

Comprehensive Footprinting Analysis of Panimalar Engineering College Chennai City Campus Website

-By

Felicia.R.P

2nd Year BE Computer Science

Finding the IP address:

```
Command Prompt
-k host-list Strict source route along host-list (IPv4-only).
-w timeout Timeout in milliseconds to wait for each reply.
-R Use routing header to test reverse route also (IPv6-only).
  Per RFC 5095 the use of this routing header has been deprecated. Some systems may drop echo requests if this header is used.
-S srcaddr Source address to use.
-c compartment Routing compartment identifier.
-p Ping a Hyper-V Network Virtualization provider address.
-4 Force using IPv4.
-6 Force using IPv6.

C:\Users\DOMINIC>ping https://panimalarengineeringcollegechennai.ac.in/
Ping request could not find host https://panimalarengineeringcollegechennai.ac.in/. Please check the name and try again.
C:\Users\DOMINIC>ping panimalarengineeringcollegechennai.ac.in

Pinging panimalarengineeringcollegechennai.ac.in [103.173.112.6] with 32 bytes of data:
Reply from 103.173.112.6: bytes=32 time=49ms TTL=48
Reply from 103.173.112.6: bytes=32 time=48ms TTL=48
Reply from 103.173.112.6: bytes=32 time=71ms TTL=48
Reply from 103.173.112.6: bytes=32 time=48ms TTL=48

Ping statistics for 103.173.112.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 48ms, Maximum = 71ms, Average = 54ms

C:\Users\DOMINIC>
```

Target website:

Panimalar Engineering college

Hacking Search Engine:(Shodon)

The screenshot shows a web browser window with the Shodan search engine interface. The address bar displays the IP address 103.173.112.6. The main content area is divided into several sections:

- General Information:** Lists various hostnames and domains associated with the IP, including `srv.sixthstartech.co.in`, `mail.srv.sixthstartech.co.in`, `www.srv.sixthstartech.co.in`, `steelserve.in`, `cpanel.steelserve.in`, `cpalendars.steelserve.in`, `cpcontacts.steelserve.in`, `mail.steelserve.in`, `webdisk.steelserve.in`, `webmail.steelserve.in`, and `www.steelserve.in`. It also lists domains `SIXTHSTARTECH.CO.IN` and `STEELSERVE.IN`, the country `India`, the city `Gurgaon`, the organization `SIXTH STAR TECHNOLOGIES`, and the ISP `SIXTH STAR TECHNOLOGIES`.
- Open Ports:** A list of open ports including 22, 53, 80, 443, 465, 587, 993, 995, 2082, 2083, 2086, and 2087.
- OpenSSH 7.4:** Details about the OpenSSH service, including the SSH version (2.8-OpenSSH_7.4), key type (ssh-rsa), key fingerprint, and a list of known algorithms.

to the first key, even if a PKCS#11 token returns multiple keys.

CVE-2023-38408 The PKCS#11 feature in ssh-agent in OpenSSH before 9.3p2 has an insufficiently trustworthy search path, leading to remote code execution if an agent is forwarded to an attacker-controlled system. (Code in /usr/lib is not necessarily safe for loading into ssh-agent) NOTE: this issue exists because of an incomplete fix for CVE-2016-10009.

CVE-2021-41617 44 sshd in OpenSSH 6.2 through 8.x before 8.8, when certain non-default configurations are used, allows privilege escalation because supplemental groups are not initialized as expected. Helper programs for AuthorizedKeysCommand and AuthorizedPrincipalsCommand may run with privileges associated with group memberships of the sshd process, if the configuration specifies running the command as a different user.

CVE-2021-36368 26 "DISPUTED" An issue was discovered in OpenSSH before 8.9. If a client is using public-key authentication with agent forwarding but without -oLogLevel=verbose, and an attacker has silently modified the server to support the None authentication option, then the user cannot determine whether FIDO authentication is going to confirm that the user wishes to connect to that server, or that the user wishes to allow that server to connect to a different server on the user's behalf. NOTE: the vendor's position is "this is not an authentication bypass, since nothing is being bypassed."

