Sri Lanka Institute of Information Technology

Specialized in Cyber Security

Year 2, Semester 2

IE2062 – Web Security

Bug Bounty – Report 05

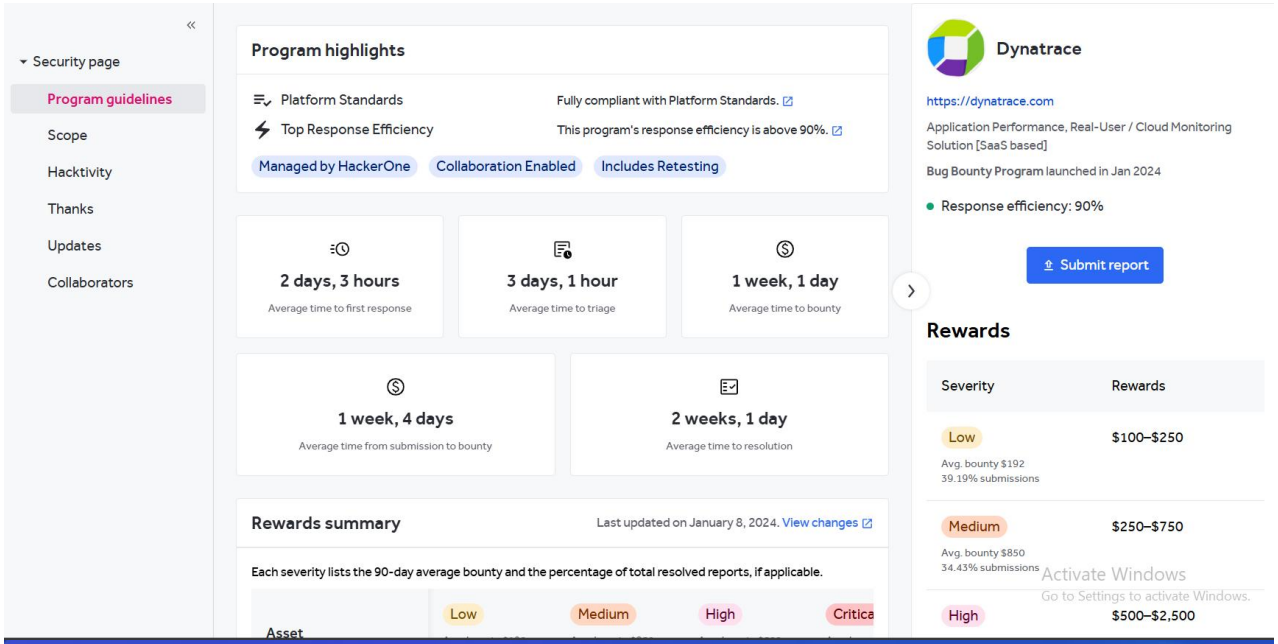
Student ID No.	Name
IT23136106	D.M.M. Pasindu Supushmika

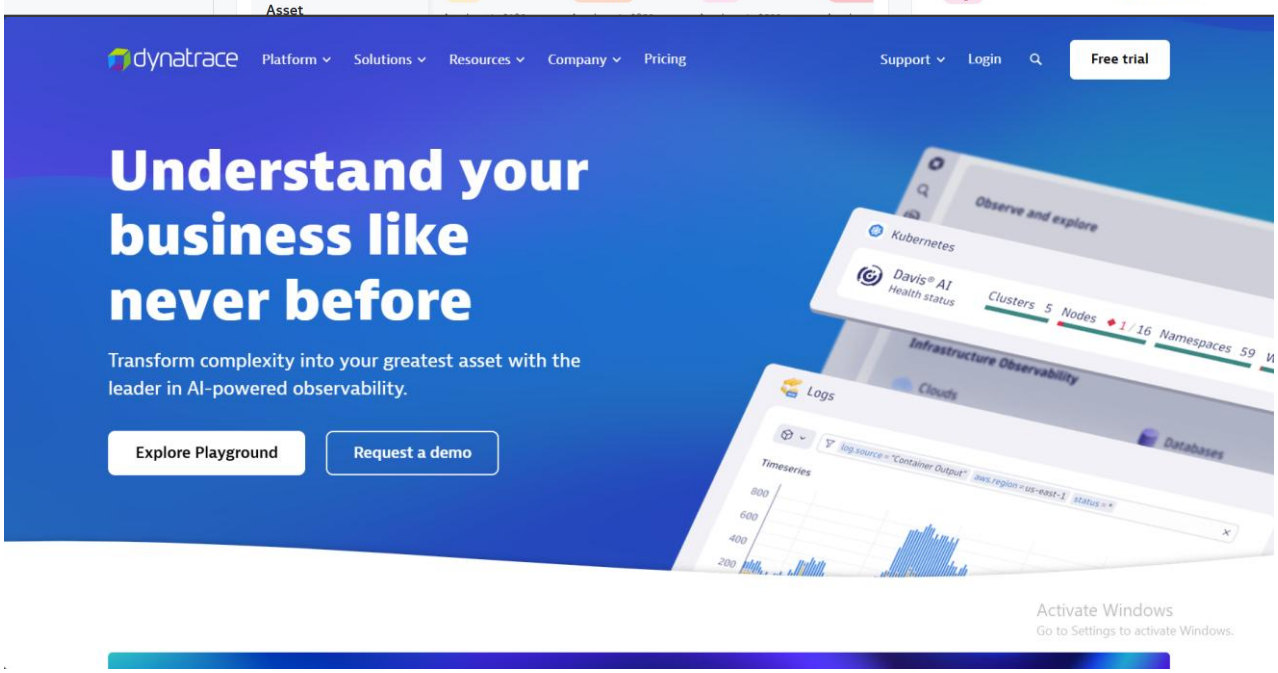
Table of Contents

1. Website Overview

[Dynatrace | Understand your business like never before]

