Project Requirement Document

Healthy Belly

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Table of Contents

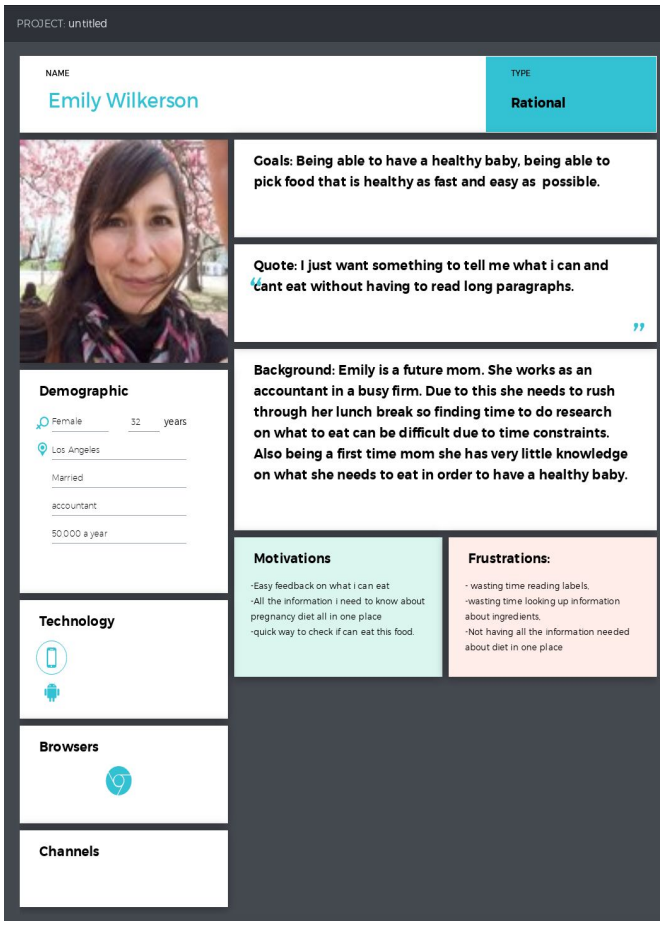
Goals

The purpose of this project is to improve the shopping experience for Pregnant Women and the families/friends of said pregnant women. It will save the users the hassle of carrying or memorizing a long list of ingredients that are unsafe for both the pregnant women and the babies carrying them. Instead of users reading through multiple nutritional/ingredient label they will simply scan the barcode of the item they scanned. It will facilitate a new process since shopping aid for Pregnant Women does not exist in the current market.

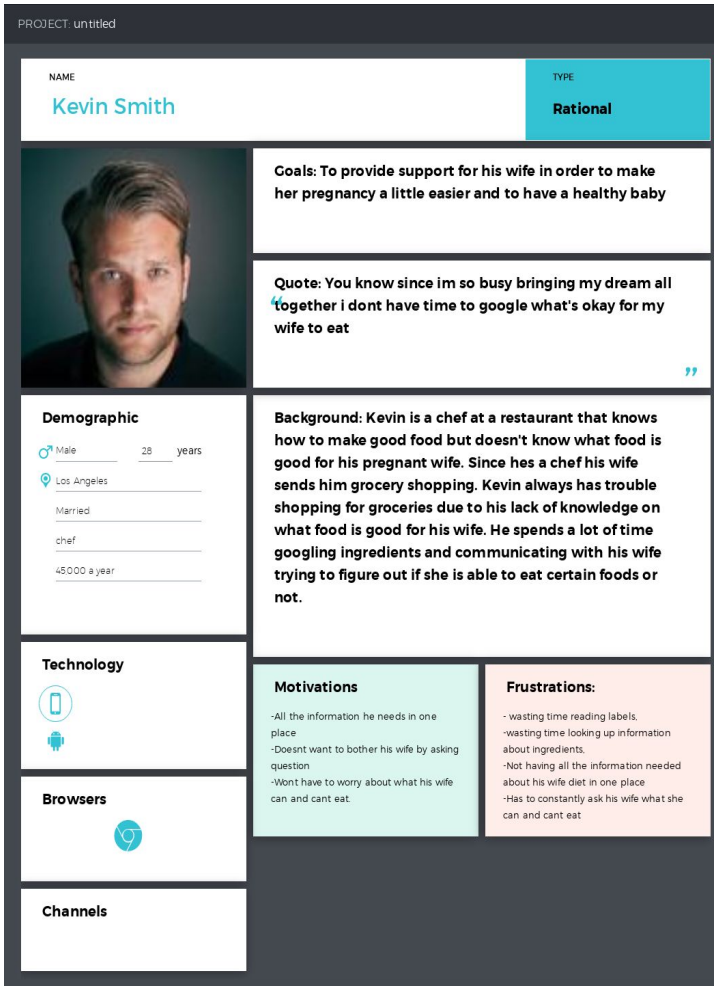
The closest aid for Pregnant Women are applications that simply inform the users about ingredients to avoid, not the products that could have those dangerous ingredients. Healthy Belly will be doing exactly that! Our Application will search through the ingredients of the product scanned and will inform the user of whether the item scanned is safe or not. We aim to make a bug free app that will run smoothly to make lives easier for pregnant women and their families.

