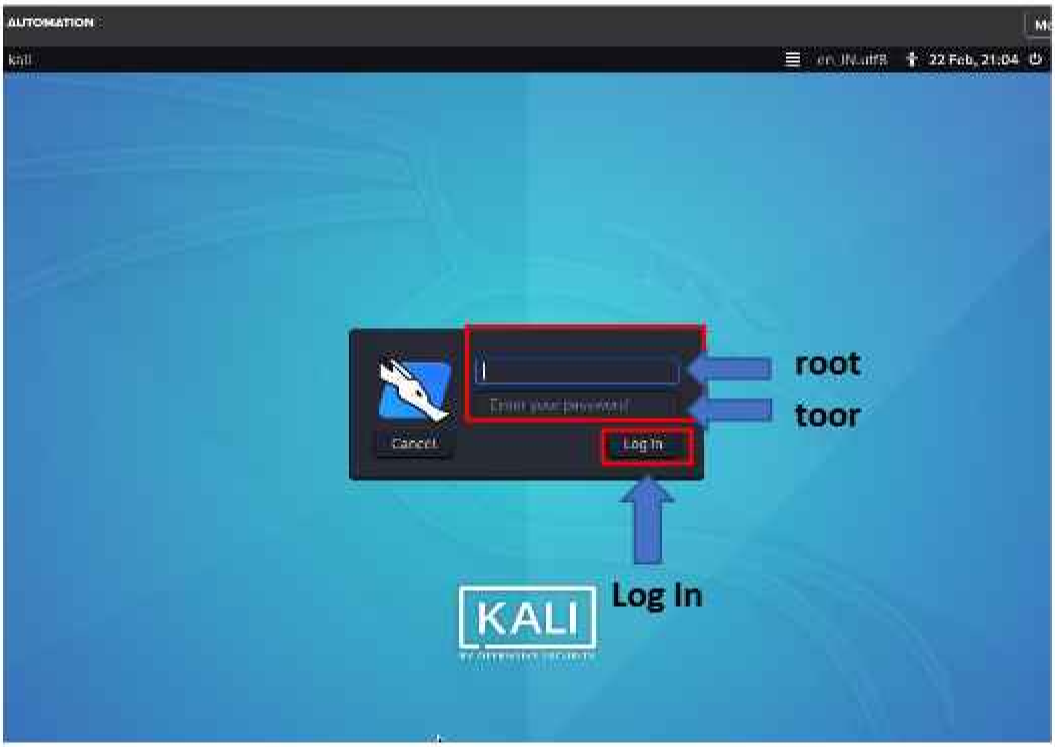
- Discover targets for enumerations.
- Perform enumerations and network mapping.
- Track differences between enumerations.
- Resolve DNS names at high performance.

In this Exercise, We will Scan Subdomains using Amass Tool.

Guided Exercise

Step to Perform this Exercise

1. Connect to the kali Linux machine, created by you, using the RDP protocol. Kali Linux machine is being used as Attacker's machine.
2. When prompted for the username and password, enter **root** as username and **toor** as password. The root is the administrator user of the machine.

