1. **Title:**

   Diet Planner

2. **Project Summary:**

   This project is a relational database-centric web application. The primary tech stack for this project includes Node.js, React, Redux, Google Cloud Platform and Django. React and Redux will be utilized to achieve the front-end functionality that acquire users' requests, Django is used to communicate the frontend and the database while GCP is used to realize application databases and manage database-related functionality.

3. **Description:**

   The application aims at creating a weekly diet plan for users based on their recipes. Additionally, we want our website to allow users to enter the nutrition fact of food that they will use in their recipe to have more accurate statics of nutrition they have each week based the actual product they can get instead of using general nation wise data.

4. **Usefulness:**

   The application is especially useful for student users who want to monitor and track the amount of nutrition in their daily meals, it could assist the users to reach their weight control goal and keep a healthy body condition. Similar applications can be found online that usually include the following limitations:

   A. Complex functionality that makes it difficult for users to learn and user.
   B. Limited features unless purchase membership which are not friendly for students.
   C. No customizable food nutrition fact, some provided food information is outdated.
   D. Lack of user interface localization.

   Our application will optimize these mentioned troubles that are experienced by users.

5. **Realness:**

   The major data of the application includes nutrition fact of food and recipes which all will be manually entered by users. Users should be able to obtain nutrition fact information from the back of the food package or they can obtain food information from USDA official database. Other data includes user account information.

6. Description of the **functionality** that your website offers:

   A. CRUD (Create, Read, Update, Delete): The website should be able to allow users to create, read, update, delete their own recipe and the nutrition fact of food they selected in their recipes.

B. Search option: The website should allow users to search for recipes and food nutrition facts they create by name of recipe or food.

C. Identification: The website should be able to store user information and allow users to access their stored information with username and credentials. Third party authentication might be implemented.

D. Triggers: When there is a modification on nutrition fact of food, it will update all recipes which include this food.

E. Stored procedures: We will include a procedure containing data for human weekly nutrition need to help user computer their weekly diet plan.

F. (Optional)Weekly diet plan: The website should be able to allow users to create weekly diet plans with recipes they choose. (Advanced idea, what about the website automatically create the diet plan for user based on their weekly nutrition or calories need)

G. (Optional)Data visualization: The website should provide visualization such as a chart or diagram to represent total nutrition consumed weekly based on the diet plan.

7. **A low fidelity UI mockup**:

   This will be delivered in a different file name **UI mockup**.

8. **Project work distribution**:

   A. Role for each person

   a. Jiachen Kou(jkou4):

   Backend—in charge of CRUD functionality.

   GCP – Database Implementation.

   b. Haoran Jiang(hj28):

   Frontend

   Backend – Backend and database implementation

   GCP – Backend database query design

   c. Siwei Zhang(siwei4):

