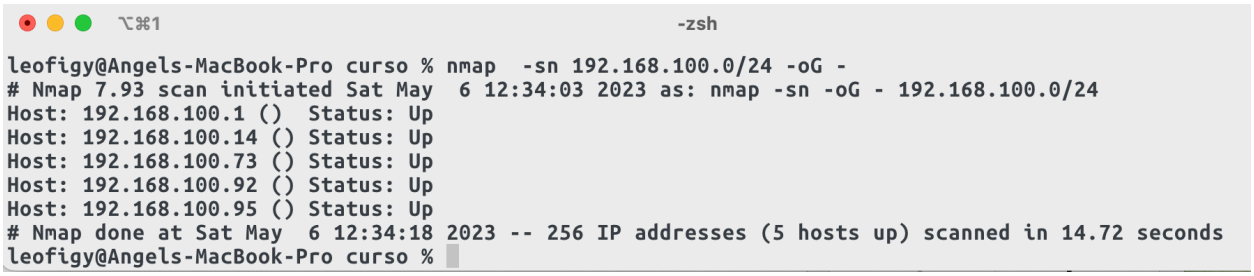
Challenge 1

1- Collecting info from my local network (there are several devices)



Getting details for each active vm , saved previously the IPs in a file vm

```
leofigy@Angels-MacBook-Pro curso % nmap -iL vms
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-06 12:13 CST
Nmap scan report for 192.168.100.1
Host is up (0.0032s latency).
Not shown: 995 closed tcp ports (conn-refused)
PORT   STATE    SERVICE
21/tcp filtered ftp
22/tcp filtered ssh
23/tcp filtered telnet
53/tcp open     domain
80/tcp open     http

Nmap scan report for 192.168.100.14
Host is up (0.0037s latency).
Not shown: 996 closed tcp ports (conn-refused)
PORT     STATE SERVICE
8008/tcp open  http
8009/tcp open  ajp13
8443/tcp open  https-alt
9000/tcp open  cslistener

Nmap scan report for 192.168.100.20
Host is up (0.0079s latency).
All 1000 scanned ports on 192.168.100.20 are in ignored states.
Not shown: 1000 closed tcp ports (conn-refused)

Nmap scan report for 192.168.100.92
Host is up (0.0032s latency).
Not shown: 998 closed tcp ports (conn-refused)
PORT     STATE SERVICE
7000/tcp open  afs3-fileserver
9080/tcp open  glrpc

Nmap scan report for 192.168.100.95
Host is up (0.000098s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT     STATE SERVICE
53/tcp   open  domain
5000/tcp open  upnp
7000/tcp open  afs3-fileserver

Nmap done: 5 IP addresses (5 hosts up) scanned in 23.82 seconds
```

2- Getting information from web sites using what web

There is a tool called whatweb, that allows you to get general information about a web site. It's a good start point , for the site www.udg.mx , it tell us it's running an nginx is written in php and for the front it has JQuery

```
ubuntu@primary:~$ whatweb -v www.udg.mx
WhatWeb report for http://www.udg.mx
Status    : 301 Moved Permanently
Title     : 301 Moved Permanently
IP        : 148.202.34.157
Country   : MEXICO, MX

Summary   : HTTPServer[nginx/1.12.2], nginx[1.12.2], RedirectLocation[https://
www.udg.mx/]

Detected Plugins:
[ HTTPServer ]
     HTTP server header string. This plugin also attempts to
     identify the operating system from the server header.

     String       : nginx/1.12.2 (from server string)

[ RedirectLocation ]
     HTTP Server string location. used with http-status 301 and
     302

     String       : https://www.udg.mx/ (from location)

[ nginx ]
     Nginx (Engine-X) is a free, open-source, high-performance
     HTTP server and reverse proxy, as well as an IMAP/POP3
     proxy server.

     Version      : 1.12.2
     Website     : http://nginx.net/

HTTP Headers:
     HTTP/1.1 301 Moved Permanently
     Server: nginx/1.12.2
     Date: Sat, 06 May 2023 23:04:24 GMT
     Content-Type: text/html
     Content-Length: 185
     Connection: close
     Location: https://www.udg.mx/

WhatWeb report for https://www.udg.mx/
Status    : 200 OK
Title     : Inicio | Universidad de Guadalajara
IP        : 148.202.34.157
Country   : MEXICO, MX

Summary   : Content-Language[es], Cookies[SSESS6d6444d6a25dfd0ecf5e44a1b3d0af98],
Drupal, HTML5, HTTPServer[nginx/1.12.2],
HttpOnly[SSESS6d6444d6a25dfd0ecf5e44a1b3d0af98], JQuery[1.7], MetaGenerator[Drupal 7
(http://drupal.org)], nginx[1.12.2], PHP[5.4.16], Script[text/javascript],
```

