Milestone Three

Computer Science Capstone

Cleveland Carbon

Sunday, June 5, 2022

Algorithms and Data Structures

This artifact is a web application that connects to a database that houses information for an animal shelter. A user can browse the site for dogs that can perform certain rescue operations. This was created last year in my CS-340 course.

I included this artifact because it includes data structures, algorithms, databases, maps, and charts. The application uses plotly and the dash framework. The component that showcases my skill is in the creation of a hash method that will secure the password for the database. This will help to secure the database from an attacker with malicious intent.

I have met the planned enhancements that were mentioned in Module One. The method to secure the password that was being sent in clear text was hashed.

This was a challenge to get the hash for the password. I first tried with a message digest, but it did not work. The application would not run and gave errors that I could not resolve. Instead, I used PBKDF2\_HMAC to hash the password using a salt. There are other methods for securing the password to the database that I learned about which I will further my skills by trying them in the future.