

Cyber Sentinel Crude plan

Objective:

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

Process: (Order might be random)

- 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 I use for the project?
- Check what relevant languages or skills I 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: <https://github.com/digininja/DVWA>

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

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

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_Injection_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>
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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>

bWAPP: <http://www.itsecgames.com>

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

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

Which framework or language to use = PHP.