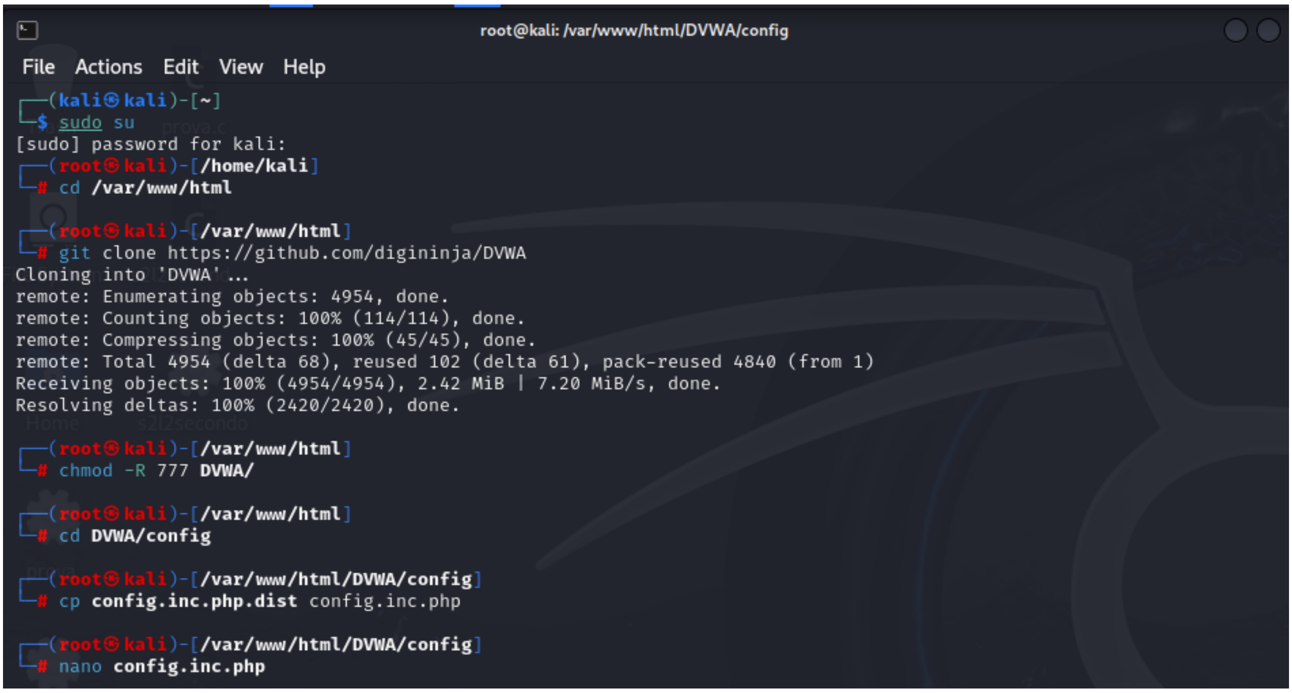
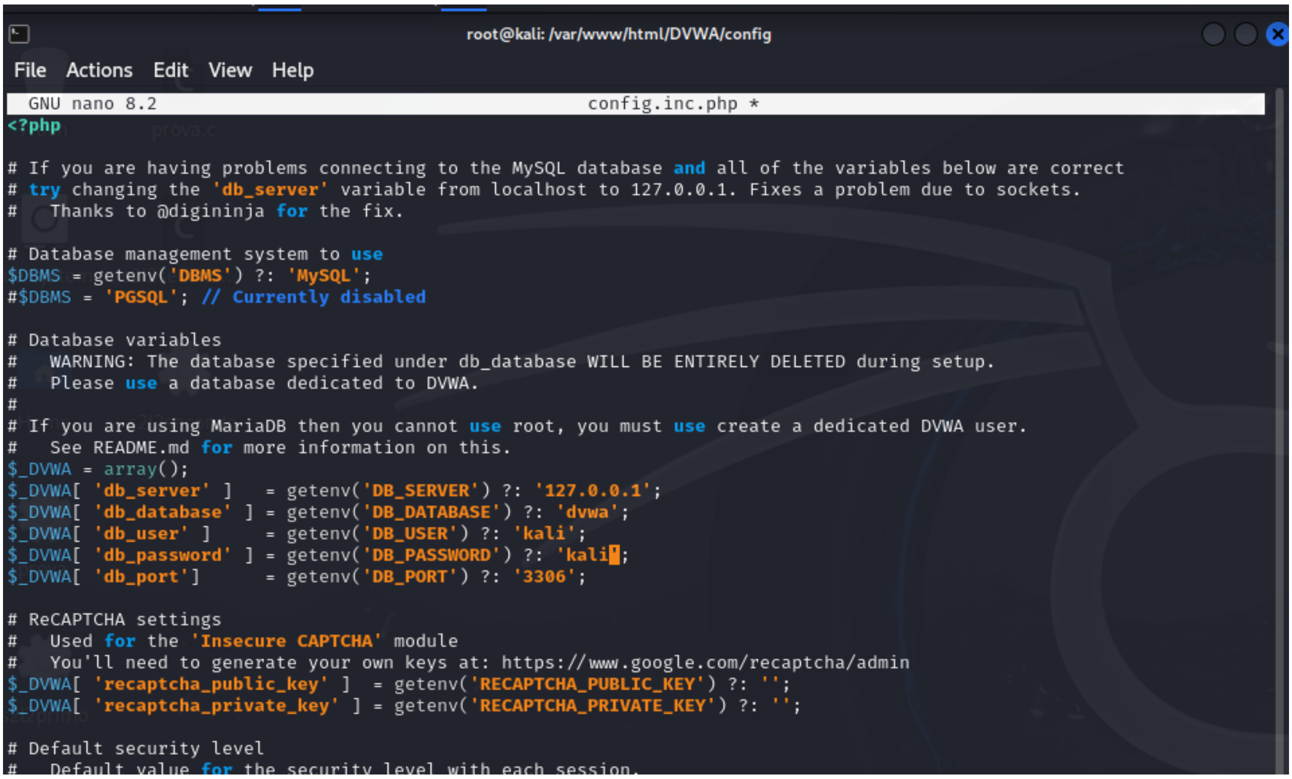
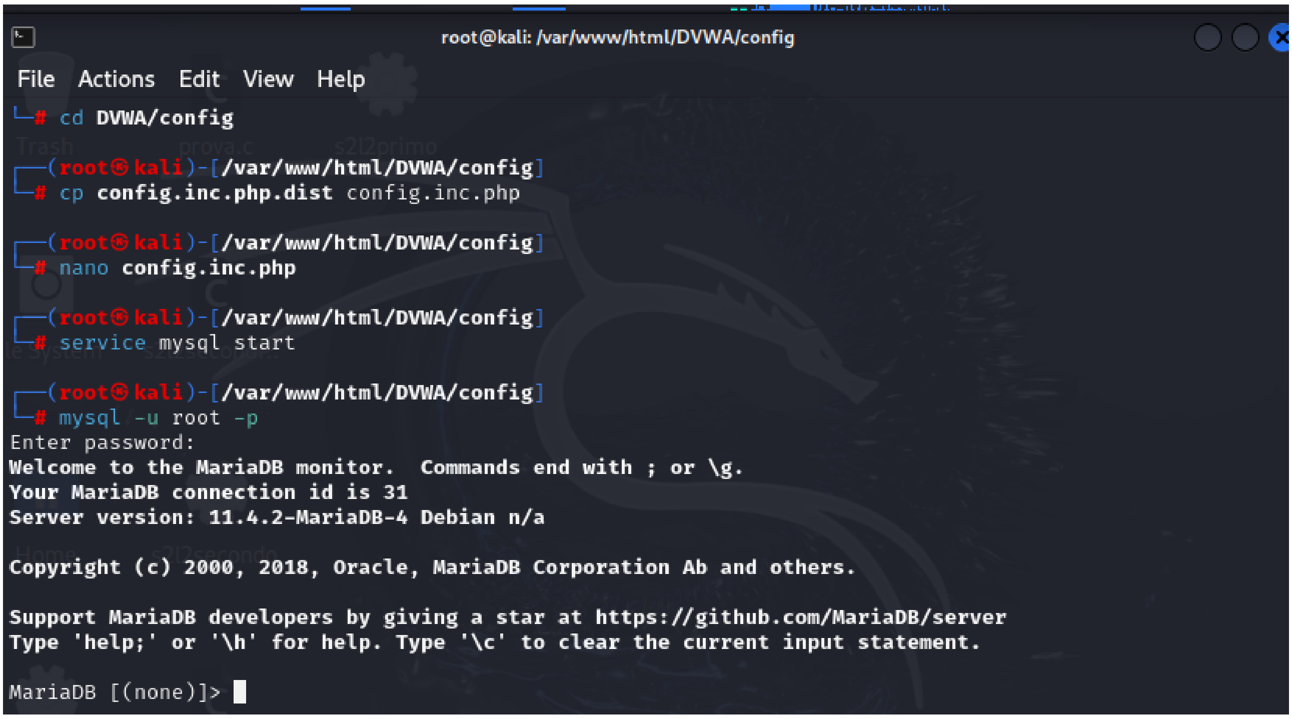
Pratica S3/L3


