Sri Lanka Institute of Information Technology



Specialized in Cyber Security

Year 2, Semester 2

IE2062 – Web Security

Bug Bounty – Report 07

Student ID No.	Name
IT23136106	D.M.M. Pasindu Supushmika

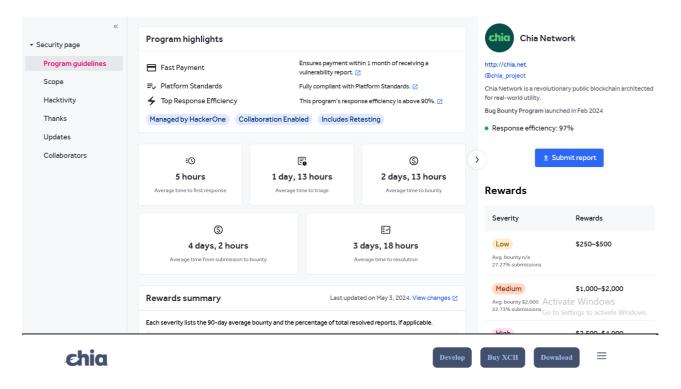
Table of Contents

- 01. Website Overview
- 02. Step 01: Gather Information
 - a. Subdomain Discovery
 - i. Sublist3r
 - ii. Subfinder
 - b. <u>Live Subdomains</u>
 - c. <u>IP Discovery</u>
 - d. Open Ports
 - e. <u>Used Technologies</u>
- 03. Step 02: Scanning and Vulnerability Identification
 - a. <u>Identify Potential Vulnerabilities</u>
 - b. Anti-clickjacking Header
- 04. Step 03: Exploitation and Validation
- 05. Step 04: Mitigation / Fix

1. Website Overview

Chia Network – Tokenize any asset

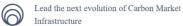
HackerOne Link: Chia Network | Bug Bounty Program Policy | HackerOne



24/7 Global Markets Built on 3rd Generation Blockchain Technology

Get In Touch

O Deliver new asset classes with the Future of OO Financial Rails



Enable authentication and provenance for luxury products

Activate Windows
Go to Settings to activate Windows

Step 01: Gather Information.

- a. Sub-domain Discovery
 - i. Sublist3r: sublist3r_chia_results.txt

Tool : Sublist3r

Code: python3 sublist3r.py -d chia.net -o sublist3r_chai_results.txt

Explanation:

python3 sublist3r.py - Run the script using python

-d chia.net - Target domain

-o sublist3r_chai_results.txt - Output file where the result is saved

```
[-] 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 SSL Certificates..
[-] Searching now in PassiveDNS...
Process DNSdumpster-8:
Traceback (most recent call last):
  File "/usr/lib/python3.13/multiprocessing/process.py", line 313, in _bootstrap
    self.run()
  File "/home/kali/Desktop/Sublist3r/sublist3r.py", line 268, in run
    domain_list = self.enumerate()
  File "/home/kali/Desktop/Sublist3r/sublist3r.py", line 647, in enumerate
    token = self.get_csrftoken(resp)
  File "/home/kali/Desktop/Sublist3r/sublist3r.py", line 641, in get_csrftoken
    token = csrf_regex.findall(resp)[0]
IndexError: list index out of range
257-docs.chia.net
258-docs.chia.net
266-docs.chia.net
269-docs.chia.net
                                                                          Go to Sett
```

