

# Sri Lanka Institute of Information Technology



Specialized in Cyber Security

Year 2, Semester 2

IE2062 – Web Security

Bug Bounty – Report 03

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1. Website Overview

Varonis – Data Security Platform

HackerOne Link: [Varonis](#) | [Bug Bounty Program Policy](#) | [HackerOne](#)

Security page

Program guidelines

Scope

Hackactivity

Thanks

Updates

Collaborators

Program highlights

Open Scope

Rewards reports for all owned assets based on impact, even if not listed in scope.

Fast Payment

Ensures payment within 1 month of receiving a vulnerability report.

Platform Standards

Fully compliant with Platform Standards.

Top Response Efficiency

This program's response efficiency is above 90%.

Managed by HackerOne

Collaboration Enabled

Includes Retesting

1 day, 7 hours

Average time to first response

2 days, 3 hours

Average time to triage

0

Average time to bounty

2 days, 3 hours

Average time from submission to bounty

N/A

Average time to resolution

Rewards summary

Last updated on February 21, 2025. [View changes](#)

Varonis

<https://www.varonis.com/>

Varonis is a data security leader. Our Data Security Platform discovers and classifies critical data, removes exposures, and detects threats.

Bug Bounty Program launched in May 2024

Response efficiency: 93%

Submit report

Rewards

Severity	Rewards
Low	\$50-\$150
Avg. bounty n/a	
Medium	\$250-\$500
Avg. bounty \$400	
High	\$1,000-\$1,500
Avg. bounty \$500	

VARONIS

PLATFORMSOLUTIONSCOVERAGECOMPANYRESOURCES

Q🌐Demo

A LEADER IN THE FORRESTER WAVE™ DATA SECURITY PLATFORMS

Varonis' vision of harnessing deep data insights to automate remediation for data security outcomes stands out.

Cloud-native

Automated

Battle-tested

Access report

Book a demo

THE FORRESTER WAVE™

Data Security Platforms

Q1 2025

Leaders

Strong Performers

Contenders

Watchdogs

Varonis

FORRESTER

WAVE LEADER 2025

Data Security Platforms

Activate Windows  
Go to Settings to activate Windows.

## 2. Step 01: Gather Information.

### a. Sub-domain Discovery

#### i. Sublist3r: [Sublist3r Results.txt](#)

**Tool** : Sublist3r

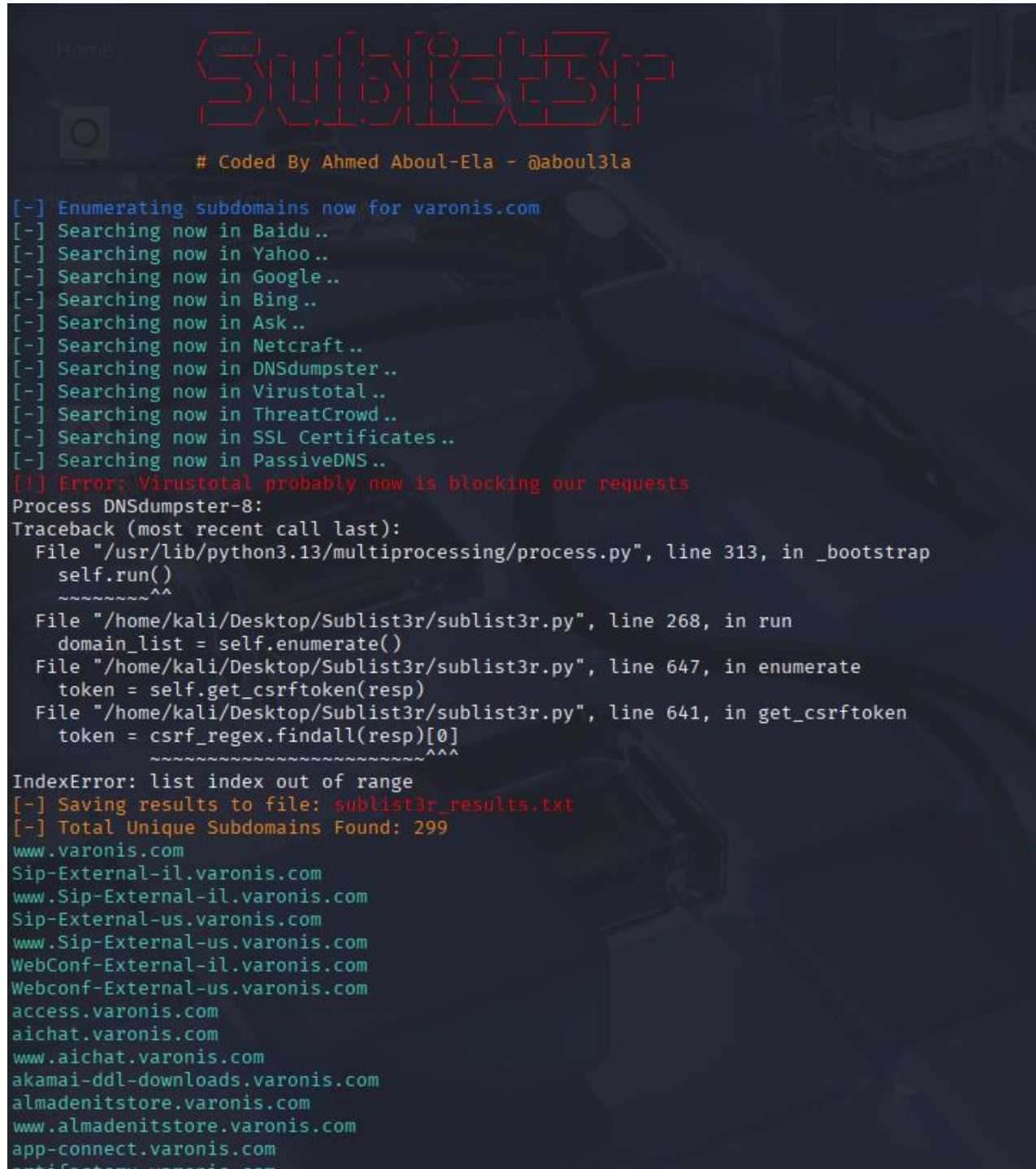
**Code** : python3 sublist3r.py -d varonis.com -o sublist3r\_results.txt