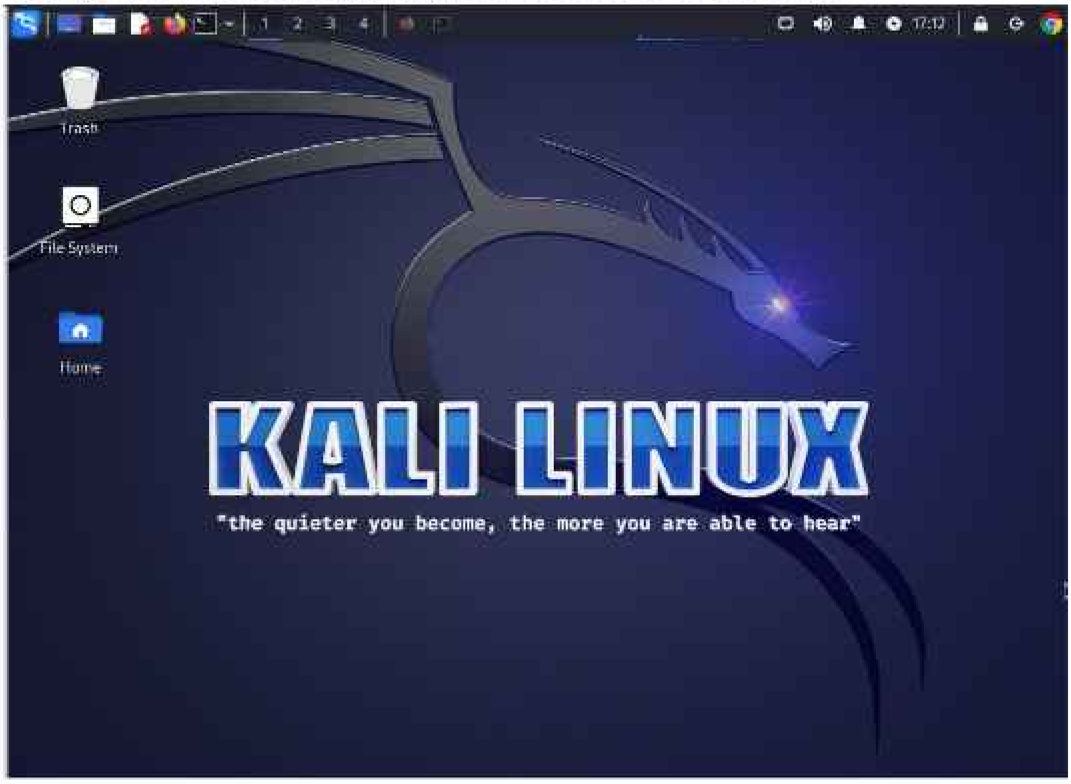


root

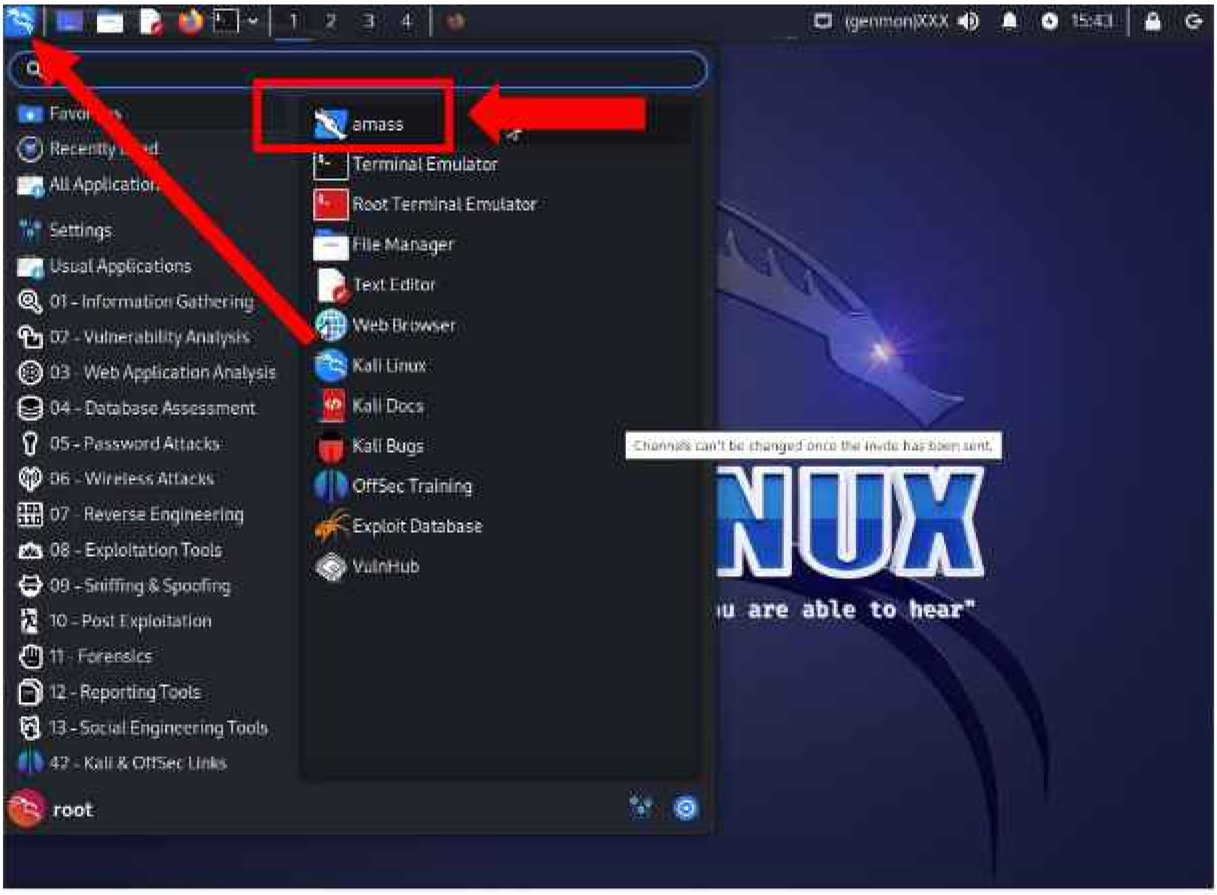
toor

Log In

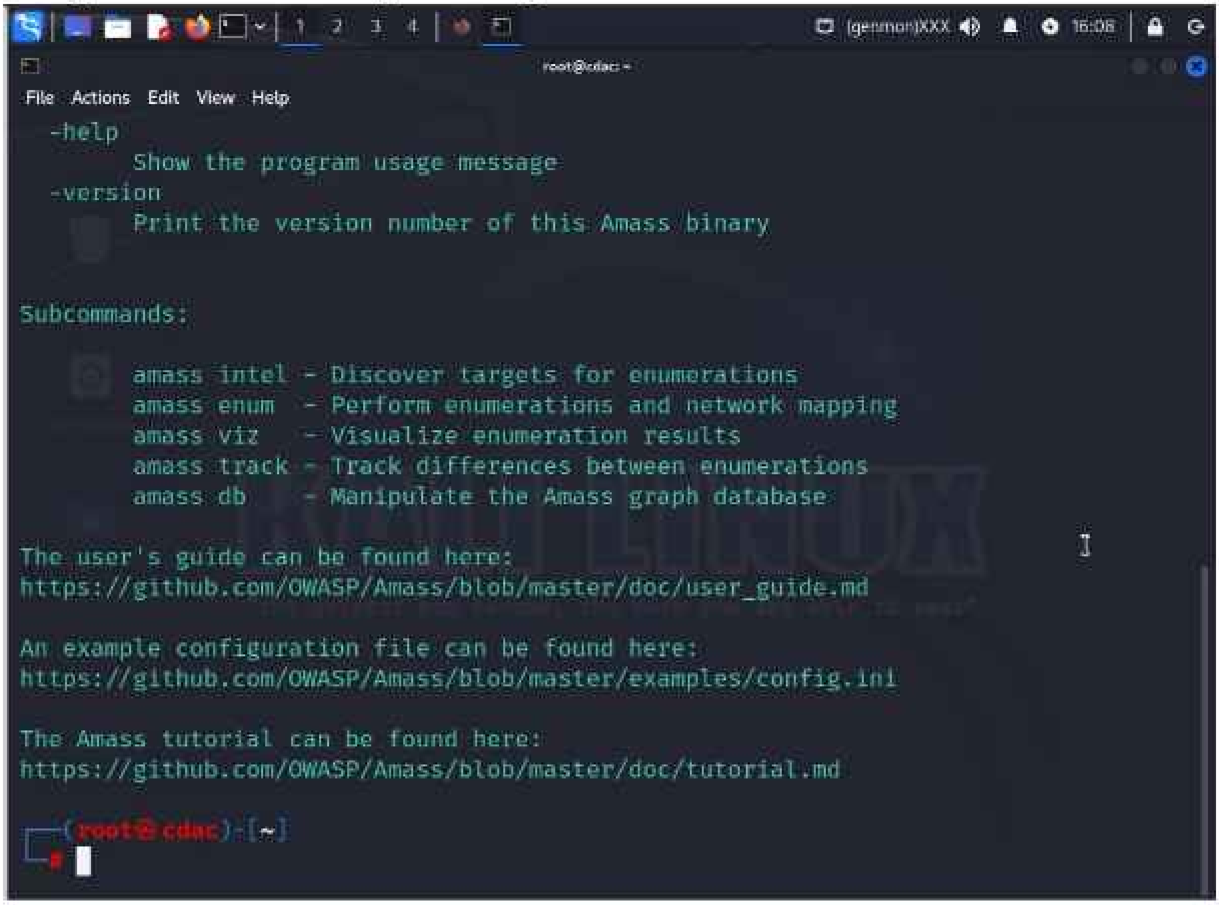
Once you successfully login in, you will see a screen like this.



3. Now, click on the application tab. Here you can see **Amass** Application, click on Application "**Amass**" to start.



Once you will click on the Application, you will see a screen like this



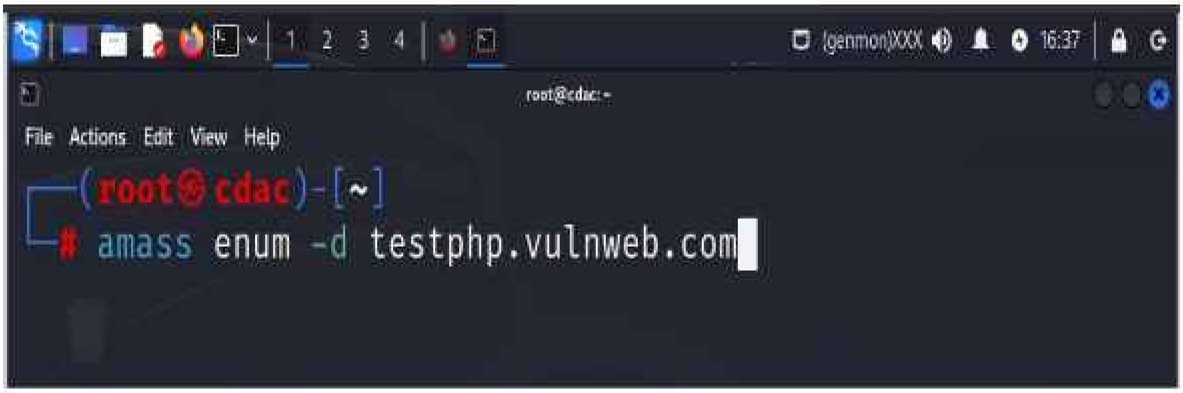
```
  -help
        Show the program usage message
  -version
        Print the version number of this Amass binary


Subcommands:

        amass intel - Discover targets for enumerations
        amass enum  - Perform enumerations and network mapping
        amass viz   - Visualize enumeration results
        amass track - Track differences between enumerations
        amass db    - Manipulate the Amass graph database

The user's guide can be found here:
https://github.com/OWASP/Amass/blob/master/doc/user_guide.md

An example configuration file can be found here:
https://github.com/OWASP/Amass/blob/master/examples/config.ini

The Amass tutorial can be found here:
https://github.com/OWASP/Amass/blob/master/doc/tutorial.md

┌──(root㉿cdac)-[~]
└─#
```

