Lab 2: BabyBites: Software Requirements Specification (SRS)

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1 Introduction

This document provides the Software Requirements Specification (SRS) for the Baby Bites application. It describes the system's features, intended userbase, purposes and goals. It is a challenge to take care of a child in their early stages of life while also trying to maintain a routine of your own. It's also hard to write down in a notebook or notes app to see what your child ate for the day and various reactions there may be when eating which may be lost or not written down in a fashion you'd. remember the next day. There are paid apps that you may choose from Baby Bites is a cheaper option.

1.1 Purpose

The purpose of this Software Requirements Specification (SRS) is to describe the Baby Bites application in detail, this includes what it does, who will be using the app, and the requirements needed to develop the system. This SRS will serve as a guide through the development process of Baby bites.

1.2 Scope

Baby Bites is a mobile-friendly web application that helps parents track their child's transition from liquids to solid foods. Users can create profiles for their children, log foods that have been introduced, view nutritional details, and generate daily reports that summarize feeding activity. The application also provides reminders and alerts for milestones, potential allergens, and choking hazards. Baby Bites is intended for supplemental use only, not as medical advice.

1.3 Definitions, Acronyms, Abbreviations

Baby Profile - A user-created profile to categorize their children within the application.

Daily Report - A summary of user milestones and pertinent information regarding their child (i.e. food consumption, milestones, allergies).

Dashboard - The home page of the user. It features shortcuts to relevant pages and displays daily reports.

Filter - A sorting function that will allow specific items to be displayed based on input.

Food Database - A comprehensive database that allows users to look up various food, view nutritional information and access preparation tips.

Food Tracker - A log the user can modify to maintain a history of foods given to the child.

FoodData Central API - USDA's database for food that will be used as a source of information for the BabyBite's food datatable.

IDE (Integrated Development Environment) - A software application, such as VSCode, that provides tools for writing, testing, and debugging code.

Notification - An alert that will notify the user of important information (i.e. allergies, choking hazards).

Search - BabyBites' food searching feature .

User - Any person who has created an account and utilizes the application.

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1.5 Overview

The rest of this document describes how BabyBites works and what features it includes. Section 2 provides background, user information, and system context.

2 Overall Description

This section provides overview of the BabyBites application. It also explains the core architecture of the system, functions, users, constraints, and assumptions.

2.1 Product Perspective

BabyBites is a mobile-first web application. It uses HTML, CSS, and JavaScript enhanced with BootStrap CSS on the front-end, a Django back-end, and a PostgreSQL database. BabyBites also integrates directly with the USDA FoodData Central API for food item and nutritional data. BabyBites requires an internet connection to access. It is designed primarily for phone and tablet screens but can also be used on desktop devices.

2.2 Product Functions

The primary functions of BabyBites include:

- User Accounts: Sign up, log in, and change password.
- Baby Profiles: Create and manage multiple baby profiles within one user account.
- Food Search: Look up foods and review nutritional information.
- Food Tracking: Log foods consumed by each child
- Daily Reports: Automatically generate summary statistics for each baby profile per day.
- Notifications: Provide about allergens, choking hazards, and milestone progress.
- Dashboard: Access all of BabyBites' core features in one convenient place.

2.3 User Characteristics

The main user set is parents and caregivers of young children. Users are not expected to have a technical background, and the user interface must be simple and intuitive enough to accommodate them. No prior experience with nutrition, medicine, or child development is assumed.

2.4 Constraints

- The application must comply with COPPA guidelines regarding children's data.
- The application depends on an internet connection to access.
- The system must work well on mobile screens, since that is the primary target platform.

2.5 Assumptions and Dependencies

- Users will have access to an internet-connected device with a website at or around the same time as feeding their child.
- Users will enter accurate and complete data about their children and feeding events.
- The USDA FoodData Central API will remain available at no cost for the life of the application.
- The cloud hosting provider will be available and robust enough to support the user base.