



VAPT REPORT



DOCUMENT DETAILS

Document Properties

Title	Vulnerability Assessment & Penetration Testing
URL	https://www
Start time	2023-08-21T01:20:30.207276+06:00
Report type	Manual scan
Profile	Full Scan
Version	V1.0
Validity	30 days
Author	Rifat
Pen-testers	Rifat
Reviewed By	Rifat
Approved By	Rifat
Classification	Confidential

Version Control

Version	Date	Author	Description
V1.0	21-08-23	Rifat	Final Draft

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1. EXECUTIVE SUMMARY

This assessment aimed to identify weaknesses in security, mistakes in how the business logic was set up, and any areas where the best security practices were missing.

1.1 Scope of Testing

The following URL was the scope covered under the security audit:

Application 1: <https://www>

1.2 Threat level Summary

The visual representations VAPT dashboard offer a comprehensive overview of the outcomes of the security audit scan. These graphics provide a summary encompassing various aspects.

- **Threat Level 3**

Vulnerability Severity	No. of Vulnerability found
High	2
Medium	10
Low	8
Informational	4

1.3 List of Executive summary

#	Alert group	Severity	Alert count
1	SQLi	High	2
2	Access Control	Medium	3
3	Cryptographic Failures	Low	1
4	Insecure Design	Medium	3
5	Security Misconfiguration	High	12
6	Vulnerable and Outdated Components	Medium	13
7	Software and Data Integrity Failures	Medium	3
8	Broken Link Hijacking	Medium	1
9	Cookies without HttpOnly flag set	Low	1
10	Clickjacking: X-Frame-Options header	Low	1
11	Possible virtual host found	Low	1
12	Reverse proxy detected	Informational	1
13	Web Application Firewall detected	Informational	1
14	Broken Link Hijacking	Low	1
15	Vulnerable JavaScript libraries	Medium	1
16	Insecure Inline Frame (iframe)	Low	1
17	Cookies without Secure flag set	Low	1
18	HTTP Strict Transport Security (HSTS) not implemented	Low	1
19	Content Security Policy (CSP) not implemented	Informational	1
20	Outdated JavaScript libraries	Informational	1

2. DISCOVERED VULNERABILITIES DETAILS

VULNERABILITY	SQLi
SEVERITY	High
IMPACT	High
CVSS SCORE	7.5
Affected URL: https://www. .news-details.php?Id=8	
<p>Details of Vulnerability:</p> <p>SQL injection (SQLi) is a type of injection attack that allows an attacker to execute malicious SQL statements on a database server. This can be done by inserting malicious code into a vulnerable web application. SQLi vulnerabilities can occur in a variety of places, such as:</p> <ul style="list-style-type: none"> • User input fields: This is the most common place for SQLi vulnerabilities to occur. User input fields are often used to enter data into a database, such as usernames, passwords, and email addresses. If this data is not properly sanitized, an attacker can inject malicious code into the field. • Parameterised queries: Parameterised queries are a way of preventing SQLi vulnerabilities. However, if they are not implemented correctly, they can still be vulnerable. • Stored procedures: Stored procedures are a way of grouping together SQL statements. They can be used to improve performance and security. However, if stored procedures are not properly designed, they can be vulnerable to SQLi attacks. 	
<p>Impact: The impact of a successful SQLi attack can be severe. An attacker can use SQLi to:</p> <ul style="list-style-type: none"> • Read sensitive data from the database, such as passwords, credit card numbers, and personal information. • Modify data in the database, such as changing account balances or deleting records. • Create new records in the database, such as adding new users or accounts. • Execute arbitrary commands on the database server, such as installing malware or deleting files. 	
<p>Recommendation: To prevent SQLi attacks, it is important to:</p> <ul style="list-style-type: none"> • Sanitize all user input. This means removing any special characters that could be used to inject malicious code. • Use parameterised queries. This will prevent attackers from injecting malicious code into the query. 	

