CS 499 Enhancement Two: Algorithms and Data Structure - Narrative

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I continued to use the artifact that I chose for enhancement one. It is the Pet-Check In program in the Java programming language from IT 145: Foundation in Application Development. The program was designed to check in a pet, cat or dog, into a boarding facility. I took this class and created the program in 2022. This artifact was selected because I thought it would provide a good starting point for a full stack web application. In enhancement one I designed the web page for the front end development and in enhancement three I will create a database for the back end development. In enhancement two I chose to add a login / registration option that would incorporate authentication. The login screen will be coded in JavaScript, HTML, and CSS. In addition I planned to also add session management.

The course outcome that I planned to do for enhancement two was completed. A login button was added to the web page. When the user clicks on the button and the login screen appears. The user needs to add their email and password in order to log into their account. For now authentication is saved in local storage. It checks that the password is valid and that the email does not already exist for another user. These features were coded in JavaScript while the screen itself was done using HTML and CSS. A more secure authentication process will be added once the database is created in enhancement three. Cookies will be used for session management. Cookies provide a way for web applications to store information in the user’s browser. The user’s activity can be tracked allowing for a more personalized experience (Ramzy, 2023). Cookies will also be elaborated once the database is established. With the database playing such an important role in each enhancement, I began working on it this week so that I will have enough time to incorporate all the necessary features.

In reflecting on the process of enhancing and modifying my artifact I learned how many different things need to be completed to create a simple function of creating a login for a website. I also learned how all of these different components need to work together to get the job done. The challenges that I encountered were mainly due to not having a database. I was surprised how much a web page relied on having a database. I guess I never really thought about where all of the data went once it was entered into the site. The need of a database definitely makes sense and I look forward to adding one in the next enhancement and being able to tie all of the pieces I have done thus far together.

Ramzy, Hendel. (2023). *How session and cookies works?* [www.medium.com](http://www.medium.com)