Top Example Usage of Amass

a) Basic Command to emun target

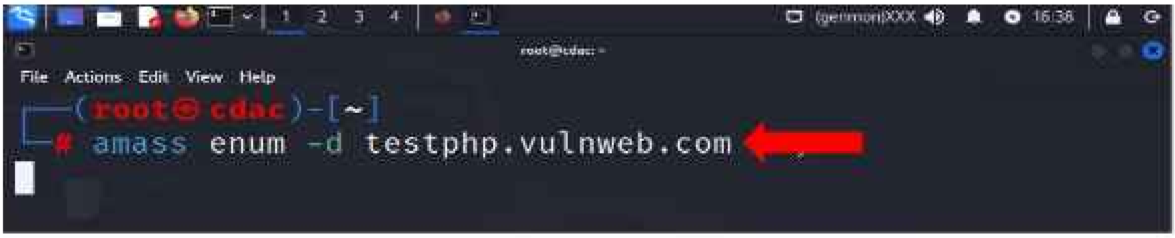
amass enum -d <URL>

Enter the domain name which you want to search for, here we are searching for **testphp.vulnweb.com**



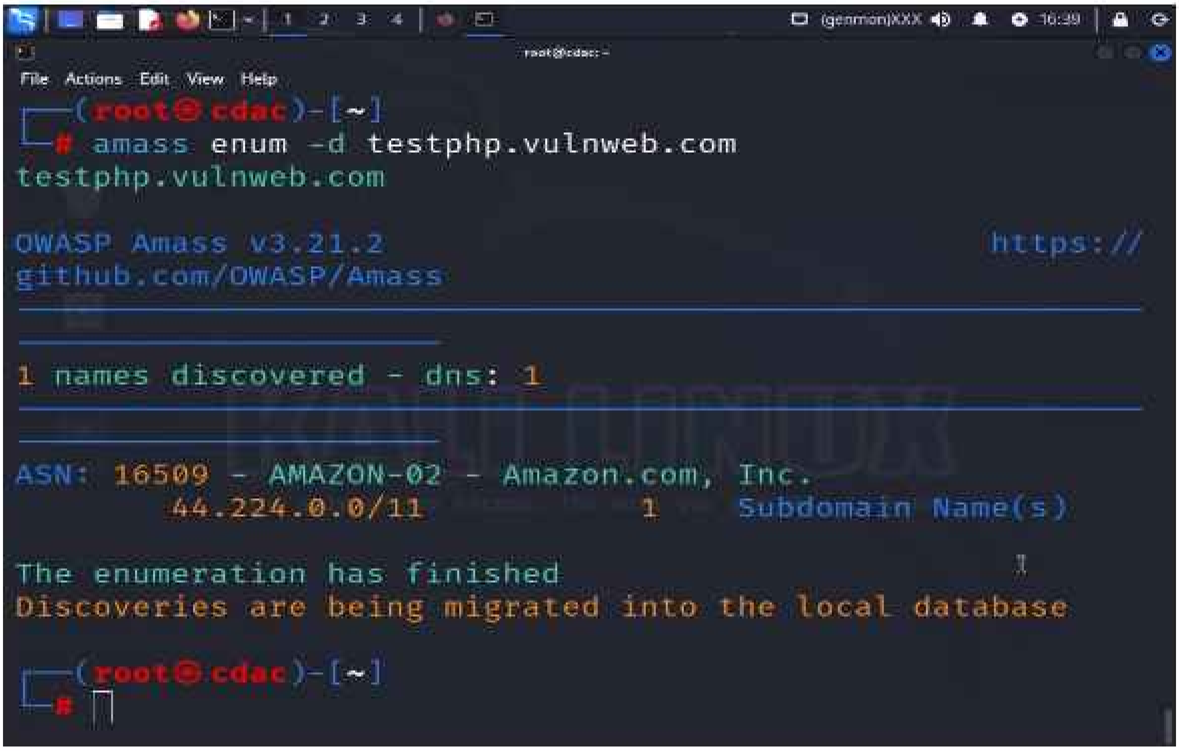
```
┌──(root㉿cdac)-[~]
└─# amass enum -d testphp.vulnweb.com
```

Press enter and scanning process will start



```
┌──(root㉿cdac)-[~]
└─# amass enum -d testphp.vulnweb.com
```

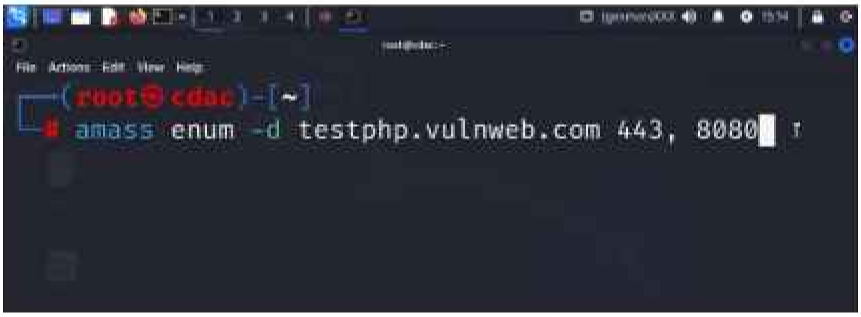
Here's the Output



```
┌──(root㉿cdac)-[~]
└─# amass enum -d testphp.vulnweb.com
testphp.vulnweb.com

OWASP Amass v3.21.2                                  https://
github.com/OWASP/Amass
──────────────────────────────────────────────────────────
──────────────────────
1 names discovered - dns: 1
──────────────────────────────────────────────────────────
──────────────────────
ASN: 16509 - AMAZON-02 - Amazon.com, Inc.
        44.224.0.0/11            1     Subdomain Name(s)

The enumeration has finished
Discoveries are being migrated into the local database

┌──(root㉿cdac)-[~]
└─#
```

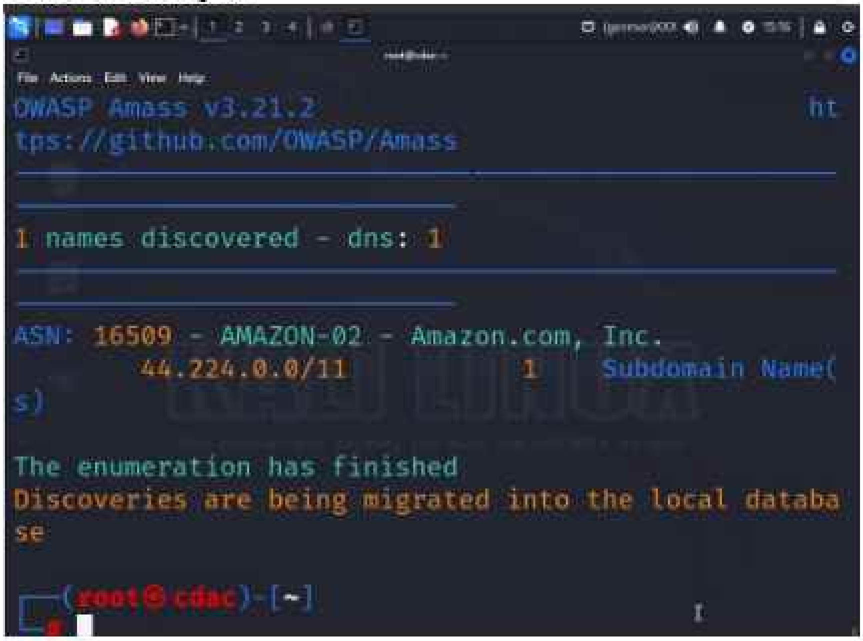
b) Mention Ports for the Scan

amass enum -d <URL> -p 443,8080



```
┌──(root㉿cdac)-[~]
└─# amass enum -d testphp.vulnweb.com 443, 8080
```