HackerOne Link: [Dynatrace | Bug Bounty Program Policy | HackerOne]



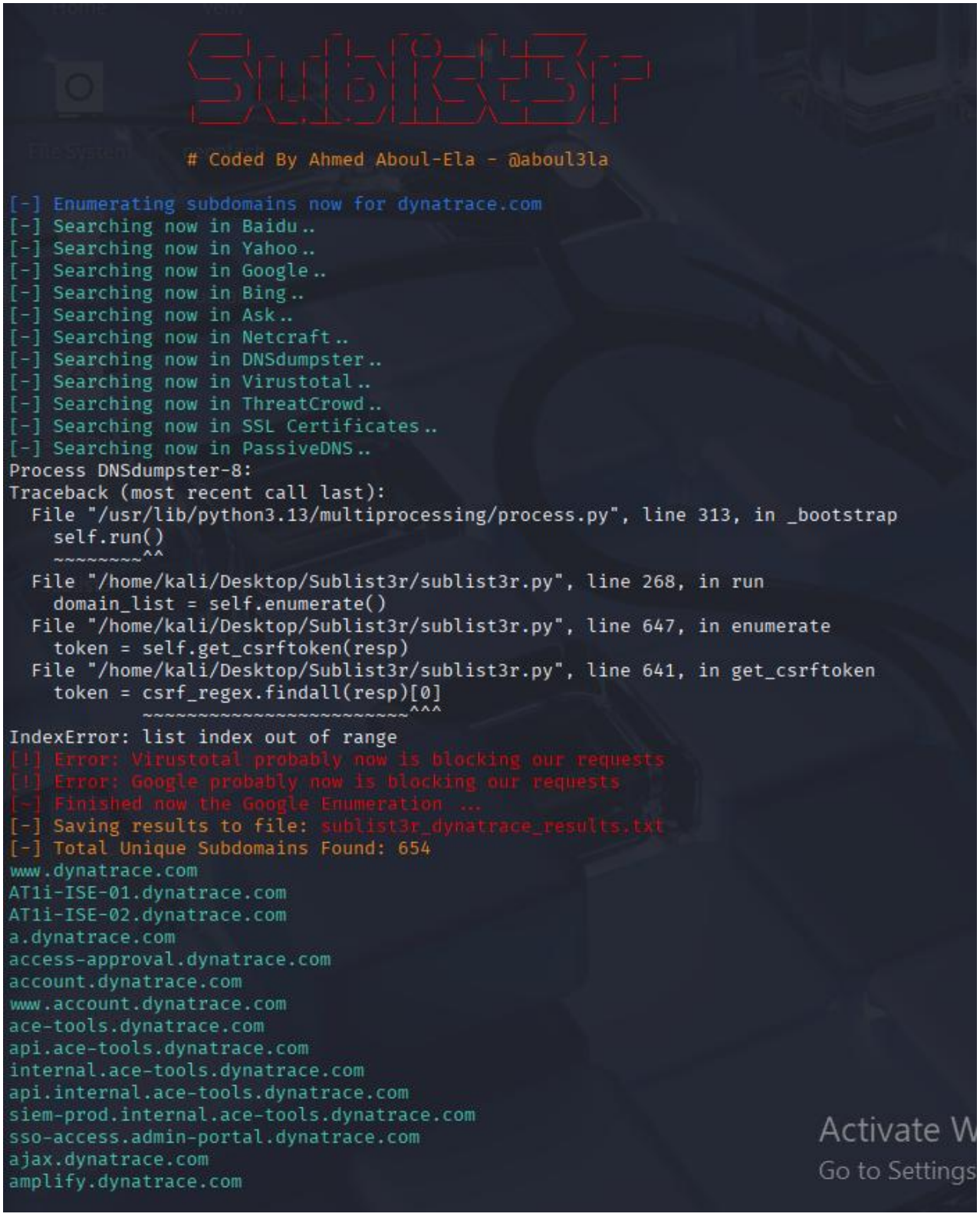


Step 01: Gather Information.

