

Exploring Grand Challenges in NGCN

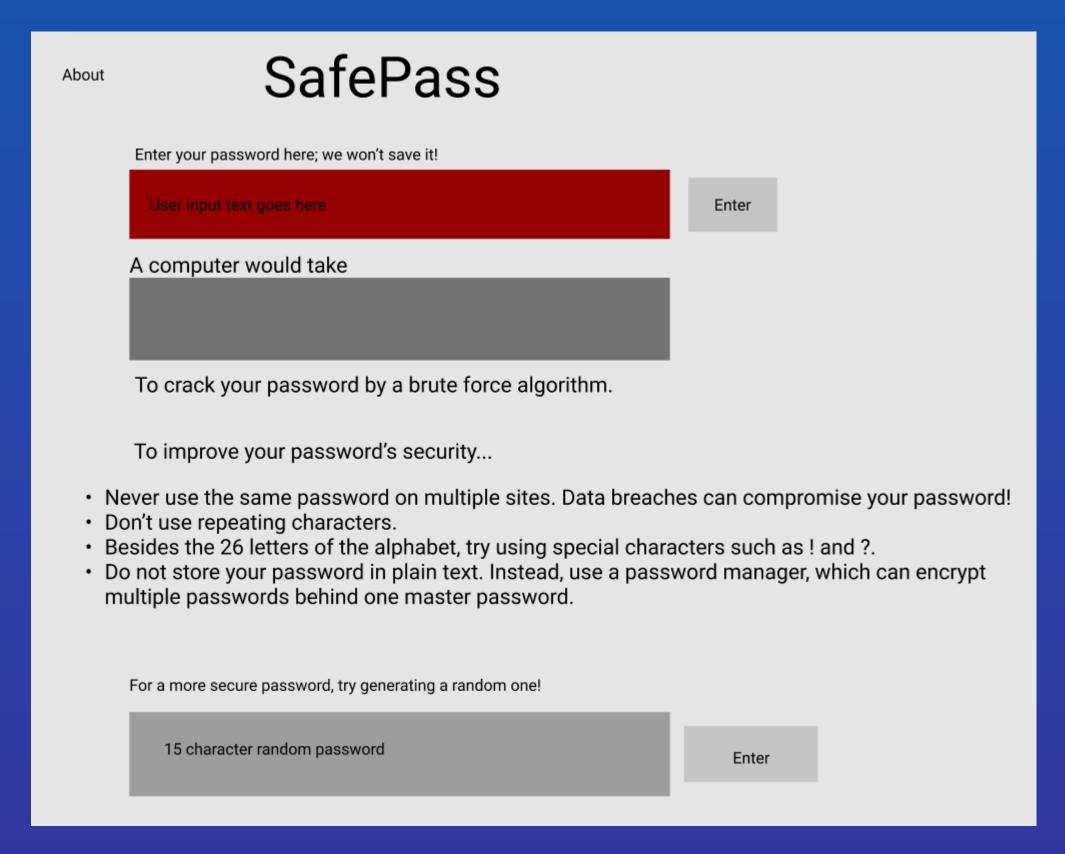
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Introduction

This showcase details my participation in NextGen International Coders, which I partook in with students from the University of Maryland as well as students from Iraq and the Palestinian territories.



Our website's prototype, designed using figma.com

Site Information:

NextGen International Coding Network

https://www.worldlearning.org/program/nextgen-coders-network/

Site Supervisor: Mr. Matthew Aruch

Site Goals: "to develop and apply your technical skills through critical design, application, and reflection of an ongoing cross-cultural STEM initiative"

