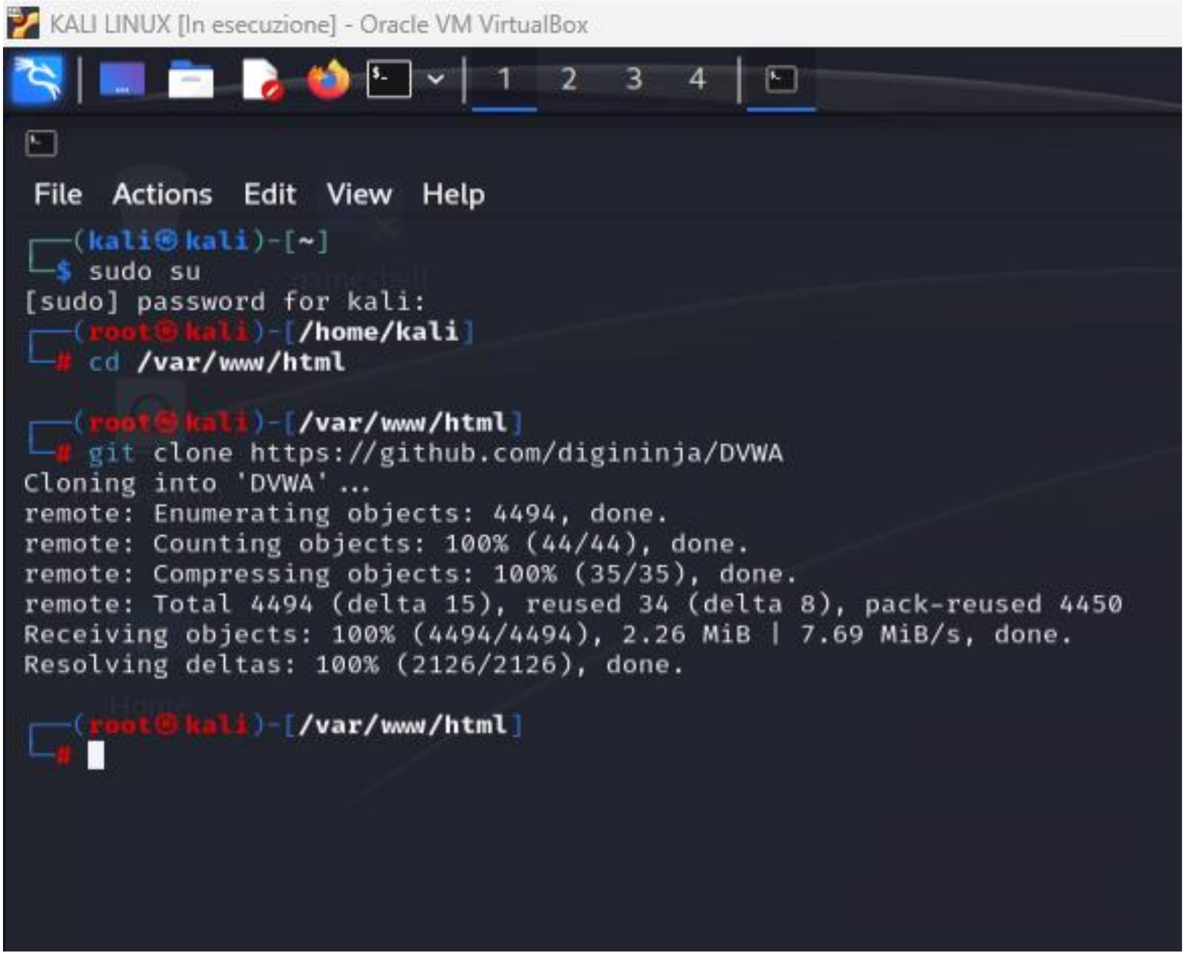
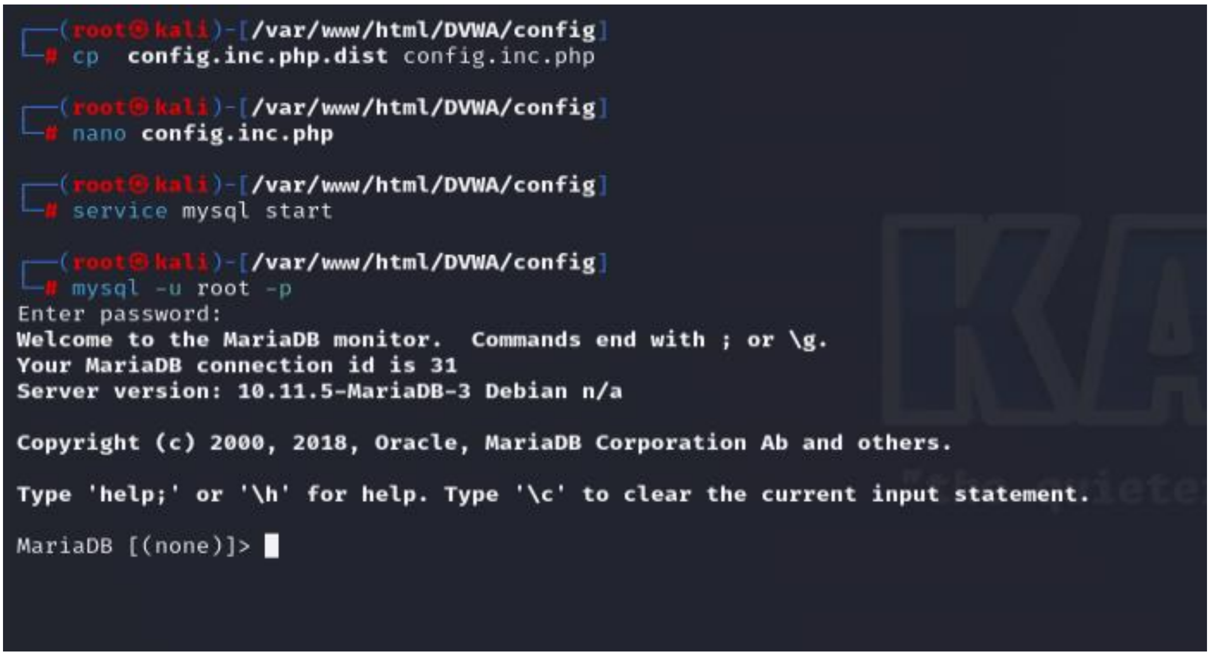
Andiamo a configurare il tutto

