CALORIE COUNTER

Web Appplication

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Seminar Project

Contents

1 Introduction

Calorie is a unit of energy that calculates how much energy food required by the body. The amount of Calories in food provides you energy, nutrients, proteins carbohydrate and fat to fuel your body. When you eat food, your body turns the food into fuel, burning it to produce calories. If you're at a desirable body weight and have plenty of energy, your calories in food intake are probably fine. But when it exceeds it not only creates physical problems but increases the levels of stress and anxiety

So does my website provide a solution to all such problems encountered while consuming extensive amount of calories. A person of any age group who is literate can go through the app and check the amount of calorie intake. The warnings may help him to take decision for consuming that amount of calories. The domain where my website focuses is on Health Issues related to high calorie food consumption

As per Indian Lifestyle the food that is favored is oily, buttery and greasy which leads to many health problems. This website takes into consideration this kind of food and makes it useful by providing numerous Indian cuisines and dishes. This makes website dynamic which fulfills the user's actual food requirement with manipulation in quantity which give exact calories.

Calories is part of our daily life and we want to consume it in not more than required amount , so here we bring our App to all those people who needs to keep a check of their health for one or the other issue.

1.1 Goal

The goal of the project is to put in place new solutions for all the fit freaks along with the people suffering from diseases or who wants to keep a check on their diet as per the end user expectations, so that the accuracy speedup and digitalization of the system will be enhanced. It provide an efficient system for keeping a check on Health and calorie consumption and provide a simpler interface which is easy to operate on.

Since health is one of major concern in everyone's life, and people these days relies more on technologies available to them such as pulse checker, my project aims to serve the purpose. It would help an individual to make a proper decision on food intake. It might serve as a warning to an individual too and he might not consume it thereby preventing any kind of mishap.

1.2 Usefulness

With the changing era and todays so updated generation, everyone is aware of everything. Anything new and good attracts people but to repel from unwanted things become difficult task and so is with food yearning. Our app would help a lot of people in ways:

1. Smooth and easy interface to operate upon.
2. Comparative study of various foods' calorie with accurate results.
3. Health tips provided would motivate people to eat more nutritious food and prevent unhealthy food.
4. Calories manipulation according to quantity that an individual is consuming.
5. Focus upon Indian Food which increase exclusiveness of website.

1.3 Market Potential

Although the number of food calorie calculator is abundantly available in market/sites/apps but what creates a difference is Our Product is easy to use and could be used by all age classes and with the change in era all human beings refer to internet. The results provided may not be easily interpreted by everyone and as a consequence our app is user friendly, bi-lingual and it provides a pleasing interface to a health enthusiast or a fitness fanatic.

In the view of our Indian food that is inclusive of variety of food items we have managed with our product that with extra presence of such items in food we provide you with almost accurate calories that you are going to intake.