UncommonHeaders[x-drupal-cache,x-content-type-options,permissions-policy,x-generator,link], **X-Frame-Options**[SAMEORIGIN], **X-Powered-By**[PHP/5.4.16]

Detected Plugins:
[**Content-Language**]
Detect the content-language setting from the HTTP header.

String : es

[**Cookies**]
Display the names of cookies in the HTTP headers. The values are not returned to save on space.

String : SSESS6d6444d6a25dfd0ecf5e44a1b3d0af98

[**Drupal**]
Drupal is an opensource CMS written in PHP.

Aggressive function available (check plugin file or details).
Google Dorks: (1)
Website : http://www.drupal.org

[**HTML5**]
HTML version 5, detected by the doctype declaration

[**HTTPServer**]
HTTP server header string. This plugin also attempts to identify the operating system from the server header.

String : nginx/1.12.2 (from server string)

[**HttpOnly**]
If the HttpOnly flag is included in the HTTP set-cookie response header and the browser supports it then the cookie cannot be accessed through client side script - More Info: http://en.wikipedia.org/wiki/HTTP_cookie

String : SSESS6d6444d6a25dfd0ecf5e44a1b3d0af98

[**JQuery**]
A fast, concise, JavaScript that simplifies how to traverse HTML documents, handle events, perform animations, and add AJAX.

Version : 1.7
Website : http://jquery.com/

[**MetaGenerator**]
This plugin identifies meta generator tags and extracts its value.