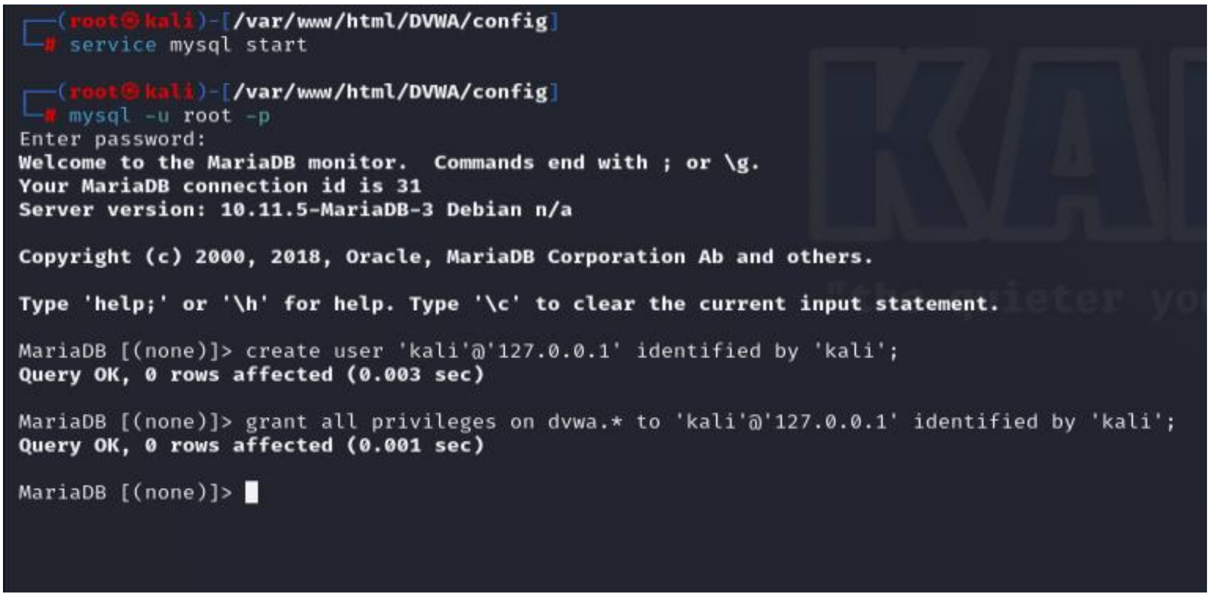


```
┌──(kali㉿kali)-[~]
└─$ sudo su
[sudo] password for kali:
┌──(root㉿kali)-[/home/kali]
└─# cd /var/www/html

┌──(root㉿kali)-[/var/www/html]
└─# git clone https://github.com/digininja/DVWA
Cloning into 'DVWA'...
remote: Enumerating objects: 4494, done.
remote: Counting objects: 100% (44/44), done.
remote: Compressing objects: 100% (35/35), done.
remote: Total 4494 (delta 15), reused 34 (delta 8), pack-reused 4450
Receiving objects: 100% (4494/4494), 2.26 MiB | 7.69 MiB/s, done.
Resolving deltas: 100% (2126/2126), done.

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



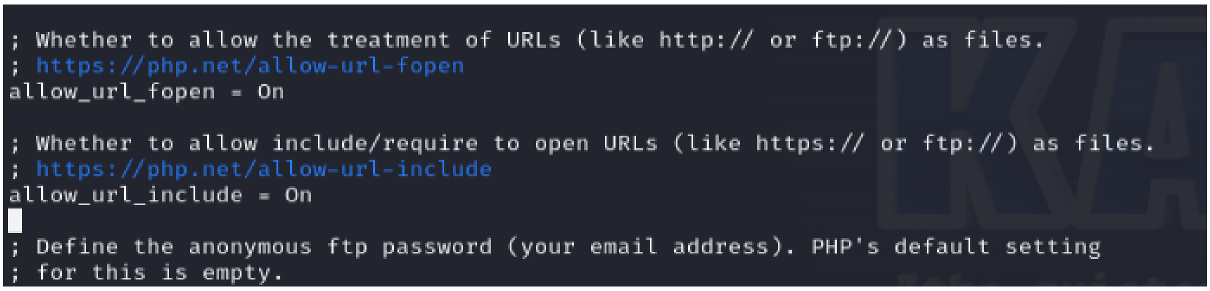
```
┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# cp  config.inc.php.dist config.inc.php

