Software Requirements Specification for BabyBites

Lab 2: Section 1 and 2

Version 2.0 approved

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1 Introduction

It is a challenging undertaking to care for a child at the early stages of life while trying to maintain the day to day routine. The stress can be quite overwhelming, especially for new parents. Writing things down in a notebook, sticky notes, or just memorizing what the child was fed and was there a reaction seems like that is the way it was always done. While there are paid options to choose from to alleviate that burden, there has to be a better option. BabyBites is that option.

1.1 Purpose

This document provides detailed specifications and requirements for BabyBites, a web-based application to assist parents and caregivers in making feeding transitions for their children.

1.2 Scope

Parents and caregivers are presented with a challenge to care for a child at the early stages of life while trying to maintain the day to day routine. The stress can be quite overwhelming, especially for new parents. Writing things down in a notebook, sticky notes, or just memorizing what the child was fed and was there a reaction seems like that is the way it was always done. BabyBites is an option to help alleviate that burden.

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1.3 Definitions

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 data table.
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 search feature.
User - Any person who has created an account and utilizes the application.

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1.5 Overview

Section 2 of this document provides a brief overview of BabyBites.
Section 3 contains specific requirements, organized by feature.

2 Overall Description

The prototype for BabyBites will be deployed as a web-based application in order to accommodate as many platforms as possible. The goal for the application is to provide new parents and caregivers with the ability to access the tools necessary to facilitate the nutritional growth of their child(ren).

2.1 Product Perspective

BabyBites is an application that will help parents and caregivers create an environment for their child that embraces adequate nutrition and develop good eating habits along with great eating skills. Through the use of this application, parents and caregivers can also track and receive daily reports that summarize the progress made on the feeding journey.

2.2 Product Functions

The BabyBites application will provide the user with the ability to manage the food intake of their child(ren). This is made possible through the development of the tools that allow the user to search (food information sourced via USDA FoodData Central API), track, and report food intake upon request.

2.2.1 Major Functional Components

This application will aim towards meeting its goals with tools that enable completion of key application features. The following hardware and software components will reflect that.

2.2.1.1 Hardware

A computer or mobile device with internet access will be all that is necessary.

2.2.1.2 Software

The majority of software development will be primarily Python, HTML, JavaScript, and CSS. While the initial phases of database building will be through Djangos default of SQLite, migrations will be made to PostgreSQL to accommodate scalability.

2.2.2 Prototype Functional Description

The intent of the application is to provide essential resources for news parents and caregivers to aid in child nutritional development. The following resources will accommodate that need:

- ❖ A food database to search for relevant information on chosen foods,
- ❖ A food tracking log.
- ❖ Daily reports to summarize information pertinent to the child.
- ❖ Preparation tips to assist feeding different types of food.
- ❖ Supplemental expert-backed resources.

See Table 1 on the following page for the prototype's list of features, respective descriptions, and implementation.

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Function	Description	Implementation
Baby Profile Creation	User created baby profiles.	Fully Functional
Food Tracker	User selected food items placed into a log.	Fully Functional
Food Data Base	USDA FoodData Central API sourced database.	Fully Functional
Food Nutrition Information	Information sourced from USDA FoodData Central API.	Fully Functional
Utensil Usage Guide	Guide used to aid in learning utensil usage.	Fully Functional
Meal Preparation Guide	Guide used to aid in preparing food portions and sizing.	Fully Functional
Expert Resources	Out links to supplemental resources.	Fully Functional
Choking Hazard	Information source TBD.	Not Implemented
Allergy Information	Hardcoded JSON for demonstration purposes. It is not RWP solution (TBD).	Fully Functional
Daily Reports	Reports containing aggregate data from a specified date where user food entries were made.	Fully Functional
Alert Notifications	User alerts to notify if specific conditions are met.	Partial Functionality
Recall Alerts	Alerts the user of any food recalls made.	Not Implemented

Table 1: Prototype Features, Description, and Implementation

2.3 User Characteristics

2.3.1 Administrators

The administrator user role will primarily handle any maintenance requirements to maximize common user access to the application. The administrator will also maintain database updates to ensure that users can search for new and old food items.

2.3.2 Common Access Users

The intended users will be new parents and caregivers who are trying to transition their child's diet and eating habits. The transition points will vary based on the user and include the following: milk-to-purees, purees-to-solids, and foods requiring the development of utensil usage.

2.4 Constraints

N/A

2.5 Assumptions and Dependencies

N/A

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3 System Requirements

3.1 System Features

3.2 Performance Requirements

3.3 Design Constraints

3.4 Software System Attributes

3.5 Other Requirements

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