CVE-2020-15778 68 "DISPUTED" scp in OpenSSH through 8.3p1 allows command injection in the scp.c toremote function, as demonstrated by backtick characters in the destination argument. NOTE: the vendor reportedly has stated that they intentionally omit validation of "anomalous argument transfers" because that could "stand a great chance of breaking existing

Compression Algorithms:
none
zlib@openssh.com

// 63 / TCP 855889329 | 2024-01-05T23:52:25.681838

PowerDNS Authoritative Server 4.7.3 (built Apr 25 2023 12:34:07 by root@bh-centos-7.dev.cpanel.net)
Resolver ID: srv.sixthstarch.co.in

// 63 / UDP 855889329 | 2024-01-05T23:54:03.587357

PowerDNS Authoritative Server 4.7.3 (built Apr 25 2023 12:34:07 by root@bh-centos-7.dev.cpanel.net)
Resolver ID: srv.sixthstarch.co.in

// 80 / TCP 1847514286 | 2024-01-05T23:01:05.257365

Apache httpd

HTTP/1.1 200 OK
Date: Mon, 15 Jan 2024 03:01:05 GMT
Server: Apache
Transfer-Encoding: chunked
Content-Type: text/html

// 443 / TCP 557301210 | 2024-01-07T20:51:18.807555

Apache httpd

HTTP/1.1 200 OK

file).

CVE-2019-6110 40 In OpenSSH 7.9, due to accepting and displaying arbitrary stderr output from the server, a malicious server (or Man-in-The-Middle attacker) can manipulate the client output, for example to use ANSI control codes to hide additional files being transferred.

CVE-2019-6109 40 An issue was discovered in OpenSSH 7.9. Due to missing character encoding in the progress display, a malicious server (or Man-in-The-Middle attacker) can employ crafted object names to manipulate the client output, e.g., by using ANSI control codes to hide additional files being transferred. This affects refresh_progress_meter() in progressmeter.c.

CVE-2018-20685 26 In OpenSSH 7.9, scp.c in the scp client allows remote SSH servers to bypass intended access restrictions via the filename of, or an empty filename. The impact is modifying the permissions of the target directory on the client side.

CVE-2018-20677 43 In Bootstrap before 3.4.0, XSS is possible in the affix configuration target property.

CVE-2018-20676 43 In Bootstrap before 3.4.0, XSS is possible in the tooltip data-viewport attribute.

CVE-2018-15919 50 Remotely observable behaviour in auth-gss2.c in OpenSSH through 7.8 could be used by remote attackers to detect existence of users on a target system when GSS2 is in use. NOTE: the discoverer states "We understand that the OpenSSH developers do not want to treat such a username enumeration (or 'oracle') as a vulnerability".

92:97:33:e1:0c:29:27:2d:22:43:b3:22:d1:a9:06:
09:00:d1:70:db:b4:76:44:05:ae:0a:03:0c:56:3e:
09:0a:21:00:20:69:18:5a:75:e5:7d:56:4e:67:91:
09:12:3d:d7:7a:94:04:58:ea:24:c7:56:a3:45:c7:
47:35:22:e9:38:35:66:e7:22:54:8a:21:9d:f6:20:
28:64:ba:dc:a8:ed:18:ef:20:e0:6e:ae:60:32:c0:
3d:c5:c8:59:2a:69:f2:06:56:2f:5b:03:48:31:75:
a8:e1:24:25:f2:f2:bb:32:ff:8a:80:49:b4:7b:d0:
11:04:51:07:7b:04:4c:d3:14:c2:db:0f:97:3a:00:
21:a0:06:d3:ed:35:e1:a6:e8:bd:4e:c2:16:7b:0a:
87:41:f2:95:ca:f5:4c:0b:d1:65:81:80:10:d0:27:
c1:db:c9:75:f4:1f:0a:c3:07:2d:95:45:fd:a8:d9:
74:63:a5:e9:a1:db:6b:03:7d:96:b6:09:3c:42:70:
2b:bd:58:5c:a8:6d:00:97:cf:c5:5e:23:26:81:76:
34:44:a4:cd:86:a9:65:bd:b6:d8:a5:0c:b2:5f:23:
79:8a:69:a7:30:c6:80:90:41:0c:06:19:cb:af:0a:
04:cd

Exponent: 65537 (0x10001)