┌──(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: 10.11.5-MariaDB-3 Debian n/a

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

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> █
```

Creiamo l'utenza sul db e impostiamo privilegi all'utente kali



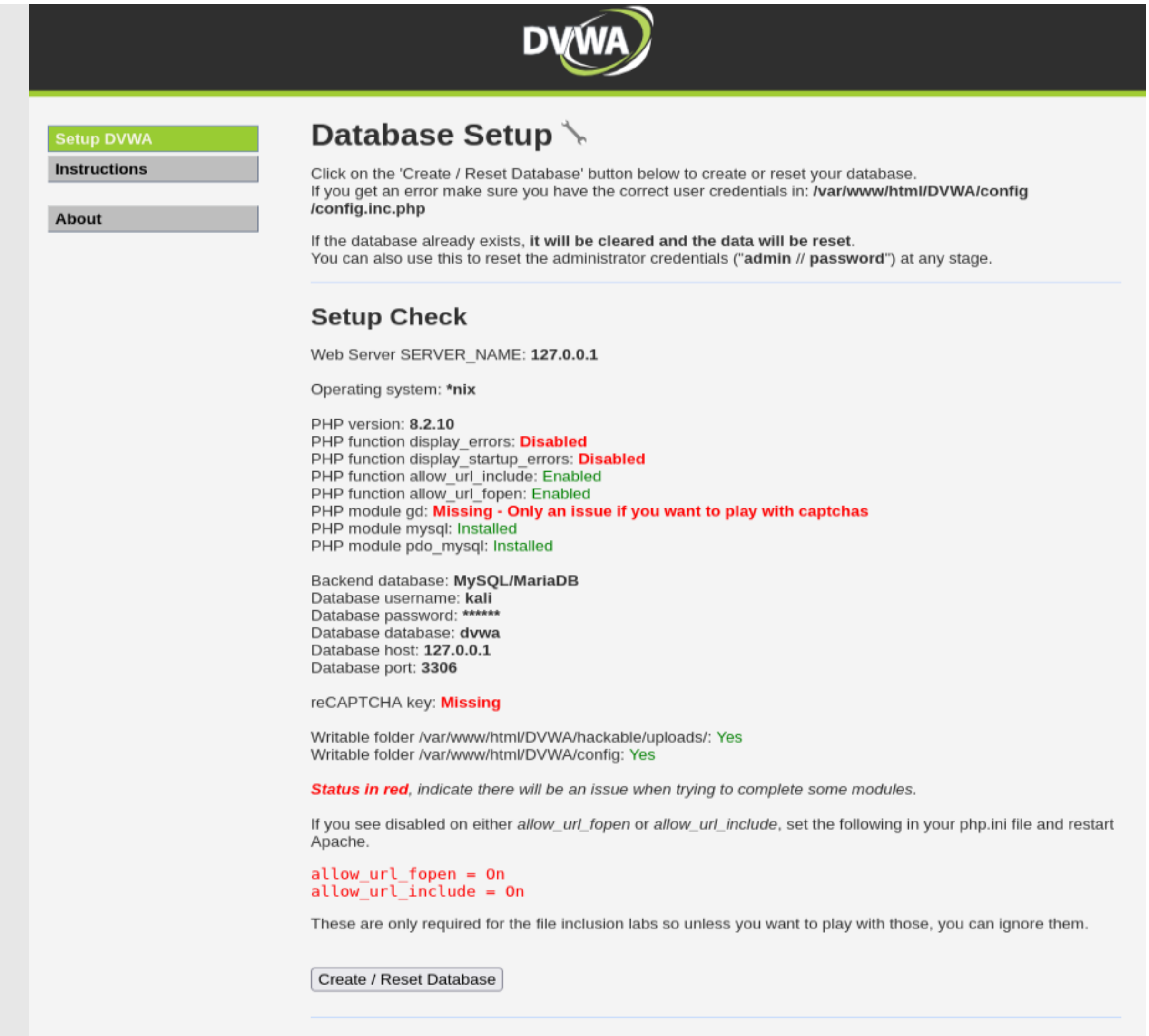
```
┌──(root㉿kali)-[/var/www/html/DVWA/config]
└─# service mysql start