   Frontend

   Backend – Frontend and backend bridging

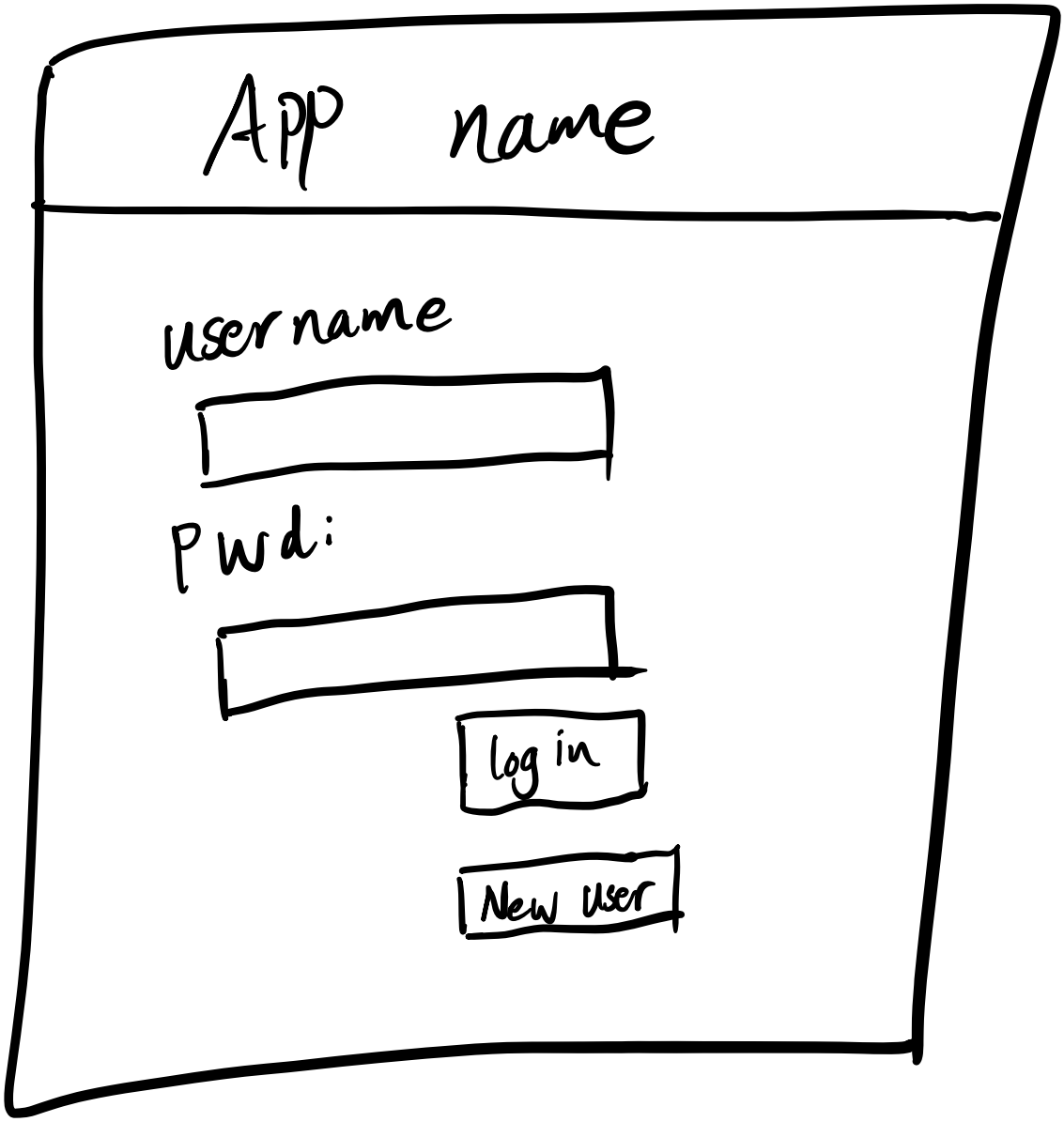
   GCP – Database design

d. Zhaokuan Chen(zc56):

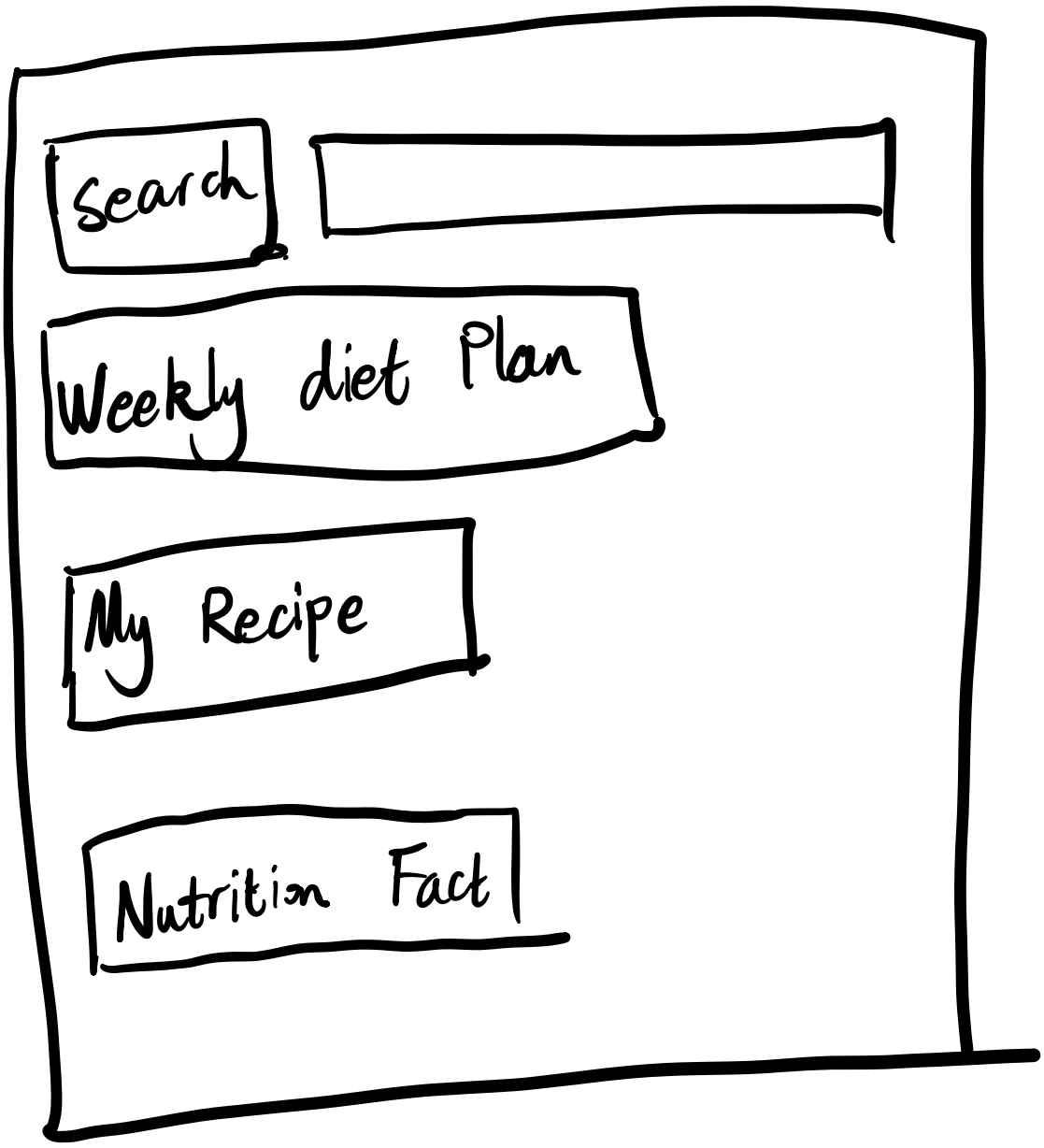
Backend – User Authentication, Django API Generation