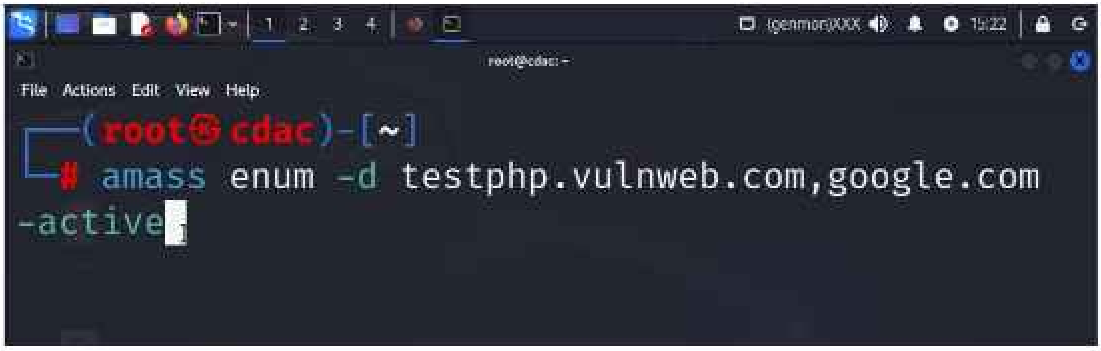
Here's the Output



```
OWASP Amass v3.21.2                                    ht
tps://github.com/OWASP/Amass
──────────────────────────────────────────────────────
──────────────────────────────
1 names discovered - dns: 1
──────────────────────────────────────────────────────
──────────────────────────────
ASN: 16509 - AMAZON-02 - Amazon.com, Inc.
        44.224.0.0/11           1    Subdomain Name(
s)

The enumeration has finished
Discoveries are being migrated into the local databa
se

┌──(root㉿cdac)-[~]
└─#
```

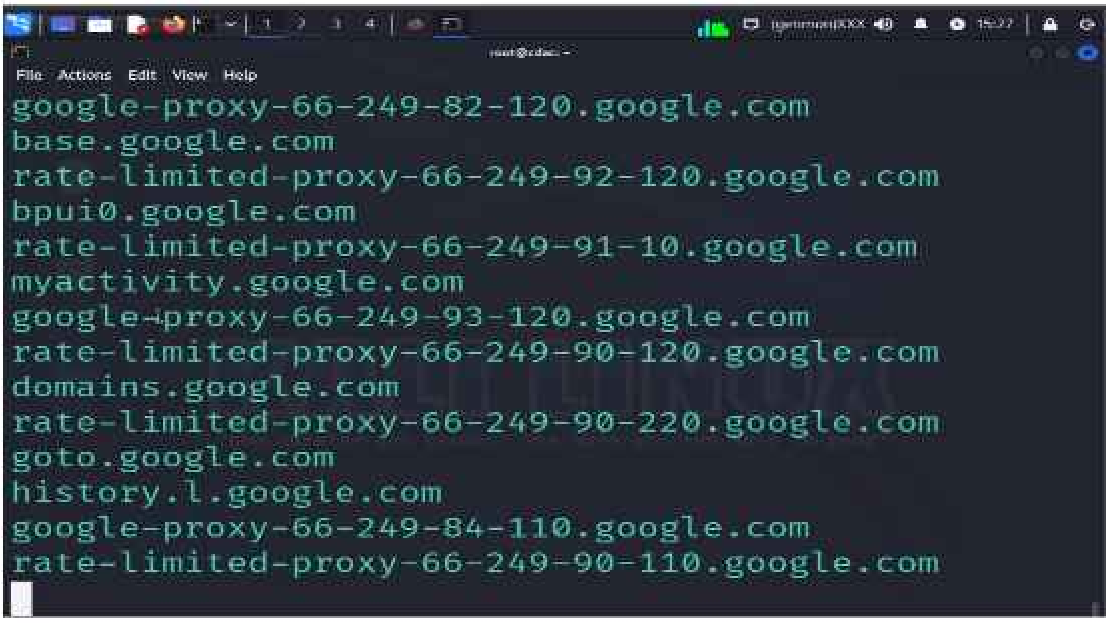
c) Combining different options to get more refined results. -d options enable users to enter multiple URLs and -active options use active recon methods.

amass enum -d <URL1>,<URL2> -active



```
┌──(root㉿cdac)-[~]
└─# amass enum -d testphp.vulnweb.com,google.com
-active
```

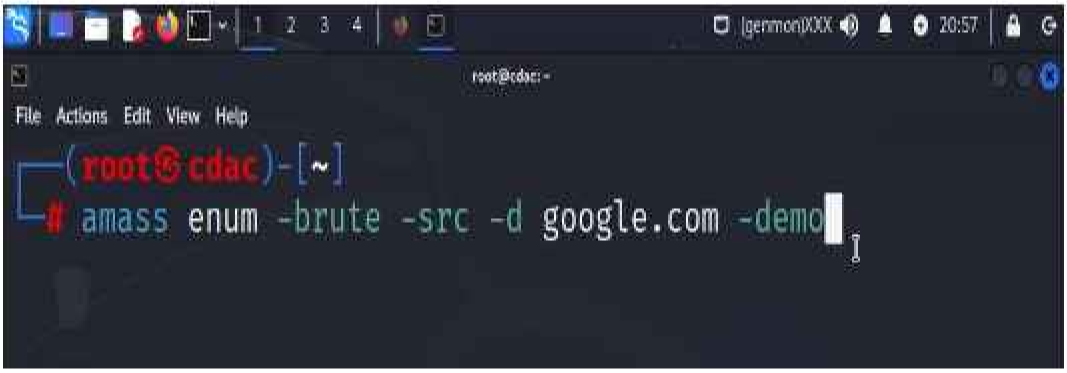
Here's the Output



```
google-proxy-66-249-82-120.google.com
base.google.com
rate-limited-proxy-66-249-92-120.google.com
bpui0.google.com
rate-limited-proxy-66-249-91-10.google.com
myactivity.google.com
google-proxy-66-249-93-120.google.com
rate-limited-proxy-66-249-90-120.google.com
domains.google.com
rate-limited-proxy-66-249-90-220.google.com
goto.google.com
history.l.google.com
google-proxy-66-249-84-110.google.com
rate-limited-proxy-66-249-90-110.google.com
```