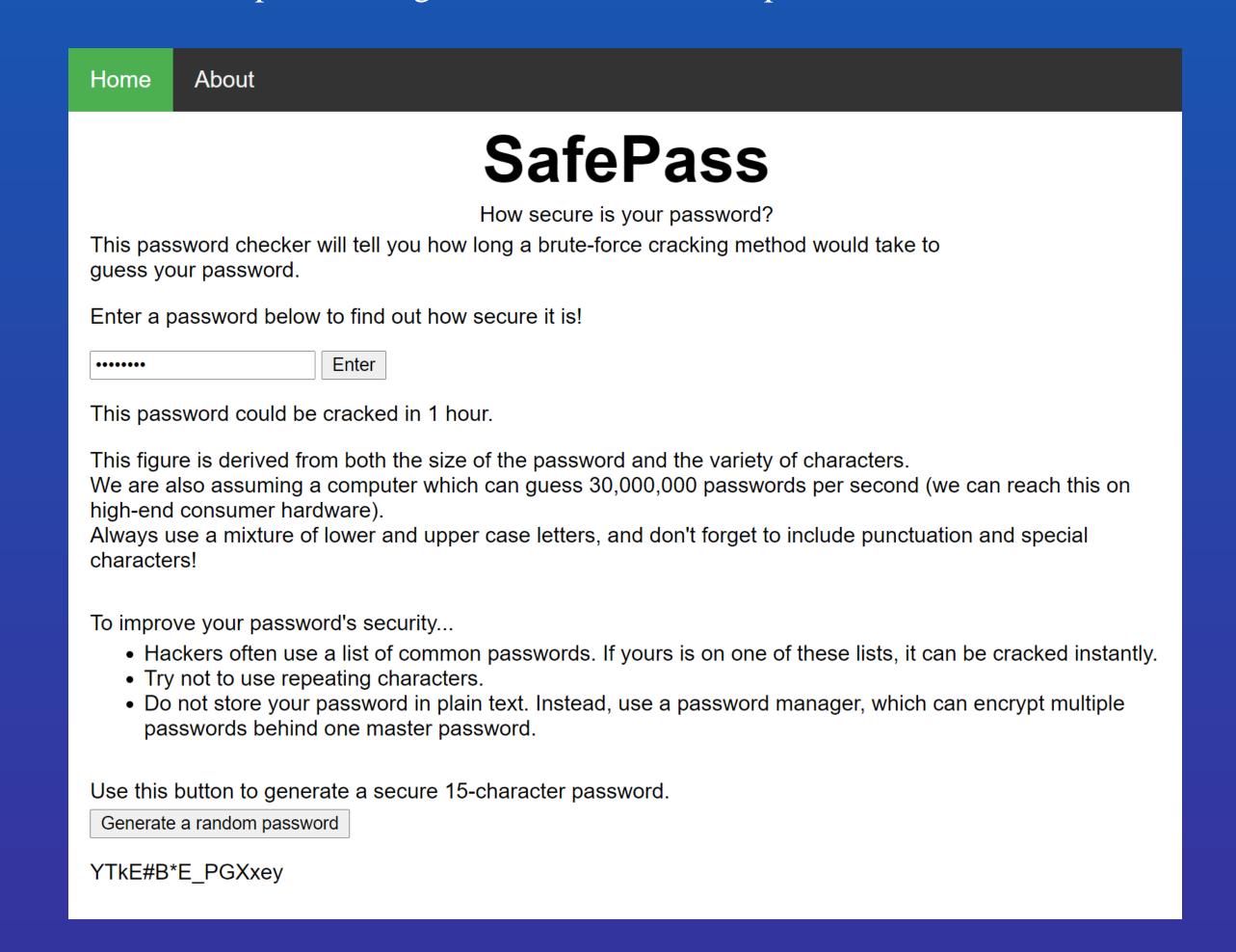
<u>Issues Confronting Site:</u>

NGCN aims to guide participants towards "grand challenges"; large, ubiquitous yet unsolvable issues across the globe. For our project, our issue was cybersecurity. This project sought to seek a solution to the widespread usage of insecure passwords and educate users on the advantages of password security.



Activities:

- Organizing weekly team meetings with NGCN students
- Team discussions centered around project management and user-oriented design
- Web development using HTML, CSS, JavaScript



Our final website design, which allows users to determine how strong or weak their passwords are, in addition to generating a suggested secure password.

Impact:

Our website details the specifics of selecting safe passwords and encrypting them properly. We believe that it is easy to use and can teach anybody about the basics of account security. Personally, I gained intercultural communication skills out of the project from working with my international team members and I have learned more about web development using scripting languages such as JS.

Future Work:

The website works well as a basic judgement of password security and as a tool for education. We expect that future NGCN teams can add server-side features and add a more advanced CSS stylesheet.

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