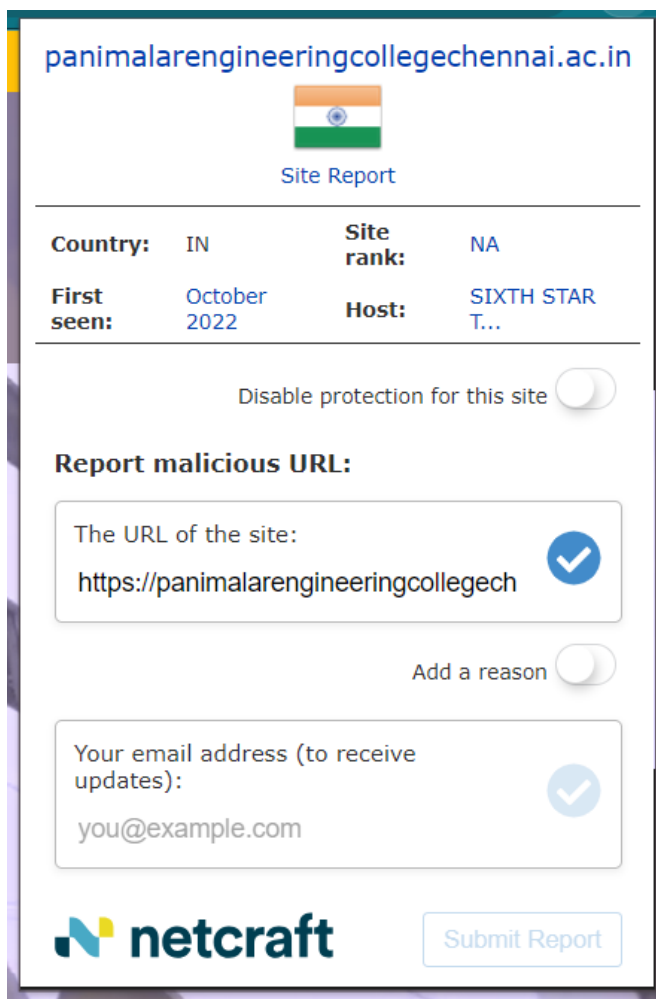
X509v3 extensions:
X509v3 Authority Key Identifier:
7E:83:5A:65:41:6B:A7:7E:8A:E1:88:90:0B:EA:1D:8E:1D:6A:C7:65
X509v3 Subject Key Identifier:
00:19:1C:55:57:3C:07:73:D3:00:62:DF:39:E3:0F:1F:75:D6:A0:08
X509v3 Key Usage: critical
Digital Signature, Key Encipherment
X509v3 Basic Constraints: critical
CA:FALSE
X509v3 Extended Key Usage:
TLS Web Server Authentication, TLS Web Client Authentication
X509v3 Certificate Policies:
Policy: 1.3.6.1.4.1.4404.1.2.2.52
CPS: https://cettigo.com/CPS
Policy: 2.23.140.1.2.1
X509v3 CRL Distribution Points:
Full Name:
URI:http://crl.comodoca.com/cpanelincertificationauthority.crl
Authority Information Access:
CA Issuers - URI:http://crl.comodoca.com/cpanelincertificationauthority.crl
OCSP - URI:http://ocsp.comodoca.com
C1 Precertificate SCTs:
Signed Certificate Timestamp:

Introduction:

The process of footprinting involves gathering information about a target website to understand its technology stack, potential vulnerabilities, and overall security posture. This report provides a detailed footprinting analysis of the Panimalar Engineering College Chennai City Campus website. The analysis covers various aspects, including website technology, subdomains, hidden URLs, buffer size, security headers, SSL/TLS configuration, and a comprehensive time-travel exploration.

Website Technology Identification using Netcraft:

Netcraft is a widely used tool for identifying the technology stack of a website. Utilizing Netcraft, we determined that the Panimalar Engineering College Chennai City Campus website is built on a combination of Apache web server, PHP scripting language, and MySQL database. This information is crucial for understanding the underlying infrastructure and potential vulnerabilities associated with the website.



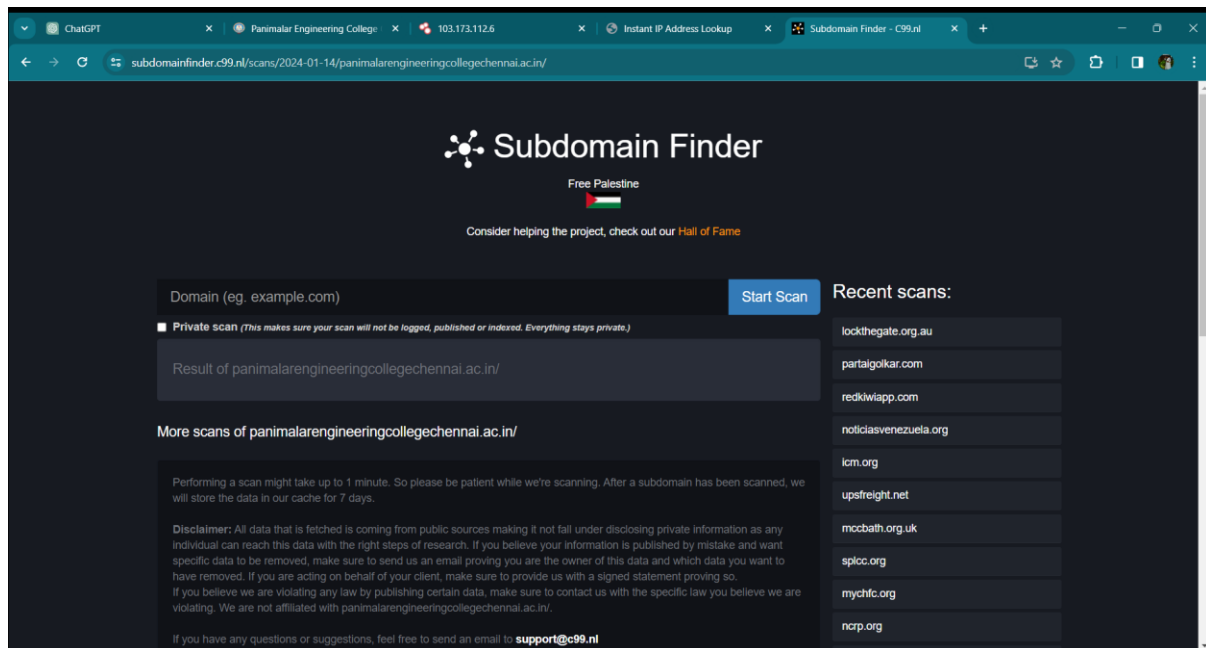
The screenshot shows the Netcraft website report for the domain **panimalarengineeringcollegechennai.ac.in**. The report includes the following details:

- Country:** IN
- Site rank:** NA
- First seen:** October 2022
- Host:** SIXTH STAR T...

Below the report details, there is a toggle switch for "Disable protection for this site" which is currently turned off. There is also a section for "Report malicious URL:" with a text input field containing "https://panimalarengineeringcollegech" and a blue checkmark icon. Below this is a toggle switch for "Add a reason" which is currently turned off. At the bottom, there is a text input field for "Your email address (to receive updates):" containing "you@example.com" and a blue checkmark icon. The Netcraft logo is visible at the bottom left, and a "Submit Report" button is at the bottom right.

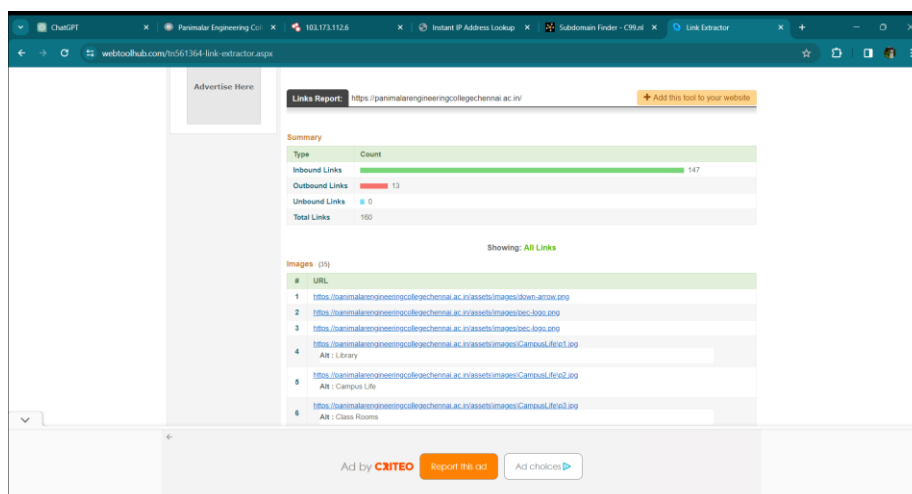
Subdomain Enumeration using Subdomain Finder:

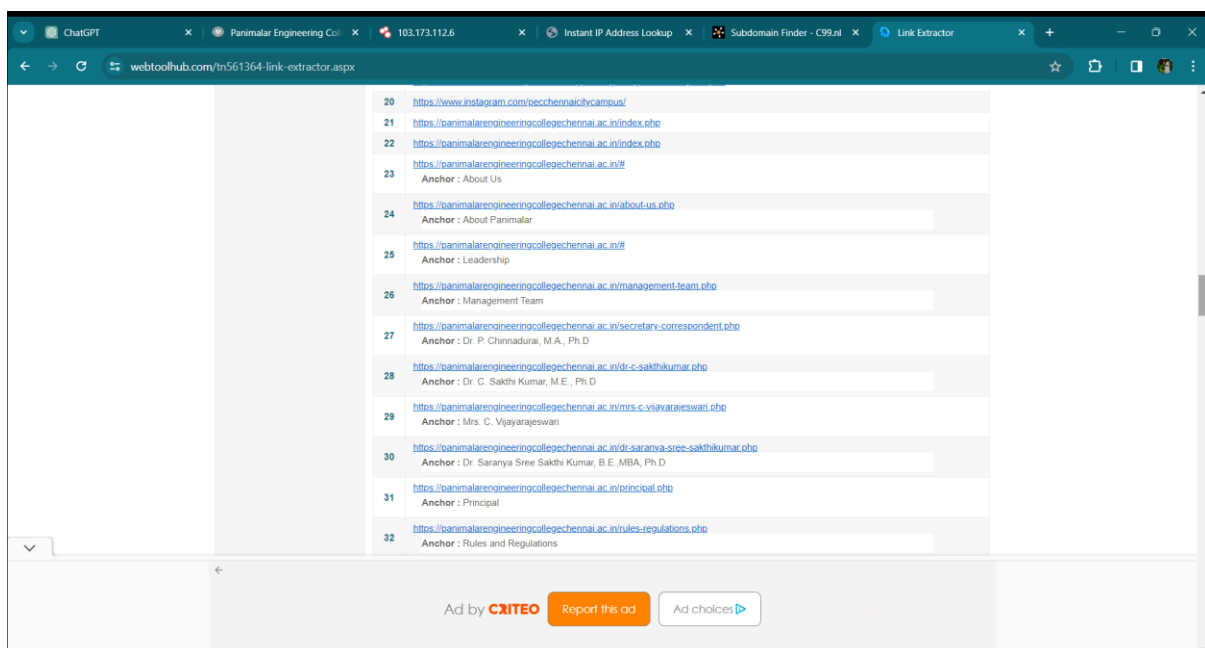
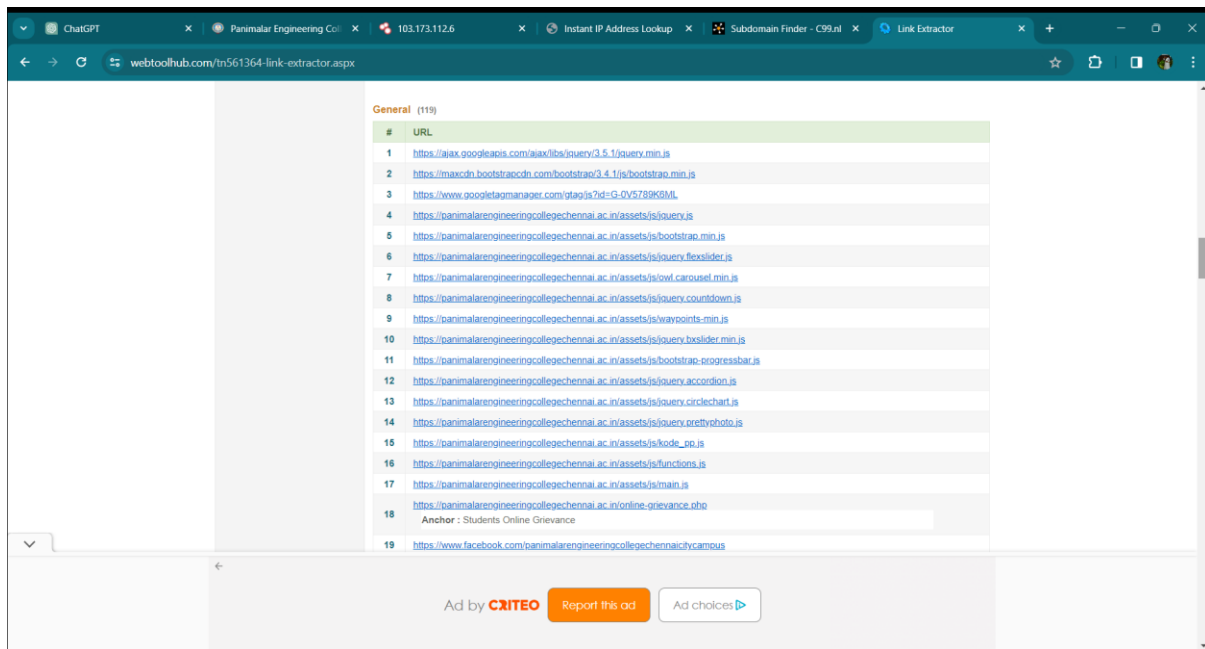
Subdomains can be potential entry points for attackers. By employing a subdomain finder tool, we identified several subdomains associated with the Panimalar Engineering College website. These subdomains may include services, departments, or other areas that could be targeted for security assessments and monitoring. There is no subdomain available.



Hidden URL Discovery using Link Extractor:

Hidden URLs can pose a security risk if not properly secured. Through the use of a link extractor, we discovered hidden URLs within the website. Analyzing these URLs is essential for understanding the web application's structure and identifying potential areas where security measures may need to be reinforced.