root@kali: /var/www/html/DVWA/config
File Actions Edit View Help

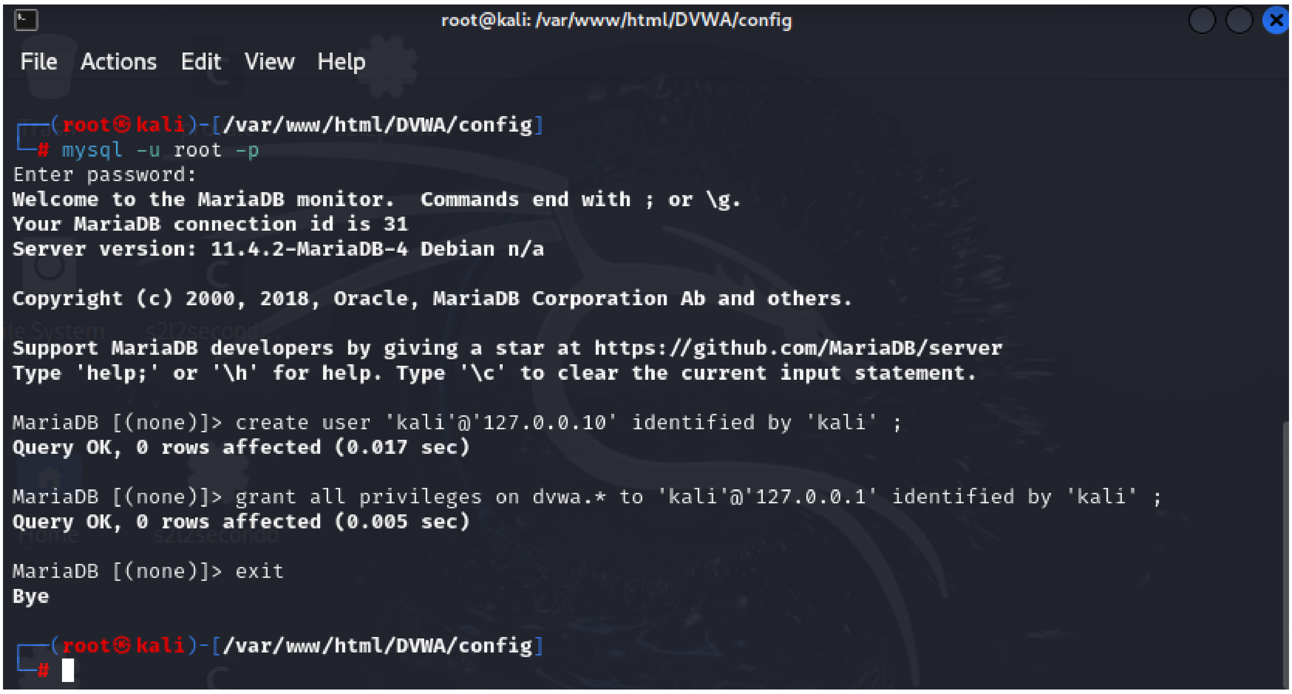
```
┌──(kali㉿kali)-[~]
└─$ sudo su
[sudo] password for kali:
┌──(root㉿kali)-[/home/kali]
└─# cd /var/www/html

┌──(root㉿kali)-[/var/www/html]
└─# git clone https://github.com/digininja/DVWA
Cloning into 'DVWA'...
remote: Enumerating objects: 4954, done.
remote: Counting objects: 100% (114/114), done.
remote: Compressing objects: 100% (45/45), done.
remote: Total 4954 (delta 68), reused 102 (delta 61), pack-reused 4840 (from 1)
Receiving objects: 100% (4954/4954), 2.42 MiB | 7.20 MiB/s, done.
Resolving deltas: 100% (2420/2420), done.

┌──(root㉿kali)-[/var/www/html]
└─# chmod -R 777 DVWA/

┌──(root㉿kali)-[/var/www/html]
└─# cd DVWA/config

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# cp config.inc.php.dist config.inc.php

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# nano config.inc.php
```