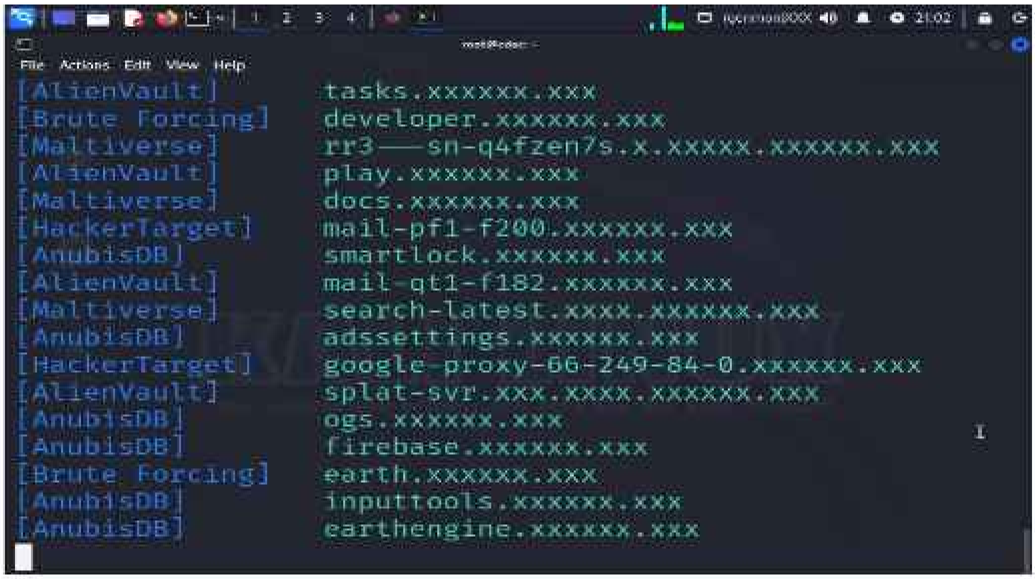
d) Perform brute force by using - brute option for subdomain enumeration. -src option display data sources for the discovered names and -demo option display results in a presentable manner

amass enum -brute -src -d <URL> -demo



```
┌──(root㉿cdac)-[~]
└─# amass enum -brute -src -d google.com -demo
```

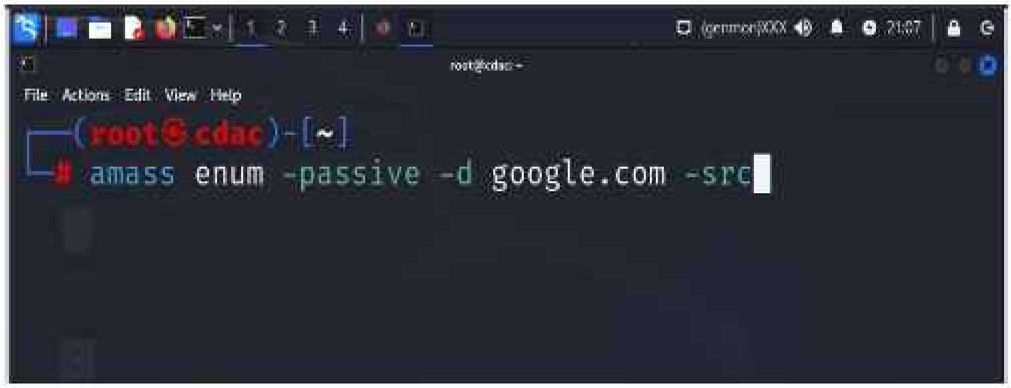
Here's the Output



```
[AlienVault]       tasks.xxxxxx.xxx
[Brute Forcing]    developer.xxxxxx.xxx
[Maltiverse]       rr3——sn-q4fzen7s.x.xxxxx.xxxxxx.xxx
[AlienVault]       play.xxxxxx.xxx
[Maltiverse]       docs.xxxxxx.xxx
[HackerTarget]     mail-pf1-f200.xxxxxx.xxx
[AnubisDB]         smartlock.xxxxxx.xxx
[AlienVault]       mail-qt1-f182.xxxxxx.xxx
[Maltiverse]       search-latest.xxxx.xxxxxx.xxx
[AnubisDB]         adssettings.xxxxxx.xxx
[HackerTarget]     google-proxy-66-249-84-0.xxxxxx.xxx
[AlienVault]       splat-svr.xxx.xxxx.xxxxxx.xxx
[AnubisDB]         ogs.xxxxxx.xxx
[AnubisDB]         firebase.xxxxxx.xxx
[Brute Forcing]    earth.xxxxxx.xxx
[AnubisDB]         inputtools.xxxxxx.xxx
[AnubisDB]         earthengine.xxxxxx.xxx
```

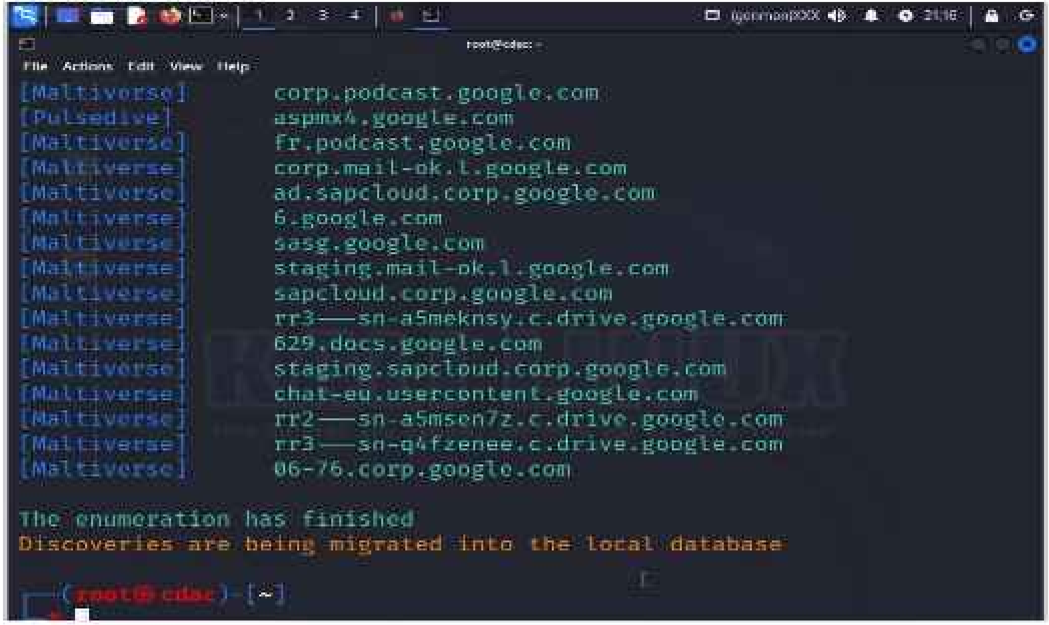
e) To do Passive Scanning

amass enum -passive -d <URL> -src



```
┌──(root㉿cdac)-[~]
└─# amass enum -passive -d google.com -src
```