a. Sub-domain Discovery

i. Sublist3r: sublist3r_dynatrace_results.txt

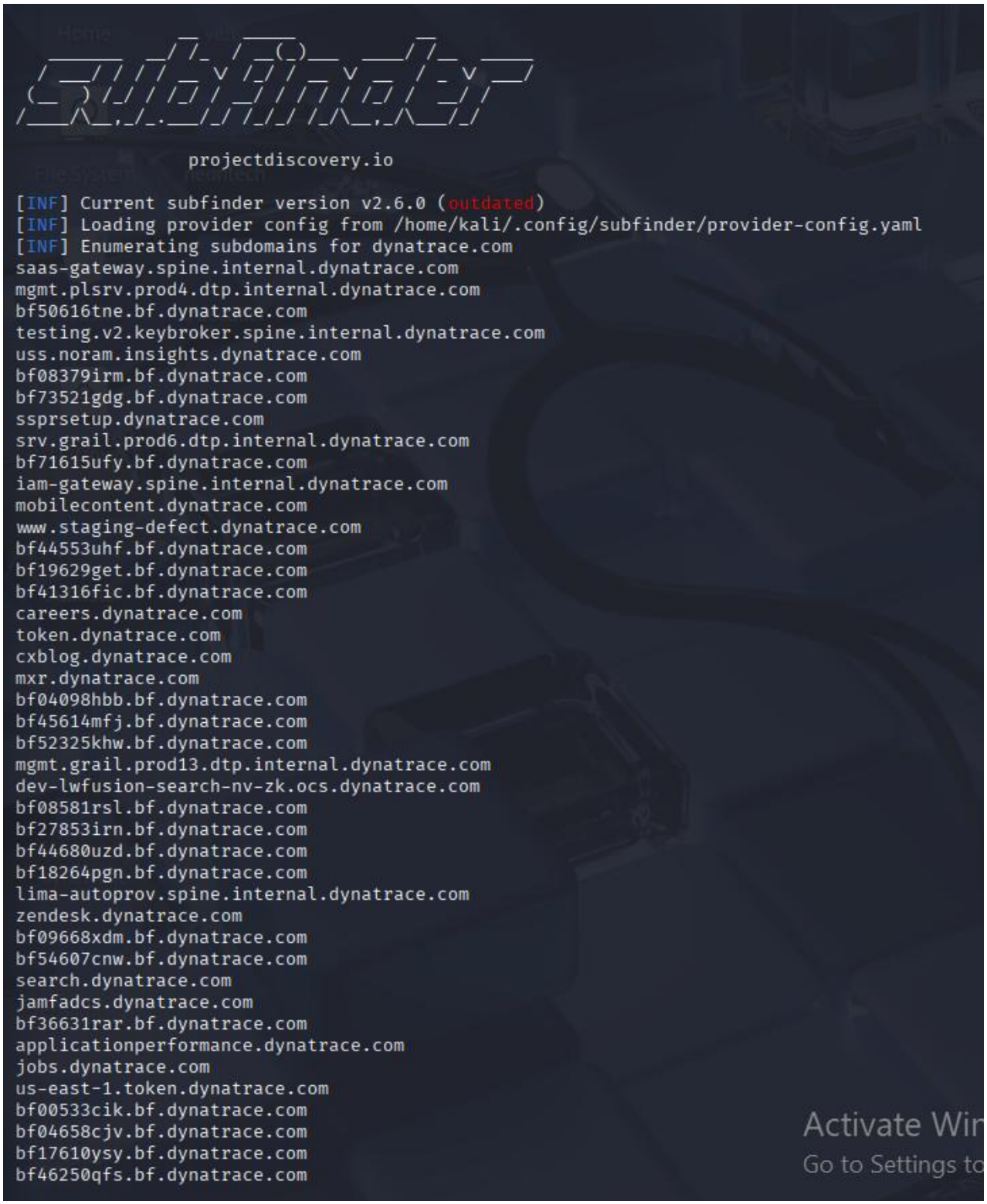
Tool **:** Sublist3r
Code **:** python3 sublist3r.py -d dynatrace.com -o sublist3r_dynatrace_results.txt
Explanation:
python3 sublist3r.py - Run the script using python
-d dynatrace.com - Target domain
-o sublist3r_dynatrace_results.txt – Output file where the result is saved



www.dynatrace.com
AT1i-ISE-01.dynatrace.com
AT1i-ISE-02.dynatrace.com
a.dynatrace.com
access-approval.dynatrace.com
account.dynatrace.com
www.account.dynatrace.com
ace-tools.dynatrace.com
api.ace-tools.dynatrace.com
internal.ace-tools.dynatrace.com
api.internal.ace-tools.dynatrace.com
siem-prod.internal.ace-tools.dynatrace.com
sso-access.admin-portal.dynatrace.com
ajax.dynatrace.com
amplify.dynatrace.com
answers.dynatrace.com
www.answers.dynatrace.com
apac-sbc.dynatrace.com
www.apac-sbc.dynatrace.com
api.dynatrace.com
apm-confluence.dynatrace.com
apmblog.dynatrace.com
apmu.dynatrace.com
www.apmu.dynatrace.com
apmu-dev.dynatrace.com
www.apmu-dev.dynatrace.com
apmu-vlabs.dynatrace.com
www.apmu-vlabs.dynatrace.com
apmwiki.dynatrace.com
applicationperformance.dynatrace.com
appmon-webservice.dynatrace.com
apps.dynatrace.com
apeks-prod1-us-east-1.apps.dynatrace.com
apeks-prod2-eu-west-1.apps.dynatrace.com
assets.dynatrace.com
assistant.dynatrace.com
www.assistant.dynatrace.com
bi.assistant.dynatrace.com
autodiscover.dynatrace.com
awarenesstraining.dynatrace.com
jobs.barcelona.dynatrace.com
barista.dynatrace.com
benchmarks.dynatrace.com
gdn-kban-test.bf.dynatrace.com
kbannach-test.bf.dynatrace.com
bi.dynatrace.com
tableau.bi.dynatrace.com
emea.tableau.bi.dynatrace.com
emeap.tableau.bi.dynatrace.com
noram.tableau.bi.dynatrace.com
noramp.tableau.bi.dynatrace.com
pub.tableau.bi.dynatrace.com
biemea.dynatrace.com
bitsight.dynatrace.com
blog.dynatrace.com
book.dynatrace.com

ii. Subfindre: [subfinder_result_dynatrace.txt]

Tool : Subfinder
Code : subfinder -d Dynatrace.com -o subfinder_result_dynatrace.txt
Explanation:
subfinder - run subfinder too
l -d dynatrace.com - Mention the target website
-o subfinder_result.txt – Mention the output file