User Personas

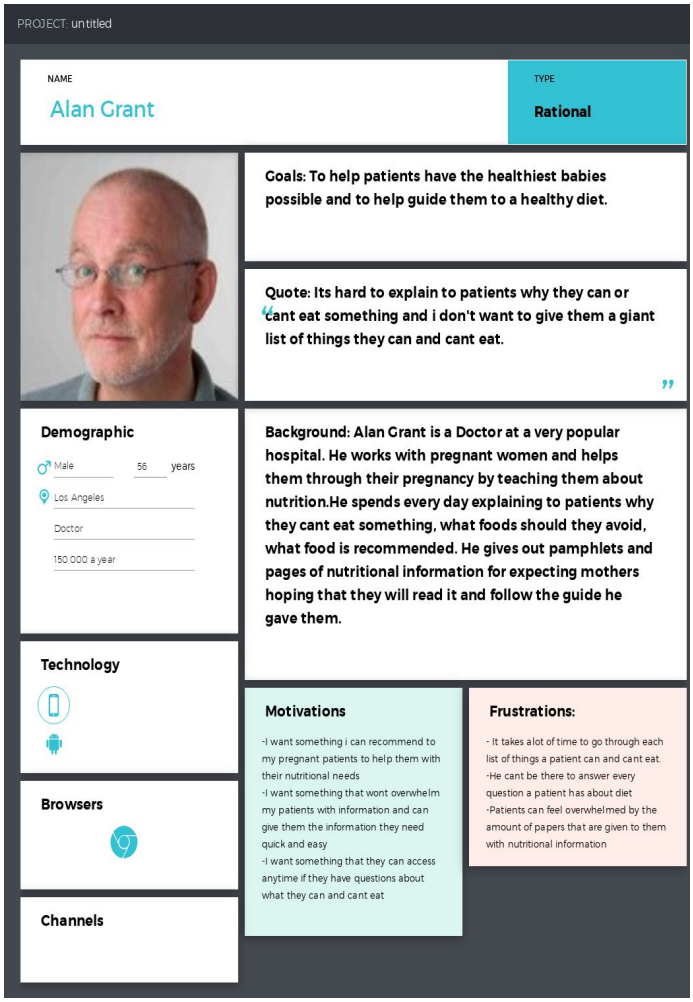
- Emily Wilkerson



- Kevin Smith


PROJECT: untitled
NAME
Kevin Smith
TYPE
Rational
Goals: To provide support for his wife in order to make her pregnancy a little easier and to have a healthy baby
Quote: You know since im so busy bringing my dream all together i dont have time to google what's okay for my wife to eat
Demographic
Male
28
years
Los Angeles
Married
chef
45000 a year
Background: Kevin is a chef at a restaurant that knows how to make good food but doesn't know what food is good for his pregnant wife. Since hes a chef his wife sends him grocery shopping. Kevin always has trouble shopping for groceries due to his lack of knowledge on what food is good for his wife. He spends a lot of time googling ingredients and communicating with his wife trying to figure out if she is able to eat certain foods or not.
Technology
Motivations
-All the information he needs in one place
-Doesnt want to bother his wife by asking question
-Wont have to worry about what his wife can and cant eat
Frustrations:
- wasting time reading labels.
-wasting time looking up information about ingredients.
-Not having all the information needed about his wife diet in one place
-Has to constantly ask his wife what she can and cant eat
Browsers
Channels

- Alan Grant


PROJECT: untitled
NAME
Alan Grant
TYPE
Rational
Goals: To help patients have the healthiest babies possible and to help guide them to a healthy diet.
Quote: Its hard to explain to patients why they can or cant eat something and i don't want to give them a giant list of things they can and cant eat.
Demographic
Male
56
years
Los Angeles
Doctor
150 000 a year
Background: Alan Grant is a Doctor at a very popular hospital. He works with pregnant women and helps them through their pregnancy by teaching them about nutrition.He spends every day explaining to patients why they cant eat something, what foods should they avoid, what food is recommended. He gives out pamphlets and pages of nutritional information for expecting mothers hoping that they will read it and follow the guide he gave them.
Technology
Browsers