- Design stored procedures carefully. Make sure that they are not vulnerable to SQLi attacks.
- Use a web application firewall (WAF). A WAF can help to block SQLi attacks.

Additional References: <https://portswigger.net/web-security/sql-injection>

VULNERABILITY	Clickjacking: X-Frame-Options header
SEVERITY	MEDIUM
IMPACT	LOW
CVSS SCORE	3
Affected URL: Sitewide	
Details of Vulnerability: GET / HTTP/1.1 Referer: https:// Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8 Accept-encoding: gzip, deflate, br User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/68.0.0.0 Safari/537.36 Host: www. Connection: Keep-alive Paths without secure XFO header: https://www. https://www./1200-Split-Tube-Furnace.php https://www./1200-Split-Tube-Furnace.php https://www./1200-Split-Tube-Furnace.php	
Impact: The impact depends on the affected web application.	
Recommendation: Configure your web server to include an X-Frame-Options header and a CSP header with frame-ancestors directive. Consult Web references for more information about the possible values for this header.	
Additional References: https://cheatsheetseries.owasp.org/cheatsheets/Clickjacking_Defense_Cheat_Sheet.html https://en.wikipedia.org/wiki/Clickjacking	

VULNERABILITY	Possible virtual host found
SEVERITY	MEDIUM
IMPACT	Low
CVSS SCORE	3.5
Affected URL: Virtual host: r , webmail	
Details of Vulnerability: Virtual host: mail Response: <pre><!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 2.0//EN"> <html> <head> <title>1 Moved Permanently</title> </head> <h1>1 Moved Permanently</h1> <p>The document has moved here.</p> </body></html></pre> Virtual host: web Response: <pre><!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 2.0//EN"> <html> <head> <title>1 Moved Permanently</title> </head> <body> <h1>1 Moved Permanently</h1> <p>The document has moved here.</p> </body></html></pre>	
Impact: Possible sensitive information disclosure.	
Recommendation: Consult the virtual host configuration and check if this virtual host should be publicly accessible.	
Additional References: https://en.wikipedia.org/wiki/Virtual_hosting	

VULNERABILITY	Clickjacking: X-Frame-Options header
SEVERITY	Low
IMPACT	MEDIUM
CVSS SCORE	5.8
Details of Vulnerability: Clickjacking (User Interface redress attack, UI redress attack, UI redressing) is a malicious technique of tricking a Web user into clicking on something different from what the user perceives they are clicking on, thus potentially revealing confidential information or taking control of their computer	

while clicking on seemingly innocuous web pages. The server did not return an X-Frame-Options header with the value DENY or SAMEORIGIN, which means that this website could be at risk of a clickjacking attack. The X-Frame-Options HTTP response header can be used to indicate whether or not a browser should be allowed to render a page inside a frame or iframe. Sites can use this to avoid clickjacking attacks, by ensuring that their content is not embedded into untrusted sites.

Paths without secure XFO header:

```
https://www.1200-Mini-Muffle-Furnace.php
https://www.1200-Mini-Tube-Furnace.php
https://www.1200-Split-Tube-Furnace.php
https://www.1700-Lit Type-Bell ar-Furnace.php
https://www./1700-M le- mos here-Furnace.php
https://www./1700-M le- rna .php
https://www./1700-Va ur Furr e.php
https://www.3-rods-( D- ster .php
https://www.3-rods-( apl ie-( with-system.php
https://www.Therma :VI .php tps://www. about-us.php
https://www.advanc em ol or-nano-analysis.php
https://www.area-co gu io ist-5-10-20ln.php
https://www.astar-te toc -r iotechnology.php
https://www.auto-strain-r x g.php
https://www.big-size-split-tube-furnace.php

GET / HTTP/1.1

Referer: https://ww

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Accept-Encoding: gzip,deflate,br

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/108.0.0.0 Safari/537.36

Host: www

Connection: Keep-alive
```

Impact: The impact depends on the affected web application.

