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COP3813 Final Project Report

Purpose

WallPics overall usage has not changed from assignment 8, it is still a photo sharing website. The primary functionality of the app is to allow users to create accounts and post pictures to a common wall. This is managed through two subsections: the sign in/sign up forms, and the photo sharing wall, taken from assignments 7 and 8, respectively.

The sign in/sign up forms remain largely unchanged from assignment 7. They still allow a user to create an account and sign into the app with that account. New in this version is the addition of Ajax to give feedback on username availability when creating an account. As an account is being created, the user database is checked to determine whether the input user name is available. This instant feedback makes the site a little more user-friendly. What makes the site user-unfriendly is the confirmation pages, but those could not be removed due to time constraints. An additional confirmation page was added for when an account is deleted, and it keeps with the theme of the sign in/sign up pages.

The photo wall has most of the new features implemented in this assignment. With a redesigned navbar, users have a dropdown menu with the new “account” option. The account management page allows users to change their password or delete their account. Password changing is somewhat secure as passwords are not exposed and the old password is required. The completion page is still very barren, but with the new navbar, it’s easy to get back to the content. Deleting an account is now possible, but only when signed in as the account holder. This will keep the posts submitted by that account, however, as only the user table in the database is changed.

Accessibility and posting rights have been changed from previous versions of the app. The photo wall can now be viewed when not signed in, but attempting to take any action other than passive viewing will direct back to the sign in/sign up page. Assignment 8 required the username to be an input when uploading a photo, which is a potential avenue of abuse. In this version, when posting a photo, the uploader is unable to change their username and it is automatically attached to the post. A delete post option was considered, but not implemented due to time constraints.

With new features and more open accessibility, this version of WallPics is most able to provide users with a clean, simple photo sharing service.

Design

As with all my apps, the primary design focus is simplicity. All features and pages are built to be easy to use and understand, with minimal clutter and consistent styling and layout. User interactions are limited to posting photos and managing an account, but those interactions are tightly controlled and error-resistant. The two main components of the website have slightly different design, so I will discuss each separately.

The sign in/sign up forms maintain the styling and use cases from the previous assignments. They have a light gray background with blue buttons, and there is no other navigation system. Although it is possible to reach invalid pages through the address bar, these cases are protected against through session verification and redirection. With the change in photo wall access, an extra button was added to bring visitors directly to wall. The newly added Ajax feature does not change the form layout, as it is placed in the same location as feedback in the previous assignments. The account deletion confirmation page was added in this assignment, and it follows the styling of the sign in/sign up pages. All of these pages are based on Bootstrap’s form styling, and are mobile-responsive.

The photo wall pages have had significant redesigns applied. While previous versions of the app used an inverse navbar with blue buttons, this version has a standard light grey navbar with a dropdown menu. The navbar on all relevant pages has been changed to this new design as well. I have always preferred the inverse navbar because it stands out from the rest of the page, but after using this new color scheme, I like the lighter feel it gives the website. The dropdown was necessary because adding more buttons would create problems for mobile browsers. On mobile, the navbar was nearly filled already, so adding more buttons was not an option. The user’s name now functions as the dropdown menu button, and the app’s name has been added for page branding. With the dropdown, users have quick links to the rest of the website’s content.

Only minor layout changes were applied to the photo upload form. All form elements were centered except the file selection input. I could not find a working method to center this element, so it was left as is. The option to input a user name for a post has been removed, since this was a requirement I was opposed to in the previous assignment. Posts now automatically have the name of the user who created them attached.

This assignment adds an account management page as part of the photo wall group. Because it is only accessible to users who have signed in, it was not included as part of the sign in/sign up pages. It uses the same form styling as the photo wall and upload forms, again take from Bootstrap. Like the newly arranged photo upload form, this form is also centered for easier use with mobile browsers. The delete account button is red to warn that it has important implications, and there is a functional description above it. Changing the password is straightforward, and the confirmation pages adhere to the styling of the account management page. Although the confirmation pages here provide no links to go back, the dropdown menu is accessible for navigation.

The design choices I made for this version of the app are limited by my time and programming skill. While adding more colors or layout changes may have been possible, I chose to focus on making each change work well with little complication. Use cases have been improved by allowing more access to the photo viewing section of the site, and the overall feel is lighter because of the reduced number of elements and colors.

Development

**Tools**

* Sublime Text 2 for coding.
* PHP for server-side data processing.
* MySQL for database querying.
* HTML and CSS for webpage layout and styling.
* JavaScript and jQuery for DOM manipulation.
* Bootstrap for template, stylesheet, and JavaScript.
* Textbook chapters 12 and 26 for PHP code examples.
* Favicon-generator.org for favicon.
* Cyberduck for SFTP to LAMP server.
* GitHub and SourceTree for repository management.
* Safari (OSX and iOS), Chrome, Firefox for viewing and testing.
* Nu HTML Checker for validation (no errors or warnings found).
* Stackoverflow and class discussion page on Blackboard for troubleshooting.