Channels
Motivations
-I want something i can recommend to my pregnant patients to help them with their nutritional needs
-I want something that wont overwhelm my patients with information and can give them the information they need quick and easy
-I want something that they can access anytime if they have questions about what they can and cant eat
Frustrations:
- It takes alot of time to go through each list of things a patient can and cant eat
-He cant be there to answer every question a patient has about diet
-Patients can feel overwhelmed by the amount of papers that are given to them with nutritional information

User Stories

Epic 1: Barcode scanner

Target Release	1.0
Epic	Barcode scanner

Requirements

#	User Story Title	Description	Priority
1	Scan Barcode	As a user, I should be able to scan the barcode of an item, so that I may learn of it's ingredients/contents	High
2	Item safe to consume or not	As a user, I should be able to determine whether an item scanned is safe, so that I may consume it	High

Epic 2: Profile

Target Release	2.0
Epic	Profile

Requirements

#	User Story Title	Description	Priority

1	Create Profile	As a user I should be able to make a profile, so that I may enter my personal dietary restrictions	High
2	Item safe to consume or not	As a user, I should be able to determine whether an item scanned is safe, so that I may consume it	High
3	Share Profile	As a user I should be able to share my profile with another person, so that the other person may not require to enter my information again	Medium
4	History	As a user I should be able to see my scanned item history, so that I may go back to it in case I forget	Low
5	Other people Scans	As a user I should be able to see what other people are scanning near me, so that I may learn of new foods	Low
6	Food Recommendation	As a user, I should be able to get a recommendation based on my searches, so that I may find a safer alternative to the items I had previously Scanned	Low
7	Input allergies	As a user, I should be able to input my allergies/diseases, so that the food I eat are both safe for me (due to health reasons) and safe for my baby	High