root@kali: /var/www/html/DVWA/config
File Actions Edit View Help

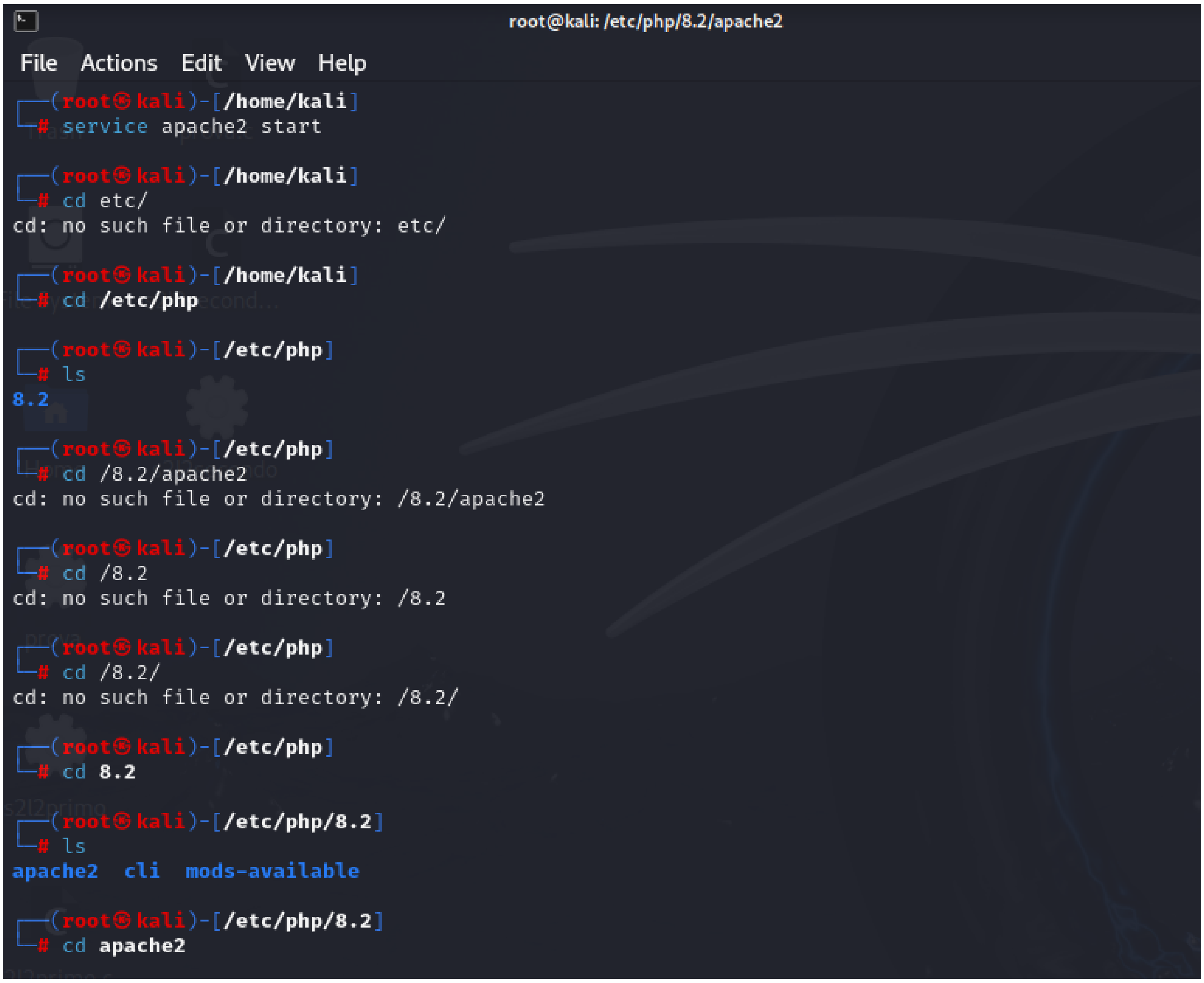
```
  GNU nano 8.2                                    config.inc.php *
<?php

# If you are having problems connecting to the MySQL database and all of the variables below are correct
# try changing the 'db_server' variable from localhost to 127.0.0.1. Fixes a problem due to sockets.
#   Thanks to @digininja for the fix.

# Database management system to use
$DBMS = getenv('DBMS') ?: 'MySQL';
#$DBMS = 'PGSQL'; // Currently disabled

# Database variables
#   WARNING: The database specified under db_database WILL BE ENTIRELY DELETED during setup.
#   Please use a database dedicated to DVWA.
#
# If you are using MariaDB then you cannot use root, you must use create a dedicated DVWA user.
#   See README.md for more information on this.
$_DVWA = array();
$_DVWA[ 'db_server' ]   = getenv('DB_SERVER') ?: '127.0.0.1';
$_DVWA[ 'db_database' ] = getenv('DB_DATABASE') ?: 'dvwa';
$_DVWA[ 'db_user' ]     = getenv('DB_USER') ?: 'kali';
$_DVWA[ 'db_password' ] = getenv('DB_PASSWORD') ?: 'kali';
$_DVWA[ 'db_port']      = getenv('DB_PORT') ?: '3306';

# ReCAPTCHA settings
#   Used for the 'Insecure CAPTCHA' module
#   You'll need to generate your own keys at: https://www.google.com/recaptcha/admin
$_DVWA[ 'recaptcha_public_key' ]  = getenv('RECAPTCHA_PUBLIC_KEY') ?: '';
$_DVWA[ 'recaptcha_private_key' ] = getenv('RECAPTCHA_PRIVATE_KEY') ?: '';

# Default security level
#   Default value for the security level with each session.
```


root@kali: /var/www/html/DVWA/config
File Actions Edit View Help

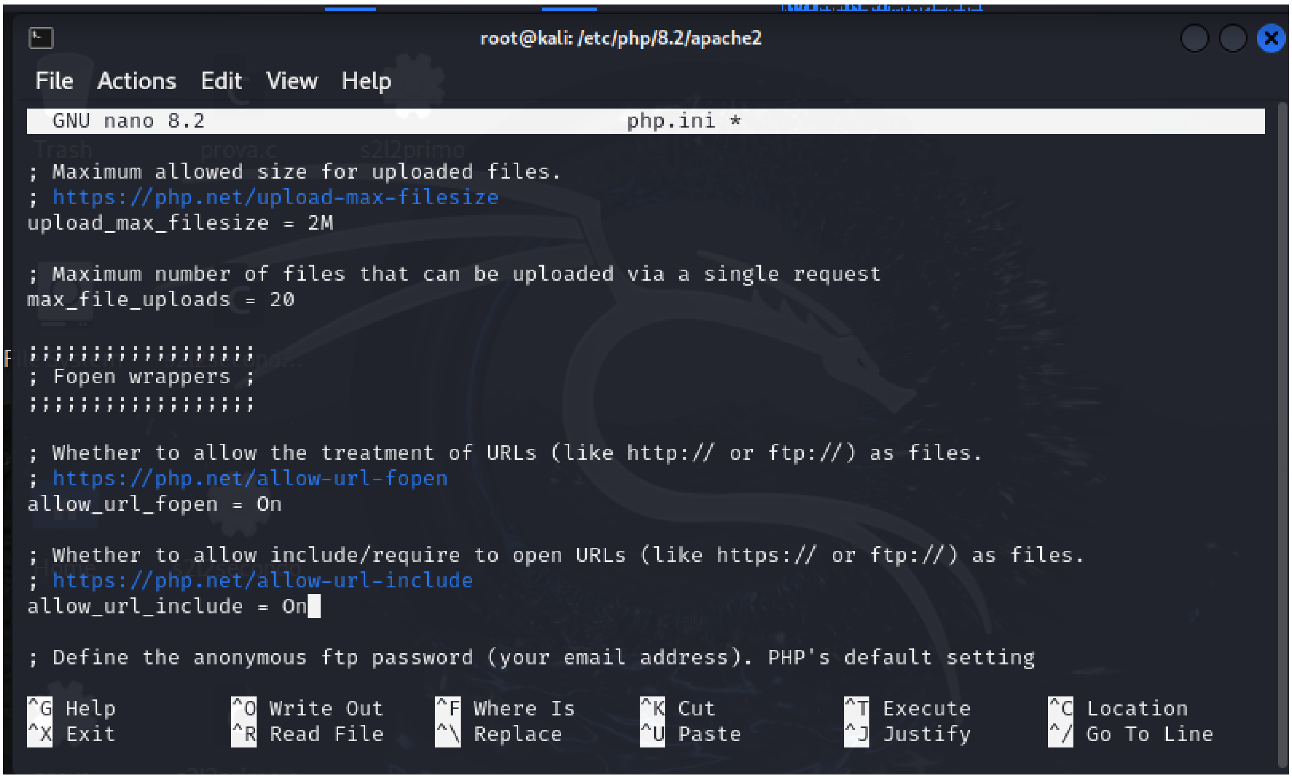
```
└─# cd DVWA/config

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# cp config.inc.php.dist config.inc.php

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# nano config.inc.php

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# service mysql start

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 31
Server version: 11.4.2-MariaDB-4 Debian n/a

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Support MariaDB developers by giving a star at https://github.com/MariaDB/server
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> 
```