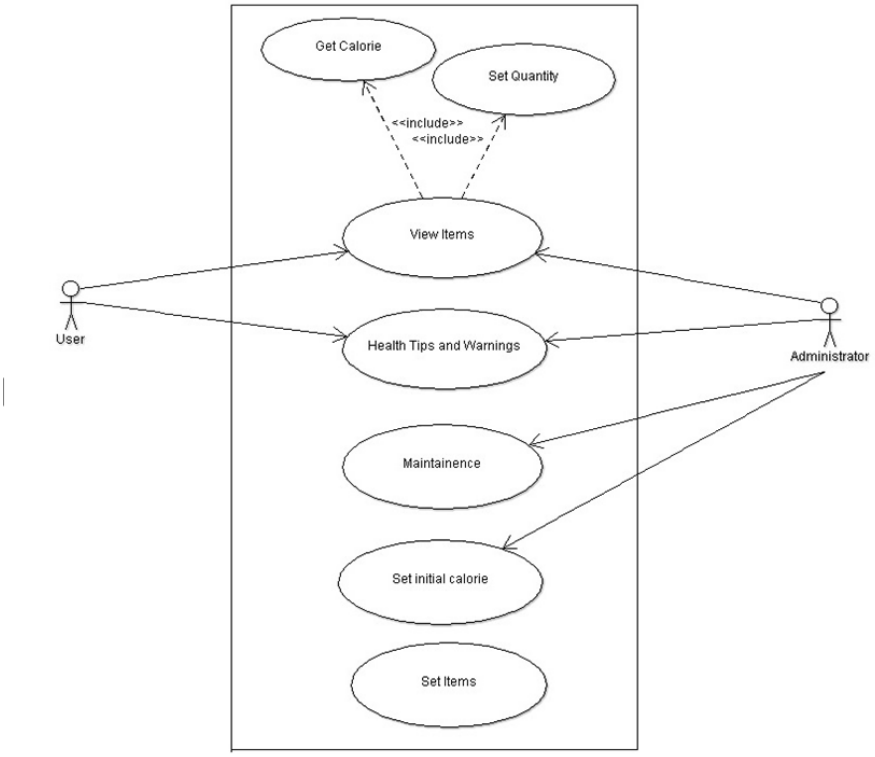
With the basic model of our product we cover the dynamic market requirement and starting with Indore which is already a food hub our product might prove to be a great help.

2 Analysis and Design

1. Structured data analysis (systems analysis), analyzing the flow of information within an organization with data-flow diagrams.
2. Systems design, the process of defining the architecture, components, and data of a system to satisfy specified requirements.
3. Object-oriented analysis and design, an approach to analysis and design of an application, system, or business that emphasizes modularity and visual modeling.
4. Service-oriented analysis and design, a method of Service-oriented modeling to design business systems
5. Structured analysis, methods in software engineering for converting specified requirements into software programs and hardware configurations
6. Structured systems analysis and design method, a systems approach to the analysis and design of information systems

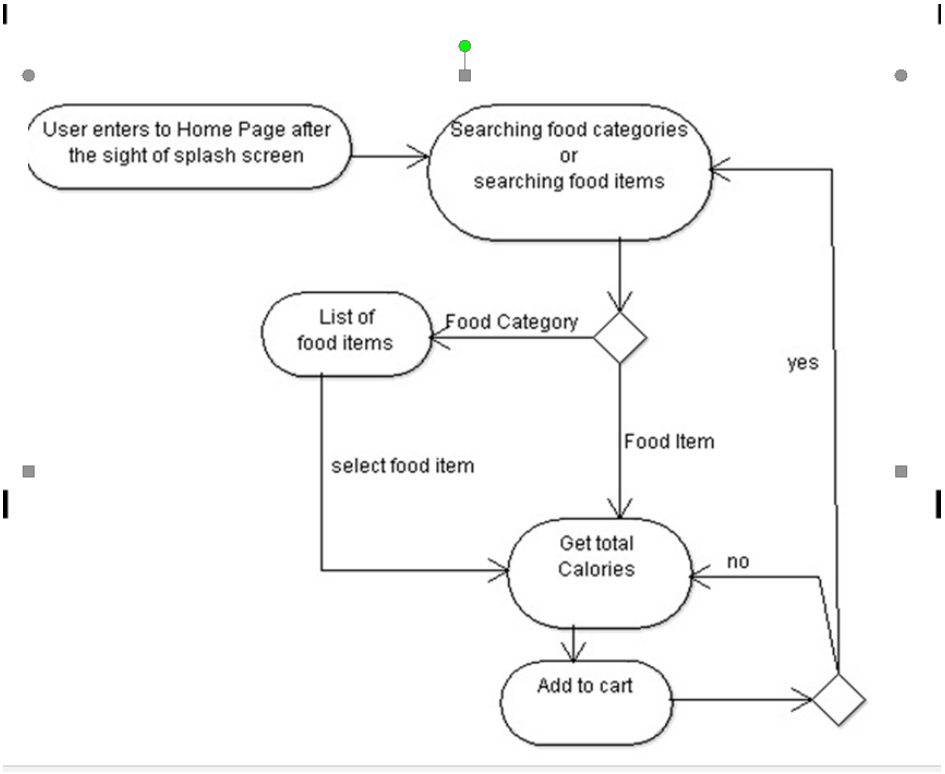
2.1 Use-case Diagrams

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.