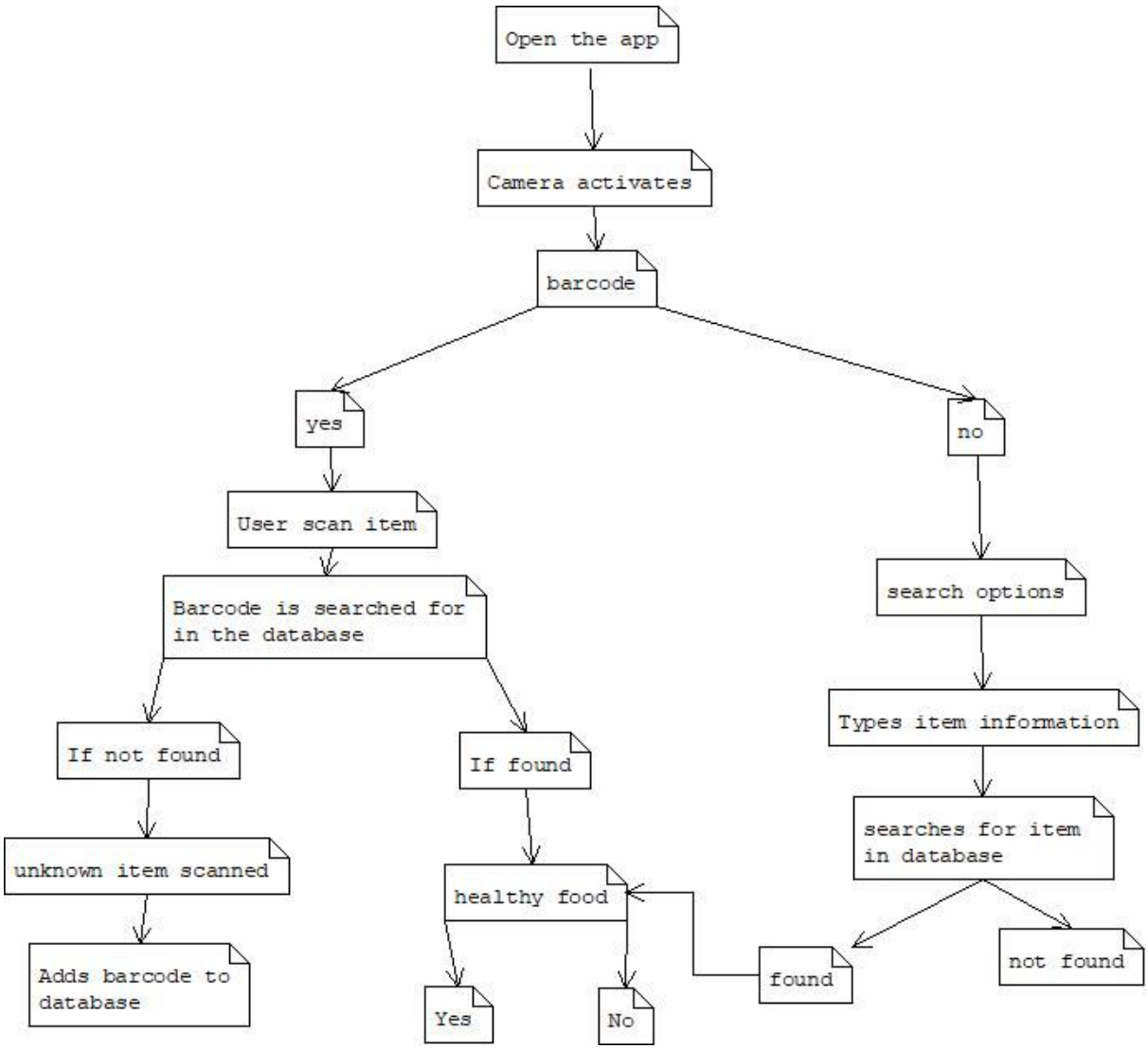
Epic 3: Information

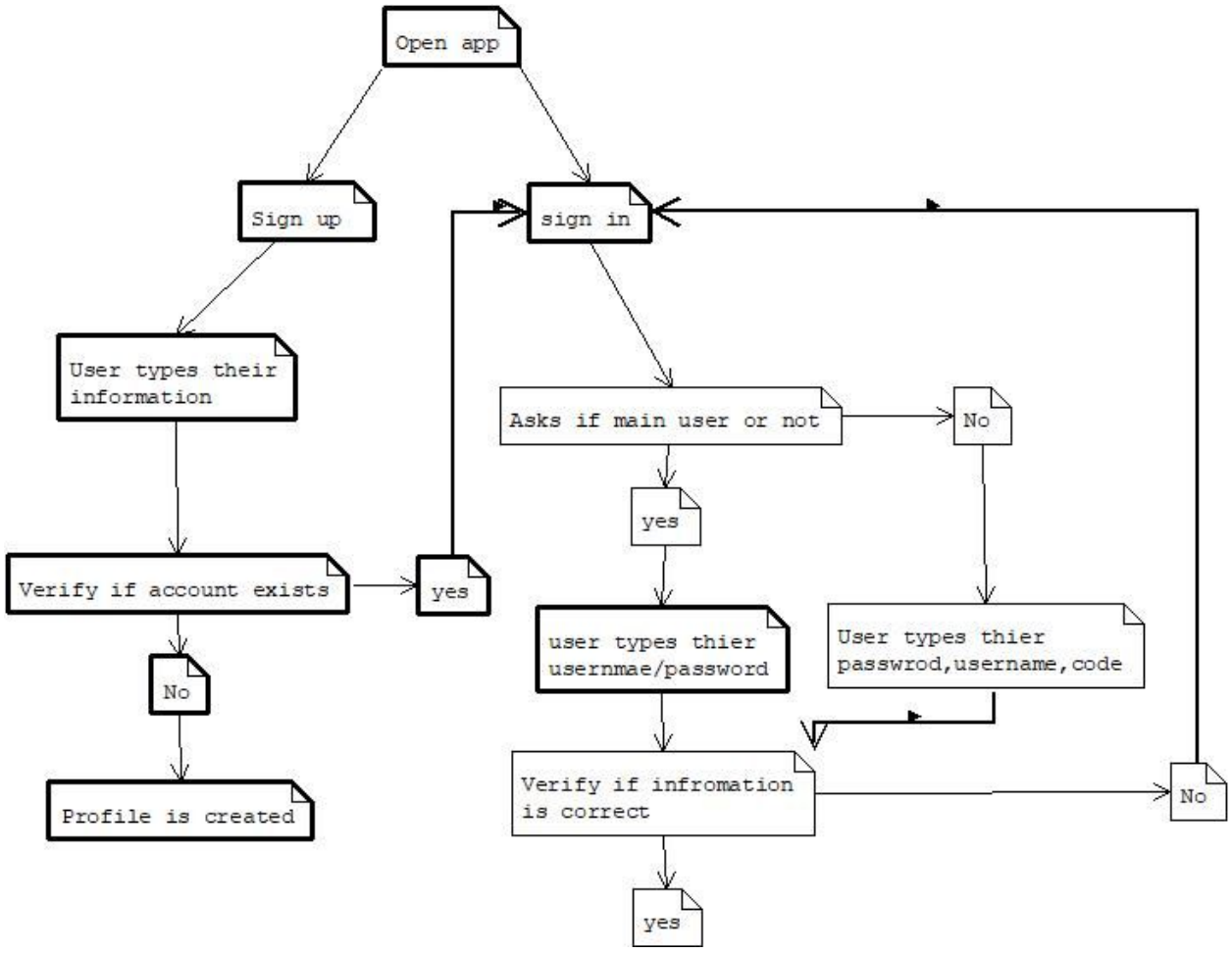
Target Release	3.0
Epic	Information

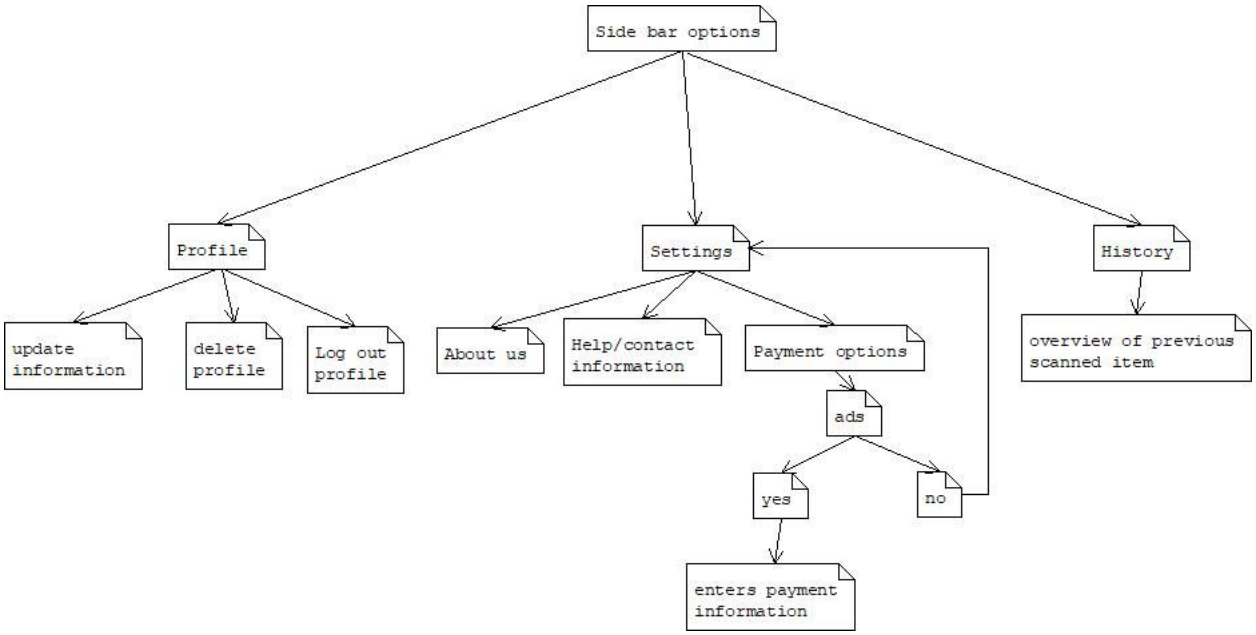
Requirements

#	User Story Title	Description	Priority
1	Search food without scan	As a user I should be able to search a food without scanning it, so that I may find information on foods without barcode	High