root@kali: /var/www/html/DVWA/config
File Actions Edit View Help

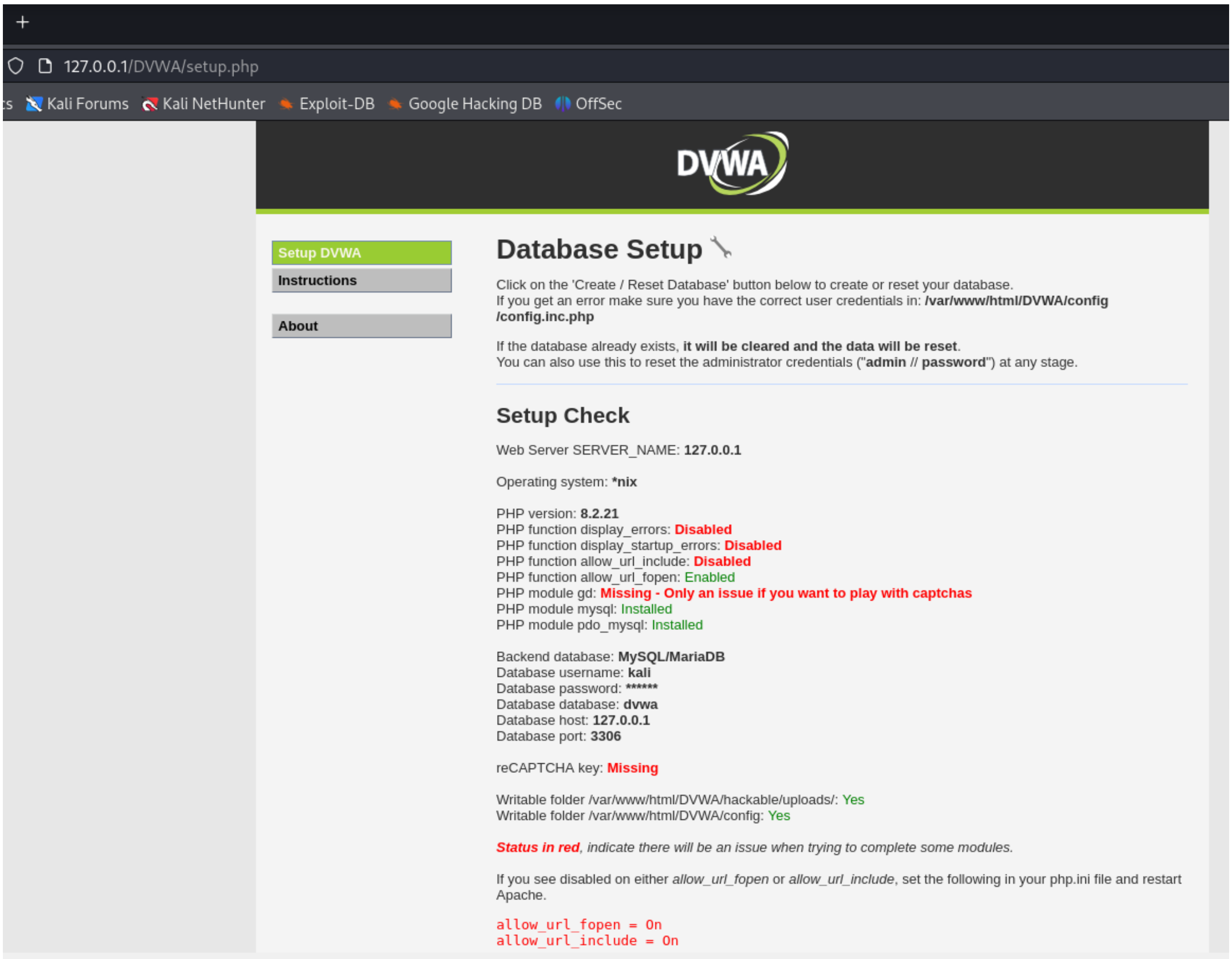
```
┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 31
Server version: 11.4.2-MariaDB-4 Debian n/a

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Support MariaDB developers by giving a star at https://github.com/MariaDB/server
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create user 'kali'@'127.0.0.10' identified by 'kali' ;
Query OK, 0 rows affected (0.017 sec)

MariaDB [(none)]> grant all privileges on dvwa.* to 'kali'@'127.0.0.1' identified by 'kali' ;
Query OK, 0 rows affected (0.005 sec)

MariaDB [(none)]> exit
Bye

┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# 
```



```
┌──(root㉿kali)-[/home/kali]
└─# service apache2 start

┌──(root㉿kali)-[/home/kali]
└─# cd etc/
cd: no such file or directory: etc/

┌──(root㉿kali)-[/home/kali]
└─# cd /etc/php

┌──(root㉿kali)-[/etc/php]
└─# ls
8.2

┌──(root㉿kali)-[/etc/php]
└─# cd /8.2/apache2
cd: no such file or directory: /8.2/apache2

┌──(root㉿kali)-[/etc/php]
└─# cd /8.2
cd: no such file or directory: /8.2

┌──(root㉿kali)-[/etc/php]
└─# cd /8.2/
cd: no such file or directory: /8.2/

┌──(root㉿kali)-[/etc/php]
└─# cd 8.2

┌──(root㉿kali)-[/etc/php/8.2]
└─# ls
apache2   cli   mods-available

┌──(root㉿kali)-[/etc/php/8.2]
└─# cd apache2
```



```
  GNU nano 8.2                           php.ini *
; Maximum allowed size for uploaded files.
; https://php.net/upload-max-filesize
upload_max_filesize = 2M

; Maximum number of files that can be uploaded via a single request
max_file_uploads = 20

;;;;;;;;;;;;;;;;;;
; Fopen wrappers ;
;;;;;;;;;;;;;;;;;;

; Whether to allow the treatment of URLs (like http:// or ftp://) as files.
; https://php.net/allow-url-fopen
allow_url_fopen = On

; Whether to allow include/require to open URLs (like https:// or ftp://) as files.
; https://php.net/allow-url-include
allow_url_include = On

; Define the anonymous ftp password (your email address). PHP's default setting

^G Help         ^O Write Out    ^F Where Is     ^K Cut          ^T Execute      ^C Location
^X Exit         ^R Read File    ^\ Replace      ^U Paste        ^J Justify      ^/ Go To Line
```



Database Setup

Click on the 'Create / Reset Database' button below to create or reset your database.
If you get an error make sure you have the correct user credentials in: **/var/www/html/DVWA/config /config.inc.php**

If the database already exists, **it will be cleared and the data will be reset**.
You can also use this to reset the administrator credentials ("**admin** // **password**") at any stage.