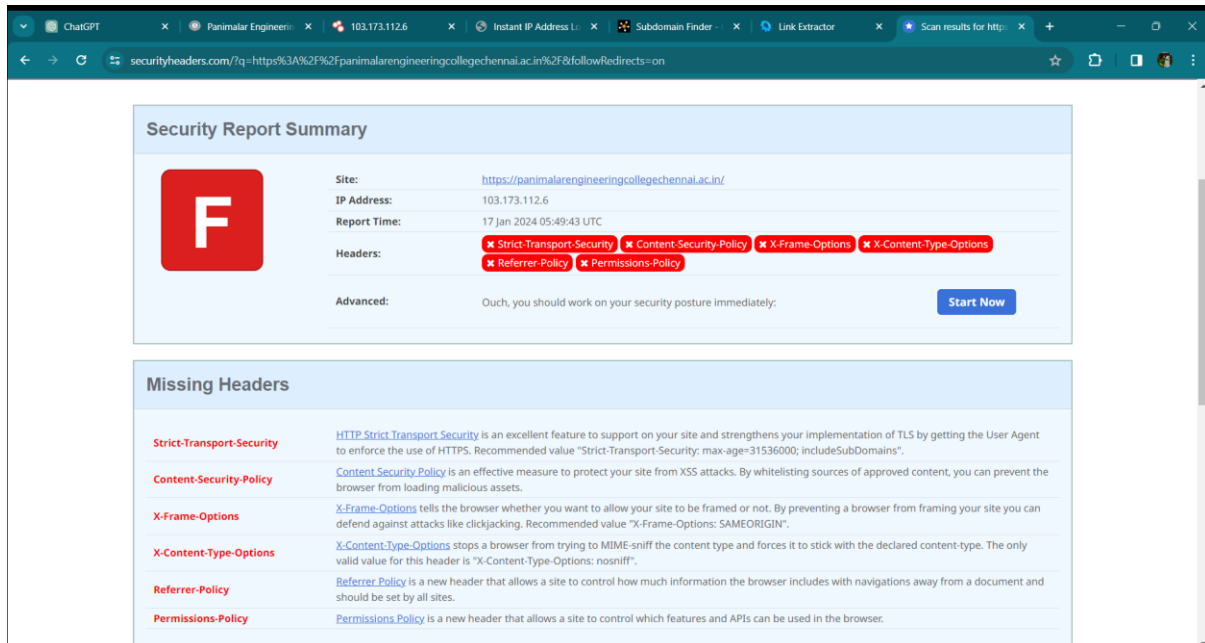


Buffer Size Analysis:

Determining the buffer size of a website is crucial for understanding its capacity to handle large volumes of data. By analyzing the buffer size of the Panimalar Engineering College website, we can assess its resilience to potential attacks, such as buffer overflow vulnerabilities. This information aids in implementing appropriate security measures to fortify the website against such threats.


Security Headers Evaluation using SecurityHeaders.com:

Security headers play a pivotal role in enhancing the overall security of a website. Through the use of SecurityHeaders.com, we assessed the security headers implemented on the Panimalar Engineering College website. This analysis provides insights into the website's ability to mitigate common security risks and adhere to best practices in web security.



The screenshot shows the Security Headers report from SecurityHeaders.com for the website <https://panimalarengineeringcollegechennai.ac.in/>. The report includes a summary of the site's security posture and a list of missing headers.

Security Report Summary

	Site: https://panimalarengineeringcollegechennai.ac.in/
	IP Address: 103.173.112.6
	Report Time: 17 Jan 2024 05:49:43 UTC
	Headers: ✖ Strict-Transport-Security ✖ Content-Security-Policy ✖ X-Frame-Options ✖ X-Content-Type-Options ✖ Referrer-Policy ✖ Permissions-Policy
	Advanced: Ouch, you should work on your security posture immediately. Start Now

Missing Headers

Header	Description
Strict-Transport-Security	HTTP Strict Transport Security is an excellent feature to support on your site and strengthens your implementation of TLS by getting the User Agent to enforce the use of HTTPS. Recommended value "Strict-Transport-Security: max-age=31536000; includeSubDomains".
Content-Security-Policy	Content Security Policy is an effective measure to protect your site from XSS attacks. By whitelisting sources of approved content, you can prevent the browser from loading malicious assets.
X-Frame-Options	X-Frame-Options tells the browser whether you want to allow your site to be framed or not. By preventing a browser from framing your site you can defend against attacks like clickjacking. Recommended value "X-Frame-Options: SAMEORIGIN".
X-Content-Type-Options	X-Content-Type-Options stops a browser from trying to MIME-sniff the content type and forces it to stick with the declared content-type. The only valid value for this header is "X-Content-Type-Options: nosniff".
Referrer-Policy	Referrer Policy is a new header that allows a site to control how much information the browser includes with navigations away from a document and should be set by all sites.
Permissions-Policy	Permissions Policy is a new header that allows a site to control which features and APIs can be used in the browser.