saas-gateway.spine.internal.dynatrace.com
mgmt.plsrv.prod4.dtp.internal.dynatrace.com
bf50616tne.bf.dynatrace.com
testing.v2.keybroker.spine.internal.dynatrace.com
uss.noram.insights.dynatrace.com
bf08379irm.bf.dynatrace.com
bf73521gdg.bf.dynatrace.com
ssprsetup.dynatrace.com
srv.grail.prod6.dtp.internal.dynatrace.com
bf71615ufy.bf.dynatrace.com
iam-gateway.spine.internal.dynatrace.com
mobilecontent.dynatrace.com
www.staging-defect.dynatrace.com
bf44553uhf.bf.dynatrace.com
bf19629get.bf.dynatrace.com
bf41316fic.bf.dynatrace.com
careers.dynatrace.com
token.dynatrace.com
cxblog.dynatrace.com
mxr.dynatrace.com
bf04098hbb.bf.dynatrace.com
bf45614mfj.bf.dynatrace.com
bf52325khw.bf.dynatrace.com
mgmt.grail.prod13.dtp.internal.dynatrace.com
dev-lwfusion-search-nv-zk.ocs.dynatrace.com
bf08581rsl.bf.dynatrace.com
bf27853irn.bf.dynatrace.com
bf44680uzd.bf.dynatrace.com
bf18264pgn.bf.dynatrace.com
lima-autoprov.spine.internal.dynatrace.com
zendesk.dynatrace.com
bf09668xdm.bf.dynatrace.com
bf54607cnw.bf.dynatrace.com
search.dynatrace.com
jamfadcs.dynatrace.com
bf36631rar.bf.dynatrace.com
applicationperformance.dynatrace.com
jobs.dynatrace.com
us-east-1.token.dynatrace.com
bf00533cik.bf.dynatrace.com
bf04658cjv.bf.dynatrace.com
bf17610ysy.bf.dynatrace.com
bf46250qfs.bf.dynatrace.com
hub-api.spine.internal.dynatrace.com
srv.apigw.prod5.dtp.dynatrace.com
umsbcar06.dynatrace.com
api.dynatrace.com
bf81540srt.bf.dynatrace.com
easytravel.demo.dynatrace.com
benchmarks.dynatrace.com
files.dynatrace.com
siem-prod.internal.ace-tools.dynatrace.com

b. Live Subdomain Discovery

Tool **:** httpx: livesub_results.txt

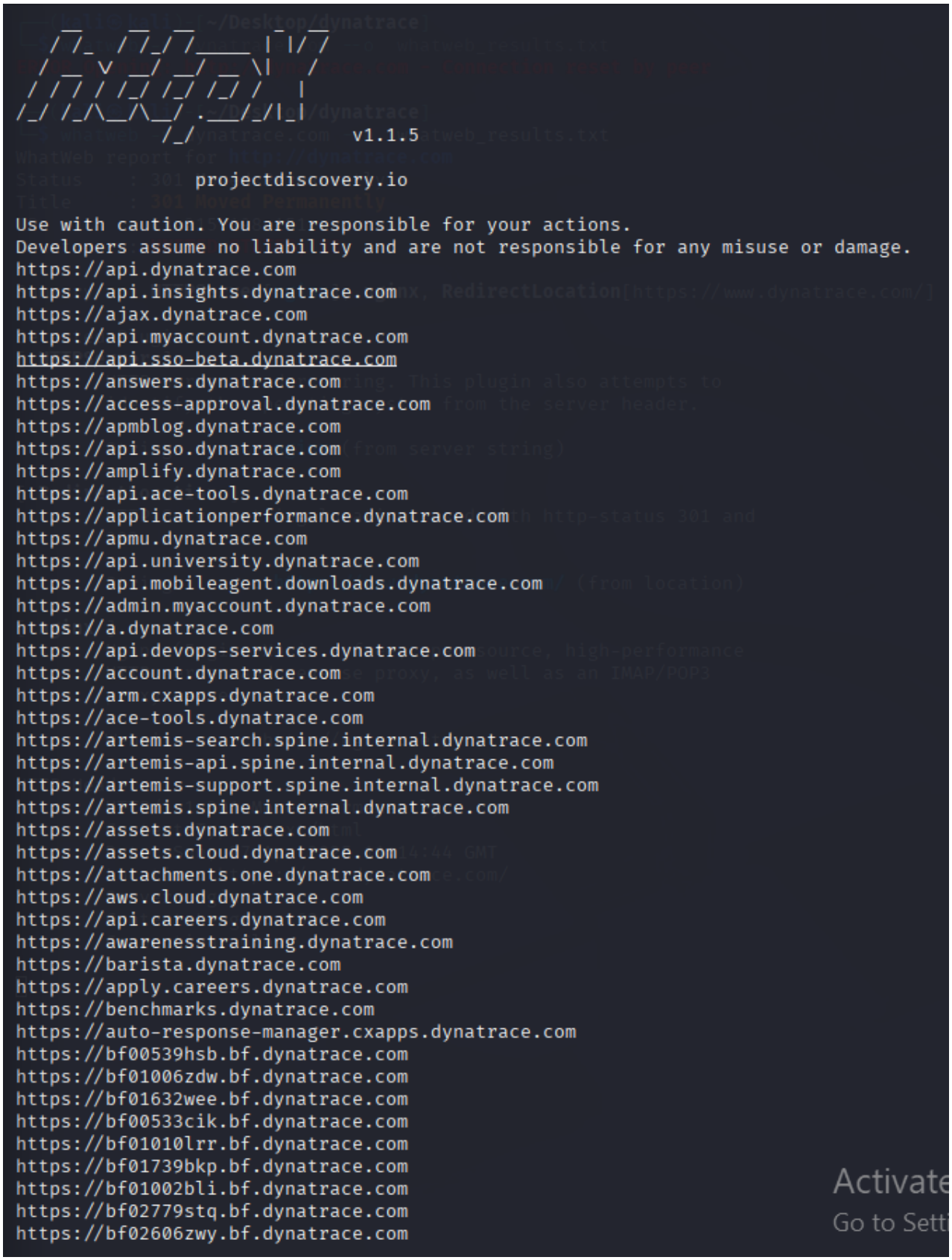
Code **:** httpx-toolkit -l subfinder_result_dynatrace.txt -o livesub_results.txt

