

FITBALANCE — BMI, DIET & WORKOUT PLANNER**¹ Dakshina moorthy.D, ² Dr.P.Sujatha**¹ Student, Department of Computer Application, VELS Institute of Science Technology and Advanced Studies (VISTAS), Chennai, Tamilnadu, India.² Professor and Head, Department of Computer Application, VELS Institute of Science Technology and Advanced Studies (VISTAS), Chennai, Tamilnadu, India.**ABSTRACT**

FitBalance is a modern web-based BMI, diet, and workout planning application developed using HTML, CSS, and JavaScript. The main objective of this project is to help users maintain a healthy lifestyle by providing personalized fitness guidance based on their body statistics and fitness goals.

The system calculates Body Mass Index (BMI), Basal Metabolic Rate (BMR), Total Daily Energy Expenditure (TDEE), and daily calorie requirements using user inputs such as age, height, weight, gender, and activity level. Based on these calculations, the application generates customized South Indian diet plans, workout schedules, supplement recommendations, and downloadable PDF fitness reports.

The application supports multiple food preferences including Vegetarian, Non-Vegetarian, and Vegan diets. It also provides fitness plans for weight loss, maintenance, and muscle gain goals. The user interface is designed with a modern responsive layout that works efficiently on both desktop and mobile devices.

FitBalance improves user experience by combining multiple health and fitness features into a single platform. The project demonstrates frontend web development skills, responsive UI design, JavaScript-based calculations, and PDF report generation techniques. Future improvements may include database integration, AI-based recommendations, cloud storage, and mobile application support.

INTRODUCTION

FitBalance is a smart fitness and health management web application developed to help users achieve their health goals through personalised diet and workout planning. In today's busy lifestyle, many people find it difficult to maintain proper nutrition, exercise regularly, and track their physical health. FitBalance provides a simple and effective solution by combining BMI calculation, calorie tracking, workout planning, and diet recommendations into a single platform.

The application is developed using HTML, CSS, and JavaScript with a modern and responsive user interface that works smoothly on both desktop and mobile devices. Users can enter their body details such as age, height, weight, gender, activity level, and fitness goals to receive customised fitness guidance. The system calculates important health values including BMI, BMR, TDEE, and target calorie intake to create a personalised health plan.

FitBalance supports Vegetarian, Non-Vegetarian, and Vegan food preferences and provides South Indian meal plans suitable for different diet strategies such as calorie deficit, high-protein, and balanced nutrition. The platform also includes workout schedules, supplement suggestions, fitness tips, and PDF report generation for better user experience and convenience.

The main aim of this project is to encourage healthier lifestyle habits by using technology to make fitness planning easier, more accessible, and user-friendly for everyone.

