Cyber Sentinel
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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.

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: https://github.com/digininja/DVWA
Hacksplaining: https://www.hacksplaining.com
Playlist on DVWA: https://www.youtube.com/playlist?list=PLHUKi1UlEgOJLPSFZaFKMoexpM6qhOb4Q
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=gAkwW2tuIqE
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.