Explanation:

httpx-toolkit - run the httpx tool

-l subfinder_result_dynatrace.txt – mention the file containing input

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



https://api.dynatrace.com
https://api.insights.dynatrace.com
https://ajax.dynatrace.com
https://api.myaccount.dynatrace.com
https://api.sso-beta.dynatrace.com
https://answers.dynatrace.com
https://access-approval.dynatrace.com
https://apmblog.dynatrace.com
https://api.sso.dynatrace.com
https://amplify.dynatrace.com
https://api.ace-tools.dynatrace.com
https://applicationperformance.dynatrace.com
https://apmu.dynatrace.com
https://api.university.dynatrace.com
https://api.mobileagent.downloads.dynatrace.com
https://admin.myaccount.dynatrace.com
https://a.dynatrace.com
https://api.devops-services.dynatrace.com
https://account.dynatrace.com
https://arm.cxapps.dynatrace.com
https://ace-tools.dynatrace.com
https://artemis-search.spine.internal.dynatrace.com
https://artemis-api.spine.internal.dynatrace.com
https://artemis-support.spine.internal.dynatrace.com
https://artemis.spine.internal.dynatrace.com
https://assets.dynatrace.com
https://assets.cloud.dynatrace.com
https://attachments.one.dynatrace.com
https://aws.cloud.dynatrace.com
https://api.careers.dynatrace.com
https://awarenesstraining.dynatrace.com
https://barista.dynatrace.com
https://apply.careers.dynatrace.com
https://benchmarks.dynatrace.com
https://auto-response-manager.cxapps.dynatrace.com
https://bf00539hsb.bf.dynatrace.com
https://bf01006zdw.bf.dynatrace.com
https://bf01632wee.bf.dynatrace.com
https://bf00533cik.bf.dynatrace.com
https://bf01010lrr.bf.dynatrace.com
https://bf01739bkp.bf.dynatrace.com
https://bf01002bli.bf.dynatrace.com
https://bf02779stq.bf.dynatrace.com
https://bf02606zwy.bf.dynatrace.com
https://bf01868vpr.bf.dynatrace.com
https://bf02182chf.bf.dynatrace.com
https://bf02275nvn.bf.dynatrace.com
https://bf03334wlw.bf.dynatrace.com
https://bf03331hna.bf.dynatrace.com
https://bf02454vkj.bf.dynatrace.com
https://au.step.dynatrace.com
https://bf03069gjb.bf.dynatrace.com
https://bf03260rex.bf.dynatrace.com
https://bf03979hmm.bf.dynatrace.com
https://bf04011nrx.bf.dynatrace.com
https://bf03584esi.bf.dynatrace.com
https://bf04658cjv.bf.dynatrace.com
https://bf04098hbb.bf.dynatrace.com

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">>ips.txt - print message "Looking up: subdomain" into the file "ips.txt"

nslookup "$sub" | awk '/^Name:|^Address:/' >> ips.txt - run the nslookup command

echo "_____" >> ips.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/dynatrace]
└─$ ./nslookup_script.sh

┌──(kali㉿kali)-[~/Desktop/dynatrace]
└─$ cat nslookup_result.txt
Looking up: https://api.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.insights.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://ajax.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.myaccount.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.sso-beta.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://answers.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://access-approval.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://apmblog.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.sso.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://amplify.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.ace-tools.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://applicationperformance.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://apmu.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.university.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://api.mobileagent.downloads.dynatrace.com
Address:        192.168.0.1#53
------------------------
Looking up: https://admin.myaccount.dynatrace.com
Address:        192.168.0.1#53
------------------------
```

IP list:

Looking up: https://api.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.insights.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://ajax.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.myaccount.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.sso-beta.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://answers.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://access-approval.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://apmblog.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.sso.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://amplify.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.ace-tools.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://applicationperformance.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://apmu.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.university.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://api.mobileagent.downloads.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://admin.myaccount.dynatrace.com
Address: 192.168.0.1#53

Looking up: https://a.dynatrace.com
Address: 192.168.0.1#53
---

d. Open Ports

Tool: nmap: nmap_result.txt

Code: nmap -sV -A -v -O dynatrace.com -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
- dynatrace.com - target website
-oN nmap_results.txt - result in an output text file

