

# COMP 5130. INTERNET AND WEB SYSTEMS-1

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## **1.Introduction**

The "30 Days Weight Loss Challenge" project is a web-based program that guides users through an organized and methodical weight loss journey. The app offers users a variety of tools, including food programs, fitness routines, BMI calculators, and water intake tracking, to guarantee that their 30-day challenge is supported by both instructional and practical materials. The project's goal is to motivate and lead users toward their health and fitness objectives by incorporating user-friendly interfaces and vital functionalities.

## **2. What?**

The project is a comprehensive platform that provides users with all of the resources they need to complete a 30-day weight loss challenge. It provides a number of functions to help users achieve their fitness objectives swiftly and effectively. These features include daily workout plans for various fitness levels, customizable diet plans tailored to individual dietary needs and preferences, a BMI calculator that allows users to track their body mass index and ensure they are within a healthy range, and a water intake tracker that encourages users to stay hydrated.

## **3. Why?**

Many people struggle to stay motivated and consistent on their weight reduction journey, frequently quitting up due to a lack of organization, advice, or obvious success. Over time, we've noticed that people who try to lose weight without a clear plan or assistance struggle to stay disciplined, which can lead to frustration and failure to meet their goals. This platform aims to solve these challenges by providing simple programs, educational resources, and tools to help users stay motivated, measure their progress, and achieve long-term weight loss.

## **4. List of Supported Features**

- **Water Intake Tracker:** A tool for monitoring daily water consumption.
- **BMI Calculator:** Allows users to calculate and monitor their Body Mass Index.
- **Diet Plans:** A range of diet plans suited to different needs and preferences.
- **Workout Plans:** Daily workout routines tailored for the 30-day challenge.
- **Educational Content:** Articles, blogs, and tutorials related to fitness, diet, and wellness.

## 5. List of Not Supported Features

**Real-Time Exercise Monitoring:** No feature for tracking live workout activities or integrating with wearable fitness devices.

**Advanced Nutrition Analysis:** The diet plans do not provide detailed nutritional breakdowns, such as calorie count or macronutrient tracking.

**Custom Workouts:** Users cannot create or personalize custom workout routines within the application.

**Progress Tracking:** The platform lacks a feature for automatically tracking user progress over time, such as weight, body measurements, or fitness milestones.

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## 6. List of Future Planned Features

- **User Progress Tracking**
- **Integration with Wearable Devices**
- **Premium Membership**
- **Advanced Meal Planning**
- **Daily Reminders and Notifications**
- **Habit Tracking**
- **Recipe Database**
- **In-App Challenges**
- **Goal Setting**
- **Community Support**
- **Personalized AI Coach**
- **Video Workouts**
- **Exercise Modifications**

## 7. How?

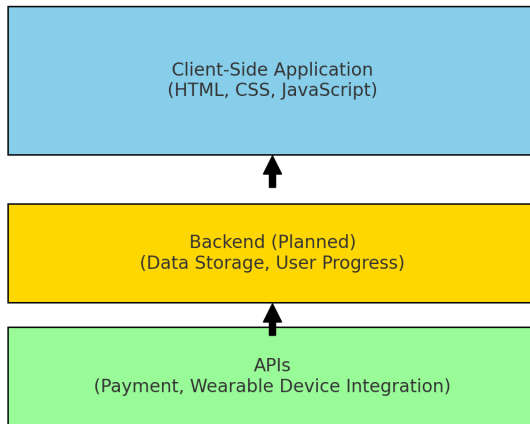
The project is created with typical web development technology, and many components serve various portions of the 30-day challenge. HTML and CSS power the user interface, while JavaScript handles user interactions and calculations (for example, a BMI calculator and water intake tracking). The platform is designed modularly, allowing for future additions such as premium memberships and fitness gadget integration.

## 8. High-Level Diagram

The high-level diagram will include the following components:

- **Client-Side Application:** User-facing interface developed using HTML, CSS, and JavaScript.
- **Backend (Planned):** Potential integration with backend services for storing user progress.

High-Level Architecture Diagram



- **APIs:** Used for any external services like payment gateways or wearable device integration.

## 9. List of Components/Modules

- **Water Intake Tracker Module:** Tracks daily water consumption.
- **BMI Calculator Module:** Calculates Body Mass Index based on user input.
- **Diet Plans Module:** Displays and helps users follow diet plans.
- **Workout Plans Module:** Provides daily workout routines.

## 10. Languages to Be Used for Each Module

- **HTML:** For structuring all pages and content.
- **CSS:** For styling and responsive design.
- **JavaScript:** For interactivity and functionality (e.g., BMI calculation, water intake tracking).
- **(Planned) Backend Technologies (Node.js/Python)** for user authentication and data persistence.

## 11. List of 3rd Party/Open Source Modules

- **Bootstrap (CSS Framework):** To ensure responsive design.
- **jQuery (Planned):** For enhanced interactivity (optional).

## 12. Table of Licenses

Module/ Component	License	Notes
Bootstrap	MIT License	CSS framework for styling
jQuery	MIT License	JavaScript library for UI

### 13. List of Any 3rd Party Services/APIs

- **Google Analytics** (Planned) - Free
- **Payment Gateway (Stripe/PayPal)** (Planned) - Paid

### 14. REST API Endpoints with Payloads

Since the current version does not include a backend, no REST API endpoints are available. Future versions may include:

- `/user/progress` (GET/POST): For storing and retrieving user progress.
- `/payment/subscribe` (POST): For handling subscription payments.

### 15. Build Steps/Scripts

Currently, the project only requires basic web development setup:

1. **Install Dependencies** (if using third-party libraries like Bootstrap via npm or CDN).
2. **Build the Frontend** using HTML, CSS, and JavaScript.

### 16. Install Steps/Scripts

1. **Clone Repository:** <https://github.com/danielratnakar123/comp5130.git>
2. **Open `index.html`** in a web browser to view the application.

### 17. GitHub Information

- **Repository URL:** <https://github.com/danielratnakar123/comp5130>
- **Main Branch:** <https://github.com/danielratnakar123/comp5130>
- **Readme:** Includes setup instructions and project overview.

### 18. References

- **Bootstrap Documentation:** <https://getbootstrap.com/docs/>

- **jQuery Documentation:** <https://jquery.com/>