Recommendation: Configure your web server to include an X-Frame-Options header and a CSP header with frame-ancestors directive. Consult Web references for more information about the possible values for this header.

VULNERABILITY	Cookies without Secure flag set
SEVERITY	Medium
IMPACT	High
CVSS SCORE	7
Details of Vulnerability: <pre> GET / HTTP/1.1 Referer: https://www. Accept: text/html,application/xhtml+xml, application/xml;q=0.8 Accept-Encoding: gzip, deflate User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.0.0 Safari/537.36 Host : www Connection: keep_alive </pre>	
Impact: Cookies could be sent over unencrypted channels.	

VULNERABILITY	Malware Identified (verified)
SEVERITY	High
IMPACT	Medium
CVSS SCORE	4
Details of Vulnerability: A malicious file was detected on your web server. This could be that you either uploaded the file by accident or an attacker was able to write arbitrary files to your web server. Threats found by Windows Defender: Trojan:HTML/Phish!MSR	
Recommendation: It is advisable to contact an information security company with experience in malware removal. They may help or instruct you to take the following steps: <ul style="list-style-type: none"> • Immediate removal of the malicious file. 	

- Find out whether additional steps need to be taken to ensure that the malicious files were completely removed from your server.
- Where applicable, replacement of the file with a clean copy that does not contain the malicious code. You should make sure to locally scan the new file with an antivirus tool or submit it to VirusTotal before you upload it again.
- They may help you to ensure that the malicious file is no longer accessible. If you use caching server such as Varnish, Squid or Nginx, they might tell you to make sure that they don't serve a copy of the infected file from memory.
- They will tell you to notify your users and the appropriate authorities. This may include law enforcement and data protection authorities depending on your local laws.

VULNERABILITY	Vulnerable JavaScript libraries
SEVERITY	MEDIUM
IMPACT	MEDIUM
CVSS SCORE	5.5
Details of Vulnerability: You are using one or more vulnerable JavaScript libraries. One or more vulnerabilities were reported for this version of the library. Consult Attack details and Web References for more information about the affected library and the vulnerabilities that were reported.	
<pre>GET / HTTP/1.1 Referer: https://www Accept: text/html,application/xhtml+xml,application/javascript;q=0.8 Accept-encoding: gzip, deflate User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.0.0 Safari/537.36 Host: www Connection: Keep-alive</pre> <ul style="list-style-type: none"> • jQuery 1.12.4 • URL: https://www • Detection method: The library's name and version were determined based on its dynamic behavior. • CVE-ID: CVE-2015-9251, CVE-2020-11022, CVE-2020-11023 	

VULNERABILITY	Cookies without HttpOnly flag set (verified)
SEVERITY	Low
IMPACT	MEDIUM
CVSS SCORE	3.5

One or more cookies don't have the `HttpOnly` flag set. When a cookie is set with the `HttpOnly` flag, it instructs the browser that the cookie can only be accessed by the server and not by client-side scripts. This is an important security protection for session cookies

- `https://www. Set-Cookie: PHPSESSID=34e044af64e013476414278a8bb1e4b; path=/`
- `https://www. Set-Cookie: PHPSESSID=309f65f08b94020f51001ad6; path=/`
- `http://www. Set-Cookie: PHPSESSID=6577829e7c33a49f4b7a49ceeeb5429c; path=/`

VULNERABILITY	Cookies without Secure flag set (verified)
SEVERITY	MEDIUM
IMPACT	MEDIUM
CVSS SCORE	3.5
Details of Vulnerability: One or more cookies does not have the Secure flag set. When a cookie is set with the Secure flag, it instructs the browser that the cookie can only be accessed over secure SSL/TLS channels. This is an important security protection for session cookies. Cookies without Secure flag set: <ul style="list-style-type: none"> https://www. Set-Cookie: PHPSESSID=3c309f658993; path=/ https://www. Set-Cookie: PHPSESSID=3c309f658993; path=/ https://www. /support/subscribe.php Set-Cookie: PHPSESSID=6577829e7c33; path=/ 	