**Explanation:**

*python3 sublist3r.py* - Run the script using python

*-d varonis.com* - Target domain

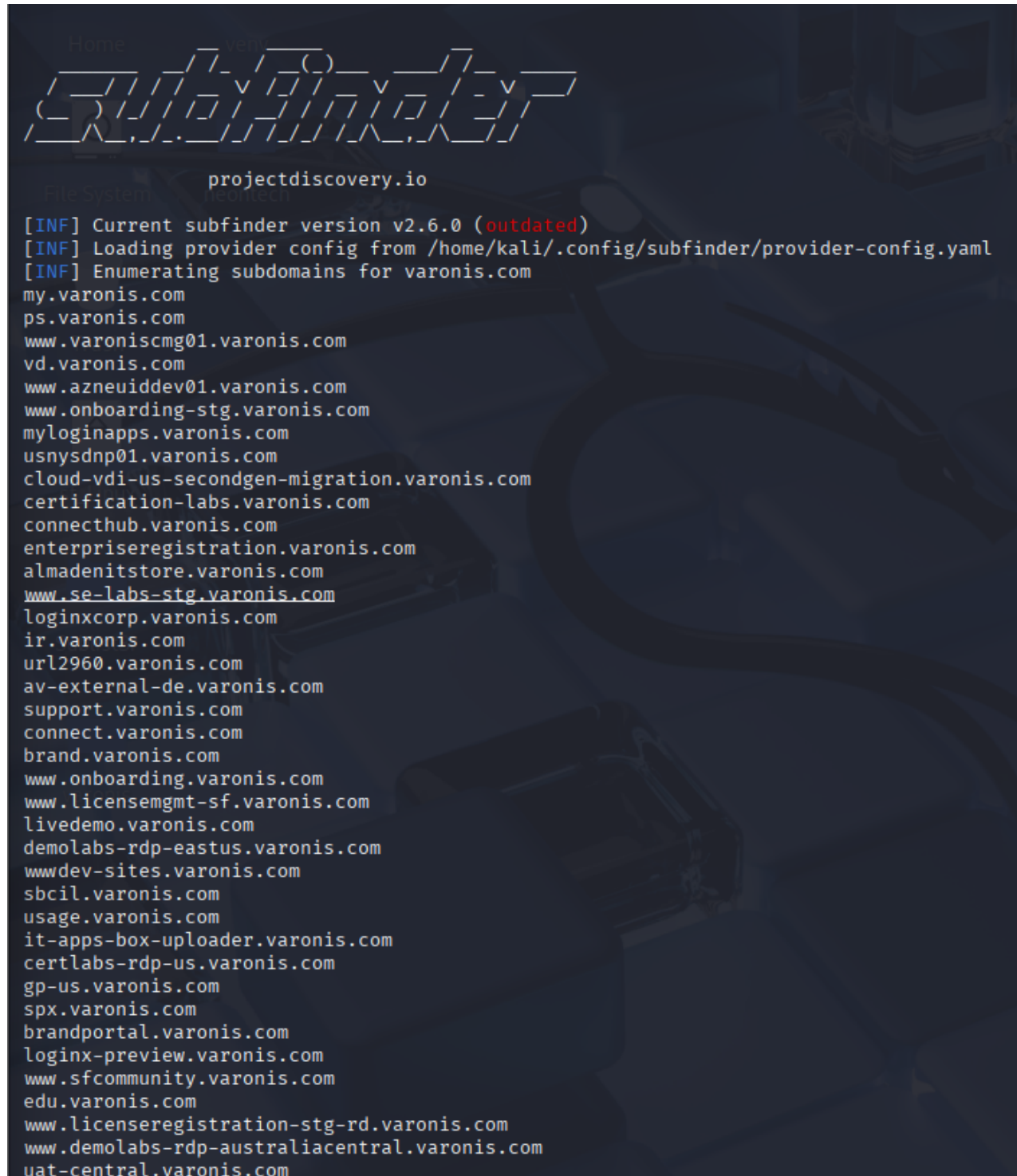
*-o sublist3r\_results.txt* – Output file where the result is saved



```
Home
SUBLIST3R
# Coded By Ahmed Aboul-ElA - @aboul3la

[-] Enumerating subdomains now for varonis.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..
[!] Error: Virustotal probably now is blocking our requests
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_csrf_token(resp)
  File "/home/kali/Desktop/Sublist3r/sublist3r.py", line 641, in get_csrf_token
    token = csrf_regex.findall(resp)[0]
    ~~~~~^
IndexError: list index out of range
[-] Saving results to file: sublist3r_results.txt
[-] Total Unique Subdomains Found: 299
www.varonis.com
Sip-External-il.varonis.com
www.Sip-External-il.varonis.com
Sip-External-us.varonis.com
www.Sip-External-us.varonis.com
WebConf-External-il.varonis.com
Webconf-External-us.varonis.com
access.varonis.com
aichat.varonis.com
www.aichat.varonis.com
akamai-ddl-downloads.varonis.com
almadenitstore.varonis.com
www.almadenitstore.varonis.com
app-connect.varonis.com
artifactory.varonis.com
```

