**Challenge Task – Senior Frontend Engineering**

**Title:** Food Tracking Web App with GPT (Photo-based Input + Chat)

**Goal:** Build a Flutter Web App that:

* Lets the user capture or upload a meal photo, sends it to a GPT Vision API, and displays detected foods with nutritional values.
* Includes a simple chat page where an admin and customers/friends can send messages to each other.

**Scope:**

1. **Food Tracking**

Input:

* Capture a photo via camera OR upload from device.
* “Analyze” button triggers the API call.
* API Call:
* Send the image to GPT-4o or Gemini Vision API.
* Receive a structured JSON response with detected food items and total nutrients.

Results Display:

* Show a list of detected items with portion (grams) and macros (kcal, protein, carbs, fat).
* Show a summary row for the total nutrients.
* Show loading and error states.

1. **Chat Feature**

* Simple two-way chat between admin and customers/friends.
* Show messages with timestamp.
* Visually distinguish admin messages from user messages.
* Messages should persist in memory during the session (no backend storage required unless you want to add it).

**Technical Requirements:**

* Flutter 3.22+ targeting Web.
* Startable in VS Code with: „flutter run -d chrome“
* State management: free choice.
* No UI design focus — use default widgets.

**Pages:**

* Food Tracking Page (photo input → results)
* Results Page (detailed nutrients + summary)
* Chat Page (admin ↔ customer/friend messaging)

**Acceptance Criteria:**

* App runs in Chrome via Flutter.
* Photo input → API/Mock call → Valid JSON parsing → Display of nutrients.
* Chat page works with at least one admin and one user role.
* Loading states & error handling visible.
* README explains setup, API key placeholder, and example image.

**Evaluation (24h)**

* Correct processing of API response & nutrient totals – 35%
* Chat functionality & role distinction – 25%
* Code structure & readability – 20%
* Error handling & loading – 10%
* README clarity – 10%

**Bonuspoints:**

* Editable portions with recalculated totals.
* Multiple chat rooms or persistent message history.

Please send us your feedback within 24 hours. If you have any questions please feel free to ping me. Thank you.