

AUTOMATING SQL INJECTION USING SQLMAP

Project Objective: Learn how to automate SQL Injection using SQLmap.

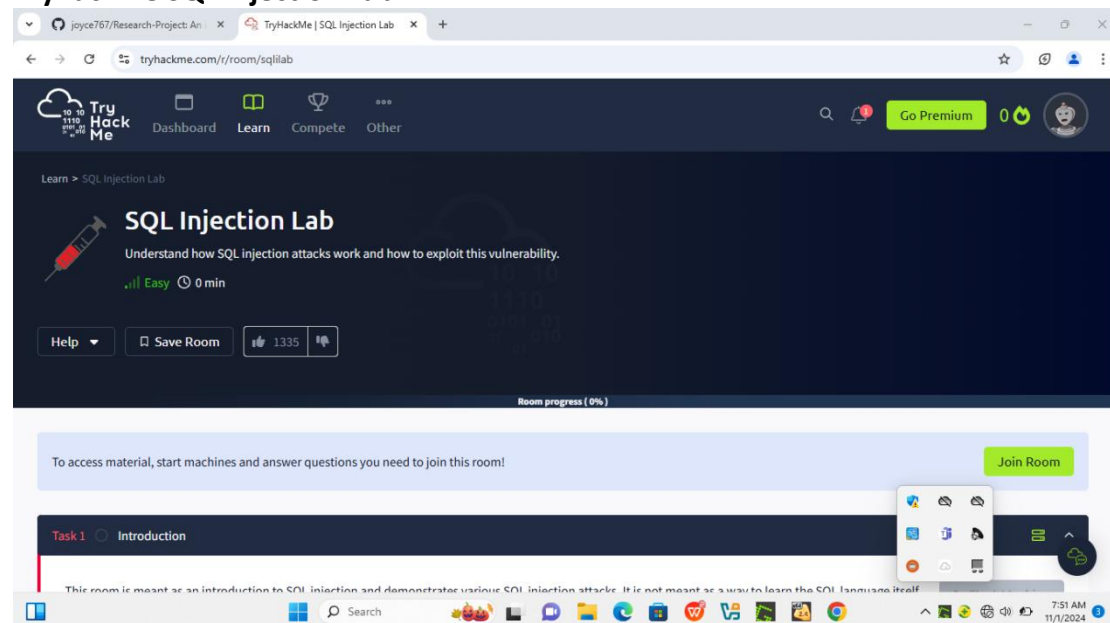
Project site: <https://tryhackme.com/room/sqlilab>

Tryhackme.com offers virtual Linux node (AttackBox) to access their target systems. Also, OPENVPN connection is available. AttackBox contains SQLmap and any other necessary tools that we will need during this lab project.

SQL Injection consists of insertion or injection of a SQL Query via the input data from the client to the application.

SQLmap is an open-source tool used as part of a penetration test to detect and exploit injection flaws.

Tryhackme SQL Injection Lab



Intiating the lab

joyce767/Research-Project: An...TryHackMe | SQL Injection Lab

tryhackme.com/r/room/sqllab

SQL Injection Lab

Understand how SQL injection attacks work and how to exploit this vulnerability.

Easy 0 min

Help Save Room 1335

Room progress (0%)

To access material, start machines and answer questions you need to join this room! Join Room

Task 1 Introduction

This room is meant as an introduction to SQL injection and demonstrates various SQL injection attacks. It is not meant as a way to learn the SQL language itself. Some previous knowledge of the SQL language is highly recommended.

The web application can be found at: http://MACHINE_IP:5000

NB: Please allow a minimum of five minutes for it to deploy.

It is possible to display the SQL queries performed by the application on the challenges by enabling "Show Query" in the top-right menu on http://MACHINE_IP:5000. It is also possible to

Start Machine

Starting Machine

TryHackMe | SQL Injection Lab

tryhackme.com/r/room/sqllab

Room progress (0%)

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It is possible to display the SQL queries performed by the application on the challenges by enabling "Show Query" in the top-right menu on http://MACHINE_IP:5000. It is also possible to display tutorial for the challenges by enabling "Guidance".

All the scripts mentioned in the tasks can be viewed and downloaded by visiting the "Downloads" page in the top-left corner on the landing page or visiting http://MACHINE_IP:5000/downloads/.