Setup Check

Web Server SERVER_NAME: **127.0.0.1**

Operating system: ***nix**

PHP version: **8.2.21**
PHP function display_errors: **Disabled**
PHP function display_startup_errors: **Disabled**
PHP function allow_url_include: **Disabled**
PHP function allow_url_fopen: Enabled
PHP module gd: **Missing - Only an issue if you want to play with captchas**
PHP module mysql: Installed
PHP module pdo_mysql: Installed

Backend database: **MySQL/MariaDB**
Database username: **kali**
Database password: **********
Database database: **dvwa**
Database host: **127.0.0.1**
Database port: **3306**

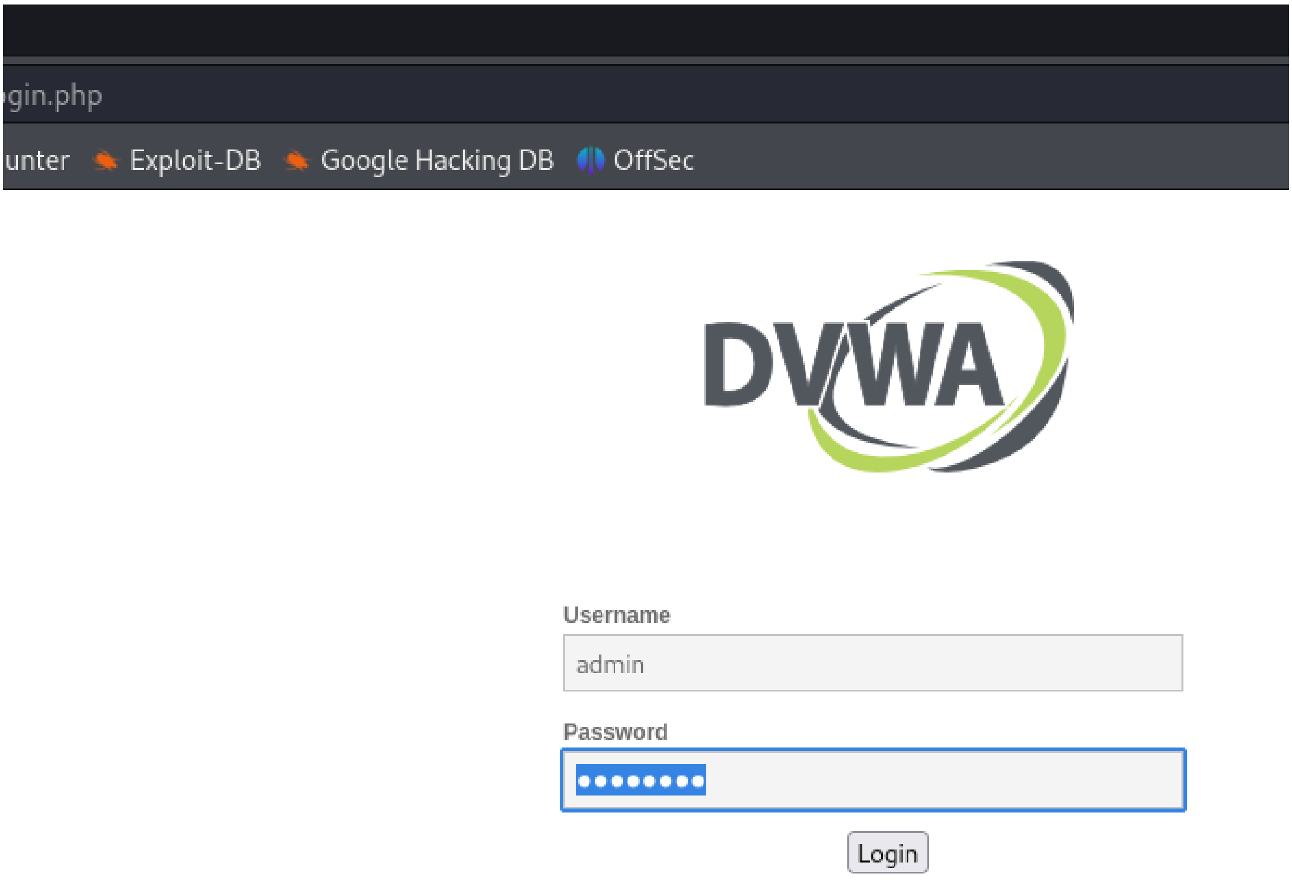
reCAPTCHA key: **Missing**

Writable folder /var/www/html/DVWA/hackable/uploads/: Yes
Writable folder /var/www/html/DVWA/config: Yes

Status in red*, indicate there will be an issue when trying to complete some modules.*

If you see disabled on either *allow_url_fopen* or *allow_url_include*, set the following in your php.ini file and restart Apache.

```
allow_url_fopen = On
allow_url_include = On
```

