CEN3031 Summer 2025 Challenge Statement

Section 16790
Lead TA: Tomisin Obajemu

Building a wellness habit comes with the challenge of staying consistent. This can be via sticking to a fitness routine, following a nutrition-based goal, managing stress, or any healthy habits. For this project, your team will develop a software solution that stimulates engagement amd supports wellness goals through an interactive and engaging platform.

You will propose your own twist to this challenge. You can choose to focus on gym tracking and meal planning, but you can also consider other wellness-related areas, like meditation, sleep tracking, forming new (healthy) habits, "drink water" reminders, a mental health and wellness check ins, etc. (I do not have a preference, and I would be satisfied as long as it's related to health and wellness).

Possible features can include logging and tracking events (meals, workouts, other wellness activities, etc) or engaging with a community. Users can view each other's progress, share tips, encourage each other, or receive gamified incentives.

Suggestion: Gamification can play a central role in promoting regular use and commitment to goals. For example, users can earn points for consistent logging, badges for achievement (i.e., a 7-day streak, burning X calories), or climb a leaderboard. Weekly challenges and shared goals will encourage community involvement while keeping things fun :)

While this system is not required to be developed to be accessed via the web, it must be able to be run on multiple different machines while accessing a central database (you will run a database locally for testing and development, but it should function as if you were connecting to a database on a central server).

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Course Specifications:

- Implements user authentication with at least two distinct user types (e.g., administrator and member)
- Implements a dynamic database of user and item data

- Implements one or more “operations” involving some form of frontend-backend-database communication

Course Expectations:

- Databases can use any existing dataset or have dummy data. Databases using datasets should have at least 100 items. There can be exceptions based on the specific project.
- New user creation/registration should be available
- UI design should contain elements commonly found or expected such as a user profile, login, logout.
- Consideration for design aesthetics
- System should be dynamic and responsive

CEN3031 Summer 2025 Challenge Statement

Section 16791
Lead TA: Mansi Pai

Entertainment plays a vital role in our daily lives. From movies and books to restaurants and music, we're constantly engaging with different forms of media and experiences. Keeping track of what we've consumed—not just passively, but thoughtfully—can offer real value. Whether you want to be more mindful about what you consume or simply remember how you felt about something, a personal tracking tool can help. Taking inspiration from platforms like **Letterboxd** and **Goodreads**, create a software that aims to provide a flexible, user-centered experience for tracking and reflecting on media consumption. Users should be able to:

1. **Track Progress:** Organize media into clear stages of consumption
    a. *To-do:* What you want to consume
    b. *Doing:* What you are currently engaged with
    c. *Done:* What you've completed
2. **Rate and Categorize:**
    a. You should be able to leave a review and rating on a 5-star scale
    b. Tag entries with custom labels or create collections (like "favorites", "vampire movies" or "RPGs".
3. **Reflect and Journal:** Maintain a personal log to capture thoughts, feelings, and insights for every entry.

While your project can focus on traditional media like books, movies, music, or games, it can be adapted for other areas that might benefit from reflective tracking—such as restaurants visited, recipes tried, hiking trails explored, or even museum exhibits experienced.

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Section 16797
Lead TA: Donald Honeycutt

As demands on time and attention are constantly rising, it has become increasingly important to spend your time in a productive way. For this project, you are tasked with identifying a specific productivity need—whether it's managing time, organizing tasks, tracking habits, minimizing distractions, or supporting effective collaboration—and design a software solution that meaningfully enhances users' ability to achieve their goals efficiently. This may apply to individuals or groups, and can target any demographic of your choice that would benefit from a tool that helps them focus, prioritize, and stay on track. Your solution should be grounded in a clear understanding of the productivity challenges faced by your chosen user base and should aim to reduce friction in their workflows or daily routines.

Your solution must go beyond surface-level organization; a simple to-do list or static planner will not suffice. The application you develop should offer interactive functionality that supports sustained, real-world use. Example features could include adaptive scheduling, progress tracking, or focus-enhancing techniques like time-boxing or gamification. Try to understand what productivity means for your target audience and design a system that addresses a specific need.

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CEN3031 Summer 2025 Challenge Statement

Section 16799
Lead TA: Tomisin Obajemu & Mansi Pai

University students face a unique set of challenges and opportunities as they navigate academic responsibilities, social connections, personal development, and future planning. For this project, your task is to design a software application that supports university students in a meaningful and practical way. This could involve enhancing academic performance, improving mental or physical well-being, fostering peer connections, helping with career preparation, or addressing common pain points like time management, resource access, or financial stress. Your solution should be guided by a clear understanding of the specific needs, habits, and pressures faced by students in a university environment.

The application you develop should provide interactive features that deliver real value to students' lives. You can create something that will be of use to university students generically or design something that caters to the needs of a specific sub-group. Your solution must go beyond offering static information or replicating existing systems; a simple landing page or a visual representation of a database will not be sufficient. Think carefully about what success and support mean in the context of student life and design a solution that is not only functional, but also engaging and sustainable for real-world use.

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