```
┌──(kali㉿kali)-[~/Desktop/dynatrace]
└─$ nmap -sV -A -v -O dynatrace.com -oN nmap_result.txt
Starting Nmap 7.95 ( https://nmap.org ) at 2025-04-27 16:53 +0530
NSE: Loaded 157 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 16:53
Completed NSE at 16:53, 0.00s elapsed
Initiating NSE at 16:53
Completed NSE at 16:53, 0.00s elapsed
Initiating NSE at 16:53
Completed NSE at 16:53, 0.00s elapsed
Initiating Ping Scan at 16:53
Scanning dynatrace.com (13.215.198.151) [4 ports]
Completed Ping Scan at 16:53, 0.07s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 16:53
Completed Parallel DNS resolution of 1 host. at 16:53, 0.10s elapsed
Initiating SYN Stealth Scan at 16:53
Scanning dynatrace.com (13.215.198.151) [1000 ports]
Discovered open port 443/tcp on 13.215.198.151
Discovered open port 25/tcp on 13.215.198.151
Discovered open port 80/tcp on 13.215.198.151
Completed SYN Stealth Scan at 16:53, 5.88s elapsed (1000 total ports)
Initiating Service scan at 16:53
Scanning 3 services on dynatrace.com (13.215.198.151)
Completed Service scan at 16:53, 5.01s elapsed (3 services on 1 host)
Initiating OS detection (try #1) against dynatrace.com (13.215.198.151)
Retrying OS detection (try #2) against dynatrace.com (13.215.198.151)
Initiating Traceroute at 16:53
Completed Traceroute at 16:53, 0.02s elapsed
Initiating Parallel DNS resolution of 1 host. at 16:53
Completed Parallel DNS resolution of 1 host. at 16:53, 0.06s elapsed
NSE: Script scanning 13.215.198.151.
Initiating NSE at 16:53
Completed NSE at 16:54, 18.57s elapsed
Initiating NSE at 16:54
Completed NSE at 16:54, 32.70s elapsed
Initiating NSE at 16:54
Completed NSE at 16:54, 0.01s elapsed
Nmap scan report for dynatrace.com (13.215.198.151)
Host is up (0.0088s latency).
Other addresses for dynatrace.com (not scanned): 18.138.187.28
rDNS record for 13.215.198.151: ec2-13-215-198-151.ap-southeast-1.compute.amazonaws.com
Not shown: 997 filtered tcp ports (no-response)
PORT    STATE SERVICE    VERSION
25/tcp  open  tcpwrapped
|_smtp-commands: SMTP EHLO dynatrace.com: failed to receive data: connection closed
80/tcp  open  tcpwrapped
443/tcp open  tcpwrapped
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Aggressive OS guesses: AT&T BGW210 voice gateway (95%), Oracle Virtualbox Slirp NAT bridge (93%), QEMU user mode net
work gateway (92%), ZyXEL Prestige 2602R-D1A ADSL router (ZyNOS 3.40) (92%), Allied Telesyn AT-AR410 router (90%), G
NU Hurd 0.3 (89%), Cisco 1812, 3640, or 3700 router (IOS 12.4) (89%), Cisco Catalyst 3560 or 6500-series switch (IOS
 12.1 - 12.2) (89%), Kodak ESP C310 printer (88%), Kodak ESP 5210 printer (88%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 2 hops
```

e. Used Technologies

Tool: whatweb - [whatweb_results.txt]

Code: whatweb -v d*ynatrace.com* > whatweb_result.txt

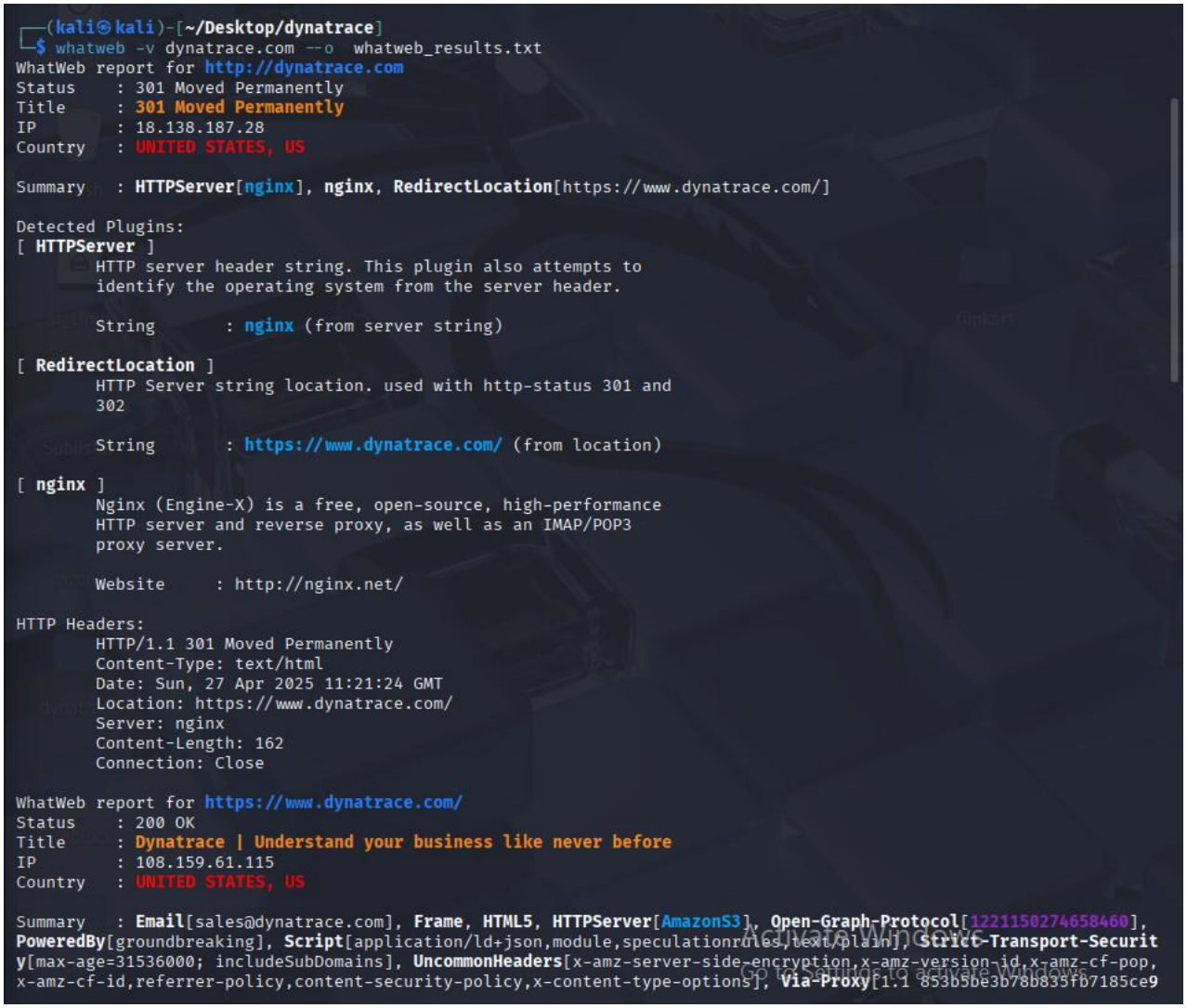
Explanation:

whatweb - start whatweb tool

-v - verbose

dynatrace.com - target website

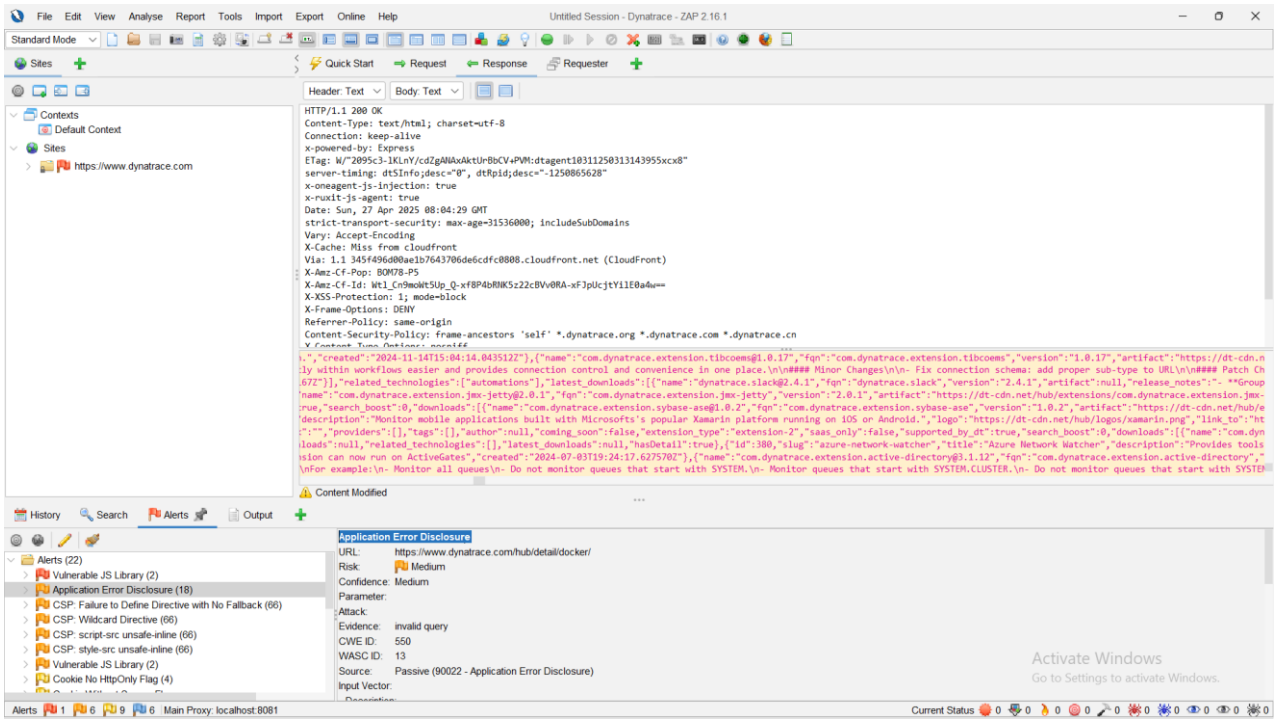
> whatweb_result.txt - file with the output



3. Step 02: Scanning and vulnerability identification

a. Identify Potential Vulnerabilities

Tool : OWASP ZAP
Vulnerability : Application Error Disclosure



Application Error Disclosure:

URL: https://www.dynatrace.com/hub/detail/docker/
Risk: Medium
Confidential: Medium
