

CyberSentinel?

Crude plan

Objective:

1. Create a web application that can simulate different types of cyberattacks and their patches.
2. If we add a SQL Injection attack (<https://www.hacksplaining.com/exercises/sql-injection>), we have to demonstrate how it happens step by step.
3. After showing how it is done, we must show how to patch a website against the demonstrated attack.

To Do:

Search how to host both frontend and backend together (docker).

Research more on DVWA (how it works, how its hosted etc)

Which frontend framework and language to use?

Do class assignments

Process: (Order might be random)

- Create ChatGPT account 🙄.
- Take a look at DVWA (<https://github.com/digininja/DVWA>), and Hacksplaining (<https://www.hacksplaining.com>)
- What language, database (MySQL, SQLite etc) web dev framework (Flask for Python, Express for Node.js etc) should we use for the project?
- Check what relevant languages or skills we have.
- Search for different attacks which are relatively easy to demonstrate (I can handle most of this part).
- (Maybe) Some of them are SQL, XSS, Phishing, Dictionary, DoS, MitM, clickjacking, insecure cookies,
- Use ChatGPT for the programs to reproduce those attacks. Will have to cross check with DVWA source code after understanding it first.
- Final product can be hosted on GitHub pages or dockerized. (Let's think about that in the end).

Resources:

GitHub Repo for the project: <https://github.com/SuchitReddi/CyberCerebrus>

How to **build** a vulnerable web app: https://www.youtube.com/watch?v=e_dLSVpQy40

Damn Vulnerable Web Application **GitHub**: <https://github.com/digininja/DVWA>

Hacksplaining: <https://www.hacksplaining.com>

Playlist on DVWA: <https://www.youtube.com/playlist?list=PLHUKi1UIEgOJLPSFZaFKMoexpM6qhOb4Q>

DVWA **Setup**: <https://www.kalilinux.in/2020/01/setup-dvwa-kali-linux.html>

XSS explanation: <https://www.youtube.com/watch?v=PPzn4K2ZjfY>

Three DVWA **vulnerabilities**:

[https://www.golinuxcloud.com/damn-vulnerable-web-application/#Exploit_1_Damn_Vulnerable_Web_App_SQL_Injecti
on_attack](https://www.golinuxcloud.com/damn-vulnerable-web-application/#Exploit_1_Damn_Vulnerable_Web_App_SQL_Injecti_on_attack)

A few more: <https://medium.com/@evidencemonday/exploiting-vulnerabilities-in-dvwa-89b75c145d33>

Just a few more attacks: <https://owasp.org/www-community/attacks/>

DVWA written **guide**: <https://levelup.gitconnected.com/ethical-hacking-part-1-owasp-top-10-and-dvwa-3f2d55580ba8>

Few similar projects

Google Gruyere: <https://google-gruyere.appspot.com>

Web Goat: <https://owasp.org/www-project-webgoat/>, <https://github.com/WebGoat/WebGoat>

Resources on Dockerization

Deploy website with docker: <https://tecadmin.net/tutorial/docker-run-static-website>

Learning docker: <https://www.youtube.com/watch?v=gAkwW2tulqE>