┌──(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: 10.11.5-MariaDB-3 Debian n/a

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

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create user 'kali'@'127.0.0.1' identified by 'kali';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> grant all privileges on dvwa.* to 'kali'@'127.0.0.1' identified by 'kali';
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> █
```

Dobbiamo passare al servizio apache, il web server. E andiamo a modificare il file php.ini



```
; 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
; for this is empty.
```

Creiamo il database



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: **8.2.10**
PHP function display_errors: **Disabled**
PHP function display_startup_errors: **Disabled**
PHP function allow_url_include: Enabled
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: **&#42;&#42;&#42;&#42;&#42;&#42;**
Database database: **dvwa**
Database host: **127.0.0.1**
Database port: **3306**

reCAPTCHA key: **Missing**

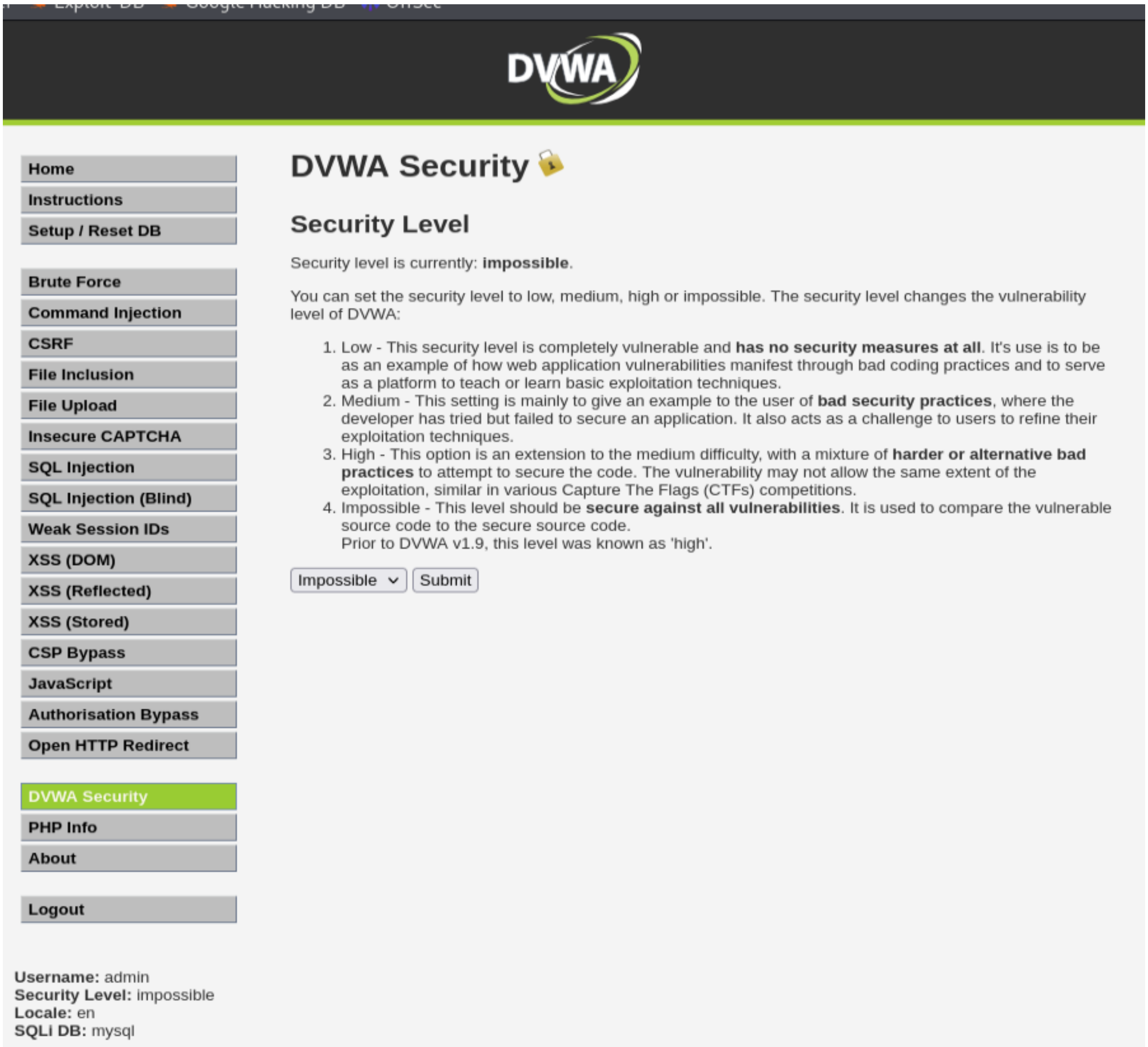
Writable folder /var/www/html/DVWA/hackable/uploads/: Yes
Writable folder /var/www/html/DVWA/config: Yes

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
```