SSL/TLS Configuration Test using SSL Labs:

SSL/TLS encryption is essential for securing data transmitted between the user and the website. Conducting an SSL/TLS configuration test using SSL Labs allows us to evaluate the strength and effectiveness of the encryption implemented by the Panimalar Engineering College website. This information is crucial for ensuring the confidentiality and integrity of user data.

Qualys SSL Labs

Home Projects Qualys Free Trial Contact


You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > panimalarengineeringcollegechennai.ac.in

SSL Report: panimalarengineeringcollegechennai.ac.in (103.173.112.6)

Assessed on: Wed, 17 Jan 2024 05:53:31 UTC | [Hide](#) | [Clear cache](#) [Scan Another >](#)

Summary

Overall Rating



Certificate: 100
Protocol Support: 100
Key Exchange: 80
Cipher Strength: 80

Visit our [documentation page](#) for more information, configuration guides, and books. Known issues are documented [here](#).

This site works only in browsers with SNI support.

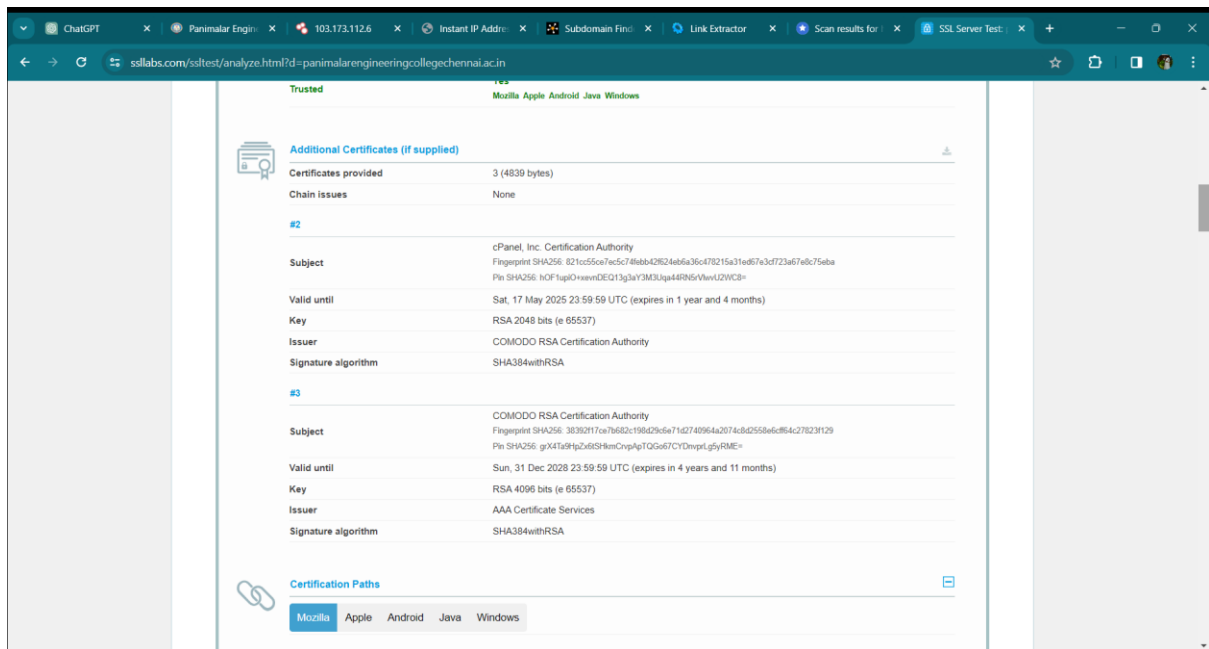
This server supports TLS 1.3.

