Diet Tracking App

- **Stakeholders**: People who want to record their diet. (Fitness people/ people with diseases e.g. diabetes)
- **Current Problem**: The diet tracking app exisit in the market is **not easy enough to use** for people who **actually lack of basic nutrition knowledge**. Building an app that **simplify the process** by providing **well designed functions** and trying to **translate all the boring numbers** to **easily understanding charts** can really helps people tracking their diet in a more easy and comfort way.
- **Initial Ideas**:
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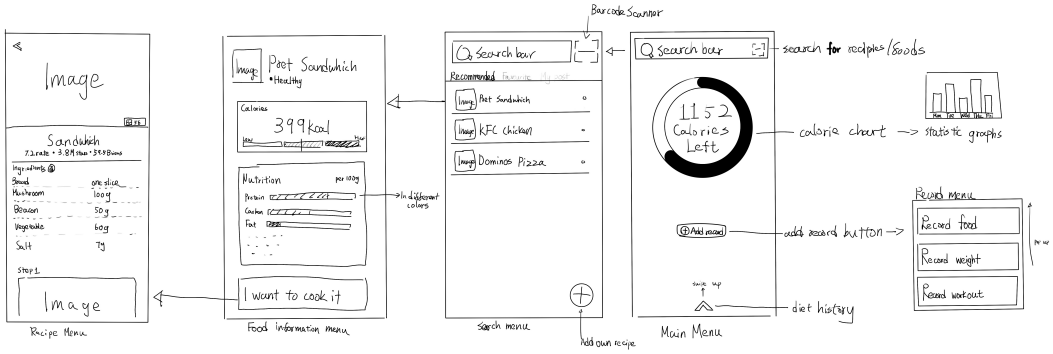

    - **Main Menu** helds the basic information with a **chart** that shows **how many calories the user can still take in**. And a **history view** which will display the history of the food that the user took in.(user can decide to showing the data in differnt kinds of statistical chart)
    - **Search Bar Menu** let the user to search food. It also have a barcode scanner which user can use to scan barcode of the food to search it directly.
        - Search bar menu have differnt method of sorting the food list either by recommandation rate or only showing user's favourite food etc..
        - Theres also an add button which allow user to add the food information directly into the database.
    - **Food Information Menu** shows the information of the food by providing differnt information window.
        - **Main Information** contains photo, name, and whether this food is recommanded or not.
        - **Calories Window** helds the total calorie the food contain. With a chart below showing is this number high or low. (visualise the number in order to let people understand it easier)
        - **Nutrition Window** helds the information of each specific nutrition ingridient the food have, also with colorized chart to visualise the amount of the type of nutrition, and whether should the user take in it or not.
        - **Recipe Window** helds the information of the recipe of these food.

    - The app also have a variety of **tools** to help user handeling the problem they might met using this app.
        - **Volume Estimater**: A tool that estimate the volume of user's container by using the camera.
            - **How To Make This**: Apple have an **ARKit API** which have a **measuring** function that provides **length information**, so it is possible to write an algorithm to calculate the volume based on it.
        - **Nutrition Calculator**: A tool that user can input **raw materials** that is needed to cook the meal, and then the calculator will tell the user an **estimated value of the nutritions** that meal contains.*(I might make this function inside the Add own food menu)*
            - **How To Make This**: The database contain a variety of raw material's nutrition data, which can be added up together to provide the estimated nutrition data.
        - **Food Recommander**: A tool that recommand user food based on their **daily consumption** and their **health data**. User can also tell the app what raw material they have, and the app will recommand the food that user can make with their raw materials.
            - **How To Make This:** Building Algorithm.
    - The app also have **user interaction function** e.g. User can gives "stars" and comments to the food they liked, and other user can see their comments. The app will use algorithm to understand their feelings about the food.
- **Data Processed**: User Data, Food Data, Nutrition Data, Algorithms.
- **Success Criteria**:
    - The stakeholder can use this app to track their daily consumptions, and the app will recommend the food they should take in depends on their preference and their health data.
    - The app can automatically read and write user's daily data into apple's Health app(by using health kit api).
    - The app can output user's history data in a variety of format(spreadsheet, pdf file etc.).
    - User can interact with each other online.
- **Programming Language**: Swift for building the app. SQLite for database.
- **Device**: Phones