These are only required for the file inclusion labs so unless you want to play with those, you can ignore them.



DVWA Security

Security Level

Security level is currently: **impossible**.

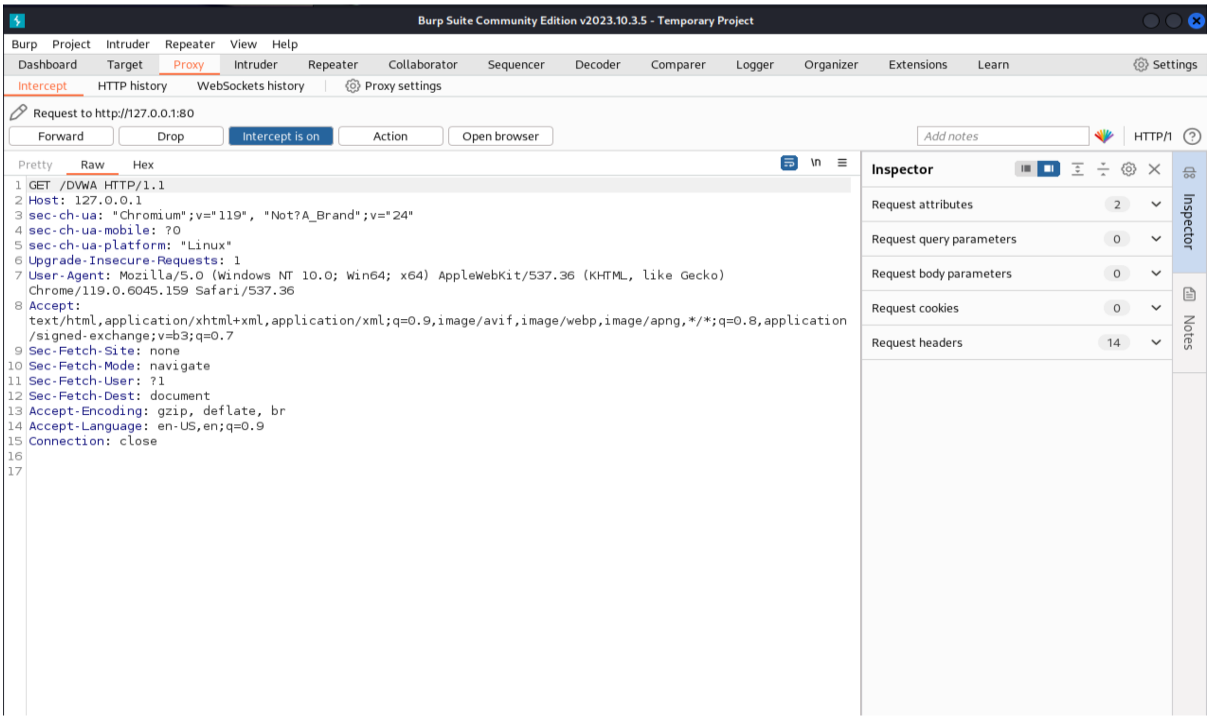
You can set the security level to low, medium, high or impossible. The security level changes the vulnerability level of DVWA:

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

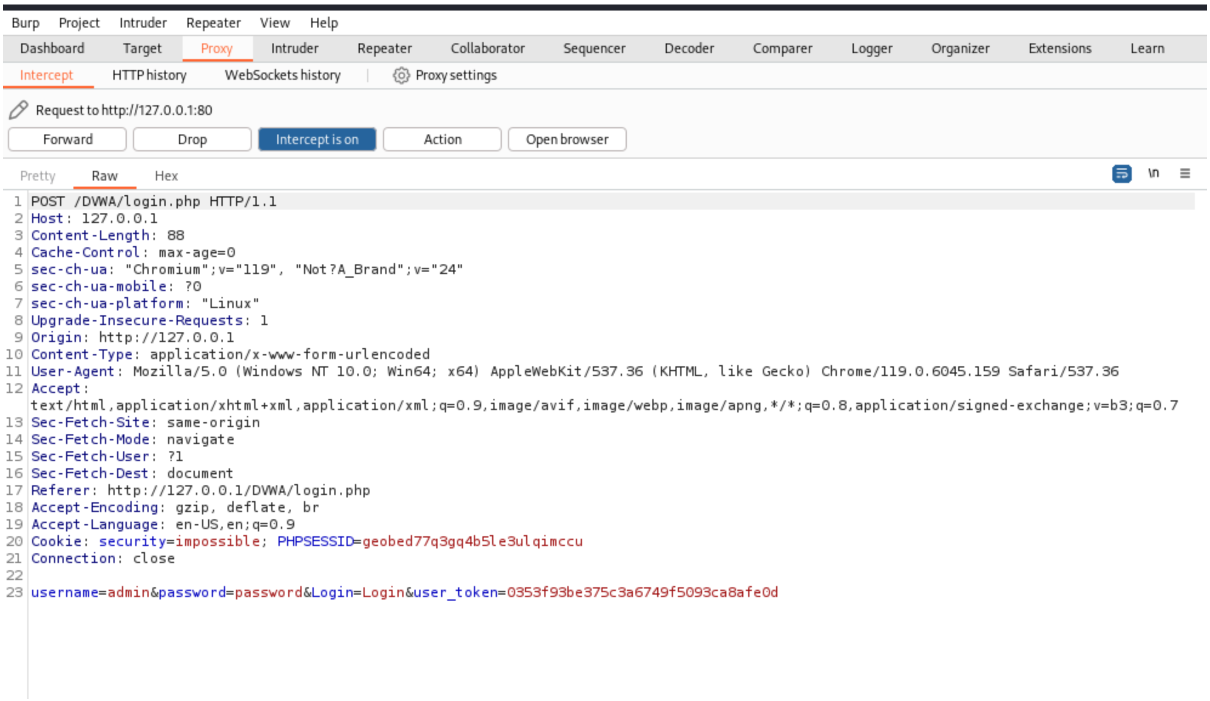
Username: admin
Security Level: impossible
Locale: en
SQLi DB: mysql

Facciamo partire Burpsuite, interception on.


Burp Suite Community Edition v2023.10.3.5 - Temporary Project
Burp Project Intruder Repeater View Help
Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder Comparer Logger Organizer Extensions Learn Settings
Intercept HTTP history WebSockets history Proxy settings
Request to http://127.0.0.1:80
Forward Drop Intercept is on Action Open browser
Add notes
HTTP/1
Pretty Raw Hex
Inspector
Request attributes 2
Request query parameters 0
Request body parameters 0
Request cookies 0
Request headers 14
Inspector
Notes

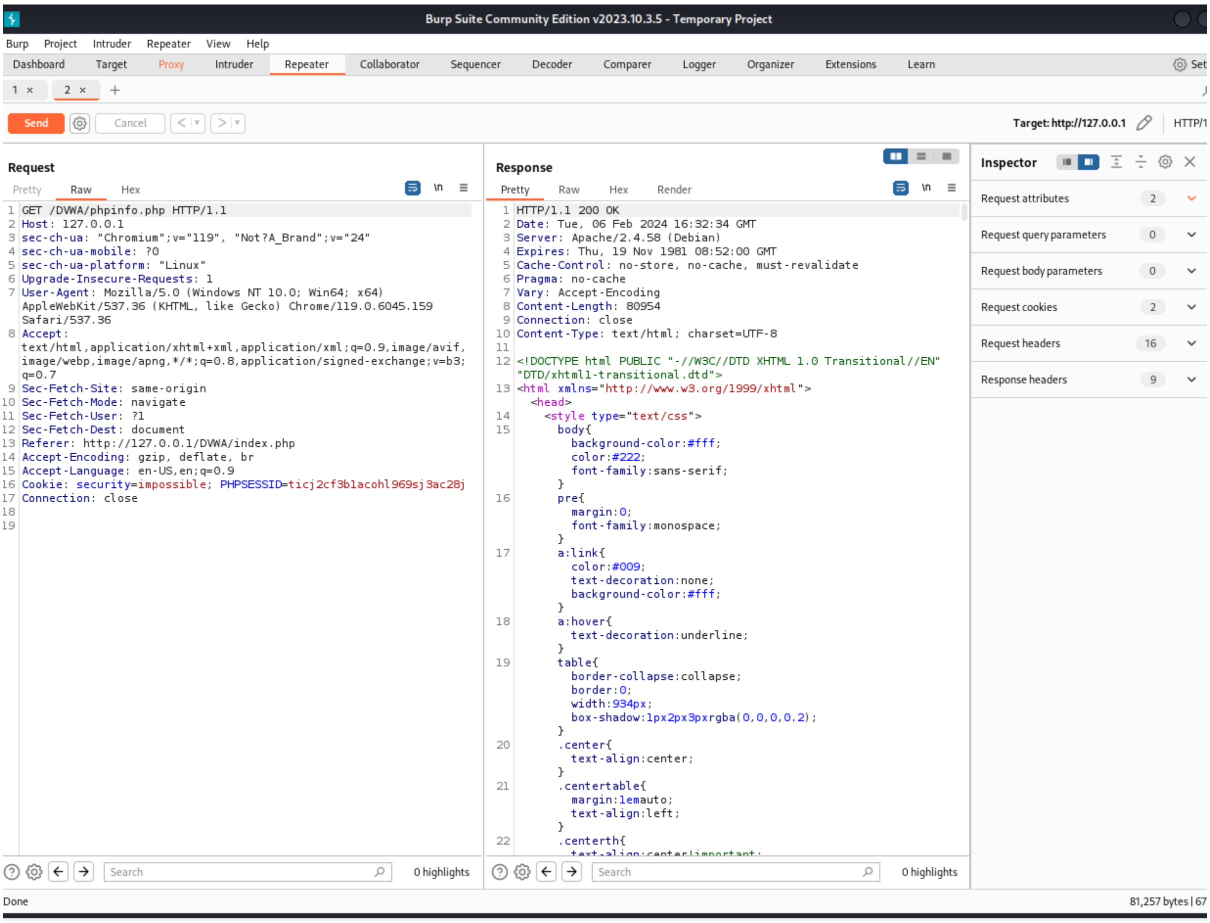
```
GET /DVWA HTTP/1.1
Host: 127.0.0.1
sec-ch-ua: "Chromium";v="119", "Not?A_Brand";v="24"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.6045.159 Safari/537.36
Accept: 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
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9
Connection: close


