

Product Requirements Document (PRD)

Project Title:

Child Nutrition Tracker

Overview

The Child Nutrition Tracker is a mobile app built with Dart & Flutter to help parents monitor their children's feeding habits, track nutrition intake, and receive educational tips on proper child nutrition. The app aims to improve child health outcomes by empowering caregivers with timely, accurate, and personalized information.

Goals and Objectives

- ✓ Help parents log and track children's meals and snacks.
- ✓ Educate caregivers on age-appropriate nutritional needs.
- ✓ Provide alerts/reminders for meal times.
- ✓ Offer insights through charts and tips to improve nutrition.

Target Users

- Parents of children aged 6 months to 10 years
- Pediatricians or nutritionists (optional role-based access)
- Childcare professionals

Features and Requirements

1. User Registration & Profiles

- Sign up / Log in (email, phone, or Google)
- Add child profiles (name, age, weight, allergies)
- Role selection: Parent / Nutritionist

2. Daily Meal Logging

- Select food items from a predefined food database
- Add custom food items with nutrition data
- Log meals: breakfast, lunch, dinner, snacks
- Track water intake

3. Nutrition Analytics

- Daily/weekly intake vs recommended nutrition values
- Macronutrient distribution (carbs, protein, fats)
- Visualization via pie charts and bar graphs

4. Educational Content

- Age-based feeding guides
- Articles on balanced diets, hydration, and common allergies
- Videos and infographics (optional)

5. Reminders and Alerts

- Customizable meal and water reminders
- Alert if a meal or essential nutrient is missed

6. Progress Reports

- Monthly summary per child
- Shareable reports (PDF export or share via email)

7. Gamification (Optional)

- Reward system for consistency (badges for logging meals)

Technical Requirements

Layer	Technology
Frontend	Flutter (Dart)
Backend	Supabase
Database	Supabase
Auth	Supabase
Charts	Charts flutter
Notification	Flutter Local Notifications / Supabase Messaging

UI Components

- ❖ Home Screen: Meal overview, today's status, quick log
- ❖ Nutrition Log: Food selector, portion input, add meal
- ❖ Child Profile: Age, weight, allergies, preferences
- ❖ Tips Section: Educational articles, videos, notifications
- ❖ Progress Tab: Weekly report, charts, nutrition balance
- ❖ Settings: Reminders, notification preferences, language

Design Notes

- ❖ Child-friendly colors (soft tones)
- ❖ Illustrations for food categories
- ❖ Easy-to-use form inputs and dropdowns

Deliverables

- ❖ Flutter project repo (GitHub)
- ❖ UI walkthrough or demo
- ❖ Documentation (README, setup, feature guide)

Future Enhancements

- ❖ AI meal suggestions
- ❖ Integration with wearable devices (fitness bands)
- ❖ Multi-language support
- ❖ Chat with nutritionist (telehealth plugin)