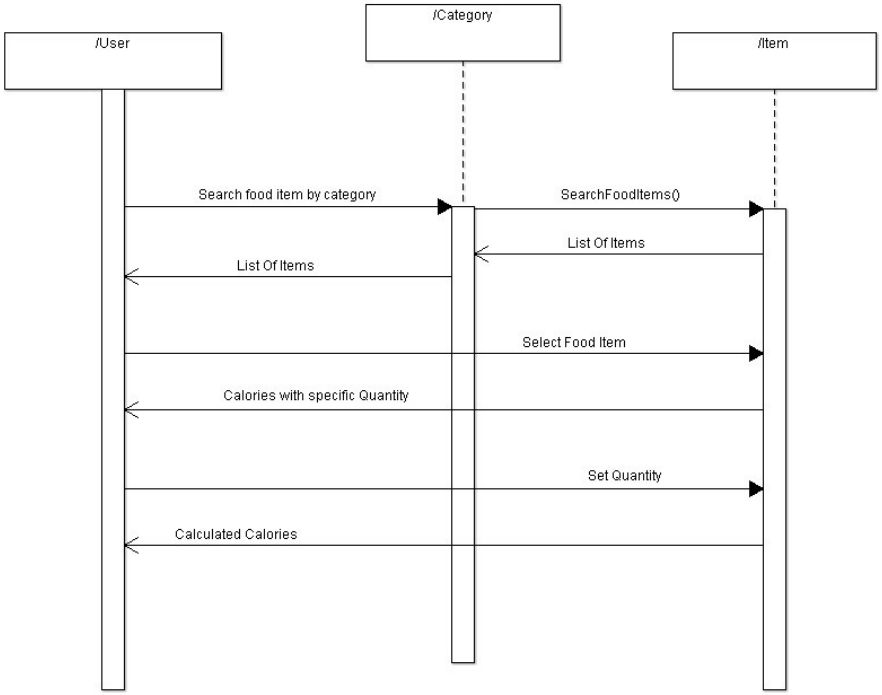
2.2 Activity Diagrams

We use Activity Diagrams as an instance to the flow of control in an exceedingly system and refer to the steps concerned within the execution of a use case. We tend to model sequential and concurrent activities using activity diagrams. So, we basically depict workflows visually using an activity diagram. An activity diagram focuses on condition of flow and also the sequence in which it happens. We tend to describe or depict what causes a particular event using an activity diagram.