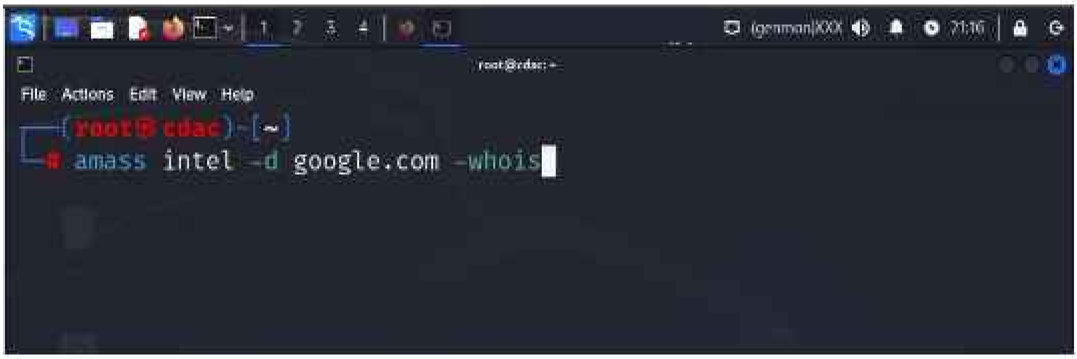
Here's the Output



```
[Maltiverse]       corp.podcast.google.com
[Pulsedive]        aspmx4.google.com
[Maltiverse]       fr.podcast.google.com
[Maltiverse]       corp.mail-ok.l.google.com
[Maltiverse]       ad.sapcloud.corp.google.com
[Maltiverse]       6.google.com
[Maltiverse]       sasg.google.com
[Maltiverse]       staging.mail-ok.l.google.com
[Maltiverse]       sapcloud.corp.google.com
[Maltiverse]       rr3——sn-a5meknsy.c.drive.google.com
[Maltiverse]       629.docs.google.com
[Maltiverse]       staging.sapcloud.corp.google.com
[Maltiverse]       chat-eu.usercontent.google.com
[Maltiverse]       rr2——sn-a5msen7z.c.drive.google.com
[Maltiverse]       rr3——sn-q4fzenee.c.drive.google.com
[Maltiverse]       06-76.corp.google.com

The enumeration has finished
Discoveries are being migrated into the local database

┌──(root㉿cdac)-[~]
└─#
```

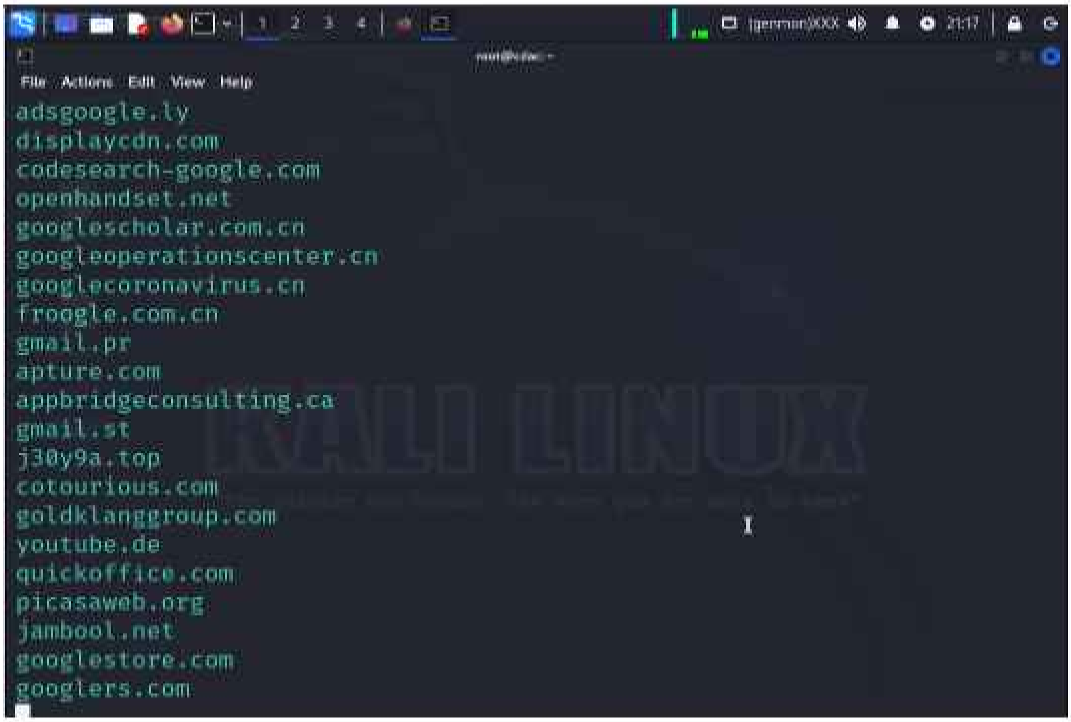
f) Identify domains by using -whois option

amass intel -d <url> -whois



```
┌──(root㉿cdac)-[~]
└─# amass intel -d google.com -whois
```

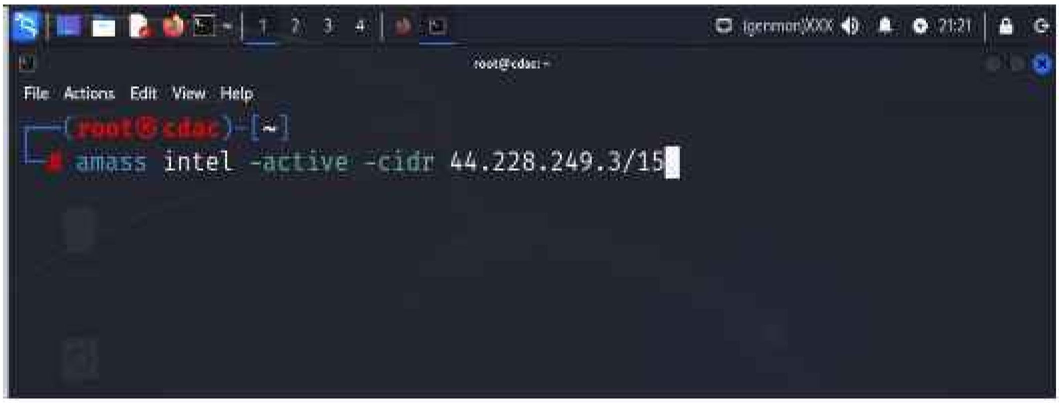
Here's the Output



```
adsgoogle.ly
displaycdn.com
codesearch-google.com
openhandset.net
googlescholar.com.cn
googleoperationscenter.cn
googlecoronavirus.cn
froogle.com.cn
gmail.pr
apture.com
appbridgeconsulting.ca
gmail.st
j30y9a.top
cotourious.com
goldklanggroup.com
youtube.de
quickoffice.com
picasaweb.org
jambool.net
googlestore.com
googlers.com
```