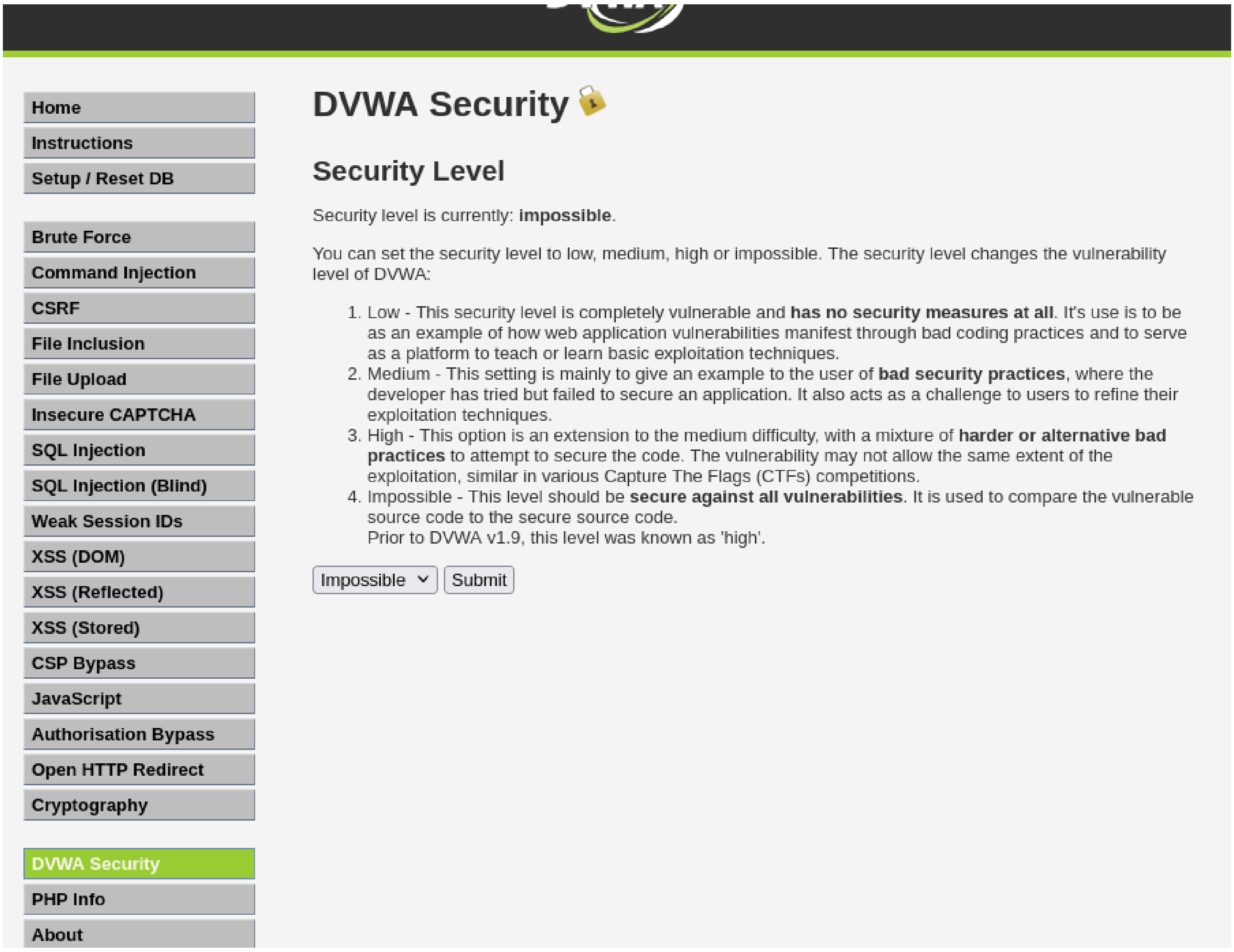


Username

admin

Password

●●●●●●●●



DVWA Security

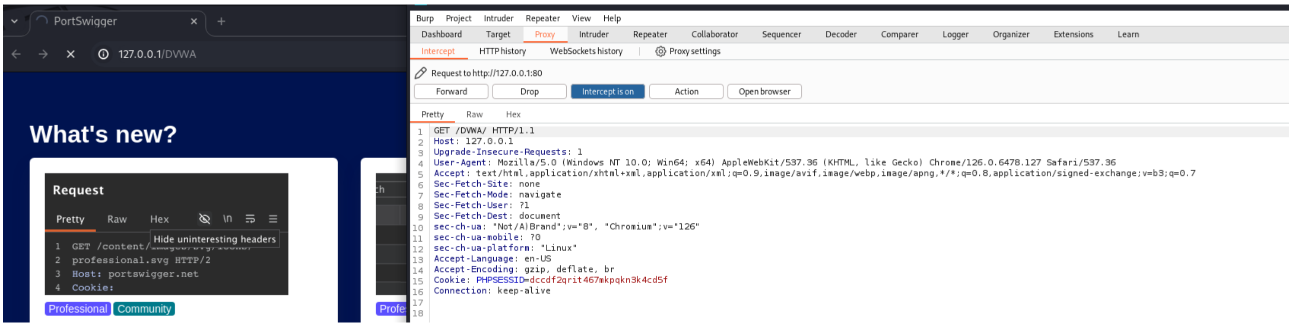
Security Level

Security level is currently: **impossible**.

You can set the security level to low, medium, high or impossible. The security level changes the vulnerability level of DVWA:

1. Low - This security level is completely vulnerable and **has no security measures at all**. It's use is to be as an example of how web application vulnerabilities manifest through bad coding practices and to serve as a platform to teach or learn basic exploitation techniques.
2. Medium - This setting is mainly to give an example to the user of **bad security practices**, where the developer has tried but failed to secure an application. It also acts as a challenge to users to refine their exploitation techniques.
3. High - This option is an extension to the medium difficulty, with a mixture of **harder or alternative bad practices** to attempt to secure the code. The vulnerability may not allow the same extent of the exploitation, similar in various Capture The Flags (CTFs) competitions.
4. Impossible - This level should be **secure against all vulnerabilities**. It is used to compare the vulnerable source code to the secure source code.
   Prior to DVWA v1.9, this level was known as 'high'.