www.varonis.com  
Sip-External-il.varonis.com  
www.Sip-External-il.varonis.com  
Sip-External-us.varonis.com  
www.Sip-External-us.varonis.com  
WebConf-External-il.varonis.com  
Webconf-External-us.varonis.com  
access.varonis.com  
aichat.varonis.com  
www.aichat.varonis.com  
akamai-ddl-downloads.varonis.com  
almadenitstore.varonis.com  
www.almadenitstore.varonis.com  
app-connect.varonis.com  
artifactory.varonis.com  
www.artifactory.varonis.com  
artifactory02.varonis.com  
ask.varonis.com  
www.ask.varonis.com  
ask2.varonis.com  
attribution.varonis.com  
authupload.varonis.com  
www.authupload.varonis.com  
av-external-de.varonis.com  
av-external-il.varonis.com  
av-external-us.varonis.com  
azneuiddev01.varonis.com  
www.azneuiddev01.varonis.com  
blog.varonis.com  
box-uploader-prod.varonis.com  
www.box-uploader-prod.varonis.com  
brand.varonis.com  
brandportal.varonis.com  
captiveportal-login.varonis.com  
www.captiveportal-login.varonis.com  
careers.varonis.com  
www.careers.varonis.com  
central.varonis.com  
www.central.varonis.com  
certification-labs.varonis.com  
www.certification-labs.varonis.com  
certlabs-rdp-eu.varonis.com  
www.certlabs-rdp-eu.varonis.com  
certlabs-rdp-us.varonis.com  
www.certlabs-rdp-us.varonis.com  
chat.varonis.com  
www.chat.varonis.com  
cloud-vdi-eu.varonis.com  
www.cloud-vdi-eu.varonis.com  
cloud-vdi-us.varonis.com  
www.cloud-vdi-us.varonis.com  
cloud-vdi-us-secondgen-migration.varonis.com  
cloudatp-dashboard.varonis.com  
cloudcrp.varonis.com  
www.cloudcrp.varonis.com  
connect.varonis.com  
connecthub.varonis.com

ii. Subfindre: [Subfinder Result.txt](#)**Tool** : Subfinder**Code** : subfinder -d varonis.com -o subfinder\_result.txt**Explanation:***bfinder* - run subfinder too*-d varonis.com* - 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 varonis.com
my.varonis.com
ps.varonis.com
www.varoniscmg01.varonis.com
vd.varonis.com
www.azneuiddev01.varonis.com
www.onboarding-stg.varonis.com
myloginapps.varonis.com
usnysdnp01.varonis.com
cloud-vdi-us-secondgen-migration.varonis.com
certification-labs.varonis.com
connecthub.varonis.com
enterpriseregistration.varonis.com
almadenitstore.varonis.com
www.se-labs-stg.varonis.com
loginxcorp.varonis.com
ir.varonis.com
url2960.varonis.com
av-external-de.varonis.com
support.varonis.com
connect.varonis.com
brand.varonis.com
www.onboarding.varonis.com
www.licensegmt-sf.varonis.com
livedemo.varonis.com
demolabs-rdp-eastus.varonis.com
wwwdev-sites.varonis.com
sbcil.varonis.com
usage.varonis.com
it-apps-box-uploader.varonis.com
certlabs-rdp-us.varonis.com
gp-us.varonis.com
spx.varonis.com
brandportal.varonis.com
loginx-preview.varonis.com
www.sfcommunity.varonis.com
edu.varonis.com
www.licenseregistration-stg-rd.varonis.com
www.demolabs-rdp-australiacentral.varonis.com
uat-central.varonis.com

```