METHODOLOGY

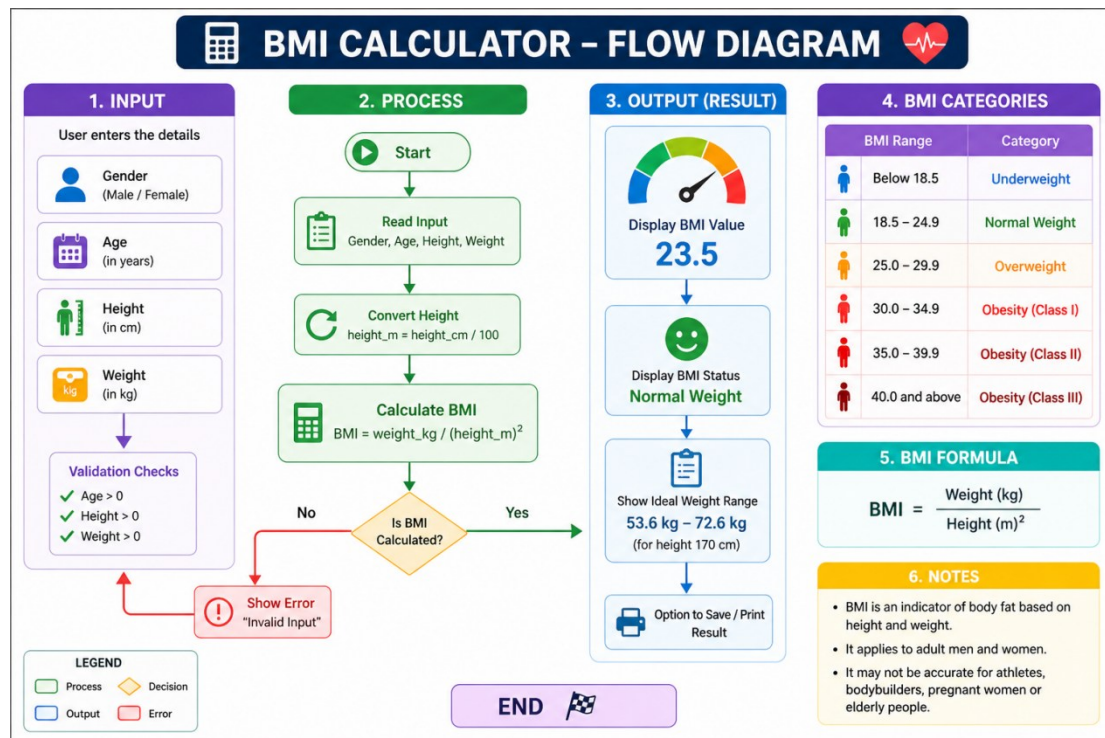
The FitBalance web application follows a user-centred approach to provide personalised fitness and diet recommendations. The system collects user information such as age, gender, height, weight, activity level, food preference, and fitness goals. Based on these inputs, the application calculates BMI, BMR, TDEE, and target calorie intake using standard health formulas.

After the calculations, the system generates customised South Indian diet plans, workout schedules, supplement suggestions, and health tips according to the user's selected goal such as weight loss, maintenance, or muscle gain. The application also provides a PDF report generation feature for easy download and sharing.

The project is developed using HTML for structure, CSS for styling, and JavaScript for calculations, interactivity, and dynamic content generation.

Advantages of FitBalance

- Easy to use interface
- Personalised fitness guidance
- Supports Vegetarian, Non-Vegetarian, and Vegan users
- Generates complete health reports
- Mobile responsive design
- Interactive workout and diet planner