VULNERABILITY	HTTP Strict Transport Security (HSTS) not implemented
SEVERITY	Low
IMPACT	MEDIUM
CVSS SCORE	4
Details of Vulnerability: HTTP Strict Transport Security (HSTS) tells a browser that a web site is only accessible using HTTPS. It was detected that your web application doesn't implement HTTP Strict Transport Security (HSTS) as the Strict Transport Security header is missing from the response. URLs where HSTS is not enabled: <ul style="list-style-type: none"> https://www. http://www. 1200-Elite-Furniture-Face.php https://www. 1200-Elite-Furniture-Face.php https://www. 1700-Elite-Furniture-Face.php https://www. 1700-Muffle-Atmosphere-Face.php 	

<https://www.1700-Multi-Furnace.php>
<https://www.1700-Vacuum-Furnace.php>
<https://www.3-rod-CVD-system.php>
<https://www.3-rod-Graphene-growth-system.php>
<https://www.3d-printing-diffusion-treatment-technology.php>
<https://www.CNT-film.php>
<https://www.PECVD-process-equipment-media.php>
<https://www.Thermal-CVD.php>
<https://www.advanced-tools-for-analysis.php>
<https://www.area-of-formation-5-201n.php>
<https://www.astar-tools-nanotechnology.php>
<https://www.auto-strain-mapping.php>
<https://www.big-technology.php>

Recommendation: It's recommended to implement HTTP Strict Transport Security (HSTS) into your web application. Consult web references for more information

VULNERABILITY	Content Security Policy (CSP) not implemented
SEVERITY	Informational
IMPACT	MEDIUM
CVSS SCORE	5.2

Details of Vulnerability:

Content Security Policy (CSP) is an added layer of security that helps to detect and mitigate certain types of attacks, including Cross Site Scripting (XSS) and data injection attacks. Content Security Policy (CSP) can be implemented by adding a Content-Security-Policy header. The value of this header is a string containing the policy directives describing your Content Security Policy. To implement CSP, you should define lists of allowed origins for the all of the types of resources that your site utilizes. For example, if you have a simple site that needs to load scripts, stylesheets, and images hosted locally, as well as from the jQuery library from their CDN, the CSP header could look like the following:

```
Content-Security-Policy:
    default-src 'self';
    script-src 'self' http://www.jquery.com;
```

It was detected that your web application doesn't implement Content Security Policy (CSP) as the CSP header is missing from the response. It's recommended to implement Content Security Policy (CSP) into your web application.

VULNERABILITY	Outdated JavaScript libraries
SEVERITY	Informational
IMPACT	MEDIUM
CVSS SCORE	4.5

Details of Vulnerability:

You are using an outdated version of one or more JavaScript libraries. A more recent version is available. Although your version was not found to be affected by any security vulnerabilities, it is recommended to keep libraries up to date.

- bootstrap.js 3.3.7
- URL: <https://www.bootstrapcdn.com/docs/3.3.7/>

<ul style="list-style-type: none"> Detection method: The library's name and version were determined based on its dynamic behavior.
Recommendation: <ul style="list-style-type: none"> Upgrade to the latest version.
Additional References: <ul style="list-style-type: none"> https://github.com/twbs/bootstrap/releases

VULNERABILITY	Reverse proxy detected
SEVERITY	Informational
IMPACT	MEDIUM
CVSS SCORE	4.5
Details of Vulnerability: This server uses a reverse proxy, a load balancer or a CDN (Content Delivery Network) or it's hosted in a cloud provider. Acunetix detected this by sending various payloads and detecting changes in headers and body. Detected reverse proxy: Apache httpd	
<pre>GET / HTTP/1.1 Max-Forwards: 0 Accept: text/html,application/xhtml+xml;q=0.9,*/*;q=0.8 Accept-Encoding: gzip,deflate,br User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.0.0 Safari/537.36 Host: ww Connection: Keep-alive</pre>	
Recommendation: None	