```

my.varonis.com
ps.varonis.com
www.varoniscmg01.varonis.com
vd.varonis.com
www.azneuiddev01.varonis.com

```



www.onboarding-stg.varonis.com  
myloginapps.varonis.com  
usnysdnp01.varonis.com  
cloud-vdi-us-secondgen-migration.varonis.com  
certification-labs.varonis.com  
connecthub.varonis.com  
enterpriseregistration.varonis.com  
almadenitstore.varonis.com  
www.se-labs-stg.varonis.com  
loginxcorp.varonis.com  
ir.varonis.com  
url2960.varonis.com  
av-external-de.varonis.com  
support.varonis.com  
connect.varonis.com  
brand.varonis.com  
www.onboarding.varonis.com  
www.licensemgmt-sf.varonis.com  
livedemo.varonis.com  
demolabs-rdp-eastus.varonis.com  
wwwdev-sites.varonis.com  
sbcil.varonis.com  
usage.varonis.com  
it-apps-box-uploader.varonis.com  
certlabs-rdp-us.varonis.com  
gp-us.varonis.com  
spx.varonis.com  
brandportal.varonis.com  
loginx-preview.varonis.com  
www.sfcommunity.varonis.com  
edu.varonis.com  
www.licenseregistration-stg-rd.varonis.com  
www.demolabs-rdp-australiacentral.varonis.com  
uat-central.varonis.com  
demo-labs.varonis.com  
www.ps-labs.varonis.com  
www.licensemgmt-stg-rd.varonis.com  
www.cloud-vdi-us-secondgen-migration.varonis.com  
help-uat.varonis.com  
ilhrzdmzuag04.varonis.com  
www.licensemgmt-stg-rd-salesforce.varonis.com  
www.captiveportal-login.varonis.com  
teamssbcus2.varonis.com  
livedemostg.varonis.com  
downloads.varonis.com  
www.licenseregistration.varonis.com  
www.my-varonisservicestg.varonis.com

## b. Live Subdomain Discovery

**Tool** : httpx: [Livesub Results.txt](#)

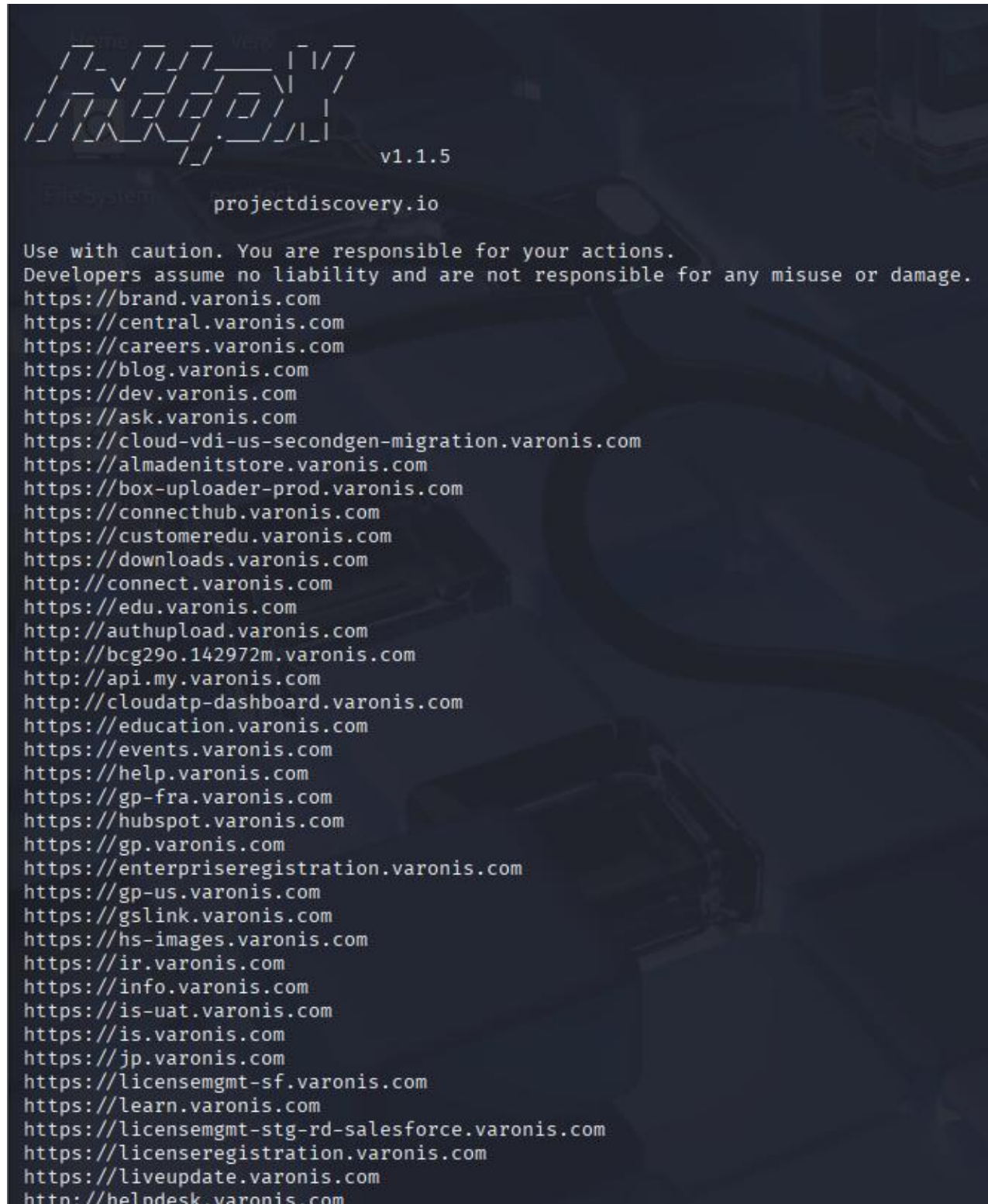
**Code** : httpx-toolkit -l subfinder\_result.txt -o livesub\_results.txt

**Explanation:**

*httpx-toolkit* - run the httpx tool

*-l subfinder\_result.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://brand.varonis.com
https://central.varonis.com
https://careers.varonis.com
https://blog.varonis.com
https://dev.varonis.com
https://ask.varonis.com
https://cloud-vdi-us-secondgen-migration.varonis.com
https://almadenitstore.varonis.com
https://box-uploader-prod.varonis.com
https://connecthub.varonis.com
https://customeredu.varonis.com
https://downloads.varonis.com
http://connect.varonis.com
https://edu.varonis.com
http://authupload.varonis.com
http://bcg29o.142972m.varonis.com
http://api.my.varonis.com
http://cloudatp-dashboard.varonis.com
https://education.varonis.com
https://events.varonis.com
https://help.varonis.com
https://gp-fra.varonis.com
https://hubspot.varonis.com
https://gp.varonis.com
https://enterpriseregistration.varonis.com
https://gp-us.varonis.com
https://gslink.varonis.com
https://hs-images.varonis.com
https://ir.varonis.com
https://info.varonis.com
https://is-uat.varonis.com
https://is.varonis.com
https://jp.varonis.com
https://licensegmt-sf.varonis.com
https://learn.varonis.com
https://licensegmt-stg-rd-salesforce.varonis.com
https://licenseregistration.varonis.com
https://liveupdate.varonis.com
http://helndesk.varonis.com
```