2	Learn more about ingredients	As a user I should be able to get more information on the item scanned, so that I may learn more about the ingredients and additives	Low

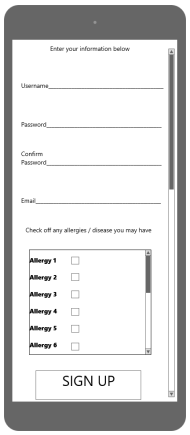
Server Sitemap

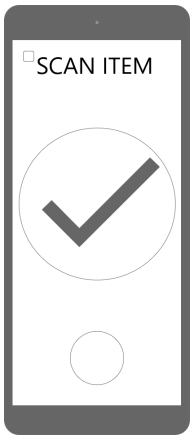
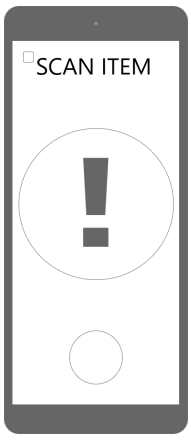


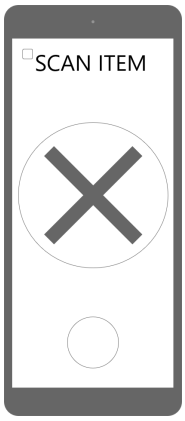
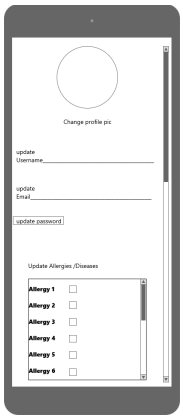

Open app
Sign up
sign in
User types their information
Asks if main user or not
No
yes
Verify if account exists
yes
user types thier usernmae/password
User types thier passwrod,username,code
No
Profile is created
Verify if infromation is correct
No
yes