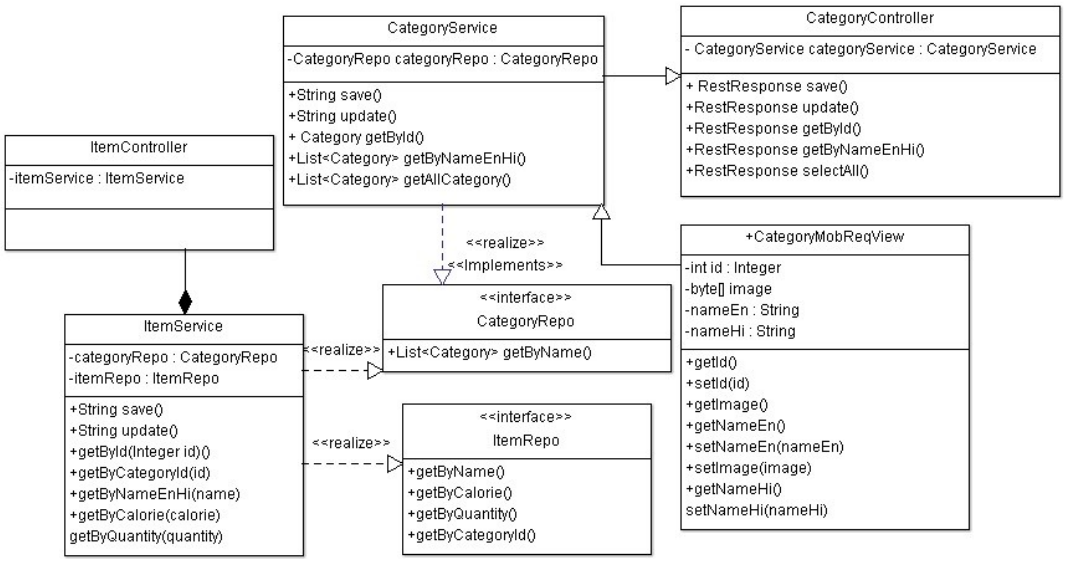
2.3 Sequence Diagrams

A sequence diagram merely depicts interaction between objects during a successive order i.e. the order within which these interactions happen. we are able to conjointly use the terms event diagrams or event eventualities to talk over with a sequence diagram. Sequence diagrams describe however and in what order the objects during a system perform.



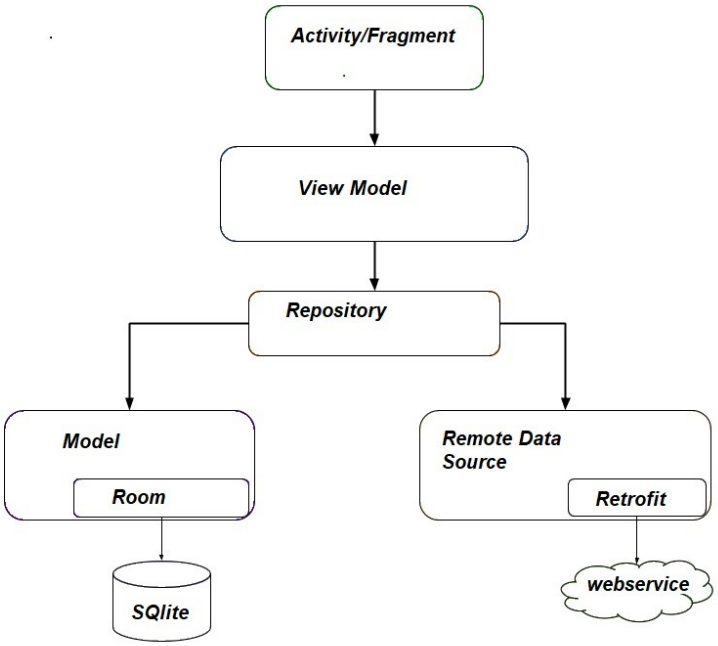
2.4 Class Diagrams

Class diagrams are the basic fundamental of every object oriented methods. The class diagram can be used to show the relationships, classes, association, interface, and collaboration. UML is standardized in class diagrams. Since classes are the fundamental unit of an application that is based on OOPs, so as the class diagram has adequate structure to represent the classes, relationships, inheritance, and everything that OOPs have in its context. It describes different types of objects and the static relationship in between them.



2.5 Class Diagrams

A system design or systems design is that the abstract model that defines the structure, behavior, and additional views of a system. Associate design description may be a formal description and illustration of a system, organized in a very means that supports reasoning concerning the structures and behaviors of the system.



3 Construction

Software construction is a part of software engineering . It is the detailed creation of working meaningful software through a combination of coding, verification, unit testing, integration testing, and debugging. It is linked to all the other engineering disciplines, most strongly to software design and software testing.

Standards in construction

Standards, whether external (created by international organizations) or internal (created at the corporate level), that directly affect construction issues include. Communication methods: Such as standards for document formats and contents.