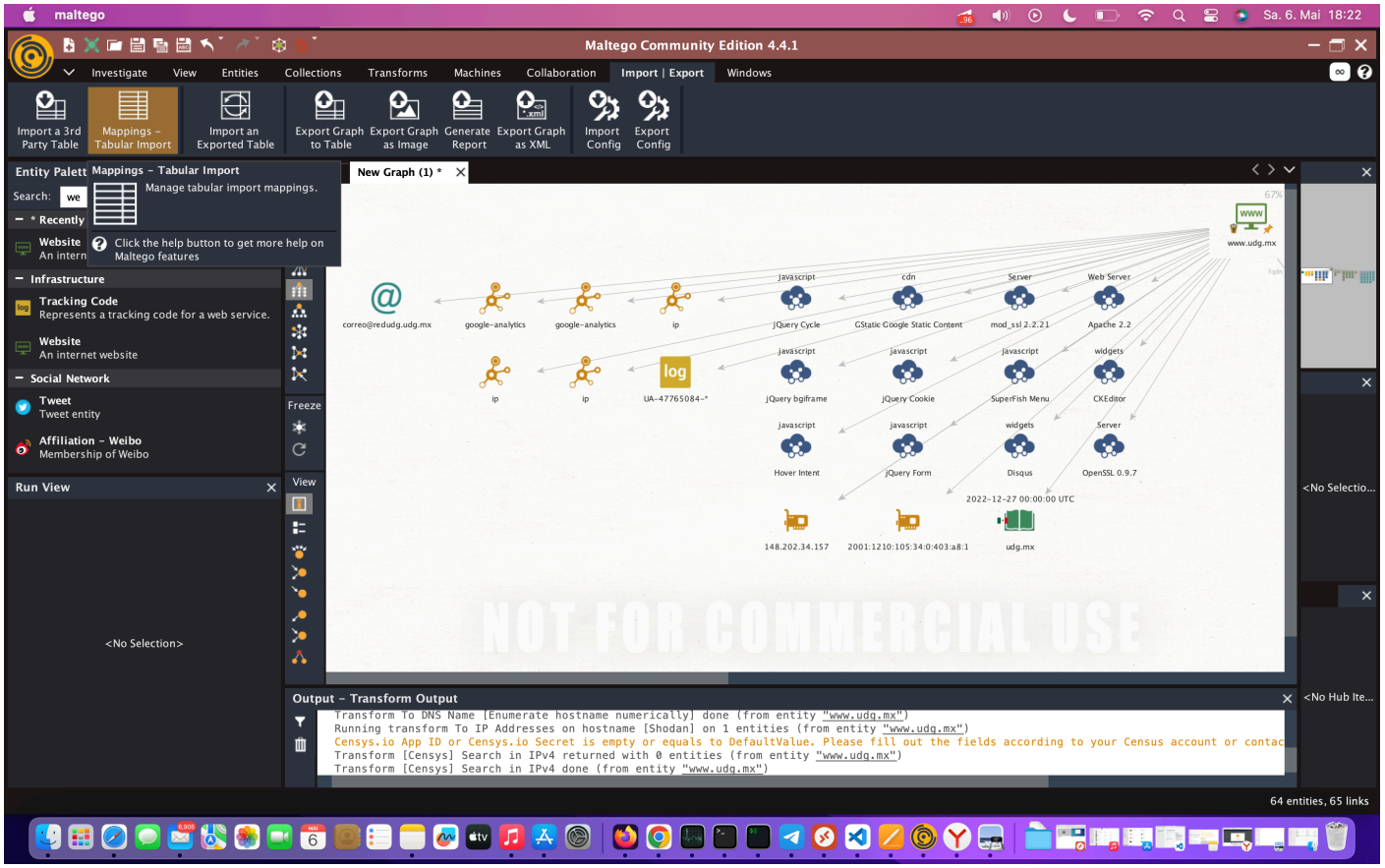
String : Drupal 7 (http://drupal.org)

[**PHP**]
PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. This plugin identifies PHP errors,

```
     modules and versions and extracts the local file path and
     username if present.

     Version      : 5.4.16
     Google Dorks: (2)
     Website     : http://www.php.net/

[ Script ]
     This plugin detects instances of script HTML elements and
     returns the script language/type.

     String       : text/javascript

[ UncommonHeaders ]
     Uncommon HTTP server headers. The blacklist includes all
     the standard headers and many non standard but common ones.
     Interesting but fairly common headers should have their own
     plugins, eg. x-powered-by, server and x-aspnet-version.
     Info about headers can be found at www.http-stats.com

     String       : x-drupal-cache,x-content-type-options,permissions-policy,x-
generator,link (from headers)

[ X-Frame-Options ]
     This plugin retrieves the X-Frame-Options value from the
     HTTP header. - More Info:
     http://msdn.microsoft.com/en-us/library/cc288472%28VS.85%29.
     aspx

     String       : SAMEORIGIN

[ X-Powered-By ]
     X-Powered-By HTTP header

     String       : PHP/5.4.16 (from x-powered-by string)

[ nginx ]
     Nginx (Engine-X) is a free, open-source, high-performance
     HTTP server and reverse proxy, as well as an IMAP/POP3
     proxy server.

     Version      : 1.12.2
     Website     : http://nginx.net/

HTTP Headers:
     HTTP/1.1 200 OK
     Server: nginx/1.12.2
     Date: Sat, 06 May 2023 23:04:29 GMT
     Content-Type: text/html; charset=utf-8
     Transfer-Encoding: chunked
     Connection: close
     X-Powered-By: PHP/5.4.16
     X-Drupal-Cache: MISS
     Expires: Sun, 19 Nov 1978 05:00:00 GMT
     Cache-Control: no-cache, must-revalidate
     Content-Language: es
     X-Frame-Options: SAMEORIGIN
     X-Content-Type-Options: nosniff
```