```

Intercettiamo la richiesta di login con Burpsuite


Burp Project Intruder Repeater View Help
Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder Comparer Logger Organizer Extensions Learn
Intercept HTTP history WebSockets history Proxy settings
Request to http://127.0.0.1:80
Forward Drop Intercept is on Action Open browser
Pretty Raw Hex

```
POST /DVWA/login.php HTTP/1.1
Host: 127.0.0.1
Content-Length: 88
Cache-Control: max-age=0
sec-ch-ua: "Chromium";v="119", "Not?A_Brand";v="24"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
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/119.0.6045.159 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
Accept-Language: en-US,en;q=0.9
Cookie: security=impossible; PHPSESSID=geobed77q3gq4b5le3ulqimccu
Connection: close

username=admin&password=password&Login=Login&user_token=0353f93be375c3a6749f5093ca8afe0d
```

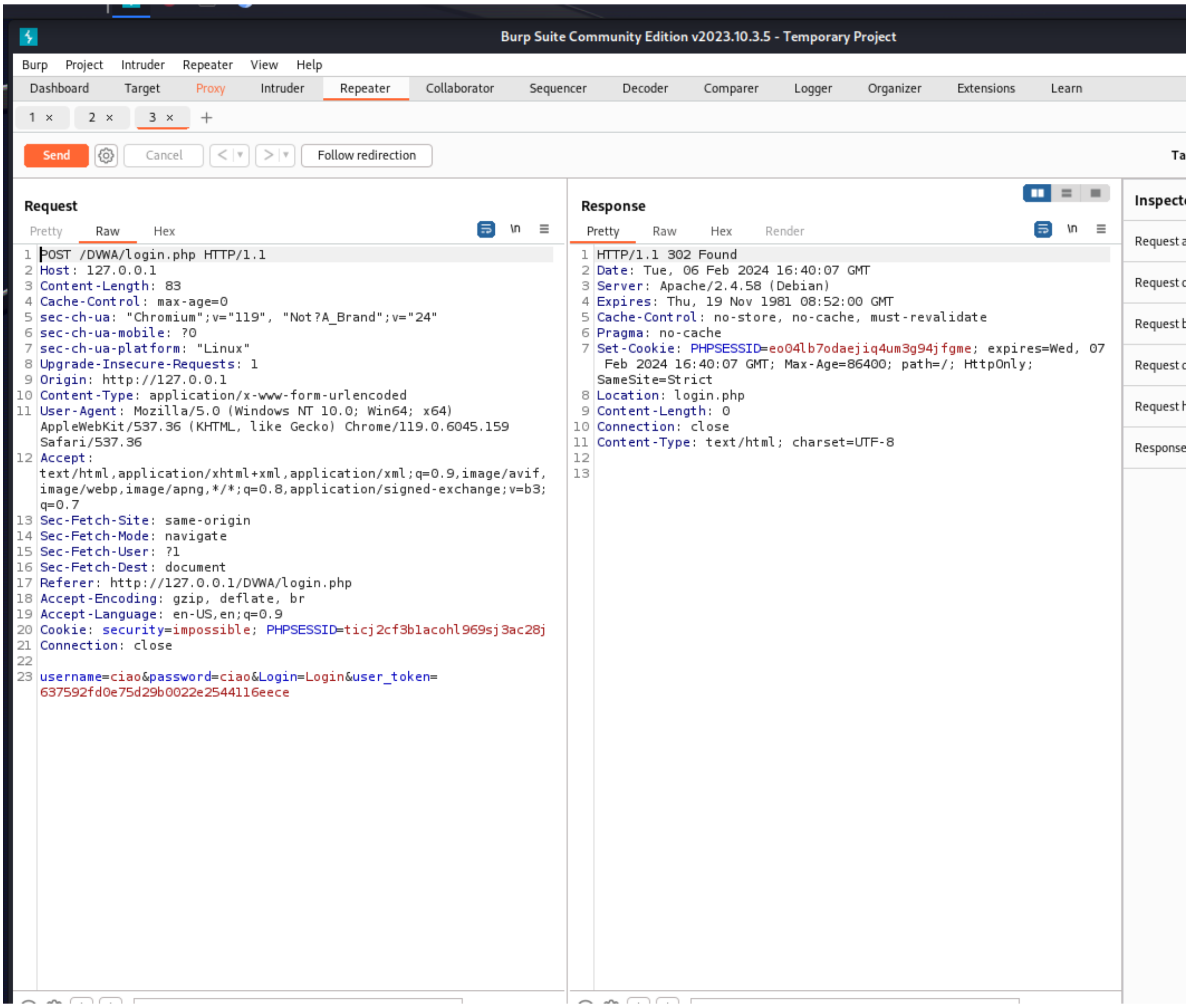
Qui vediamo col repeater vediamo come funziona.