1. Programming languages
2. Coding standards
3. Platforms
4. Tools: Such as diagrammatic standards for notations

3.1 Implementation Details

3.1.1 Backend Coding:

1. **Python** :Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse.
2. **Django**:Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel.Django was designed to help developers take applications from concept to completion as quickly as possible.Django takes security seriously and helps developers avoid many common security mistakes.

3.1.2 Database:

DB-SQLite: SQLite is an in-process library that implements a self-contained, serverless, zero-configuration, transactional SQL database engine. The code for SQLite is in the public domain and is thus free for use for any purpose, commercial or private. SQLite is the most widely deployed database in the world with more applications than we can count, including several high-profile projects.The SQLite code base is supported by an international team of developers who work on SQLite full-time.

3.1.3 Frontend

1. **HTML**:The major points of HTML are given below:

a) HTML stands for HyperText Markup Language.

b) HTML is used to create web pages and web applications.

c) HTML is widely used language on the web.

d) We can create a static website by HTML only.

e) Technically, HTML is a Markup language rather than a programming language.

2. **CSS** :Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.
   CSS is among the core languages of the open web and is standardized across Web browsers.CSS (Cascading Style Sheets) is used to style and layout web pages — for example, to alter the font, color, size, and spacing of your content, split it into multiple columns, or add animations and other decorative features.

3.2 Hardware Details

1. **CPU**: Intel CORE i5 8th Gen
2. **PROCESSOR SPEED**: 2 GHz
3. **TOTAL RAM**: 128 MB
4. **HARD DISK**:4 GB

3.3 Software Details

1. **Visual Studio** :Django Code,Pyhton Code
2. **Brackets** :HTML Code,CSS
3. **Google Chrome**: (127.0.0.1:8000)