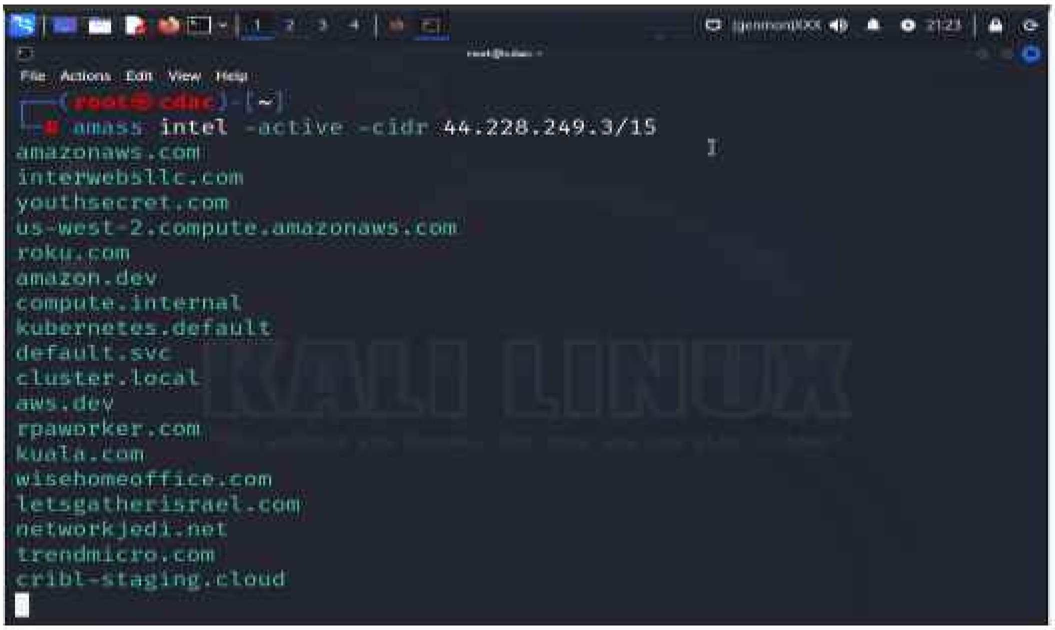
g) Enable active recon method

amass intel -active -cidr 123.134.0.0/15



```
┌──(root㉿cdac)-[~]
└─# amass intel -active -cidr 44.228.249.3/15
```

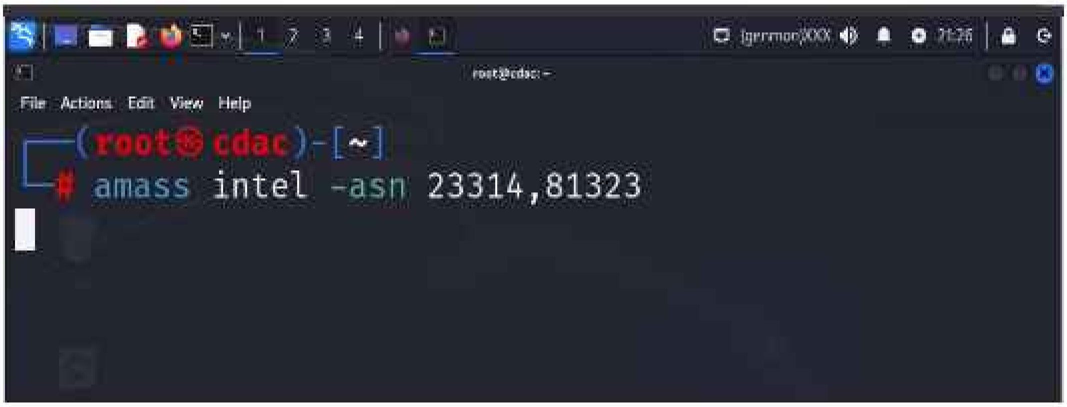
Here's the Output



```
┌──(root㉿cdac)-[~]
└─# amass intel -active -cidr 44.228.249.3/15
amazonaws.com
interwebsllc.com
youthsecret.com
us-west-2.compute.amazonaws.com
roku.com
amazon.dev
compute.internal
kubernetes.default
default.svc
cluster.local
aws.dev
rpaworker.com
kuala.com
wisehomeoffice.com
letsgatherisrael.com
networkjedi.net
trendmicro.com
cribl-staging.cloud
```

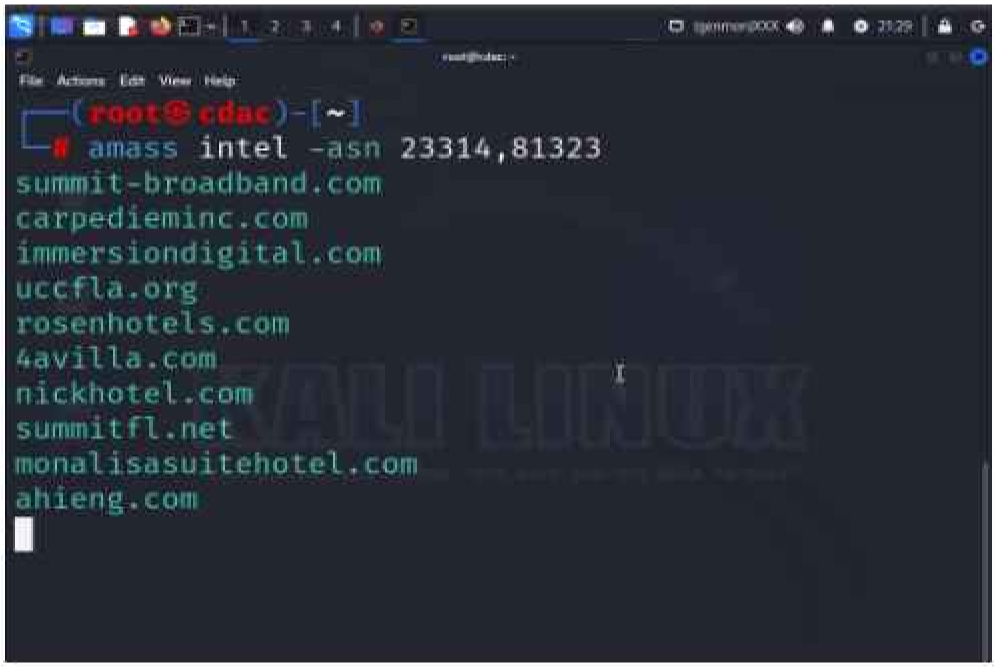
h) Search Based on ASN

amass intel -asn 23314,81323



```
┌──(root㉿cdac)-[~]
└─# amass intel -asn 23314,81323
```

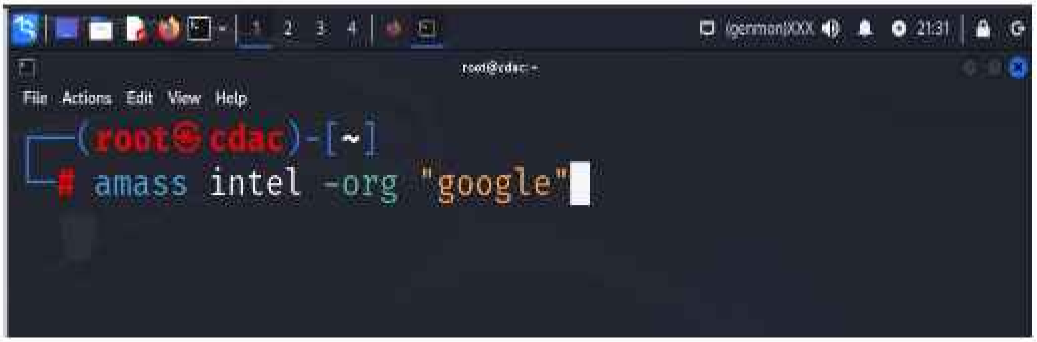
Here's the Output



```
┌──(root㉿cdac)-[~]
└─# amass intel -asn 23314,81323
summit-broadband.com
carpedieminc.com
immersiondigital.com
uccfla.org
rosenhotels.com
4avilla.com
nickhotel.com
summitfl.net
monalisasuitehotel.com
ahieng.com
```

