Nutrition app Pseudocode

Nutrition\_Application/

app.py # This file contains the Flask application logic

templates/ # Directory for HTML templates

home.html # HTML template for the home page

bmr.html # HTML template for the bmr page

bmi.html # HTML template for the bmi page

diary.html # HTML template for the diary page

# Import modules from Flask

Import Flask and render\_template, request, redirect, url\_for

# Initialize the Flask application

Create a Flask app instance

# Define the route for the home page

When a user navigates to the root URL ('/'):

Render the home.html template

# Define the route for the BMR page (GET and POST requests)

When a user navigates to the '/bmr' URL:

If the request method is GET:

Try:

Render the bmr.html template without BMR result

Except:

Redirect to the home page with an error message

If the request method is POST:

Try:

Extract height, weight, age, and sex from the form data

Calculate the BMR based on the inputs

Render the bmr.html template with the calculated BMR

Except:

Redirect to the home page with an error message

# Define the route for the BMI page (GET and POST requests)

When a user navigates to the '/bmi' URL:

If the request method is GET:

Try:

Render the bmi.html template without BMI result

Except:

Redirect to the home page with an error message

If the request method is POST:

Try:

Extract height and weight from the form data

Calculate the BMI based on the inputs

Render the bmi.html template with the calculated BMI

Except:

Redirect to the home page with an error message

# Define the route for the diary page (GET and POST requests)

When the '/diary' URL is requested:

If the request method is POST:

Try:

# Example daily caloric goal

Set daily\_goal to 2000

Define days as a list containing ['monday', 'tuesday', 'wednesday', 'thursday', 'friday', 'saturday', 'sunday']

Initialize an empty dictionary called diary\_data

For each day in days:

Try:

# Extract calories and foods from the form data

Get the value of '{day}\_calories' from the form and convert it to an integer, store in calories

Get the value of '{day}\_foods' from the form, store in foods

# Calculate the difference from the daily goal

Set difference to calories - daily\_goal

# Store data in diary\_data

Set diary\_data[day] to a dictionary containing 'calories', 'foods', and 'difference'

Except:

Redirect to the diary page with an error message

# Render diary.html template with the diary data

Render the 'diary.html' template, passing diary\_data to it

Except:

Redirect to the diary page with an error message

Else:

Try:

# Render diary.html template without diary data

Render the 'diary.html' template without any additional data

Except:

Redirect to the diary page with an error message

# Run the application

Start the Flask application with debug mode enabled

HTML Template

**home.html**

Set the document type to HTML

In the <head> section:

Set the character encoding to "UTF-8"

Set the title to "Home Page"

Include CSS for styling (not specified)

In the <body> section:

Add a heading with "Welcome to the Nutrition Application"

Create a dropdown menu:

Create a div with class "dropdown"

Create a button with class "dropbtn" and text "Menu"

Create a div with class "dropdown-content"

Create links to other pages:

- Link to the BMR calculator page with text "BMR Calculator"

- Link to the BMI calculator page with text "BMI Calculator"

- Link to the Diary page with text "Diary"

Close the divs

Additional content will be placed here

Scripts for functionality will be placed here

Close the body and html tags

**bmr.html**

HTML Document Structure:

Set the document type to HTML

In the <head> section:

Set the character encoding to "UTF-8"

Set the title to "BMR Calculator"

Css for styling

In the <body> section:

Add a heading with "BMR Calculator"

Create a form that sends a POST request to the "/bmr" URL

Add a label for the height input field with the text "Height (cm):"

Add a number input field with:

id attribute set to "height"

name attribute set to "height"

required attribute to ensure the field must be filled out

Add a line break

Add a label for the weight input field with the text "Weight (kg):"

Add a number input field with:

id attribute set to "weight"

name attribute set to "weight"

required attribute to ensure the field must be filled out

Add a line break

Add a label for the age input field with the text "Age:"

Add a number input field with:

id attribute set to "age"

name attribute set to "age"

required attribute to ensure the field must be filled out

Add a line break

Add a label for the sex select field with the text "Sex:"

Create a select dropdown with:

id attribute set to "sex"

name attribute set to "sex"

required attribute to ensure the field must be filled out

Two options:

- One with value "male" and text "Male"

- One with value "female" and text "Female"

Add a line break

Add a submit button with the text "Calculate BMR"

Close the form

If BMR result is available:

Add a paragraph with the text "Your Basal Metabolic Rate (BMR) is: " followed by the BMR value and " calories/day"

Add a link back to the home page with the text "Back to Home" and the href attribute set to the URL for the home route

Close the body and html tags

**bmi.html**

Set the document type to HTML

In the <head> section:

Set the character encoding to "UTF-8"

Set the title to "BMI Calculator"

Add css for styling

In the <body> section:

Add a heading with "BMI Calculator"

Create a form that sends a POST request to the "/bmi" URL

Add a label for the height input field with the text "Height (cm):"

Add a number input field with:

id attribute set to "height"

name attribute set to "height"

required attribute to ensure the field must be filled out

Add a line break

Add a label for the weight input field with the text "Weight (kg):"

Add a number input field with:

id attribute set to "weight"

name attribute set to "weight"

required attribute to ensure the field must be filled out

Add a line break

Add a submit button with the text "Calculate BMI"

Close the form

If BMI result is available:

Add a paragraph with the text "Your Body Mass Index (BMI) is: " followed by the BMI value

Add a paragraph with the text "This is considered: " followed by the BMI category

Add a link back to the home page with the text "Back to Home" and the href attribute set to the URL for the home route

Close the body and html tags

**diary.html**

Set the document type to HTML

Set the language attribute to "en" in the <html> tag

In the <head> section:

Set the character encoding to "UTF-8"

Set the title to "Diary"

Css for styling

In the <body> section:

Add a heading with "Weekly Diary"

Create a form that sends a POST request to the "/diary" URL

For each day in the list ['Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday', 'Sunday']:

Add a subheading with the day's name

Add a label for the calories input field with the text "Calories:"

Add a number input field with:

id attribute set to the lowercase day name followed by "\_calories"

name attribute set to the lowercase day name followed by "\_calories"

required attribute to ensure the field must be filled out

Add a line break

Add a label for the foods textarea with the text "Foods:"

Add a textarea with:

id attribute set to the lowercase day name followed by "\_foods"

name attribute set to the lowercase day name followed by "\_foods"

rows attribute set to "4"

cols attribute set to "50"

required attribute to ensure the field must be filled out

Add a line break

End the loop

Add a submit button with the text "Submit"

Close the form

If diary\_data is defined:

Add a heading with "Diary Results"

For each day and its corresponding data in diary\_data:

Add a subheading with the capitalized day name

Add a paragraph with the text "Calories: " followed by the day's calories value

Add a paragraph with the text "Foods: " followed by the day's foods value

Add a paragraph with the text "Difference from daily goal: " followed by the difference value and " calories"

End the loop

Add a link back to the home page with the text "Back to Home" and the href attribute set to the URL for the home route

Close the body and html tags