3.4 Code:

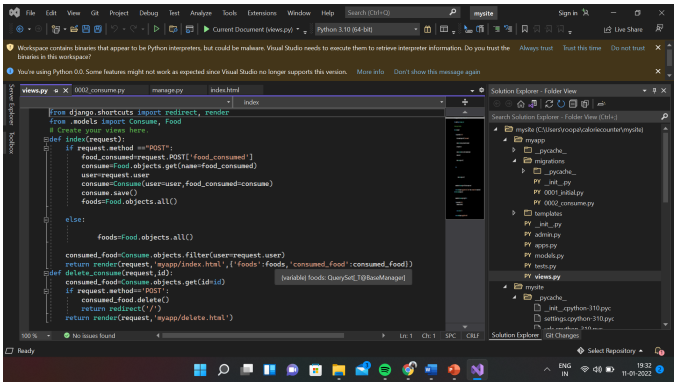


Figure 1: Code to display food in list

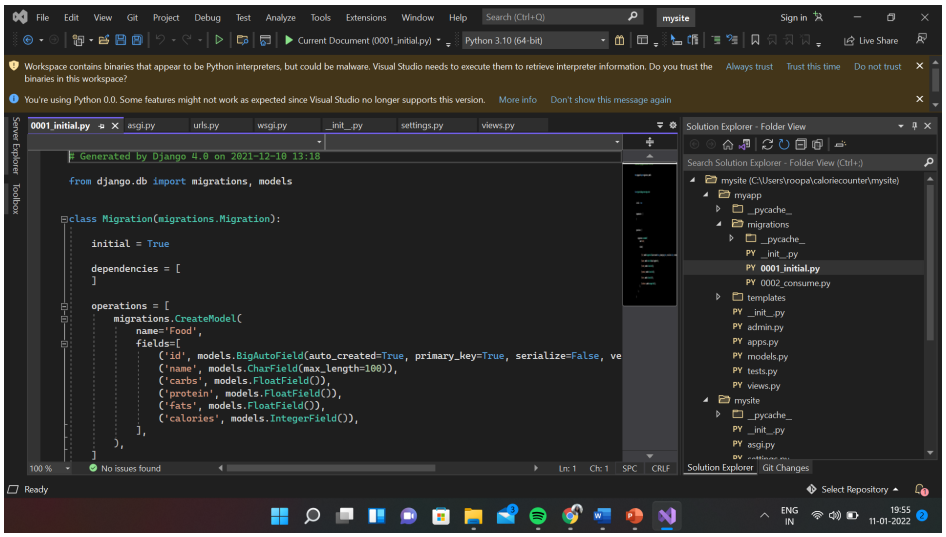


Figure 2: DbSqltite Structure

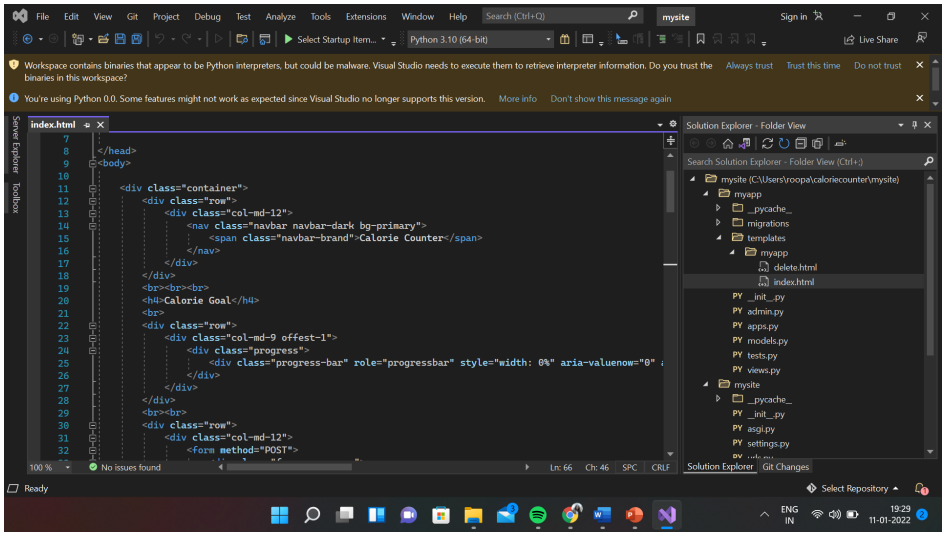


Figure 3: HTML code

4 Structure Of Project

1. **Home Page**:

   The image below is a display of Home page of Calorie Counter application. That is this is the initial display to a user. It consist of 4 buttons on the top one for itself i.e. Home page. Next button is About Calorie Counter which gives the basic description about website to a user. Another button is for Sign-in where an interested user register or authenticate itself then Last button is for Contact , if in case any user have any queries or issues regarding application can contact.

2. **About Calorie Counter**

   The image below is a display of section About Calorie Counter. This gives a user basic idea about the application and why it can be useful to them. It's a brief description of application to a user. If user find it any useful he/she can register themselves with the Sign-In option.

3. **Add Items**

   When a user is registered and Sign-in the application he gets a drop down menu of selecting the items ,from where it can select the item that he is upto consuming and then press the Add button, this would add the item in his daily food consumption list.

4. **Total Calorie Consumption**

   When a user enters the item into the list, it updates. And user gets not only the total calories but a total of other macronutrients. A doughnut pie-Chart beside indicates the macronutrients consumed during the course of the day.

5. **Contact** If any user have queries or facing any issue can contact the administrator and might get a bug or solution fixed.