Burp Suite Community Edition v2023.10.3.5 - Temporary Project
Burp Project Intruder Repeater View Help
Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder Comparer Logger Organizer Extensions Learn
Send
Cancel
Target: http://127.0.0.1
HTTP/1
Request
Pretty Raw Hex
Response
Pretty Raw Hex Render
Inspector
Request attributes 2
Request query parameters 0
Request body parameters 0
Request cookies 2
Request headers 16
Response headers 9
Search
0 highlights
Done
81,257 bytes | 67

```
GET /DVWA/phpinfo.php HTTP/1.1
Host: 127.0.0.1
sec-ch-ua: "Chromium";v="119", "Not?A_Brand";v="24"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)
AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.6045.159
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/index.php
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9
Cookie: security=impossible; PHPSESSID=ticj2cf3blacohl969sj3ac28j
Connection: close
```

```
HTTP/1.1 200 OK
Date: Tue, 06 Feb 2024 16:32:34 GMT
Server: Apache/2.4.58 (Debian)
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate
Pragma: no-cache
Vary: Accept-Encoding
Content-Length: 80954
Connection: close
Content-Type: text/html; charset=UTF-8

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <style type="text/css">
      body{
        background-color:#fff;
        color:#222;
        font-family:sans-serif;
      }
      pre{
        margin:0;
        font-family:monospace;
      }
      a:link{
        color:#009;
        text-decoration:none;
        background-color:#fff;
      }
      a:hover{
        text-decoration:underline;
      }
      table{
        border-collapse:collapse;
        border:0;
        width:934px;
        box-shadow:1px2px3pxrgba(0,0,0,0.2);
      }
      .center{
        text-align:center;
      }
      .centertable{
        margin:1emauto;
        text-align:left;
      }
      .centerth{
        text-align:center!important;
```

Ecco cosa succede se cambiamo a nostro piacimento password e username e inviamo il tutto a repeater



```
POST /DWVA/login.php HTTP/1.1
Host: 127.0.0.1
Content-Length: 83
Cache-Control: max-age=0
sec-ch-ua: "Chromium";v="119", "Not?A_Brand";v="24"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Linux"
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/119.0.6045.159
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/DWVA/login.php
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9
Cookie: security=impossible; PHPSESSID=ticj2cf3blacohl969sj3ac28j
Connection: close

username=ciao&password=ciao&Login=Login&user_token=
637592fd0e75d29b0022e2544116eece
```

```
HTTP/1.1 302 Found
Date: Tue, 06 Feb 2024 16:40:07 GMT
Server: Apache/2.4.58 (Debian)
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate
Pragma: no-cache
Set-Cookie: PHPSESSID=eo04lb7odaejiq4um3g94jfgme; expires=Wed, 07
 Feb 2024 16:40:07 GMT; Max-Age=86400; path=/; HttpOnly;
SameSite=Strict
Location: login.php
Content-Length: 0
Connection: close
Content-Type: text/html; charset=UTF-8


```