Parameter:
Attack:
Evidence: invalid query
CWE ID: 550
WASC ID: 13
Source: Passive (90022 - Application Error Disclosure)
Input Vector:

- Description: This page contains an error/warning message that may disclose sensitive information like the location of the file that produced the unhandled exception. This information can be used to launch further attacks against the web application. The alert could be a false positive if the error message is found inside a documentation page.
- Other Info:
- Solution: Review the source code of this page. Implement custom error pages. Consider implementing a mechanism to provide a unique error reference/identifier to the client (browser) while logging the details on the server side and not exposing them to the user.
- Reference: https://openwall.info/wiki/john/sample-hashes
- Alert Tags:
    - WSTG-v42-ERRH-02: https://owasp.org/www-project-web-security-testing-guide/v42/4-Web_Application_Security_Testing/08-Testing_for_Error_Handling/02-Testing_for_Stack_Traces
    - WSTG-v42-ERRH-01: https://owasp.org/www-project-web-security-testing-guide/v42/4-Web_Application_Security_Testing/08-Testing_for_Error_Handling/01-Testing_For_Improper_Error_Handling
    - OWASP_2021_A05: https://owasp.org/Top10/A05_2021-Security_Misconfiguration/
    - CWE-550: https://cwe.mitre.org/data/definitions/550.html
    - OWASP_2017_A06: https://owasp.org/www-project-top-ten/2017/A6_2017-Security_Misconfiguration.html

b. Application Error Disclosure

Application Error Disclosure occurs when a web application displays detailed error messages to users, revealing sensitive information such as server paths, database details, software versions, or even stack traces. These disclosures can give attackers valuable insight into the internal workings of the system, helping them craft targeted attacks like SQL injection, command injection, or remote code execution.

Cause of Application Error Disclosure in website:

- Displaying verbose error messages directly to users in production environments
- Lack of proper error handling or exception management
- Misconfigured servers or frameworks that expose detailed debugging information
- Not sanitizing error outputs that include internal variables or code snippets
- Enabling detailed error reporting settings (like display_errors in PHP) in production
- Trusting third-party libraries that might expose errors without proper wrapping

Propositions to Mitigation or Fix:

- Display Generic Error Messages: Always show users a simple, non-technical error message like "An unexpected error occurred."
- Log Detailed Errors Internally: Send full stack traces and debugging information to secure server-side logs only
- Configure Servers for Production: Disable verbose error reporting and debug modes in production environments
- Implement Centralized Error Handling: Use global exception handlers that sanitize and control all error outputs
- Perform Regular Code Reviews: Check for unhandled exceptions or debug outputs before deploying code
- Audit Third-party Libraries: Ensure that external components and frameworks do not leak sensitive errors
- Conduct Security Testing: Perform vulnerability assessments to check for accidental error disclosures

4. Step 03: Exploitation and Validation

Request:

```
GET https://www.dynatrace.com/hub/detail/docker/ HTTP/1.1
host: www.dynatrace.com
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
referer: https://www.dynatrace.com/solutions/application-monitoring/
Cookie: dtCookie=v_4_srv_4_sn_CF337F7503532B86DDB17F6E6FFADCCF_perc_100000_ol_0_mul_1_app-3A4a0edc04e81e5e72_1_app-3A366f9fc79607e4b1_1_rcs-3Acss_0
```

Response:

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=utf-8
Connection: keep-alive
x-powered-by: Express
ETag: W/"2095c3-1KLnY/cdZgANAxAktUrBbCV+PVM:dtagent10311250313143955xcx8"
server-timing: dtSInfo;desc="0", dtRpid;desc="-1250865628"
x-oneagent-js-injection: true
x-ruxit-js-agent: true
Date: Sun, 27 Apr 2025 08:04:29 GMT
strict-transport-security: max-age=31536000; includeSubDomains
Vary: Accept-Encoding
X-Cache: Miss from cloudfront
Via: 1.1 345f496d00ae1b7643706de6cdfc0808.cloudfront.net (CloudFront)
X-Amz-Cf-Pop: BOM78-P5
X-Amz-Cf-Id: Wtl_Cn9moWt5Up_Q-xf8P4bRNK5z22cBVv0RA-xFJpUcjtYilE0a4w==
X-XSS-Protection: 1; mode=block
X-Frame-Options: DENY
Referrer-Policy: same-origin
Content-Security-Policy: frame-ancestors 'self' *.dynatrace.org *.dynatrace.com *.dynatrace.cn
X-Content-Type-Options: nosniff
Vary: Origin
content-length: 2136438
```


```
.","created":"2024-11-14T15:04:14.043512Z"},{"name":"com.dynatrace.extension.tibcoems@1.0.17","fqn":"com.dynatrace.extension.tibcoems","version":"1.0.17","artifact":"https://dt-cdn.n
:ly within workflows easier and provides connection control and convenience in one place.\n\n#### Minor Changes\n\n- Fix connection schema: add proper sub-type to URL\n\n#### Patch Ch
.67Z"}],"related_technologies":["automations"],"latest_downloads":[{"name":"dynatrace.slack@2.4.1","fqn":"dynatrace.slack","version":"2.4.1","artifact":null,"release_notes":"- **Group
'name":"com.dynatrace.extension.jmx-jetty@2.0.1","fqn":"com.dynatrace.extension.jmx-jetty","version":"2.0.1","artifact":"https://dt-cdn.net/hub/extensions/com.dynatrace.extension.jmx-
:rue,"search_boost":0,"downloads":[{"name":"com.dynatrace.extension.sybase-ase@1.0.2","fqn":"com.dynatrace.extension.sybase-ase","version":"1.0.2","artifact":"https://dt-cdn.net/hub/e
'description":"Monitor mobile applications built with Microsofts's popular Xamarin platform running on iOS or Android.","logo":"https://dt-cdn.net/hub/logos/xamarin.png","link_to":"ht
:"","providers":[],"tags":[],"author":null,"coming_soon":false,"extension_type":"extension-2","saas_only":false,"supported_by_dt":true,"search_boost":0,"downloads":[{"name":"com.dyn
loads":null,"related_technologies":[],"latest_downloads":null,"hasDetail":true},{"id":380,"slug":"azure-network-watcher","title":"Azure Network Watcher","description":"Provides tools
sion can now run on ActiveGates","created":"2024-07-03T19:24:17.627570Z"},{"name":"com.dynatrace.extension.active-directory@3.1.12","fqn":"com.dynatrace.extension.active-directory","
\nFor example:\n- Monitor all queues\n- Do not monitor queues that start with SYSTEM.\n- Monitor queues that start with SYSTEM.CLUSTER.\n- Do not monitor queues that start with SYSTE
hours\r\n- 5a61660: Adjust process data query to fetch the latest CPU and memory values correctly\r\n- f6377b4: Remove chart group tab from network device preview\r\n- 38a40ce: Fix i
count\n\n### 1.7.0\n\n#### Minor Changes\n\n- 67cc591: Use the availability state to check if a process is active\n- 546e5c7: Introduce an important property in the header and a char
osoft365.connector@1.5.0","fqn":"dynatrace.microsoft365.connector","version":"1.5.0","artifact":null,"release_notes":"- Removed message truncation after 5000 characters","created":"2
.p/shortlink/linux-hub","providers":["oa"],"tags":["cloud","infrastructure","linux","server-monitoring"],"author":null,"coming_soon":false,"extension_type":null,"saas_only":false,"sup
filtering monitored entities.","created":"2024-02-26T11:42:12.971559Z"},{"name":"com.dynatrace.extension.hyperv@2.0.10","fqn":"com.dynatrace.extension.hyperv","version":"2.0.10","ar
"eol","file monitoring","folder monitoring","governance","job monitoring","port scan","reporting","SSL certification monitoring","topology","vulnerabilities"],"author":"11","coming_s
:["aks","azure kubernetes service","cloud","container","serverless"],"author":null,"coming_soon":false,"extension_type":null,"saas_only":false,"supported_by_dt":true,"search_boost":
```

5. Step 04: Mitigation / Fix

Immediate Mitigation Actions:
1. Replace raw errors with generic messages.
2. Disable debug mode in production.
3. Configure web servers to show user-friendly pages.

Long Term Prevention:
1. Static analysis using SonarQube/GitHub CodeQL to detect debug mode in code.
2. Use security headers to block MIME-based leaks