<https://brand.varonis.com>  
<https://central.varonis.com>  
<https://careers.varonis.com>  
<https://blog.varonis.com>  
<https://dev.varonis.com>  
<https://ask.varonis.com>  
<https://cloud-vdi-us-secondgen-migration.varonis.com>  
<https://almadenitstore.varonis.com>  
<https://box-uploader-prod.varonis.com>  
<https://connecthub.varonis.com>  
<https://customeredu.varonis.com>  
<https://downloads.varonis.com>  
<http://connect.varonis.com>  
<https://edu.varonis.com>  
<http://authupload.varonis.com>  
<http://bcg29o.142972m.varonis.com>  
<http://api.my.varonis.com>  
<http://cloudatp-dashboard.varonis.com>  
<https://education.varonis.com>  
<https://events.varonis.com>  
<https://help.varonis.com>  
<https://gp-fra.varonis.com>  
<https://hubspot.varonis.com>  
<https://gp.varonis.com>  
<https://enterpriseregistration.varonis.com>  
<https://gp-us.varonis.com>  
<https://gslink.varonis.com>  
<https://hs-images.varonis.com>  
<https://ir.varonis.com>  
<https://info.varonis.com>  
<https://is-uat.varonis.com>  
<https://is.varonis.com>  
<https://jp.varonis.com>  
<https://licensegmt-sf.varonis.com>  
<https://learn.varonis.com>  
<https://licensegmt-stg-rd-salesforce.varonis.com>  
<https://licenseregistration.varonis.com>  
<https://liveupdate.varonis.com>  
<http://helpdesk.varonis.com>  
<http://login.varonis.com>  
<http://licensegmt-stg-rd.varonis.com>  
<http://liveupdatemanager.varonis.com>  
<http://loginxcorp.varonis.com>  
<http://myvaronis-sf-stg-rd.varonis.com>  
<http://my.varonis.com>  
<http://myvaronis-sf.varonis.com>  
<http://loginx-preview.varonis.com>  
<http://partnercommunity.varonis.com>  
<http://loginx.varonis.com>  
<http://partneredu.varonis.com>  
<http://onboarding.varonis.com>  
<http://onboarding-stg.varonis.com>  
<http://login-preview.varonis.com>  
<http://licensegmt.varonis.com>  
<http://myvaronis-api-stg-rd.varonis.com>  
<http://partners.varonis.com>  
<http://ps.varonis.com>  
<http://pto.varonis.com>

### c. IP Discovery

**Tool:** nslookup: [nslookup Results.txt](#)

**Code:** since we have a 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: $sub" >> ips.txt
    nslookup "$sub" | awk '/^Name:/^Address:/' >> ips.txt
    echo "-----" >> ips.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/varonis]
$ ./nslookup_script.sh

(kali@kali)-[~/Desktop/varonis]
$ ls
ips.txt  livesub_results.txt  nslookup_script.sh  subfinder_result.txt  sublist3r_results.txt

(kali@kali)-[~/Desktop/varonis]
$ cat ips.txt
Looking up: https://brand.varonis.com
Address:      192.168.43.250#53

Looking up: https://central.varonis.com
Address:      192.168.43.250#53

Looking up: https://careers.varonis.com
Address:      192.168.43.250#53

Looking up: https://blog.varonis.com
Address:      192.168.43.250#53

Looking up: https://dev.varonis.com
Address:      192.168.43.250#53

Looking up: https://ask.varonis.com
Address:      192.168.43.250#53

Looking up: https://cloud-vdi-us-secondgen-migration.varonis.com
Address:      192.168.43.250#53

Looking up: https://almadenitstore.varonis.com
Address:      192.168.43.250#53

Looking up: https://box-uploader-prod.varonis.com
Address:      192.168.43.250#53

Looking up: https://connecthub.varonis.com
Address:      192.168.43.250#53

Looking up: https://customeredu.varonis.com
Address:      192.168.43.250#53

Looking up: https://downloads.varonis.com
Address:      192.168.43.250#53

Looking up: http://connect.varonis.com
Address:      192.168.43.250#53

Looking up: https://edu.varonis.com
Address:      192.168.43.250#53
```

**IP list:**

Looking up: <https://brand.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://central.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://careers.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://blog.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://dev.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://ask.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://cloud-vdi-us-secondgen-migration.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://almadenitstore.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://box-uploader-prod.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://connecthub.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://customeredu.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://downloads.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <http://connect.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <https://edu.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <http://authupload.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <http://bcg29o.142972m.varonis.com>

Address: 192.168.43.250#53

---

Looking up: <http://api.my.varonis.com>

Address: 192.168.43.250#53

---

#### d. Open Ports

**Tool:** nmap: [nmap Result.txt](#)

**Code:** nmap -sV -A -v -O varonis.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  
 - varonis.com - target website  
 -oN nmap\_results.txt - result in an output text file

```
(kali@kali)-[~/Desktop/varonis]
$ nmap -sV -A -v -O varonis.com -oN nmap_result.txt
Starting Nmap 7.95 ( https://nmap.org ) at 2025-04-27 12:51 +0530
NSE: Loaded 157 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 12:51
Completed NSE at 12:51, 0.00s elapsed
Initiating NSE at 12:51
Completed NSE at 12:51, 0.00s elapsed
Initiating NSE at 12:51
Completed NSE at 12:51, 0.00s elapsed
Initiating Ping Scan at 12:51
Scanning varonis.com (45.60.150.169) [4 ports]
Completed Ping Scan at 12:51, 0.05s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 12:51
Completed Parallel DNS resolution of 1 host. at 12:51, 0.62s elapsed
Initiating SYN Stealth Scan at 12:51
Scanning varonis.com (45.60.150.169) [1000 ports]
Discovered open port 21/tcp on 45.60.150.169
Discovered open port 8888/tcp on 45.60.150.169
Discovered open port 993/tcp on 45.60.150.169
Discovered open port 110/tcp on 45.60.150.169
Discovered open port 53/tcp on 45.60.150.169
Discovered open port 587/tcp on 45.60.150.169
Discovered open port 3389/tcp on 45.60.150.169
Discovered open port 1720/tcp on 45.60.150.169
Discovered open port 554/tcp on 45.60.150.169
Discovered open port 1723/tcp on 45.60.150.169
Discovered open port 5900/tcp on 45.60.150.169
Discovered open port 80/tcp on 45.60.150.169
Discovered open port 8080/tcp on 45.60.150.169
Discovered open port 1025/tcp on 45.60.150.169
Discovered open port 143/tcp on 45.60.150.169
Discovered open port 25/tcp on 45.60.150.169
Discovered open port 3306/tcp on 45.60.150.169
Discovered open port 443/tcp on 45.60.150.169
Discovered open port 139/tcp on 45.60.150.169
Discovered open port 995/tcp on 45.60.150.169
Discovered open port 135/tcp on 45.60.150.169
Discovered open port 12000/tcp on 45.60.150.169
Discovered open port 2607/tcp on 45.60.150.169
Discovered open port 3011/tcp on 45.60.150.169
Discovered open port 9200/tcp on 45.60.150.169
Discovered open port 1111/tcp on 45.60.150.169
Discovered open port 5678/tcp on 45.60.150.169
Discovered open port 8383/tcp on 45.60.150.169
Discovered open port 1010/tcp on 45.60.150.169
Discovered open port 6007/tcp on 45.60.150.169
Discovered open port 555/tcp on 45.60.150.169
Discovered open port 10000/tcp on 45.60.150.169
```



### e. Used Technologies

**Tool:** whatweb - [whatweb Result.txt](#)

**Code:** whatweb -v varonis.com > whatweb\_result.txt

**Explanation:**

*whatweb* - start whatweb tool

*-v* - verbose

*varonis.com* - target website

*> whatweb\_result.txt* - file with the output