Answer the questions below

Deploy the machine

Join this room

Start Machine

The screenshot shows the TryHackMe SQL Injection Lab interface. At the top, there's a browser window with multiple tabs. Below the browser, a red banner displays "Room progress (7%)". The main content area is titled "Target Machine Information" and contains a table with the following data:

Title	Target IP Address	Expires
sqlilabp3	Shown in 0min 44s	59min 41s

Below the table, there are buttons for "?", "Add 1 hour", and "Terminate". The "Task 1" section is titled "Introduction" and contains the following text:

This room is meant as an introduction to SQL injection and demonstrates various SQL injection attacks. It is not meant as a way to learn the SQL language itself. Some previous knowledge of the SQL language is highly recommended.

The web application can be found at: http://MACHINE_IP:5000

NB: Please allow a minimum of five minutes for it to deploy.

It is possible to display the SQL queries performed by the application on the challenges by enabling "Show Query" in the top-right menu on http://MACHINE_IP:5000. It is also possible to display tutorial for the challenges by enabling "Guidance".

All the scripts mentioned in the tasks can be viewed and downloaded by visiting the "Downloads" page in the top-left corner on the landing page or visiting http://MACHINE_IP:5000/downloads/.

Answer the questions below

Starting ATTACKBOX

The screenshot shows the TryHackMe SQL Injection Lab interface with the "AttackBox" terminal open. The terminal displays the following text:

```
Application: Sat 2 Nov, 11:53 AttackBox IP: 10.10.91.159
Terminal
File Edit View Search Terminal Help

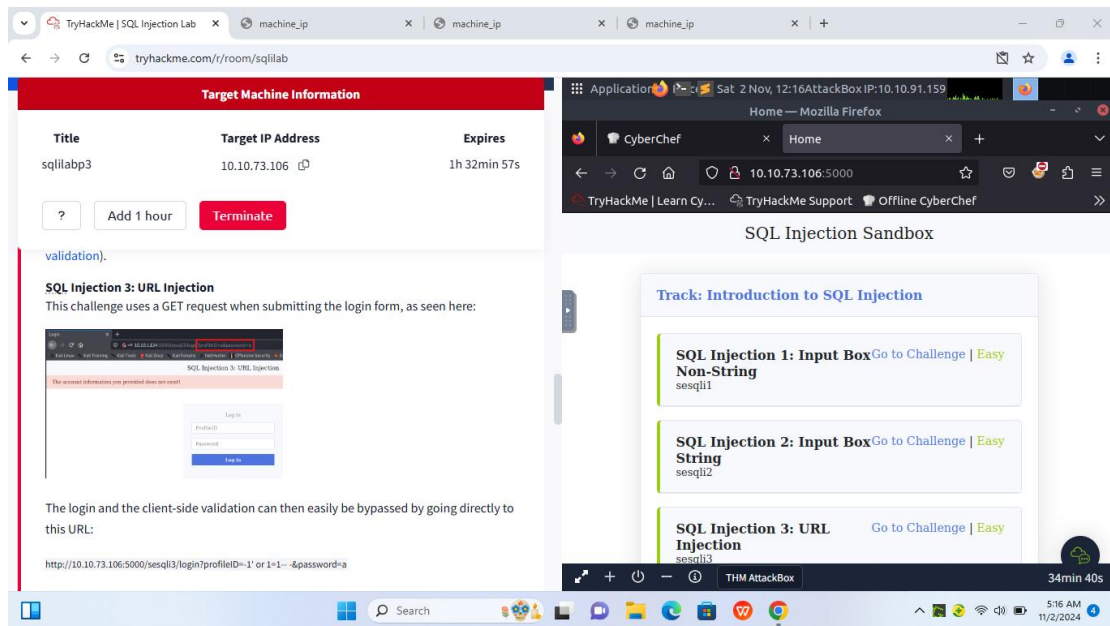
Please keep in mind the following:
1. Pentesting any target that is not deployed by you on TryHackMe is prohibited.
2. You are solely responsible for your actions.
3. This machine expires. Check TryHackMe to ensure you still have time left.
4. Once this machine is terminated, all data will be lost.
5. If you are a subscriber, this machine is exposed to the internet and may be automatically scanned. While the machine is secure, do not store sensitive files.

Usage Instructions:
1. Tools are located in /root/Desktop/Tools & /opt/
2. Webshells are located in /usr/share/webshells
3. Wordlists are located in /usr/share/wordlists
4. READMEs are located in /root/Instructions
5. To use Empire & Starkiller, read the following file: /root/Instructions/empire-starkiller.txt

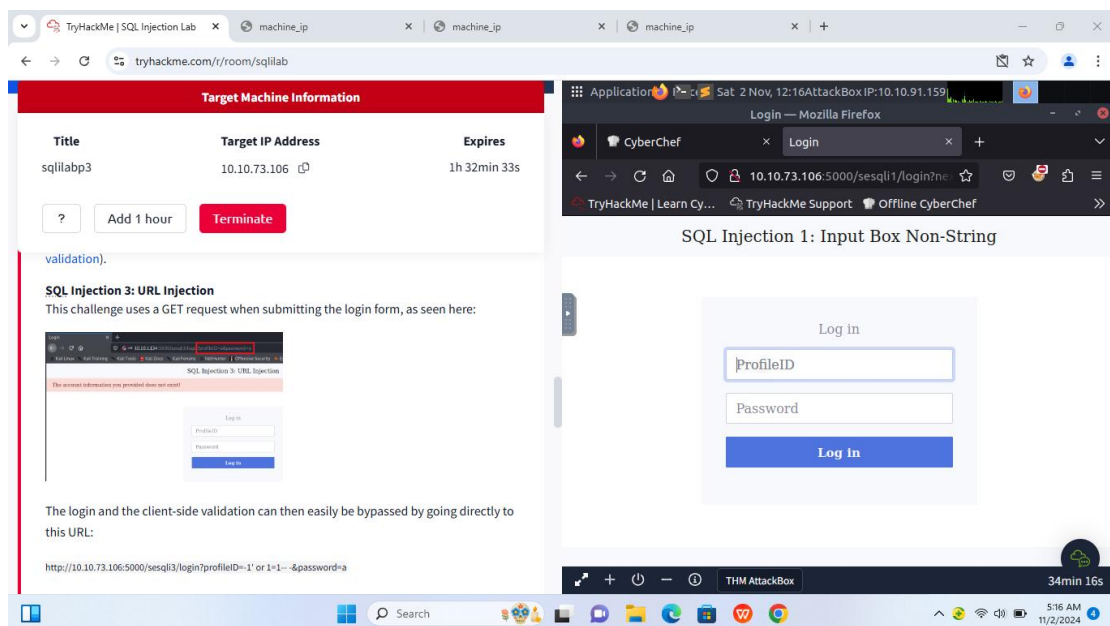
Do you think something's missing? Let us know! support@tryhackme.com

Press ENTER key to close.
```