www.chia.net

247-docs.chia.net

255-docs.chia.net

257-docs.chia.net

258-docs.chia.net

259-docs.chia.net

260-docs.chia.net

261-docs.chia.net

266-docs.chia.net

267-docs.chia.net

268-docs.chia.net

269-docs.chia.net

207-docs.cma.nct

270-docs.chia.net

272-docs.chia.net

273-docs.chia.net

276-docs.chia.net

278-docs.chia.net

279-docs.chia.net

281-docs.chia.net

283-docs.chia.net

285-docs.chia.net

288-docs.chia.net

289-docs.chia.net

292-docs.chia.net

293-docs.chia.net

295-docs.chia.net

296-docs.chia.net

297-docs.chia.net

298-docs.chia.net

300-docs.chia.net

301-docs.chia.net

302-docs.chia.net

304-docs.chia.net

305-docs.chia.net

308-docs.chia.net

310-docs.chia.net

312-docs.chia.net

router1.44monty.chia.net

api.chia.net

backup.chia.net

cat1.chia.net

cat1-stage.chia.net

ch21.chia.net

chat.chia.net

chia-1pass-scim.chia.net

chiamainnet2023.chia.net

abrahambartolome.climatewarehouse.chia.net

aferrantorres.climatewarehouse.chia.net

alexandrasoezer.climatewarehouse.chia.net

amitthusu.climatewarehouse.chia.net

angry-rooster.climatewarehouse.chia.net

api.climatewarehouse.chia.net

api-green.climatewarehouse.chia.net

api2.climatewarehouse.chia.net

app.climatewarehouse.chia.net

app2.climatewarehouse.chia.net

aureliacasarrubias.climatewarehouse.chia.net

blabber-duck.climatewarehouse.chia.net

ii. Subfindre: subfinder_result_chia.txt

Tool : Subfinder

Code: subfinder -d chia.net -o subfinder_result.txt

Explanation:

bfinder - run subfinder too

l -*d* chia.net - Mention the target website

-o subfinder_result.txt - Mention the output file

```
projectdiscovery.io
[INF] Current subfinder version v2.6.0 (outdated)
[INF] Loading provider config from /home/kali/.config/subfinder/provider-config.yaml
[INF] Enumerating subdomains for chia.net
chia-1pass-scim.chia.net
api-uat-testnet11.cw.chia.net
k8s.msp.chia.net
docs.ent-wallet-beta.chia.net
skim24.climatewarehouse.chia.net
285-docs.chia.net
dns-introducer-testnet10.chia.net
api.testnet11.beta.cloudwallet.chia.net
bsharma.climatewarehouse.chia.net
261-docs.chia.net
old.chia.net
cw.chia.net
loki.ent-wallet-prod.chia.net
downloads.chia.net
k8sdemo.chia.net
testdownload.chia.net
twofourfour-faucet.chia.net
ip.chia.net
258-docs.chia.net
pusher.chia.net
martin.climatewarehouse.chia.net
minio-dev.msp.chia.net
xchpay.chia.net
compute02.sin.chia.net
climatewarehouse.chia.net
testnet-faucet.chia.net
roadmap.chia.net
offercodes.chia.net
rogeliocampos.climatewarehouse.chia.net
ble.climatewarehouse.chia.net
forums.chia.net
304-docs.chia.net
chekwotiirene.climatewarehouse.chia.net
sharminchian.climatewarehouse.chia.net
explorer-proxy-api.chia.net
dev01.fmt.chia.net
dev02.msp.chia.net
api.chia.net
266-docs.chia.net
                                                                          Activate Wi
console.minio.fmt.chia.net
298-docs.chia.net
api.vault.chia.net
```

chia-1pass-scim.chia.net api-uat-testnet11.cw.chia.net k8s.msp.chia.net docs.ent-wallet-beta.chia.net skim24.climatewarehouse.chia.net 285-docs.chia.net

dns-introducer-testnet10.chia.net

api.testnet11.beta.cloudwallet.chia.net

bsharma.climatewarehouse.chia.net

261-docs.chia.net

old.chia.net

cw.chia.net

loki.ent-wallet-prod.chia.net

downloads.chia.net

k8sdemo.chia.net

testdownload.chia.net

twofourfour-faucet.chia.net

ip.chia.net

258-docs.chia.net

pusher.chia.net

martin.climatewarehouse.chia.net

minio-dev.msp.chia.net

xchpay.chia.net

compute02.sin.chia.net

climatewarehouse.chia.net

testnet-faucet.chia.net

roadmap.chia.net

offercodes.chia.net

rogeliocampos.climatewarehouse.chia.net

ble.climatewarehouse.chia.net

forums.chia.net

304-docs.chia.net

chekwotiirene.climatewarehouse.chia.net

sharminchian.climatewarehouse.chia.net

explorer-proxy-api.chia.net

dev01.fmt.chia.net

dev02.msp.chia.net

api.chia.net

266-docs.chia.net

console.minio.fmt.chia.net

298-docs.chia.net

api.vault.chia.net

ent-wallet-dev-testnet11.chia.net

twofivezerorc1-faucet.chia.net

stefanmeier.climatewarehouse.chia.net

uat-testnet11.cw.chia.net

compute03.msp.chia.net

276-docs.chia.net

k8s-public.fmt.chia.net

test-cadt-chia.climatewarehouse.chia.net

devs.chia.net

289-docs.chia.net

manuelgarciarossel.climatewarehouse.chia.net

ssrinivasan8.climatewarehouse.chia.net

content-rhino.climatewarehouse.chia.net

router1.44monty.chia.net

cat3compute03.ldn.chia.net

b. Live Subdomain Discovery

Tool : httpx:<u>livesub_results.txt</u>

Code: httpx-toolkit -l subfinder_result_chia.txt -o livesub_results.txt

Explanation:

httpx-toolkit - run the httpx tool

-l subfinder_result_chia.txt - mention the file containing input

-o livesub results.txt – mention the file which should write the output

```
v1.1.5
                projectdiscovery.io
Use with caution. You are responsible for your actions.
Developers assume no liability and are not responsible for any misuse or damage.
https://app.climatewarehouse.chia.net
https://api-dev-testnet11.cw.chia.net
https://chia.net
https://dev.chia.net
https://developers.chia.net
https://dashboard.chia.net
https://devs.chia.net
https://download.chia.net
https://chia-1pass-scim.chia.net
https://ch21.chia.net
https://console.minio.ldn.chia.net
https://console.minio.msp.chia.net
https://console.minio.fmt.chia.net
https://help.chia.net
https://api-uat-testnet11.cw.chia.net
https://console.minio.sin.chia.net
https://api.vault.chia.net
https://ip.chia.net
https://docs.chia.net
https://discord-bot.chia.net
https://docs.ent-wallet-dev.chia.net
https://explorer-proxy-api.chia.net
https://docs.ent-wallet-prod.chia.net
https://dev-testnet11.cw.chia.net
https://faucet.chia.net
https://github-webhooks.chia.net
https://github-glue.chia.net
https://k8s.ldn.chia.net
https://portal.chia.net
https://hosted.chia.net
https://k8s.fmt.chia.net
https://pypi.chia.net
https://k8s.msp.chia.net
https://roadmap.chia.net
https://minio.ldn.chia.net
https://loadtest.ent-wallet-prod.chia.net
                                                                          Activate \
https://minio.fmt.chia.net
https://loadtest.ent-wallet-dev.chia.net
                                                                          Go to Setting
https://minio.sin.chia.net
```

https://app.climatewarehouse.chia.net https://api-dev-testnet11.cw.chia.net

https://chia.net https://dev.chia.net https://developers.chia.net https://dashboard.chia.net https://devs.chia.net https://download.chia.net

https://chia-1pass-scim.chia.net

https://ch21.chia.net

https://console.minio.ldn.chia.net https://console.minio.msp.chia.net https://console.minio.fmt.chia.net

https://help.chia.net

https://api-uat-testnet11.cw.chia.net https://console.minio.sin.chia.net

https://api.vault.chia.net

https://ip.chia.net https://docs.chia.net

https://discord-bot.chia.net

https://docs.ent-wallet-dev.chia.net https://explorer-proxy-api.chia.net https://docs.ent-wallet-prod.chia.net https://dev-testnet11.cw.chia.net

https://faucet.chia.net

https://github-webhooks.chia.net https://github-glue.chia.net

https://k8s.ldn.chia.net

https://portal.chia.net

https://hosted.chia.net

https://k8s.fmt.chia.net https://pypi.chia.net

https://k8s.msp.chia.net

https://roadmap.chia.net

https://minio.ldn.chia.net

https://loadtest.ent-wallet-prod.chia.net

https://minio.fmt.chia.net

https://loadtest.ent-wallet-dev.chia.net

https://minio.sin.chia.net https://minio.msp.chia.net https://matomo.chia.net

https://offercodes.chia.net https://offers-api-sim.chia.net

https://offers-api-sim.chia.net https://downloads.chia.net

https://staging.docs.chia.net https://warrantcanary.chia.net

https://torrents.chia.net

https://testnet11-faucet.chia.net

https://shop.chia.net https://status.chia.net https://xchpay.chia.net https://vault.chia.net

https://uat-testnet11.cw.chia.net

https://www.chia.net

c. IP Discovery

Tool: nslookup: nslookup_result.txt

Code: since we whole file with subdomains, to find IP addresses using "nslookup" we need to make a loop until all the Ips of all the subdomains are found.

```
while read sub; do
echo "Looking up: $sub" >> nslookup_result.txt
nslookup "$sub" | awk '/^Name:|^Address:/' >> nslookup_result.txt
echo "-----" >> nslookup_result.txt
done < livesub results.txt
```

Explanation:

While read sub; do - start of the loop

Echo "Looking up: \$sub">>nslookup_result.txt - print message "Looking up: subdomain" into the file "nslookup_result.txt"

nslookup "\$sub" | awk '/Name: |^Address:/' >> nslookup_result.txt - run the nslookup command echo "_____ ">> nslookup_result.txt - separate one subdomain details from another done < livesub_results.txt - End the loop and continue until the lines in the livesub_results.txt

```
-(kali@kali)-[~/Desktop/chia]
_$ ./nslookup_script.sh
  -(kali⊗kali)-[~/Desktop/chia]
s cat nslookup_result.txt
Looking up: https://app.climatewarehouse.chia.net
Address: 192.168.0.1#53
Looking up: https://api-dev-testnet11.cw.chia.net
Address:
            192.168.0.1#53
Looking up: https://chia.net
            192.168.0.1#53
Looking up: https://dev.chia.net
            192.168.0.1#53
Looking up: https://developers.chia.net
           192.168.0.1#53
Address:
Looking up: https://dashboard.chia.net
            192.168.0.1#53
Address:
Looking up: https://devs.chia.net
Address: 192.168.0.1#53
Looking up: https://download.chia.net
Address: 192.168.0.1#53
Looking up: https://chia-1pass-scim.chia.net
Address: 192.168.0.1#53
Looking up: https://ch21.chia.net
Address: 192.168.0.1#53
Looking up: https://console.minio.ldn.chia.net
          192.168.0.1#53
Looking up: https://console.minio.msp.chia.net
Address: 192.168.0.1#53
Looking up: https://console.minio.fmt.chia.net
Address: 192.168.0.1#53
Looking up: https://help.chia.net
            192.168.0.1#53
Address:
Looking up: https://api-uat-testnet11.cw.chia.net
            192.168.0.1#53
Looking up: https://console.minio.sin.chia.net
              192.168.0.1#53
Address:
```

IP list:

Looking up: https://app.climatewarehouse.chia.net

Address: 192.168.0.1#53

Looking up: https://api-dev-testnet11.cw.chia.net

Address: 192.168.0.1#53

Looking up: https://chia.net Address: 192.168.0.1#53

Looking up: https://dev.chia.net Address: 192.168.0.1#53

Looking up: https://developers.chia.net

Address: 192.168.0.1#53

Looking up: https://dashboard.chia.net

Address: 192.168.0.1#53

Looking up: https://devs.chia.net Address: 192.168.0.1#53

Looking up: https://download.chia.net

Address: 192.168.0.1#53

Looking up: https://chia-1pass-scim.chia.net

Address: 192.168.0.1#53

Looking up: https://ch21.chia.net Address: 192.168.0.1#53

Looking up: https://console.minio.ldn.chia.net

Address: 192.168.0.1#53

Looking up: https://console.minio.msp.chia.net

Address: 192.168.0.1#53

Looking up: https://console.minio.fmt.chia.net

Address: 192.168.0.1#53

Looking up: https://help.chia.net Address: 192.168.0.1#53

Looking up: https://api-uat-testnet11.cw.chia.net

Address: 192.168.0.1#53

Looking up: https://console.minio.sin.chia.net

Address: 192.168.0.1#53

Looking up: https://api.vault.chia.net

Address: 192.168.0.1#53

d. Open Ports

Tool: nmap_result.txt

Code: nmap -sV -A -v -O chia.net -oN nmap_results.txt

Explanation:

nmap - start the tool

-sV - Service and version detection

-A - OS detection, version detection, script scanning

-v - increase verbosity level

-O - Os detection

- chia.net - target website

-oN nmap_results.txt - result in an output text file

```
-(kali®kali)-[~/Desktop/chia]
nmap -sV -A -v -O chia.net -oN nmap_result.txt
Starting Nmap 7.95 ( https://nmap.org ) at 2025-04-27 15:27 +0530
NSE: Loaded 157 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 15:27
Completed NSE at 15:27, 0.00s elapsed
Initiating NSE at 15:27
Completed NSE at 15:27, 0.00s elapsed
Initiating NSE at 15:27
Completed NSE at 15:27, 0.00s elapsed
Initiating Ping Scan at 15:27
Scanning chia.net (104.18.22.108) [4 ports]
Completed Ping Scan at 15:27, 0.03s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 15:27
Completed Parallel DNS resolution of 1 host. at 15:27, 0.09s elapsed
Initiating SYN Stealth Scan at 15:27
Scanning chia.net (104.18.22.108) [1000 ports]
Discovered open port 25/tcp on 104.18.22.108
Discovered open port 8080/tcp on 104.18.22.108
Discovered open port 443/tcp on 104.18.22.108
Discovered open port 80/tcp on 104.18.22.108
Completed SYN Stealth Scan at 15:27, 5.27s elapsed (1000 total ports)
Initiating Service scan at 15:27
Scanning 4 services on chia.net (104.18.22.108)
Completed Service scan at 15:27, 5.14s elapsed (4 services on 1 host) Initiating OS detection (try #1) against chia.net (104.18.22.108)
Retrying OS detection (try #2) against chia.net (104.18.22.108)
Initiating Traceroute at 15:27
Completed Traceroute at 15:27, 0.03s elapsed
Initiating Parallel DNS resolution of 2 hosts. at 15:27
Completed Parallel DNS resolution of 2 hosts. at 15:27, 0.06s elapsed
NSE: Script scanning 104.18.22.108.
Initiating NSE at 15:27
Completed NSE at 15:28, 34.58s elapsed
Initiating NSE at 15:28
Completed NSE at 15:29, 46.80s elapsed
Initiating NSE at 15:29
Completed NSE at 15:29, 0.02s elapsed
Nmap scan report for chia.net (104.18.22.108)
Host is up (0.013s latency).
Other addresses for chia.net (not scanned): 104.18.23.108 2606:4700::6812:166c 2606:4700::6812:176c
Not shown: 996 filtered tcp ports (no-response)
PORT STATE SERVICE VERSION
25/tcp open tcpwrapped
|_smtp-commands: Couldn't establish connection on port 25
80/tcp open tcpwrapped
443/tcp open tcpwrapped
|_http-title: 400 The plain HTTP request was sent to HTTPS port
  ssl-cert: Subject: commonName=chia.net
  Subject Alternative Name: DNS:chia.net
  Issuer: commonName=WE1/organizationName=Google Trust Services/countryName=Gisvate Windows
  Public Key type: ec
                                                                                     Go to Settings to activate Win
  Public Key bits: 256
```

e. Used Technologies

Tool: whatweb - whatweb_results.txt

Code: whatweb -v chia.net > whatweb_result.txt

Explanation:

whatweb - start whatweb tool

-v - verbose

Chia.net - target website

> whatweb_result.txt - file with the output

```
(kali@ kali)-[~/Desktop/chia]
* whatweb -v chia.net -o whatweb_results.txt
WhatWeb report for http://chia.net
Status : 301 Moved Permanently
Title
                : 104.18.23.108
Country :
Summary : HTTPServer[cloudflare], RedirectLocation[https://www.chia.net/], UncommonHeaders[accept-ch,x-nitro-cache,x-nitro-disabled-reason,x-nitro-disabled,x-redirect-by,x-cacheable,x-cache-group,cf-cache-status,cf-ray,alt-svc], X-Powered-By[WP Engine], X-UA-Compatible[IE=edge]
Detected Plugins:
[ HTTPServer ]
HTTP server header string. This plugin also attempts to identify the operating system from the server header.
                                  : cloudflare (from server string)
[ RedirectLocation ]
HTTP Server string location. used with http-status 301 and 302
             String
                                  : https://www.chia.net/ (from location)
[ UncommonHeaders ]
            Nonheaders J
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 : accept-ch,x-nitro-cache,x-nitro-disabled-reason,x-nitro-disabled,x-redirect-by,x-cacheable,x-cache-group,cf-cache-status,cf-ray,alt-svc (from headers)
[ X-Powered-By ]
             X-Powered-By HTTP header
                                : WP Engine (from x-powered-by string)
[ X-UA-Compatible ]

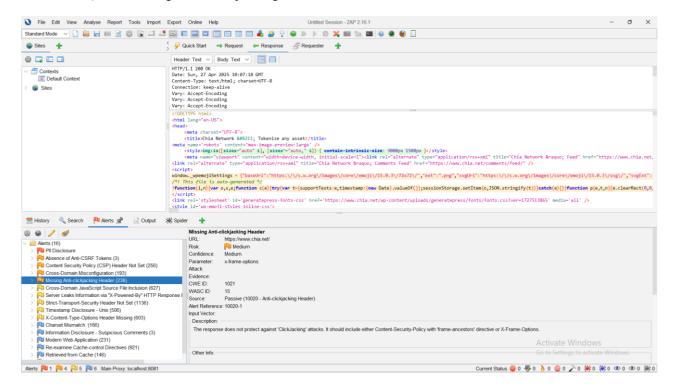
This plugin retrieves the X-UA-Compatible value from the HTTP header and meta http-equiv tag. - More Info: http://msdn.microsoft.com/en-us/library/cc817574.aspx
             String
HTTP Headers:
             HTTP/1.1 301 Moved Permanently
             Date: Sun, 27 Apr 2025 09:56:28 GMT
             Content-Type: text/html; charset=UTF-8
                                                                                                                       Activate Windows
             Transfer-Encoding: chunked
             Connection: close
             x-powered-by: WP Engine
```