Certificate #1: RSA 2048 bits (SHA256withRSA)

Certificate #1: RSA 2048 bits (SHA256withRSA)

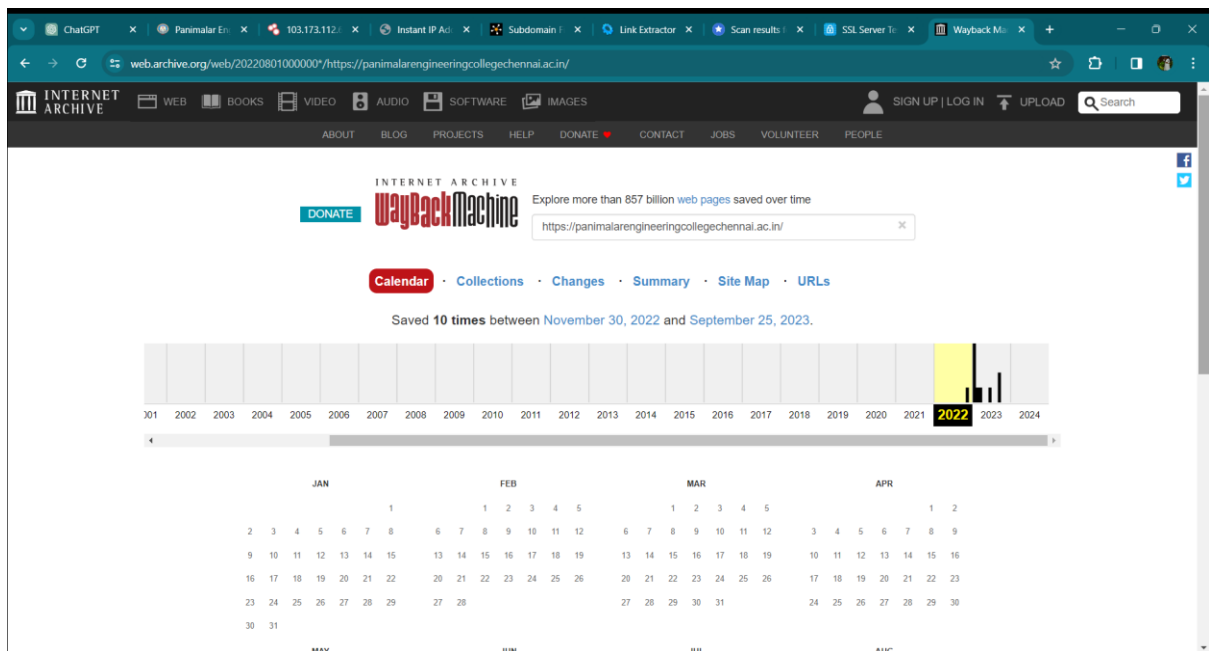
Server Key and Certificate #1

Subject	panimalarengineeringcollegechennai.ac.in Fingerprint SHA256: 2b63981446984bb472aca3d021697de7d11342b432a35156253b3be76497754 Pin SHA256: Y7YvLkKtcbC7Y2YxKLJkUJm++e0Kdv+0gFWU=
Common names	panimalarengineeringcollegechennai.ac.in
Alternative names	panimalarengineeringcollegechennai.ac.in cpanel panimalarengineeringcollegechennai.ac.in cpalendars panimalarengineeringcollegechennai.ac.in cpcontacts panimalarengineeringcollegechennai.ac.in mail panimalarengineeringcollegechennai.ac.in webdisk panimalarengineeringcollegechennai.ac.in webmail panimalarengineeringcollegechennai.ac.in www.panimalarengineeringcollegechennai.ac.in
Serial Number	00e8b4668c853b9b0546f1280f01896540
Valid from	Tue, 21 Nov 2023 00:00:00 UTC
Valid until	Mon, 19 Feb 2024 23:59:59 UTC (expires in 1 month and 2 days)
Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	cPanel, Inc. Certification Authority AJA: http://ort.comodoca.com/cPanelIncCertificationAuthority.crl
Signature algorithm	SHA256withRSA
Extended Validation	No
Certificate Transparency	Yes (certificate)
OCSP Must Staple	No
Revocation Information	CRL: OCSP CRL: http://ort.comodoca.com/cPanelIncCertificationAuthority.crl OCSP: http://ocsp.comodoca.com
Revocation status	Good (not revoked)
DNS CAA	No (more info)



Time Travel Exploration:

Time travel across the website involves navigating through historical versions to identify changes, updates, or potential security incidents. This analysis helps in understanding the evolution of the website and identifying any vulnerabilities that may have been addressed or introduced over time. The time-travel exploration provides a holistic perspective on the website's security history.



Conclusion:

In conclusion, this comprehensive footprinting analysis of the Panimalar Engineering College Chennai City Campus website provides valuable insights into its technology stack, subdomains, hidden URLs, buffer size, security headers, SSL/TLS configuration, and historical changes. The information gathered can be instrumental in implementing targeted security measures to enhance the overall resilience and security posture of the website. Regular monitoring and updates based on the findings of this analysis will contribute to the ongoing security efforts of Panimalar Engineering College.