Initiating the AttackBox



Using the Target IP Address to the website, and port number. The web page consists of labs with different SQL vulnerabilities.



Login in with the profileID and password to test its vulnerability. This login form is vulnerable to SQL Injection.

The screenshot displays a TryHackMe SQL Injection Lab interface. On the left, the 'Target Machine Information' panel shows the target IP as 10.10.73.106 and a timer at 1h 30min 55s. The lab instructions describe a SQL injection challenge where the user can bypass login by using a True condition. The 'Executed Query' section shows the query: `SELECT uid, name, profileID, salary, passportNr, email, nickname, password FROM usertable WHERE 1 or 1=1--`. On the right, a 'Francois's Profile' modal is displayed, showing the following details:

Field	Value
Flag	THM{dccea429d73d4a6b4f117ac64724f460}
Employee ID	10
Salary	R250
Passport Number	8605255014084
Nick Name	
E-mail	

The bottom of the screenshot shows the 'Executed Query' section with the query: `SELECT uid, name, profileID, salary, passportNr, email`.

This presented a profile of the user

TryHackMe | SQL Injection Lab

machine_ip

machine_ip

machine_ip

+

tryhackme.com/r/room/sqlilab

Target Machine Information

Title	Target IP Address	Expires
sqlilabp3	10.10.73.106	1h 14min 10s

?

Add 1 hour

Terminate

login form or submit a valid request and intercept it with a proxy tool such as Burp Suite and modify it:

Burp Suite Community Edition (32-bit) - Temporarily Disabled

Enabled

Target

10.10.73.106

Enabled

Intercept

Enabled

Compare

Enabled

Project options

User options

HTTP history

Websockets history

Intercept

Forward

Drop

Replay (Ctrl+R)

Intercept

Log in browser

View

Errors

Headers

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