VULNERABILITY	Web Application Firewall detected
SEVERITY	Informational
IMPACT	MEDIUM
CVSS SCORE	4.5
Details of Vulnerability: This server is protected by an IPS (Intrusion Prevention System), IDS (Intrusion Detection System) or an WAF (Web Application Firewall). Acunetix detected this by sending various malicious payloads and detecting changes in the response code, headers and body.	
Detected ModSecurity from the response body. <pre>GET /?page=../../../../../../../../../../../../etc/passwd%00.jpg HTTP/1.1 Cookie: Accept: t tml+xml,application/xml;q=0.9,*/*;q=0.8 Accept-Encoding: gzip,deflate,br User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.0.0 Safari/537.36 Host: ww' Connection: Keep-alive</pre>	
Recommendation: If possible, it's recommended to scan an internal (development) version of the web application where the WAF is not active.	

3. LIST OF VAPT TESTS PERFORMED

3.1 OWASP Top 10

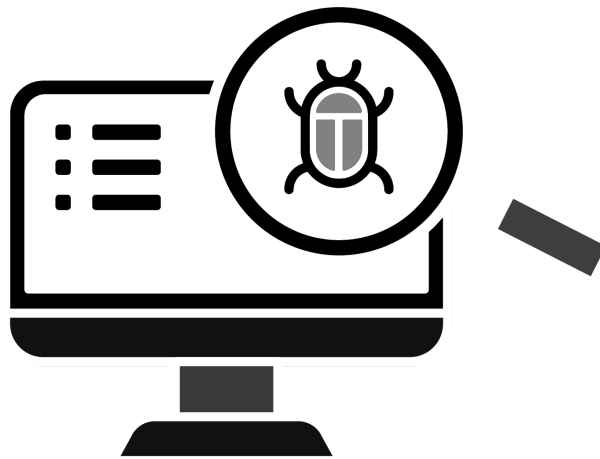
#	OWASP Top 10
	For Web Applications
1	SQL Injection
2	Broken Authentication
3	Sensitive Data Exposure
4	XML External Entities (XXL)
5	Broken Access Control
6	Security Misconfiguration
7	Cross-Site Scripting (XSS)
8	Insecure Deserialization
9	Using Components with Known Vulnerabilities
10	Insufficient Logging and Monitoring

3.2 SANS 25 Software Errors/Tests

#	SANS 25
1	Improper Restriction of Operations within the Bounds of a Memory Buffer
2	Improper Neutralization of Input During Web Page Generation ('XSS')
3	Improper Input Validation
4	Information Exposure
5	Out-of-bounds Read
6	Improper Neutralization of Special Elements used in an SQL Command (SQLi)
7	Use After Free
8	Integer Overflow or Wraparound
9	Cross-Site Request Forgery (CSRF)
10	Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal')
11	Improper Neutralization of Special Elements used in an OS Command
12	Out-of-bounds Write
13	Improper Authentication
14	NULL Pointer Dereference
15	Incorrect Permission Assignment for Critical Resource
16	Unrestricted Upload of File with Dangerous Type
17	Improper Restriction of XML External Entity Reference
18	Improper Control of Generation of Code ('Code Injection')
19	Use of Hard-coded Credentials
20	Uncontrolled Resource Consumption
21	Missing Release of Resource after Effective Lifetime
22	Untrusted Search Path
23	Deserialization of Untrusted Data
24	Improper Privilege Management
25	Improper Certificate Validation

