Akanksha Shukla Final Project Summary

Topic

The website centers around the logistics and the 'Consistency Score System' utilized to allow for USC's Troy Camp organization to continue providing long-term mentorship to kids in the South Central area. In order to aid in your perusal of the website's content, some context is necessary to understand the importance of such a tool. Currently, Troy Camp has over 180+ counselors, each of which participate in different combinations chosen from a variety of weekly and monthly programming. Troy Camp's programming is scheduled times where our college-aged camp counselors lead workshops, interact with, and mentor children from 3rd grade to 12th grade. Since the organization's mission centers around long-term mentorship, it is expected that counselors consistently show up for their campers via specific requirements for different programming. In order to quantifiably track these metrics, and course correct if required for specific programs etc., the executive board calculates the "consistency score" of each counselor for each programming. This consistency score is reflective of the percentage of time they complete their requirements as a Troy Camp counselor. The executive board of this organization also takes careful consideration into the demographics of our counselor base, to ensure that there is adequate diversity & inclusion programs, as well as to ensure counselor retention. For this, we often look at sub-segments of the counselor base and analyze their metrics. Finally, it is imperative that this database remains up to date, and counselor data can be modified, deleted, or added as necessary to gain an overarching picture of our counselor database.

Purpose

The website intends to serve as a counselor portal for all types of Troy Camp Counselors, from general members, executive board member, and the presidents of the organization. It is important to note that there is no general perusal of the site, you must create an account (the process verifies you are a Troy Camp counselor), and only then can the website be accessed. I will outline the intended purpose for each of these user segments, in order to provide clarity on the desired functionality for each type of counselor.

1. General Membership

For general membership, this portal is intended to serve as a data visualization of their individual counselor details, with some additional abilities to update their counselor information, as well as obtain contact information or basic details about the rest of the counselor base. General members are given a to-do list that is prepopulated with all the possible commitments of a week in Troy Camp. They are able to delete responsibilities that do not apply to them, check off items as they complete them, clear, and reset the list. The content and state of each to-do item remains associated with their account (via local storage) and is not reset upon navigation to other pages or logout. They are also able to view a breakdown of all their sub consistency scores, with a table representing all their missed commitments for clarity on a non-100% score. Currently, an unintuitive spreadsheet is utilized in order to display this information, which often dissuades counselors from reflecting on and understanding their scores. Lastly, they are able to search the counselor database in order to view counselor names, phone numbers, email address, color teams, and class standing. They are able to use the search results to edit only their own counselor details.

2. Executive Board Members

For executive board members, this portal provides the same functionality as it does for general membership, with a few additional add-ons for trend analysis, general membership management, and access to detailed information on the entirety of the general counselor base. Executive Board Members have a more advanced counselor search results page. On the results page, they are able to view a summary of results, which outlines the colour team breakdown, programming breakdown, class breakdown, and the average programming consistency scores for the counselors returned by the search results. Additionally, upon clicking a counselor's name in the search results, EBoard is able to navigate to that counselor's individual consistency score breakdown, in order to analyze, verify, and understand specific counselor participation. Lastly, all EBoard members are granted the ability to edit any counselor's information, ensuring that Troy Camp names remain updated and that errors in spelling or information are quickly rectified.

3. Presidents of the Organization

The presidents of Troy Camp are granted all the functionality for general members, executive board members, as well as the ability to directly add or delete counselors from the counselor database. This ensures that erroneous rows are not inserted into the counselor database without explicit presidential permission. Furthermore, this prevents counselors from Troy Camp being removed from the database by mistake.

Navigation Instructions

All of the pages are password protected. In order to create an account or register as a user, your USC ID must be in the Troy Camp counselor database. The entry level page for any navigation of this website is landing_page.php. This is to prevent non-counselors from gaining access to sensitive information like counselor phone numbers, email addresses, etc. In order to test the creation of an account, the following details can be used to create an account with EBoard level access:

USC ID	8303725054
First Name	Joy
Last Name	Jaensubhakij
Troy Camp Name	Reverse
Color Team	Blue
Email	jjaensub@usc.edu
Phone	914-484-0802
Class Standing	Senior
Username	Up to you!
Password	Up to you!

In order to log into pre-existing accounts, with varying levels of access, the following credentials can be used to test each level of access:

General Member Level Access

- Ability to modify To-Do list for user, which persists across pages and despite login / logout
- Access to user's consistency score details
- Ability to search Troy Camp Counselor database
- Ability to edit entry of own record in Troy Camp Counselor database

Username	diegoihe
Password	Test1234!

EBoard Level Access

- Ability to modify To-Do list for user, which persists across pages and despite login / logout
- Access to user's consistency score details
- Ability to search Troy Camp Counselor database
- Ability to edit entry of any counselor in Troy Camp Counselor database
- Ability to view consistency score of any counselor in Troy Camp Counselor database via search results
- Ability to view summary of search results

Username	mariahna
Password	Test1234!