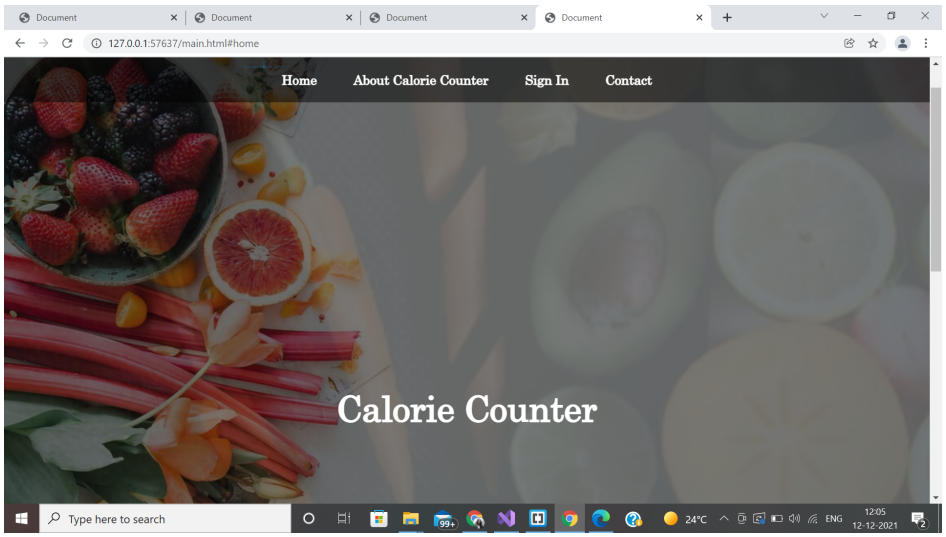


Figure 4: Home Page

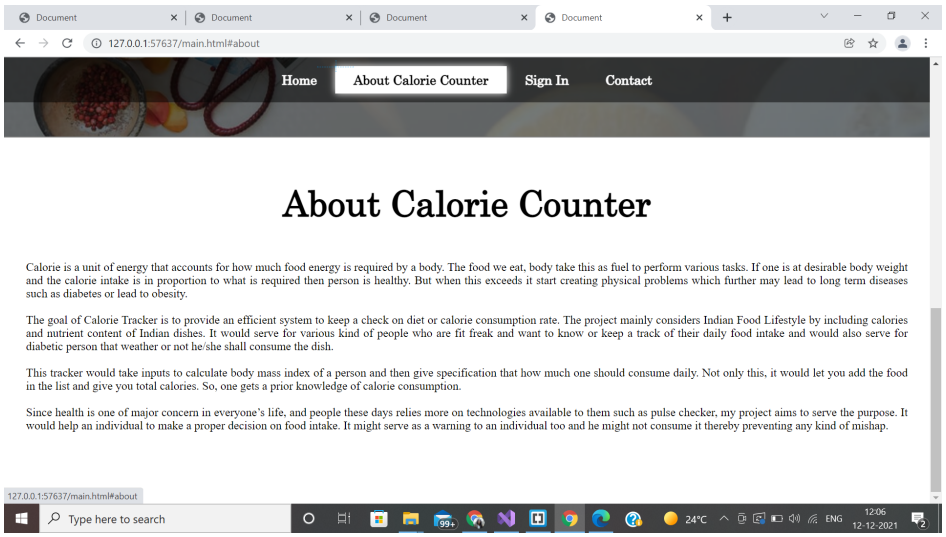


Figure 5: About Calorie Counter

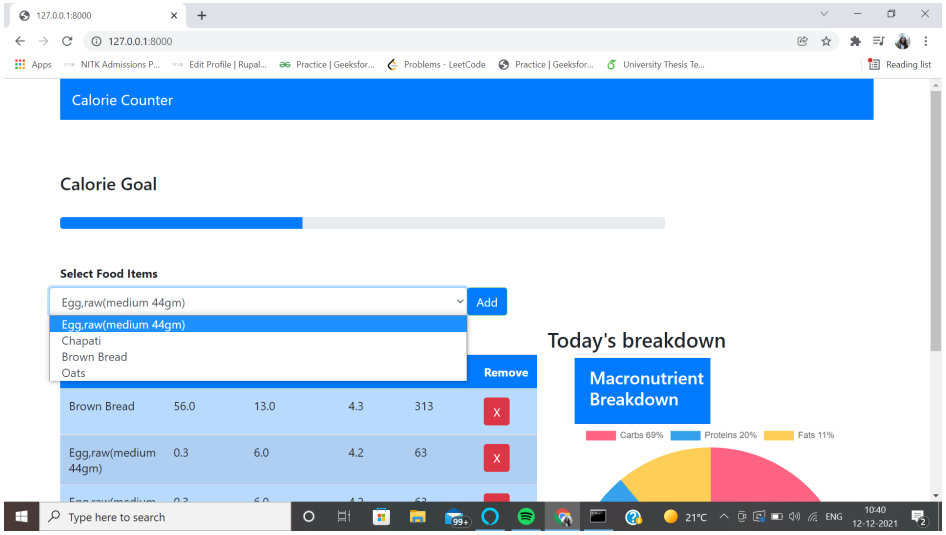


Figure 6: Add Items

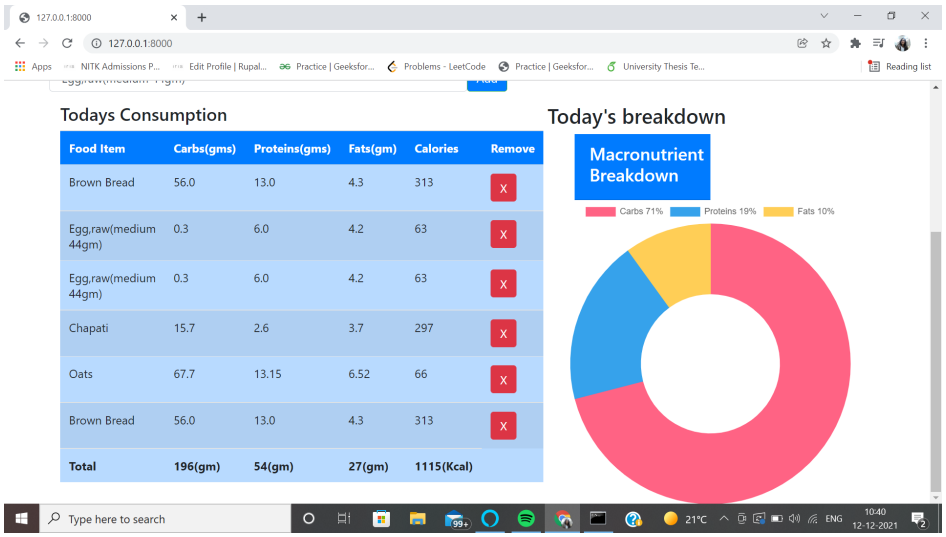


Figure 7: Total Calorie Consumption

5 Conclusion

A truly said word by Lao Tzu that "A journey of a thousand miles begins with a single step." Everyone who ever lost weight or "got in shape" started on a single day. That day turned into a second day, a week, a month, and eventually a year. It didn't happen overnight and it wasn't always (or maybe ever) easy. But, persistence pays off when it comes to health. And, starting with a single step today—a short walk, some fruit for dessert, or an extra glass of water (not soda)—can pay off and bring you closer to the healthy and fit body you've always hoped for. This project make users restrict the quantity of food they'll have reduced calorie. Once they start restricting with the quantity, soon they'll also realize to completely eliminate a bad diet and instead choose for a healthy diet over and over.

5.1 Future Works

Since the project have been implemented to facilitate users to maintain a healthy diet so once if they start using it and applying to their lives, I'd extend the basic model of my project to a new model. This would consist of maintaining their food charts monthly, yearly and so on. Also using AI I'd make prediction algorithm (doing research) by judging how much one should consume and make diet charts for them according to their present health. Also extend application to make special diet charts for people suffering from various diseases such as Diabetes , Cancer or Heart problems. This basic model aims to create awareness among people about their diet that what they are intaking and what they shall include or replace with. I hope that the project would help users maintain their diet and serves it's purpose.

6 Bibliography

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