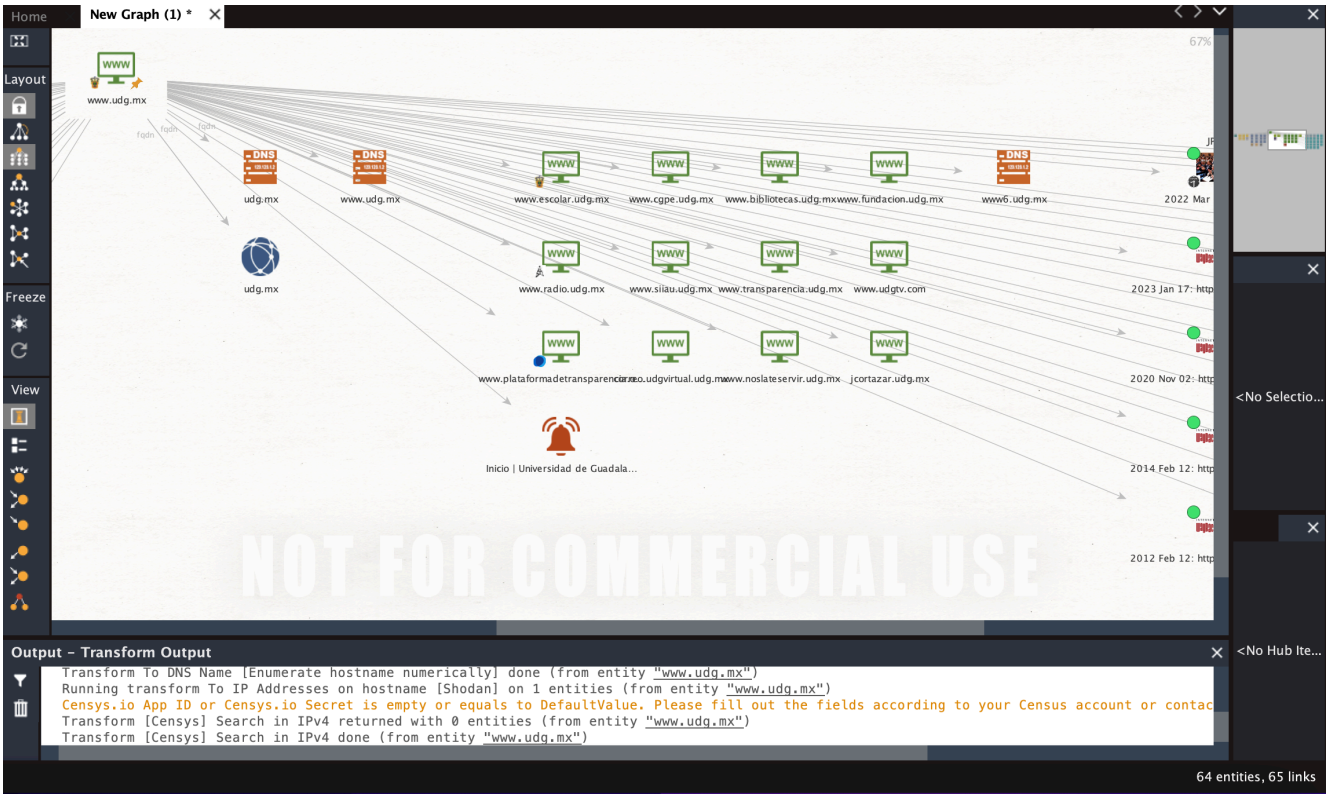
```
      Permissions-Policy: interest-cohort=()
      X-Generator: Drupal 7 (http://drupal.org)
      Link: </es/inicio-0>; rel="canonical",</es/node/43622>; rel="shortlink"
      Set-Cookie:
SSESS6d6444d6a25dfd0ecf5e44a1b3d0af98=MFP63xalTOFAOvxPlNAifVhB9yR9AjqWafxu5A_iwIY;
expires=Tue, 30-May-2023 02:37:49 GMT; path=/; SameSite=None; domain=.www.udg.mx;
secure; HttpOnly
```

What we know about the site?
We know it uses nginx as server , and uses php with html5 . If we want to get more