President Level Access

- Ability to modify To-Do list for user, which persists across pages and despite login / logout
- Access to user's consistency score details
- Ability to search Troy Camp Counselor database
- Ability to edit entry of any counselor in Troy Camp Counselor database
- Ability to view consistency score of any counselor in Troy Camp Counselor database via search results
- Ability to view summary of search results
- Ability to add counselors to Troy Camp Counselor database
- Ability to delete counselors from Troy Camp Counselor database

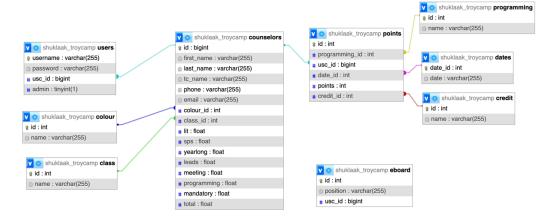| Username	shuklaak
Password	Akka1243:)!

Data Source

All of the data used in this project, and stored in the database, is real data that is acquired from the Troy Camp counselor base (with their explicit permission). Here is a breakdown of where I got the data from for each table:

class	These are the possible classes of a Troy Camp counselor
colour	These are the possible colour teams of a Troy Camp counselor
counselors	These are the accurate and updated details of the current Troy Camp counselor base, acquired through a Google Form sent out to the counselors at the start of the semester. The programming values here are calculated values from the consistency score spreadsheet used for actual Troy Camp logistics.
credit	These are the general responsibilities a Troy Camp counselor has for every programming
dates	These are the unique dates, events which Troy Camp counselors may have signed up to attend
eboard	These are the positions, and USC_IDs of the current Executive Board, in order to ensure that they are granted privileged status upon user registration
points	These are the actual attendance and calling records of all Troy Camp counselors in the past academic year

programming	These are the various programming Troy Camp counselors are able to sign up for
users	These are the usernames, passwords, USC IDs, and admin status based on user registration on the website.

Database Diagram

Extras

In order to guide grading and assessment of extras, I have included the extra completed, the page at which the extra can be accessed and tested, and a brief summary of the purpose and functionality of each extra.

1. Event-driven DOM Manipulation
   o There is a To-Do list functionality present on the home_page.php for users of all permission levels. This begins with a preset amount of nodes, which can be deleted, cleared, or reset to their initial status as requested by the user.
2. JSON API
   o There is a weather icon present on the home_page.php for users of all permission levels. This accesses a weather API in order to accurately display the weather outside in Los Angeles whenever the website is accessed.
   o There is a daily quote present on the home_page.php for users of all permission levels. This accesses a random quote API in order to showcase a new, random quote every day for the users.
3. SQL Aggregate Functions
   o Users with EBoard level permission or presidential permission are able to access the "Summary of Results" button on the search results page (user_page.php → submit search form). This displays relevant counts and averages of the returned search users.
4. Sessions
   o There is a login functionality on the website, where SESSION variables are stored and utilized in order to display customized content on the home_page.php and the consistency_score_page.php. The SESSION variables also track admin status for various users.
5. Different User Permission Levels
   o If a user's USC ID is present in the eboard table, they are granted executive board access rights. Two specific users (shuklaak and ddroberts) have manually been

granted presidential access. An overvew of varying functionality for users of different permissions is provided above.

6. JavaScript ←→ PHP
   o In order to conditionally display errors on the registration form (found on landing_page.php), I used XHR objects to communicate between client side JavaScript code and written server side PHP code which communicated with the database and verified user input. The following checks utilized XHR objects:
      ▪ Whether the USC ID was associated with a Troy Camp counselor
      ▪ Whether an account had already been made for a specific USC ID
      ▪ Whether a username had already been taken

CSS Frameworks / Templates

I heavily utilized preexisting Bootstrap for the Frontend design of this website. I have included the list of all Bootstrap components used (with a link to documentation used, and the pages in which I employed them). For sake of brevity, I have not included the use of Bootstrap buttons, and other simpler components.

Breadcrumb

- add_confirmation.php
- add_page.php
- delete_page.php
- edit_confirmation.php
- edit_page.php
- results.php

Carousel

- consistency_score_page.php
- results.php (for EBoard or presidential access levels only)
- user_consistency.php (for EBoard or presidential access levels only)

Tool Tips

- home_page.php
- results.php (for general member access levels only)

Modal

- results.php (for Eboard or presidential access levels only)

I also used an open source non-Bootstrap framework in order to create the consistency score circles.

Progress Circles

- home_page.php
- consistency_score_page.php
- user_consistency.php (for EBoard or presidential access levels only)

I also used the Font Awesome Icon Library in order to obtain icons for my navigation bar, for the buttons on the to-do list, and for the visible / invisible password toggles on the landing page.