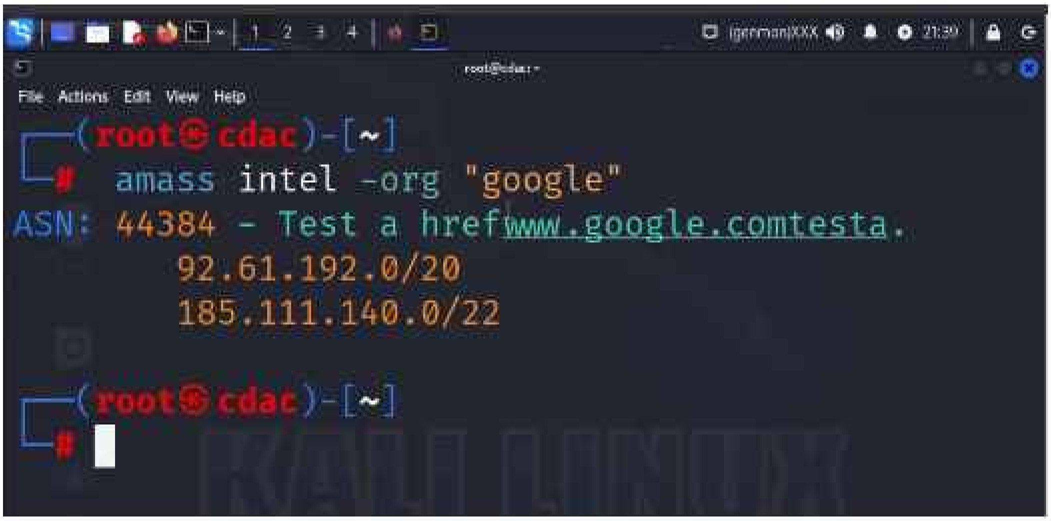
i) Search string based on AS description information

amass intel -org "google"



```
┌──(root㉿cdac)-[~]
└─# amass intel -org "google"
```

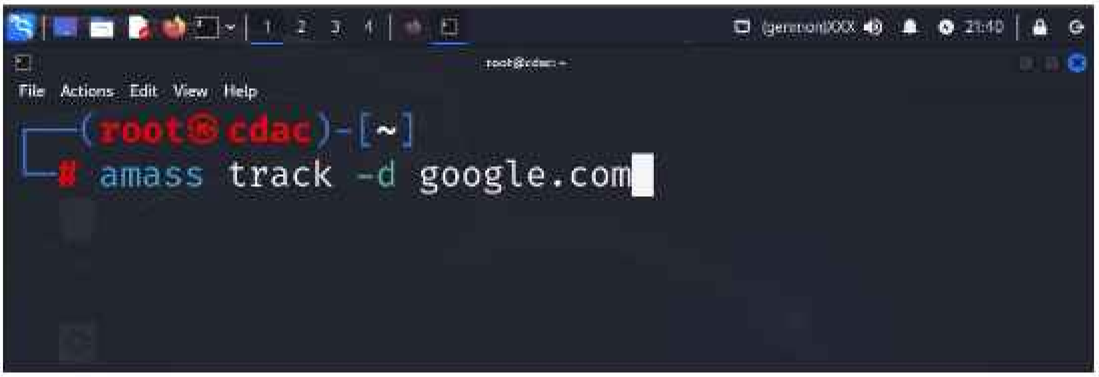
Here's the Output



```
┌──(root㉿cdac)-[~]
└─# amass intel -org "google"
ASN: 44384 - Test a hrefwww.google.comtesta.
        92.61.192.0/20
        185.111.140.0/22

┌──(root㉿cdac)-[~]
└─#
```

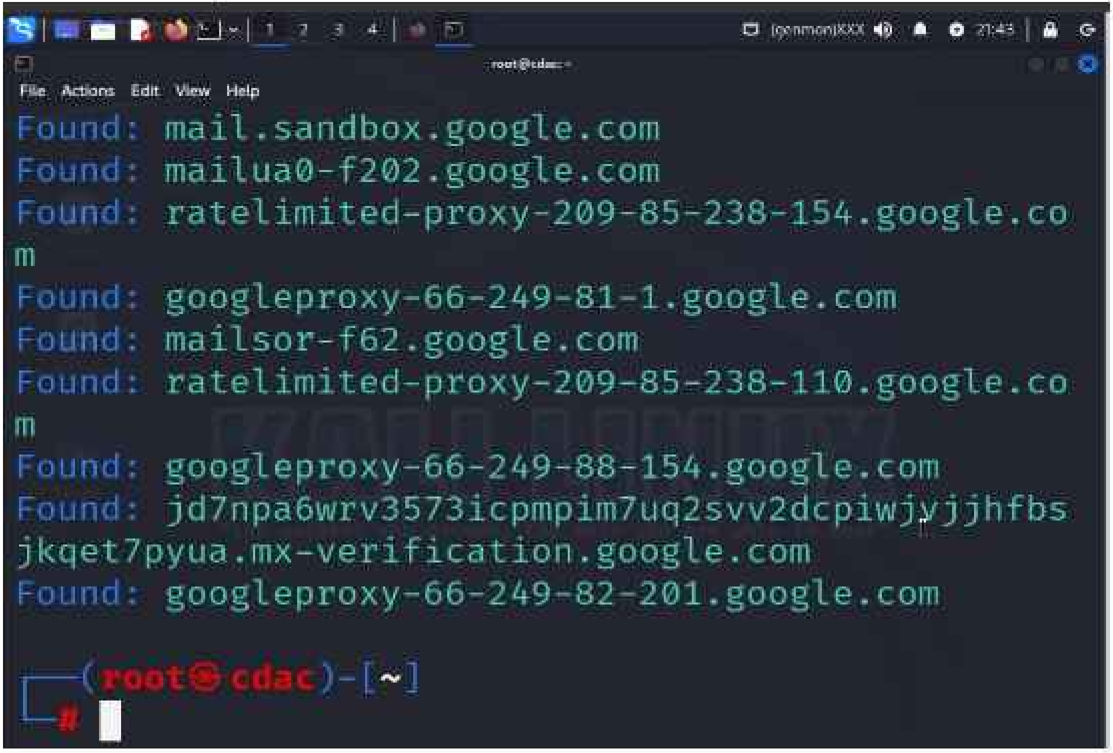
j) Basic command using track option

amass track -d example.com



```
┌──(root㉿cdac)-[~]
└─# amass track -d google.com
```

Here's the Output



```
Found: mail.sandbox.google.com
Found: mailua0-f202.google.com
Found: ratelimited-proxy-209-85-238-154.google.co
m
Found: googleproxy-66-249-81-1.google.com
Found: mailsor-f62.google.com
Found: ratelimited-proxy-209-85-238-110.google.co
m
Found: googleproxy-66-249-88-154.google.com
Found: jd7npa6wrv3573icpmpim7uq2svv2dcpiwjyjjhfbs
jkqet7pyua.mx-verification.google.com
Found: googleproxy-66-249-82-201.google.com

┌──(root㉿cdac)-[~]
└─#
```

Here are some of the best ways to protect your website from information leakage

- Make sure that everyone involved in producing the website is fully aware of what information is considered sensitive. Sometimes seemingly harmless information can be much more useful to an attacker than people realize. Highlighting these dangers can help make sure that sensitive information is handled more securely in general by your organization.
- Audit any code for potential information disclosure as part of your QA or build processes.
- Use generic error messages as much as possible. Don't provide attackers with clues about application behaviour unnecessarily.

- Double-check that any debugging or diagnostic features are disabled in the production environment.
- Make sure you fully understand the configuration settings, and security implications, of any third-party technology that you implement. Take the time to investigate and disable any features and settings that you don't actually need.