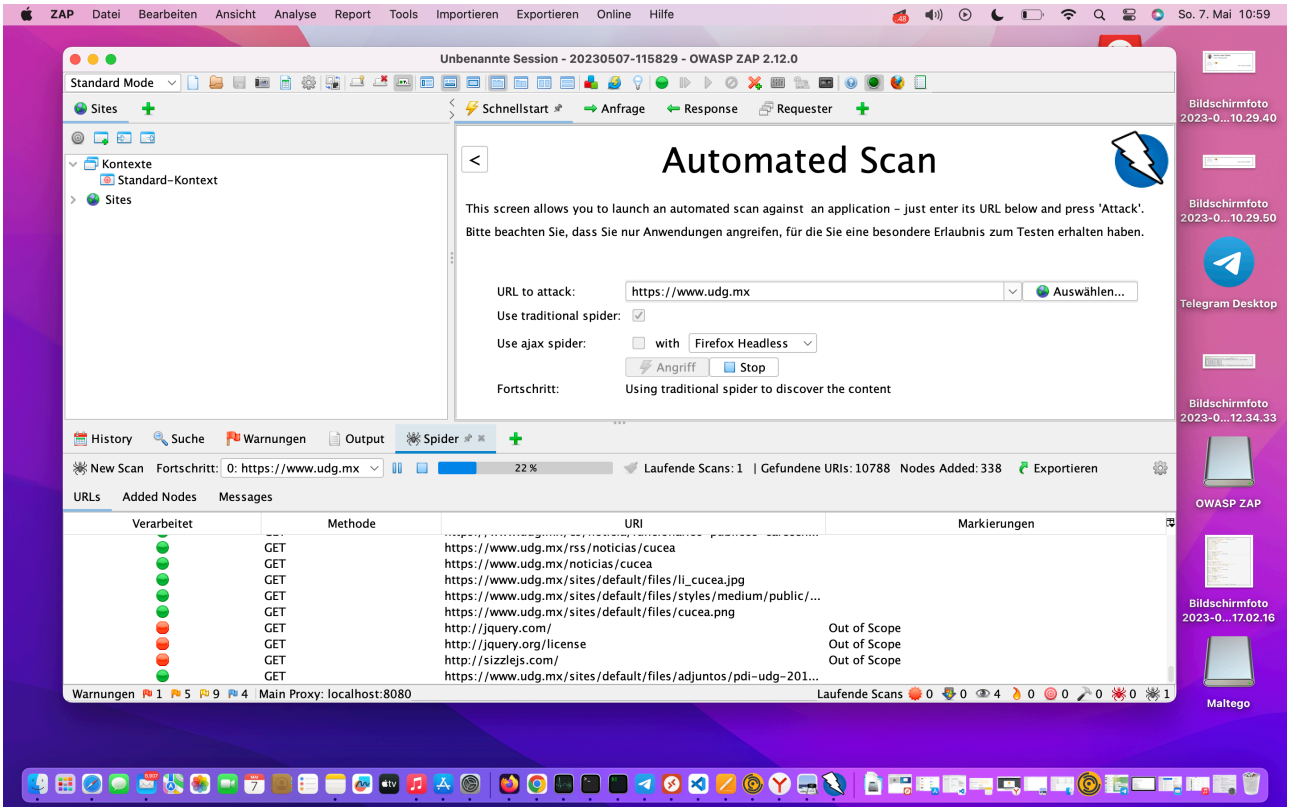


details , we can use more tools like maltego that provides transformations to get more details about a domain.

Maltego can discover subdomains based on dns entries, and perform different transforms like looking for documents and discovering resources , if you add more transformations.



3- Identify kind of web site.
There is another fancy tool called OWASP ZAP, that has an spider to identify any sub-resource in the website , let's use again www.udg.mx domain



OZAP can return reports for all the sub-resources, but in addition it includes warnings for possible vulnerabilities, for Java script library jQuery v1.4.4 it has several known CVE , that a potential attacker might use, other warnings are related about personal information in the sites, or missing validations for CSRF.