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IS 1059 Final Project

For my final project, I was inspired by my close friend's TTRPG (table-top role-playing game) campaign entitled "Monster of the Week." I decided that it would be an interesting idea to transform her campaign into a "best-selling" book series that would have its own website. This was the premise of my web application. This website would contain these main functionalities: Home Page, Navigation Bar, Characters Page, Gallery Page, Store Page, and an About the Author Page. I also included three main services implemented into the website: a registration/login functionality, an image gallery for users to upload photos, and a shop feature where users can add and remove items to their shopping carts, as well as checkout those items.

The registration and login services are implemented as two separate buttons on the navigation bar that appears on each page. If the user is viewing the site as a guest, two buttons will appear at the top of the navigation bar: Register and Login. If the user clicks on Register, they will be redirected to a page where they will have to input a display name, an email, and a password. These entries are sanitized to make sure only valid email addresses are entered, and that passwords are at least six characters long. After registering, the website checks the database to see if the user exists and the correct password was entered. If not, an error message will be displayed to the user as an alert. If the registration is successful, the user is redirected to the login page to log in with their credentials. As for the Login page, the system will check if the user is a registered user. Again, I made sure to sanitize all inputs and display the correct error messages. If the user login is successful, the navigation bar will change to show a welcome message (ex. "Welcome, Aliyah!") as well as a button to log out.

For the image gallery service, users have the ability to upload a file image from their local machines into the web application's database and have those images show up in the gallery page. A user can upload an image regardless of whether they are logged in or not. This service works by navigating to the Gallery page from the navigation bar. Anyone will be able to see a gallery of images on that page. Upon clicking on the Upload Image button, users will be redirected to a page where they can upload a file. If the upload is successful, the user is redirected back to the Gallery page and the image should appear. If there is an error (such as the image not being in the correct format), the user will be notified by an alert and redirected to the Upload Page. For testing purposes, the valid file types only include .jpg, .png, .jpeg, and .gif images.

My final service is the online store functionality. Users have the ability to browse the merchandise available for purchase, add and remove items from their shopping carts, and simulate a checkout scenario (as if they were actually purchasing the item(s)). To be able to add items to their cart, a user has to be logged in. If they try to add an item without being signed up, they will be redirected to the login page. If a user is logged in, they are able to add items to their shopping cart. Users can then click the "Checkout" button at the top of the page to go to their shopping cart. The cart page will show information on the items they had "purchased," their respective prices, as well as the option to remove an item from the cart. In the future, I would like to implement a way to add different quantities, but for now a user can only add one of each item to their cart. Due to security risks, I also did not want people to actually buy items and link to their financial accounts, so if a user clicks on "Checkout," they will simply be redirected to a page that says their order had been confirmed. They will then have the option to return to the store to browse more wares.

I also used the following tutorials and websites as my references for this project:
- Gallery
    - https://code-projects.org/simple-photo-gallery-in-php-with-source-code/
- Store
    - https://codeshack.io/shopping-cart-system-php-mysql/
    - https://phppot.com/php/simple-php-shopping-cart/
- Bootstrap
    - https://colorlib.com/wp/template/noah/