<https://www.single-raman-spectrometer.php> <https://www/sitemap.xml>
<https://www.sliding-furnace.php>
<https://www.spectroscopy-and-micro-analysis-accessories.php>
<https://www.split-tube-furnace.php> <https://www/support/>
<https://www.support/find.php> <https://www/in/survey-ir.php>
<https://www.tah-series.php>
<https://www.t-process-equipments.php>
<https://www.t-robot-education.php>
<https://www.t-mat-and-f-phenene-foam-synthesis.php>
<https://www.t-mat-and-f-for-nanowire-synthesis.php>
<https://www/Ther-zone-1600-cvd.php>
<https://www/tpx-furnace.php>
<https://www/ubg-sensor.php>
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<https://www/urg-in-range-sensor.php>
<https://www/urg04-in-range-sensor.php>
<https://www/utm-30lx-few.php>
<https://www/utm30lx-se.php>
<https://www/uxm-30lxh-eh-m-30lah-a.php>
<https://www/uxm30lnp-range-sensor.php>
<https://www/vacuum-furnace-for-synthesis.php>
<https://www/vacuum-oven-for-drying-system.php>
<https://www/variable-freeze-slice.php>
<https://www/vertical-furnace.php> <https://www/ray-lynx.php>
<https://www/200-P80V10.php>
<https://www/Electronics-equipments-india.php>
<https://www/ex-sensor.php>
<https://www/fx-sensor.php>
<https://www/hc-sensor.php>
<https://www/lx-sensor.php>
<https://www/ori-raman-spectrometer.php>
<https://www/reduction-electrode-ion.php>
<https://www/rocs-computer-networks.php>
<https://www/rocs.php>
<https://www/vf-foto-sensor.php>
<https://www/wang-sensor.php>
<https://www/robotic-system.php>
<https://www/robotic-system.php>
<https://www/safety-mer-uam-05lp-t301.php>
<https://www/ample-sensor.php>
<https://www/ample-accessory.php>
<https://www/canning-label-finder.php>
<https://www/scientific-instrument-camera.php>
<https://www/sensor-for-simulation.php>
<https://www/sensors-for-steel-industry.php>
<https://www/sensors-for-tile-industry.php>
<https://www/sensors.php>
<https://www/serial-parallel-data-converter.php>
<https://www/serial-type-data-transmission-devices.php>

<https://www.indiram-handly-handheld-raman-spectrometer.php>
<https://www.sp-...-converter.php>
<https://www.br-...>
<https://www.abr-...-process-solutions.php>
<https://www.as-...>
<https://www.da-...ip>
<https://www.ea-...ip>
<https://www.co-...transmittance-cell-cryostat-190.php>
<https://www.v-...sor.php>
<https://www/b-...sor.php>
<https://www/n-...>
<https://www/n-...archives/>
<https://www/n-...ch-pick-pen.php>
<https://www/n-...ce-sliceir-easy-cross-sectioning.php>
<https://www/mir-...ce.php>
<https://www.r-...tr-visi-...php>
<https://www.-f-...e.p/>
<https://www./ti-c-...h>
<https://www.w-si-...surf-...-vis.php>
<https://www.n-des-...e-...>
<https://www/'ical-da-...an-...or-...vica-...ip>
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<https://www.ecvd-...ensity-...e-...php>
<https://www.ecvd-...cluster-s-...apher-...nthesis.php>
<https://www.ecvd-...ter-...-lc-...ip-...er-...>
<https://www.s-...vd-sv-...-o-...barrier-...>
<https://www.-t-...-s-...cell-ar-...>
<https://www.-ita-transmission-...ce-...>
<https://www.->
<https://www.-e-data-devices>
<https://www.-ical-...or-...vices.php>
<https://www.-data-...on-...php>
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<https://www.-parallel-...sion-devices.php>
<https://www.-ener-...mis-...-ray.php>
<https://www.-counter-...>
<https://www.-chr-...>
<https://www.-anc-...x-edx-spectroscopy.php>
<https://www.-juiry.php>
<https://www.-pick.php>
<https://www.t-...0.php>
<https://www.-20bw.php>



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August 21, 2023