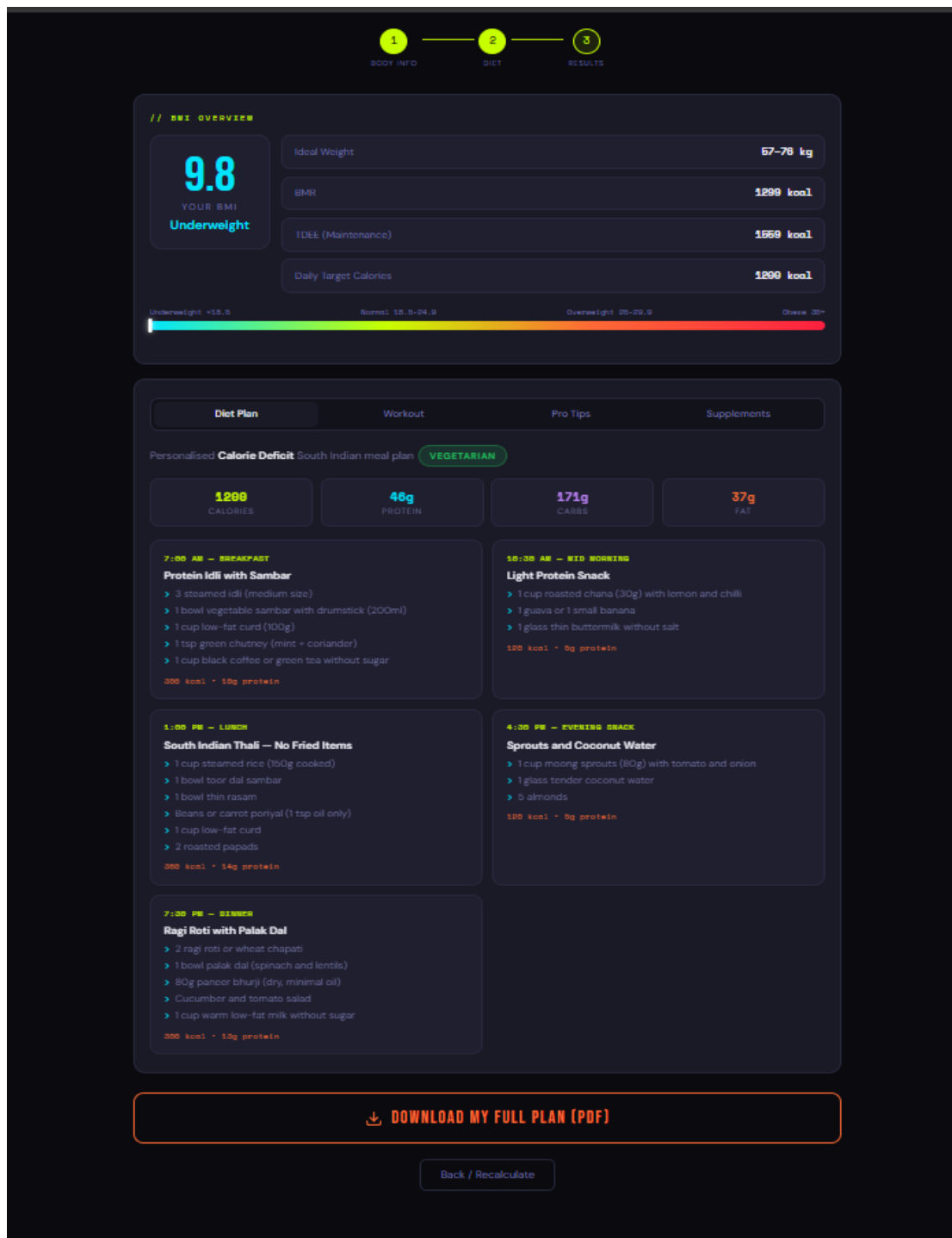
The BMI Calculator is used to measure a person's body weight based on their height and weight. The user enters details such as age, gender, height in centimeters, and weight in kilograms. The system first validates the input values to ensure that height and weight are greater than zero. Then, the height is converted from centimeters to meters. After conversion, the BMI value is calculated using the formula:

The calculated BMI is displayed along with the health status of the user. If the BMI is below 18.5, the person is considered underweight. A BMI between 18.5 and 24.9 indicates normal weight, 25 to 29.9 indicates overweight, and 30 or above indicates obesity. This calculator helps users understand their fitness level and maintain a healthy lifestyle through proper diet and exercise.

RESULT

The BMI Calculator successfully calculates the Body Mass Index using the height and weight entered by the user. The system first validates the input values and converts height from centimeters to meters for accurate calculation. Using the BMI formula, the application generates the BMI score instantly and displays the corresponding health category such as underweight, normal weight, overweight, or obesity.

The calculator helps users easily understand their physical health condition and body weight status. It provides a simple and user-friendly interface that allows users to check their BMI within seconds. The result section also gives health-related guidance and awareness about maintaining a balanced diet, regular exercise, proper hydration, and healthy lifestyle habits.



This system improves health monitoring by providing fast, reliable, and accurate BMI analysis. It can be useful for students, fitness beginners, gym users, and people who want to track their body condition regularly. The BMI Calculator reduces manual calculation effort and helps users make better fitness and diet decisions. Overall, the application serves as an effective health management tool for monitoring body fitness and encouraging a healthier lifestyle.

CONCLUSION & FUTURE SCOPE

Conclusion

FitBalance is a complete health and fitness planning web application developed using HTML, CSS, and JavaScript.

The project successfully calculates BMI, generates personalized diet plans, workout schedules, and downloadable reports.

The application provides a user-friendly interface and supports multiple food preferences and fitness goals. It is especially useful for users looking for South Indian diet planning with modern fitness tracking features.

Future Scope

The project can be improved further by adding:

- Database integration using Firebase or MySQL
- User login and authentication
- Cloud storage for reports
- AI-based fitness recommendations
- Real-time calorie tracking
- Mobile application version
- Voice assistant support
- Water intake tracker
- Live chat support
- Progress charts and analytics

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