```
(kali@kali)-[~/Desktop/varonis]
$ whatweb -v varonis.com --o whatweb_results.txt
WhatWeb report for http://varonis.com
Status      : 301 Moved Permanently
Title       : <None>
IP          : 45.60.170.169
Country     : RESERVED, ZZ

Summary     : RedirectLocation[https://varonis.com/]

Detected Plugins:
[ RedirectLocation ]
  HTTP Server string location. used with http-status 301 and 302
  String      : https://varonis.com/ (from location)

HTTP Headers:
  HTTP/1.1 301 Moved Permanently
  Location: https://varonis.com/
  Content-Length: 0
  Connection: close

WhatWeb report for https://varonis.com/
Status      : 301 Moved Permanently
Title       : <None>
IP          : 45.60.170.169
Country     : RESERVED, ZZ

Summary     : RedirectLocation[https://www.varonis.com/], Strict-Transport-Security[max-age=31536000; includeSubDomains]

Detected Plugins:
[ RedirectLocation ]
  HTTP Server string location. used with http-status 301 and 302
  String      : https://www.varonis.com/ (from location)

[ Strict-Transport-Security ]
  Strict-Transport-Security is an HTTP header that restricts a web browser from accessing a website without the security of the HTTPS protocol.
  String      : max-age=31536000; includeSubDomains