3. Step 02: Scanning and vulnerability identification

a. Identify Potential Vulnerabilities

Tool: OWASP ZAP

Vulnerability: Missing Anti-clickjacking Header



Missing Anti-clickjacking Header:

URL: https://www.chia.net/

Risk: Medium

Confidential: Medium Parameter: x-frame-options

Attack: Evidence: CWE ID: 1021 WASC ID: 15

Source: Passive (10020 - Anti-clickjacking Header)

Alert Reference: 10020-1

Input Vector:

- Description: The response does not protect against 'ClickJacking' attacks. It should include either Content-Security-Policy with 'frame-ancestors' directive or X-Frame-Options.
- Other Info:
- Solution: Modern Web browsers support the Content-Security-Policy and X-Frame-Options HTTP headers. Ensure one of them is set on all web pages returned by your site/app. If you expect the page to be framed only by pages on your server (e.g. it's part of a FRAMESET) then you'll want to use SAMEORIGIN, otherwise if you never expect the page to be framed, you should use DENY. Alternatively consider implementing Content Security Policy's "frame-ancestors" directive.
- $\bullet \quad Reference: \ https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options$
- Alert Tags:
 - o WSTG-v42-CLNT-09: https://owasp.org/www-project-web-security-testing-guide/v42/4-web-Application Security Testing/11-Client-side Testing/09-Testing for Clickjacking
 - o OWASP_2021_A05: https://owasp.org/Top10/A05 2021-Security Misconfiguration/
 - OWASP_2017_A06: https://owasp.org/www-project-top-ten/2017/A6_2017-Security Misconfiguration.html
 - o CWE-1021: https://cwe.mitre.org/data/definitions/1021.html

b. Missing Anti-Clickjacking Header

Anti-clickjacking headers are security mechanisms (like X-Frame-Options and Content-Security-Policy: frame-ancestors) used to prevent a website from being embedded inside an iframe on another domain. Without these protections, attackers can perform clickjacking attacks, tricking users into clicking on invisible or disguised elements that perform unintended actions, such as transferring money, changing settings, or granting permissions.

Cause of Missing Anti-clickjacking Header website:

- Failure to configure server responses with X-Frame-Options or CSP: frame-ancestors
- Outdated development practices relying only on client-side JavaScript for protection
- Misunderstanding or ignoring the threat of clickjacking during development
- Lack of security policies enforced in the web application infrastructure
- Using outdated server configurations or CMS platforms without frame protection

Propositions to Mitigation or Fix:

- Set X-Frame-Options Header: Use DENY to block all framing, or SAMEORIGIN to allow only from the same origin
- Use Content Security Policy (CSP) frame-ancestors Directive: A more flexible and modern approach to control allowed framing domains
- Avoid JavaScript-only Frame Busting: Rely on HTTP headers instead of client-side scripts for strong protection
- Secure Critical Pages First: Ensure login, payment, and admin panels are protected with anticlickjacking headers
- Test Regularly: Use automated tools to detect missing or misconfigured anti-clickjacking headers
- Educate Development Teams: Train developers on the importance of proper frame protections during the secure coding lifecycle

4. Step 03: Exploitation and Validation

Request:

```
GET https://www.chia.net/ HTTP/1.1
host: www.chia.net
user-agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/131.0.0.0 Safari/537.36
pragma: no-cache
cache-control: no-cache
```

Response:

```
HTTP/l.1 200 OK
Date: Sun, 27 Apr 2025 10:07:18 GMT
Content-Type: text/html; charset-UTF-8
Connection: Keep-alive
Vary: Accept-Encoding
Vary: Accept-Encoding
Vary: Accept-Encoding
Vary: Accept-Encoding

**IDOCTYPE html>
**Chtml lang="en-US">
**Chtml lang="en-US"
**
```

5. Step 04: Mitigation / Fix

Immediate Mitigation Actions:

- 1. Deny all framing [X-Frame-Options: DENY]
- 2. Allow only same-origin framing
- 3. Block all framing or allow specific domains.

Long Term Prevention:

- 1. Use tools like *SecurityHeaders.com* or *OWASP ZAP* to scan for missing headers.
- 2. CI/CD integration.