GCP – Nutrition Table

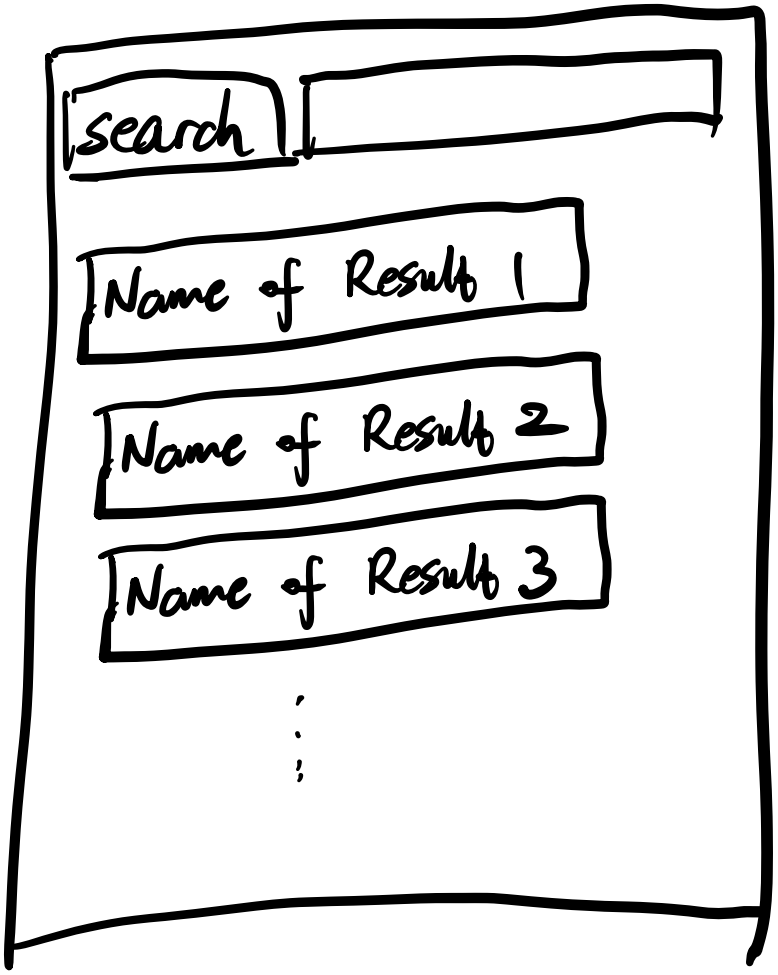
Login Page.



# Homepage



# Search Result Page




Weekly diet Plan / My Recipe / Nutrition fact have the samilior layout. Instead, bottom of the page will have new item option.

Plan / Recipe / Nutrition Fact