HTTP Headers:
  HTTP/1.1 301 Moved Permanently
  Location: https://www.varonis.com/
  Content-Length: 0
  Strict-Transport-Security: max-age=31536000; includeSubDomains
  Connection: close
```

Activate Windows  
Go to Settings to activate Windows.

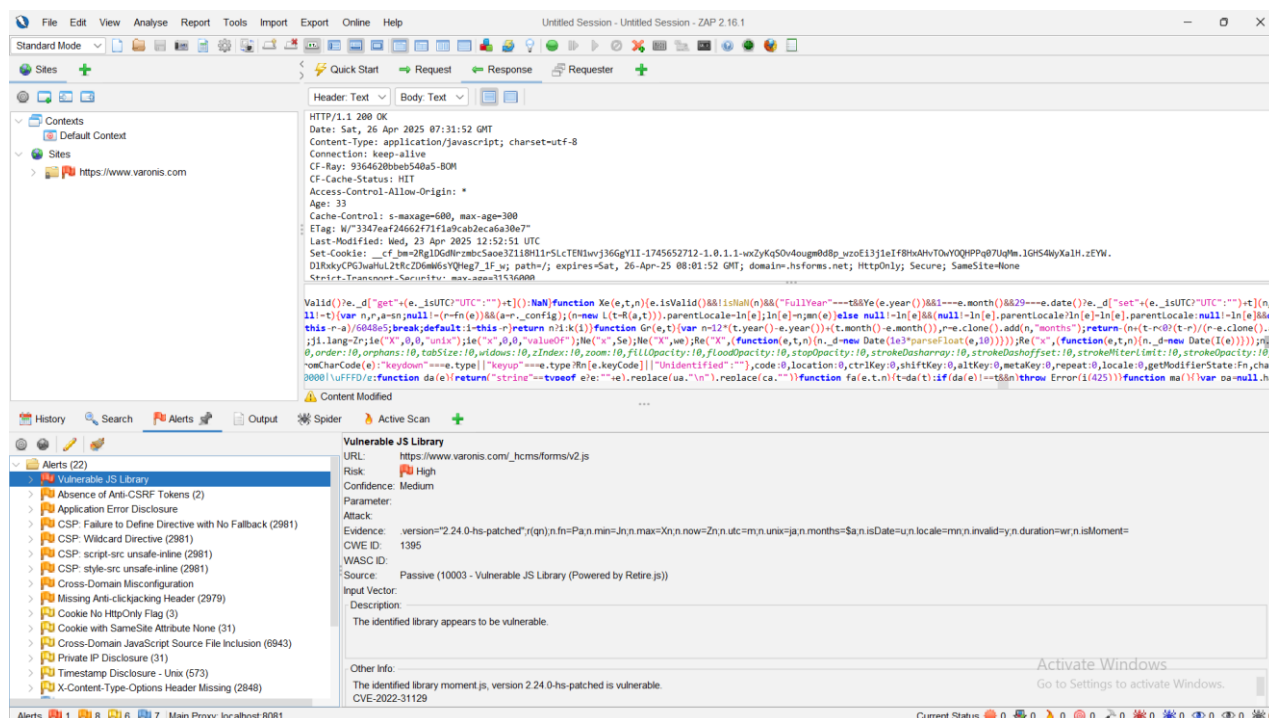


### 3. Step 02: Scanning and vulnerability identification

#### a. Identify Potential Vulnerabilities

**Tool** : OWASP ZAP

**Vulnerability** : Vulnerable JS Library



#### Vulnerable JS Library:

**URL:** https://www.varonis.com/\_hcms/forms/v2.js

**Risk:** High

**Confidential:** Medium

**Parameter:**

**Attack:**

**Evidence:** .version="2.24.0-hs-

patched";r(qn);n.fn=Pa;n.min=Jn;n.max=Xn;n.now=Zn;n.utc=m;n.unix=ja;n.months=\$a;n.isDate=u;n.local e=mn;n.invalid=y;n.duration=wr;n.isMoment=

**CWE ID:** 1395

**WASC ID:**

**Source:** Passive (10003 - Vulnerable JS Library (Powered by Retire.js))

**Input Vector:**

- **Description:** The identified library appears to be vulnerable..
- **Other Info:**
  - The identified library moment.js, version 2.24.0-hs-patched is vulnerable.
  - CVE-2022-31129
  - CVE-2022-24785
  - <https://github.com/moment/moment/security/advisories/GHSA-wc69-rhjr-hc9g>
  - <https://security.snyk.io/vuln/SNYK-JS-MOMENT-2944238>
  - <https://github.com/moment/moment/security/advisories/GHSA-8hfj-j24r-96c4>
- **Solution:** Upgrade to the latest version of the affected library.
- **Reference:** [https://owasp.org/Top10/A06\\_2021-Vulnerable\\_and\\_Outdated\\_Components/](https://owasp.org/Top10/A06_2021-Vulnerable_and_Outdated_Components/)
- **Alert Tags:**
  - OWASP\_2017\_A09: [https://owasp.org/www-project-top-ten/2017/A9\\_2017-Using\\_Components\\_with\\_Known\\_Vulnerabilities.html](https://owasp.org/www-project-top-ten/2017/A9_2017-Using_Components_with_Known_Vulnerabilities.html)
  - CVE-2022-31129: <https://nvd.nist.gov/vuln/detail/CVE-2022-31129>
  - OWASP\_2021\_A06: [https://owasp.org/Top10/A06\\_2021-Vulnerable\\_and\\_Outdated\\_Components/](https://owasp.org/Top10/A06_2021-Vulnerable_and_Outdated_Components/)
  - CWE-1395: <https://cwe.mitre.org/data/definitions/1395.html>
  - CVE-2022-24785: <https://nvd.nist.gov/vuln/detail/CVE-2022-24785>

### b. Vulnerable JS Library

Vulnerable JavaScript (JS) libraries refer to the use of outdated or insecure JavaScript components in websites or web applications. These libraries might have known security flaws that attackers can exploit, such as Cross-Site Scripting (XSS), Cross-Origin Resource Sharing (CORS) misconfigurations, or Remote Code Execution (RCE). If not updated or properly secured, vulnerable JS libraries can be an easy entry point for attackers to compromise the application and its users.

Cause of Vulnerable JS Library in website:

- Using outdated versions of third-party libraries with known security flaws
- Failing to monitor and update dependencies regularly
- Including unnecessary or unused libraries that increase the attack surface
- Downloading libraries from untrusted or compromised sources
- Lack of vulnerability scanning tools in the development pipeline
- Not validating or restricting third-party scripts' behavior on the site

Propositions to Mitigation or Fix:

- Use Dependency Management Tools: Use tools like npm, yarn, or package managers that can alert you to vulnerabilities
- Regular Updates: Frequently update JavaScript libraries and monitor for security advisories
- Sub resource Integrity (SRI): Use SRI to ensure that external libraries have not been tampered with
- Content Security Policy (CSP): Implement a strict CSP to limit the risk if a library gets compromised
- Remove Unused Libraries: Audit and eliminate unnecessary or outdated libraries from your project
- Use Trusted Sources Only: Always load JS libraries from reputable and verified CDNs
- Automated Vulnerability Scanning: Integrate tools like Snyk, retire.js, or npm audit into your CI/CD pipeline to detect vulnerabilities early

## 4. Step 03: Exploitation and Validation

### Request:

```
GET https://www.varonis.com/_hcms/forms/v2.js HTTP/1.1
host: www.varonis.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.varonis.com/it/use-case/insider-risk-management
Cookie: __cfuid=gJugVawCN2o1T37h0so1czGbeC0hWCZ165qSKaQ5ikk-1745650839569-0.0.1.1-604800000; visid_incap_2074238=p2/gCk06St2BYeJIKt9c9ZGEDGgAAAAQUIPAAAAA42g0xrpZW312t4HpTkYUH;
incap_ses_49_2074238=0sv00jh4zFo5Wg3i8WuAJaEDGgAAAAARs0gf50tp61e+sP6BPXGOQ==; n1bi_2074238=023EABWeMTvhHzvV8um7wAAAAABNgOQ1JXPyjTG6crJvq2eN; __cf_bm=CG5V1TBZGtu32Y.KTbxcct0Kh_
oFHpkvyUOPARQjb7tk-1745652646-1.0.1.1-IpAQ9H0S9IuWKKGvbbW1LhjIPWtD_15mp05Tu505MKSBJ7Ht7dm80CBFAsnuNu6pEjIttQ.JFI9xFZZFt_c9HYcVizsp1RynXtJlYexG7k
```

### Response:

```
HTTP/1.1 200 OK
Date: Sat, 26 Apr 2025 07:31:52 GMT
Content-Type: application/javascript; charset=utf-8
Connection: keep-alive
CF-Ray: 9364620bbe540a5-80M
CF-Cache-Status: HIT
Access-Control-Allow-Origin: *
Age: 33
Cache-Control: s-maxage=600, max-age=300
ETag: W/"3347eaf24662f71f1a9cab2eca6a30e"
Last-Modified: Wed, 23 Apr 2025 12:52:51 UTC
Set-Cookie: __cf_bm=2Xg1DGdMrzmbcSaoe3Zi18H1lP5LcTEW1wvJ36GyYII-1745652712-1.0.1.1-wxZyKq50v4ougmd08p_yzoE13j1eIF8HxAHvTowYQ0HPpQ7UqMm.1GHS4HyXa1H.zEYW.
DIRxkyCPGJwahuL2tRcZD6mW6sYQheg7_IF_w; path=/; expires=Sat, 26-Apr-25 08:01:52 GMT; domain=.hsforms.net; HttpOnly; Secure; SameSite=None
Strict-Transport-Security: max-age=31536000
Vary: accept-encoding
Via: 1.1 06c1d28e93bdae8f6401a12c10b2f570.cloudfront.net (CloudFront)
cache-tnae: static:isann-forms-emhed-v2-web-nprod-static:isann-nprod

/*! For license information please see project-v2.js.LICENSE.txt */
(function(){var e={"31fg":function(e){var t,n,r,e.exports={},function a(){throw new Error("setInterval has not been defined")}function i(){throw new Error("clearInterval has not been def
eData().monthsParse(t))return e;n=Math.min(e.date(),nt(e.year(),t));e._d["set"+(e._isUTC?"UTC":"")+Month](t,n);return e}function dt(e){if(null!=e){ct(this,e);n.updateOffset(this,10);
n[t][1].exec(1[3]))i-(1[2])[""]+Mn[t][0];break;if(null==1){e._isValid=1;return}if(!r&&null!=1){e._isValid=1;return}if(1[4]){if(!wn.exec(1[4])){e._isValid=1;return}o="Z"}e._f+a(1["
() ,this.date()-this.weekday()+7)-1;break;case"isoWeek":t=n(this.year(),this.month(),this.date()-this.isoWeekday()-1)+7)-1;break;case"day":case"date":t=n(this.year(),this.month(),this.
formNoValidate hidden loop noModule noValidate open playsInline readOnly required reversed scoped seamless itemScope".split(" ").forEach((function(e){v[e]=new b(e,3,11,e.toLowerCase(
i(188));return t!=""e:null;e}for(var n=e,r=t;){(var a=n.return;if(null==a)break;var o=a.alternate;if(null==o){if(null==r){r=a.return}(n=r;continue)break;if(a.child==o.child){for(o=a.ch
|null==e["|Object"]!=typeof t|if(null==t)return1;var n=Object.keys(e),r=Object.keys(t);if(n.length!=r.length)return1;for(r=0;r<n.length;r++){var a=n[r];if(1d.call(t,a)||1_r(e[a],t[a]))
1!=""Xa88(Xa=Xa.slice(e+1)),Ze(1t,r1),t)finally(Tt-t,e1=11)return null}var ai=[],1i=0,oi=null,s1=0,1i=[],ui=0,ci=null,di=1,fi=""function mi(e,t){ai[1i++]s1;ai[1i++]oi;oi=e;si-t)funct
gerState:c.eagerState,next:null;null==u?(1-u,f,s=r):u=u.next=f;So.lanes|=d;jeu|=d;c.c.next}while(null!=c&&c1==o);null==u?s=r:u.next=1;_r(n,t.memoizedState)|| (Ls=10);t.memoizedState=r
e"!="typeof o.componentDidUpdate&&(t.flags|=4),"function"!=typeof o.getSnapshotBeforeUpdate&&(t.flags|=1024):("function"!=typeof o.componentDidUpdate||s==e.memoizedProps&&f==
e null,o.updateQueue=null,o.dependencies=null,o.stateNode=null):(o.childLanes=1.childLanes,o.lanes=1.lanes,o.child=1.child,o.subtreeFlags=0,o.deletions=null,o.memoizedProps=1.memoizedP
e 4:Ou(e,r);if((4194240&r==r)break;t.e.eventTimes;for(a=-1;0<r;){(var s=31-mt(r);o-1<c;s;(s=t[s])>a&&(a=s);r&==o)r=a;if(10<(r=(120)-(r-rt()-r)?120:480)r?1880:1920)r?1920:3e3)r?3e
ent-i;i.stateNode=e;i.memoizedState=[element:r,isDehydrated:n,cache:null,transitions:null,pendingSuspenseBoundaries:null];1i(1);return e}function lc(e,t,n){var r=3<arguments.length&&vo
-j;t.useCallback=function(e,t){return C.current.useCallback(e,t)};t.useContext=function(e){return C.current.useContext(e)};t.useDebugValue=function(){t.useDeferredValue=function(e){re
e;}}this.calendars[e]=E({month:this.calendars[0].month+e,year:this.calendars[0].year});this.draw(),gotoToday:function(){this.gotoDate(new Date)},gotoMonth:function(e){if(!isNaN(e)){t
xceeded",r,e.transitional[d.transitional,e.timeoutErrorMessage&&(t=e.timeoutErrorMessage),n(c(t,e,r.clarifyTimeoutError?"TIMEDOUT":"ECONNABORTED",b)),b=null},r.isStandardBrowserEn
```

## 5. Step 04: Mitigation / Fix

### Immediate Mitigation Actions:

1. Remove or Replace “moment.js” file
2. If the file (moment.js) is required, upgrade it with the latest patch.

### Long Term Prevention:

1. Automate dependency checks in CI/CD pipelines (automated processes that enable teams to **continuously integrate** and **continuously deliver/deploy** software changes).
2. Monitor new vulnerabilities.