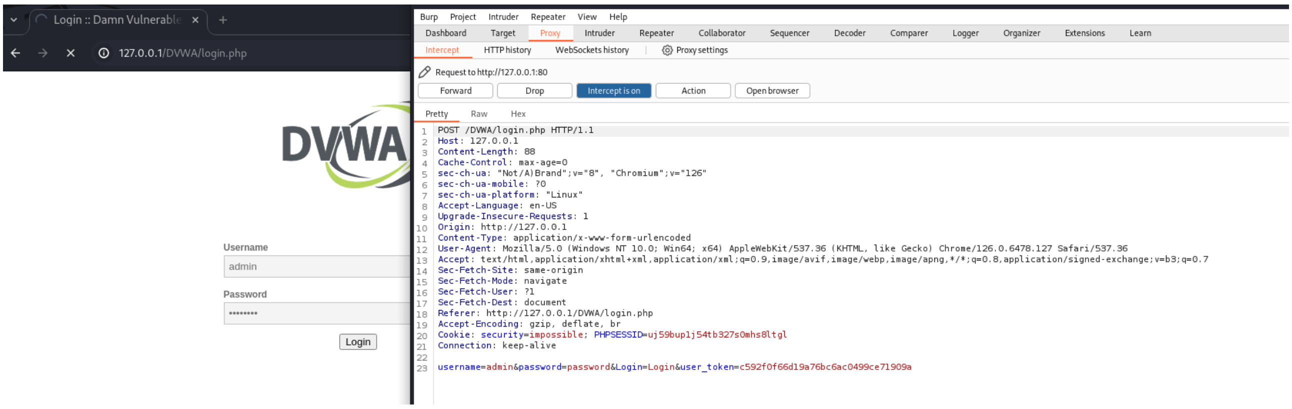
Impossible ⌄ Submit



Request to http://127.0.0.1:80

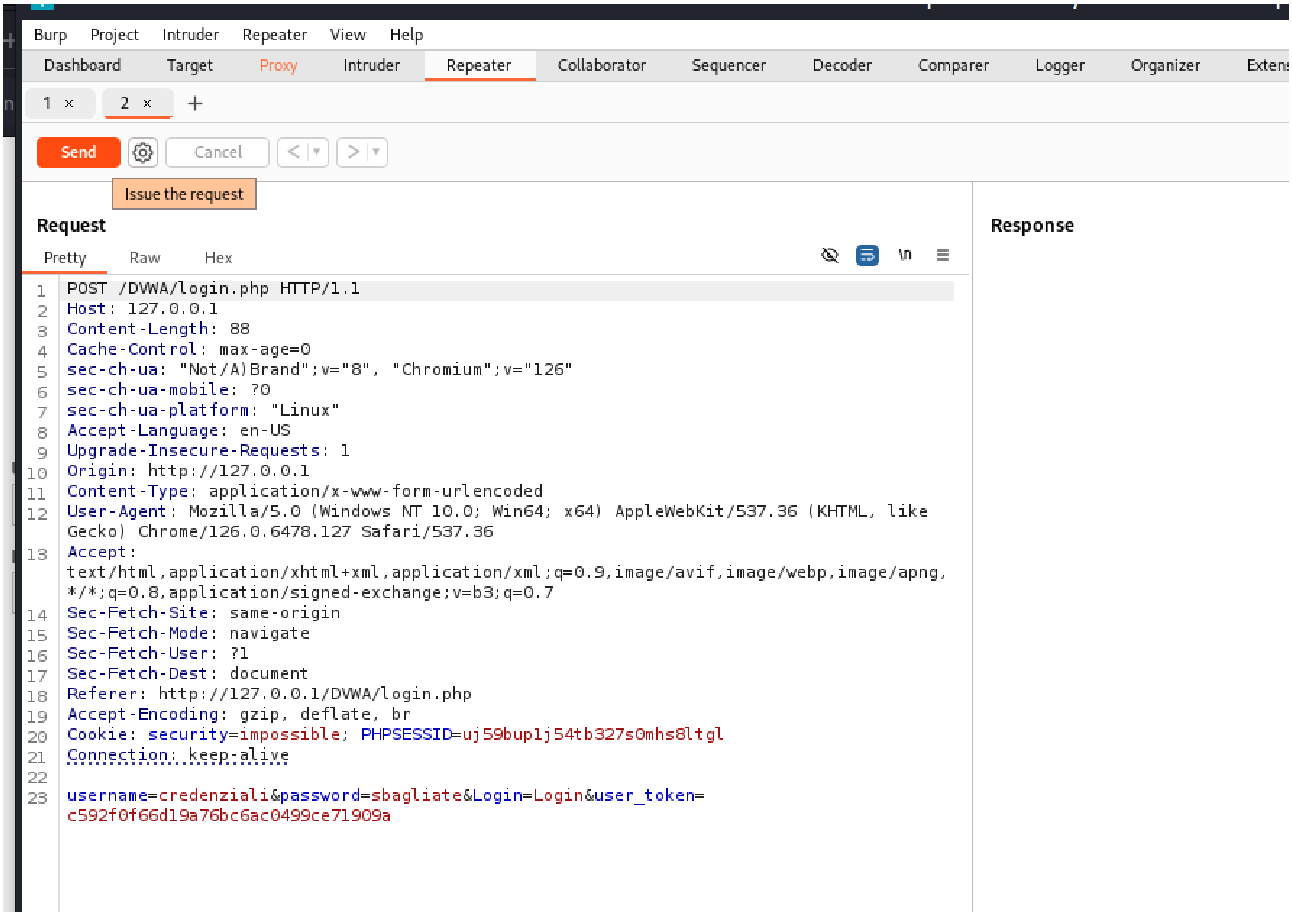
```
GET /DVWA/ HTTP/1.1
Host: 127.0.0.1
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/126.0.6478.127 Safari/537.36
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Sec-Fetch-Site: none
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
sec-ch-ua: "Not/A)Brand";v="8", "Chromium";v="126"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Accept-Language: en-US
Accept-Encoding: gzip, deflate, br
Cookie: PHPSESSID=dccdf2qrit467mkpqkn3k4cd5f
Connection: keep-alive


```

```
GET /content/
professional.svg HTTP/2
Host: portswigger.net
Cookie:
```

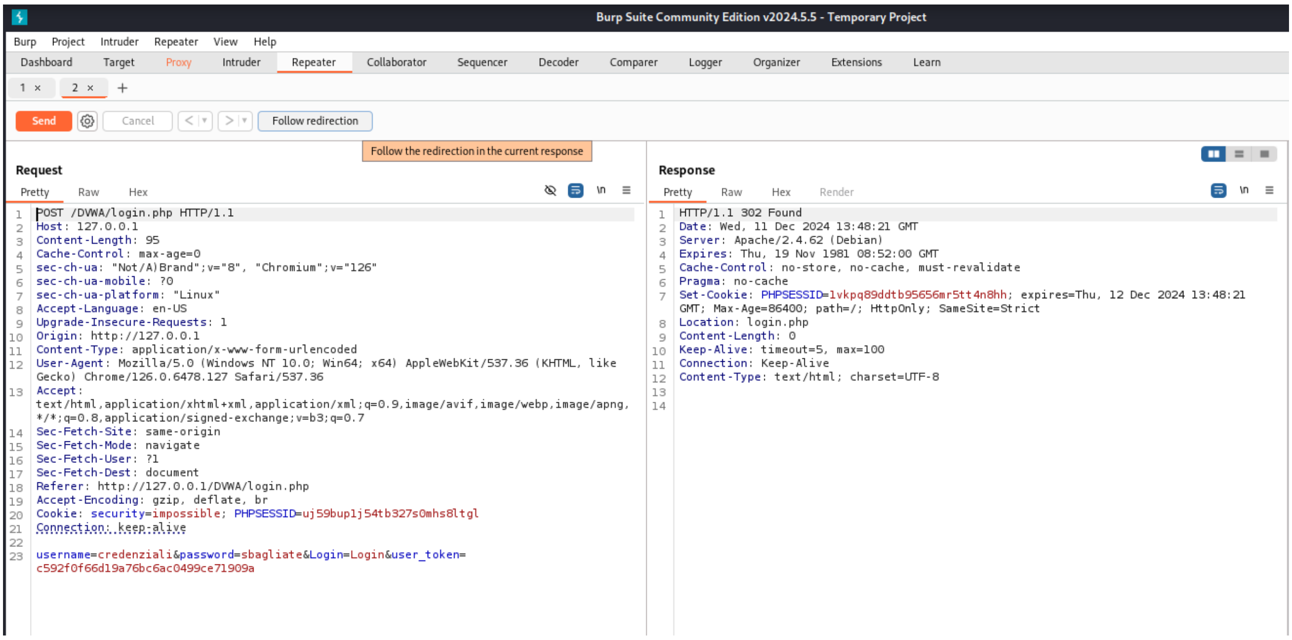


Request to http://127.0.0.1:80

```
POST /DVWA/login.php HTTP/1.1
Host: 127.0.0.1
Content-Length: 88
Cache-Control: max-age=0
sec-ch-ua: "Not/A)Brand";v="8", "Chromium";v="126"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Accept-Language: en-US
Upgrade-Insecure-Requests: 1
Origin: http://127.0.0.1
Content-Type: application/x-www-form-urlencoded
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/126.0.6478.127 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=0.7
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Referer: http://127.0.0.1/DVWA/login.php
Accept-Encoding: gzip, deflate, br
Cookie: security=impossible; PHPSESSID=uj59bup1j54tb327s0mhs8ltgl
Connection: keep-alive

username=admin&password=password&Login=Login&user_token=c592f0f66d19a76bc6ac0499ce71909a
```

