Web Development Project - CS 346 - Fall 2024

In this substantive, semester-long project your team will build a full-stack website, that will genuinely benefit *someone* -- a friend, someone you know professionally (e.g., faculty/staff at UWO, a local non-profit, a local company, etc.). Base this website on the technologies that we are studying -- HTML, CSS, JavaScript, SQL and Express. If we have not talked about the technology in class (e.g., React), do not use it without consulting with your instructor first.

Criteria:
You will be graded on these criteria:

1. Adherence to commonly recognized principles and guidelines for good web development and design as described in the text and in class.
2. A website that is appealing to the eye -- suitable choice of colors, shapes, pictures, fonts, white space, all nicely laid out, with a consistent look-and-feel across all pages. 3. A website that looks good on popular web browsers, and be responsive - it should look good on either a large screen or a small one.
4. Navigation should be obvious / easy to use
5. The inclusion of multiple images
6. Verifiability. All pages must have a discretely placed link to the appropriate w3c verifiers. 7. A functional form that does *something*.
8. The ability to upload a file for some relevant reason (e.g., a music site, you can upload a demo song to)
9. The ability to connect to a SQL database and perform the usual operations -- insert, update, delete and select on some data of your choosing.
10. Your website should be dynamic, and use Fetch to retrieve data from your website
11. There should be the ability to authenticate to the website, and an authenticated user must be able to do something that a non-authenticated user could not do. Sessions should be a part of this.
12. Include a disclaimer at the bottom of each page that states:
    > This site is under development by UW-Oshkosh students as a prototype for (INSERT ORG HERE). Nothing on the site should be construed in any way as being connected with or representative of (INSERT ORG HERE)

CS 346 – Web Development Project Proposal
Fall 2025

Project Title:
FocusFlow/Pomodoro plus – Study Timer / Pomodoro App

Team Members:
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Project Description:

FocusFlow is a web application designed to help users improve focus and productivity by timing study sessions using the Pomodoro technique. The app allows users to time study and break periods, track their total study time, and view summaries of their progress over time.

Motivation:
Many students struggle with staying focused and managing their time effectively. This project aims to create an accessible and visually appealing tool that helps students organize their study sessions and maintain consistency through data tracking and leaderboards. The Pomodoro method's structured cycles encourage regular breaks, promoting focus and long-term productivity.

Expected Features:
·   Timer Functionality – Default 25-minute study and 5-minute break cycles, with customizable durations.
·   User Accounts and Authentication – Users can sign in using Express sessions and cookies for persistent login.
·   Study Session Tracking – Users can record and name sessions (e.g., 'Biology') and see summaries by week, month, or year.
·   Leaderboard – Displays top users by longest sessions and streaks. Uses Fetch for live updates.
·   Profile Management – Users can upload a profile picture (file upload feature).
·   Database Integration – SQL backend supports Create, Read, Update, Delete (CRUD) operations.
·   Responsive Design – Works smoothly on both desktop and mobile browsers.
·   Visual Design – Incorporates icons, images, and consistent colors for an appealing layout.
·   Verification and Disclaimer – W3C HTML/CSS validator links and footer disclaimer included.

Technical Implementation:
Frontend: HTML, CSS, JavaScript
Backend: Express.js
Database: SQL (MySQL)
Authentication: Express sessions and cookies
Dynamic Updates: Fetch API
File Handling: Local uploads folder for profile pictures

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