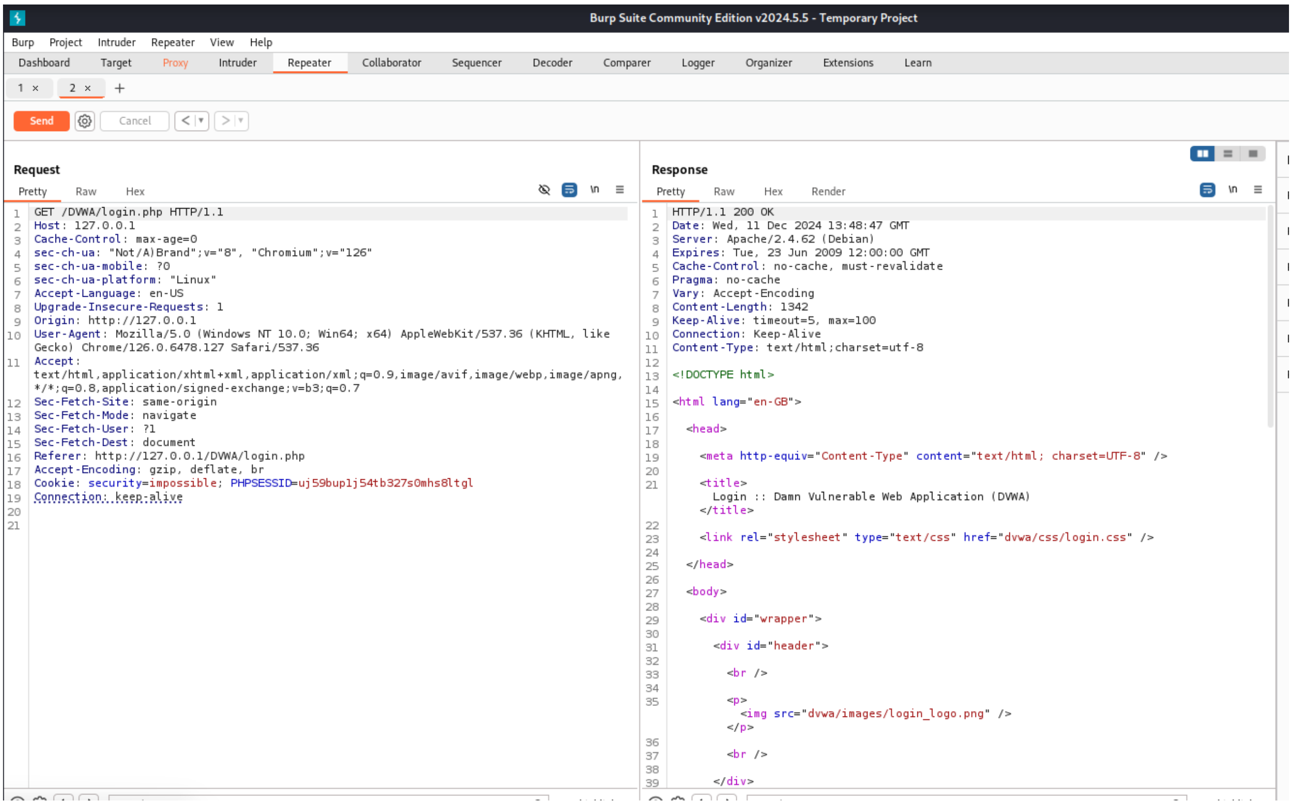


```
POST /DVWA/login.php HTTP/1.1
Host: 127.0.0.1
Content-Length: 88
Cache-Control: max-age=0
sec-ch-ua: "Not/A)Brand";v="8", "Chromium";v="126"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Accept-Language: en-US
Upgrade-Insecure-Requests: 1
Origin: http://127.0.0.1
Content-Type: application/x-www-form-urlencoded
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/126.0.6478.127 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=0.7
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Referer: http://127.0.0.1/DVWA/login.php
Accept-Encoding: gzip, deflate, br
Cookie: security=impossible; PHPSESSID=uj59bup1j54tb327s0mhs8ltgl
Connection: keep-alive

username=credenziali&password=sbagliate&Login=Login&user_token=
c592f0f66d19a76bc6ac0499ce71909a
```



```
POST /DVWA/login.php HTTP/1.1
Host: 127.0.0.1
Content-Length: 95
Cache-Control: max-age=0
sec-ch-ua: "Not/A)Brand";v="8", "Chromium";v="126"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Accept-Language: en-US
Upgrade-Insecure-Requests: 1
Origin: http://127.0.0.1
Content-Type: application/x-www-form-urlencoded
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/126.0.6478.127 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=0.7
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Referer: http://127.0.0.1/DVWA/login.php
Accept-Encoding: gzip, deflate, br
Cookie: security=impossible; PHPSESSID=uj59bup1j54tb327s0mhs8ltgl
Connection: keep-alive

username=credenziali&password=sbagliate&Login=Login&user_token=
c592f0f66d19a76bc6ac0499ce71909a
```

```
HTTP/1.1 302 Found
Date: Wed, 11 Dec 2024 13:48:21 GMT
Server: Apache/2.4.62 (Debian)
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate
Pragma: no-cache
Set-Cookie: PHPSESSID=1vkpq89ddtb95656mr5tt4n8hh; expires=Thu, 12 Dec 2024 13:48:21
GMT; Max-Age=86400; path=/; HttpOnly; SameSite=Strict
Location: login.php
Content-Length: 0
Keep-Alive: timeout=5, max=100
Connection: Keep-Alive
Content-Type: text/html; charset=UTF-8
```



Request

```
GET /DVWA/login.php HTTP/1.1
Host: 127.0.0.1
Cache-Control: max-age=0
sec-ch-ua: "Not/A)Brand";v="8", "Chromium";v="126"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Accept-Language: en-US
Upgrade-Insecure-Requests: 1
Origin: http://127.0.0.1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/126.0.6478.127 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=0.7
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Referer: http://127.0.0.1/DVWA/login.php
Accept-Encoding: gzip, deflate, br
Cookie: security=impossible; PHPSESSID=uj59bup1j54tb327s0mhs8ltgl
Connection: keep-alive


```

Response

```
HTTP/1.1 200 OK
Date: Wed, 11 Dec 2024 13:48:47 GMT
Server: Apache/2.4.62 (Debian)
Expires: Tue, 23 Jun 2009 12:00:00 GMT
Cache-Control: no-cache, must-revalidate
Pragma: no-cache
Vary: Accept-Encoding
Content-Length: 1342
Keep-Alive: timeout=5, max=100
Connection: Keep-Alive
Content-Type: text/html;charset=utf-8

<!DOCTYPE html>

<html lang="en-GB">

  <head>

    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />

    <title>
      Login :: Damn Vulnerable Web Application (DVWA)
    </title>

    <link rel="stylesheet" type="text/css" href="dvwa/css/login.css" />

  </head>

  <body>

    <div id="wrapper">

      <div id="header">

        <br />

        <p>
          <img src="dvwa/images/login_logo.png" />
        </p>

        <br />

      </div>
```