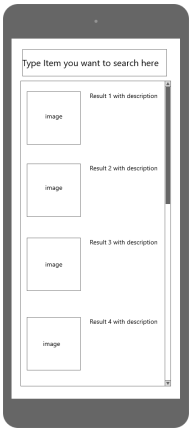
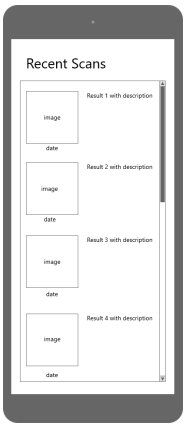
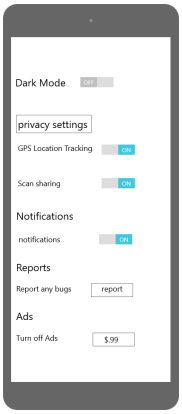

Side bar options
Profile
Settings
History
update information
delete profile
Log out profile
About us
Help/contact information
Payment options
overview of previous scanned item
ads
yes
no
enters payment information

Wireframes

Home	
Sign in	
Sign up	

scan	
Scan complete can eat	
Scan complete caution	

Scan complete do not eat	
Quick navigation	
Profile	

search	
History	
settings	

About us	 Healthy Belly Logo About us Description of our company Certifications/reccommendations

Interfaces

Users: Users will initially will be only in the US, due to our media influence. But due to the ever growing database we are using (OpenFoodFacts.org) we have the potential to go international! People from around the world will be able to use our Apps.

Admins: Our Admins, once the App is up and running, will be monitoring the services and keeping up with the medical world to ensure the Information stays up to date and that any updates, whether good or bad, be dealt with in a timely manner. In addition, we will constantly conduct penetration testing to ensure our App does not fall victim to an attack.

Channel Partners: We at the moment do not have a Channel Partner, but once the App grows, we will change our database and connect with Edamam, a private database provider with securer services at a price. They will also provide API to connect with our App

External API: Will have one, but like mentioned above, could have two in the future. The external API will be Google's Mobile Vision API. It is a Barcode parsing API that will deal with Barcode reading

External Sites: The external site will be OpenFoodFacts.org Database.

Additional Functional Requirements

Device: Users must have a smartphone that has a working camera. If the camera does not work or there are scratches on the lens, our app will not be able to scan the barcode.

OS requirement: As we have decided to make the app only for android devices, users who want to use our app will need to have Android 5.0 or later on their smartphone. About 85% of the android phones worldwide run on Android 5.0 or later, so most people will be able to use this app.

Internet connection: Since we are planning on using an online database and it has to be run from a web server, users must have data connection or WiFi to run Healthy Belly.

Non-functional Requirements

In no particular order, here are the non-functional requirement our team will be focusing on throughout the project to ensure the success and continued use of the product we will be launching.

- Performance: As the focus of our software will be to make it easy for people to scan food and get a result back as they are shopping we want the software to have a quick response time and feedback to the user as they interact with it. This covers not only the performance of our own algorithms, but the response time of the software interacting with the database. We also want the application to run efficiently on devices as battery life has been shown to be a factor in what applications users use over others.
- Scalability: We want our software to maintain its capability and performance as more and more users interact with it. This means that scalability will be an important factor as we do not want to have our servers not be able to handle more and more traffic as more users download and use the application simultaneously.
- Availability: Once again, our software has to be able to be used at any moment's notice so keeping the availability of the servers that the application will request information from is pivotal to the success to the success of our software.
- Reliability: We want to make sure that the information that is being delivered will always be correct and up to standard as our application aims to help people decide what to and what not put into their bodies during pregnancy.

- Recoverability: If our servers were to go down we need to be able to make them available again quickly and efficiently to keep our users trust.
- Maintainability: The most important aspect of the software where we must make sure maintainability will be in both our servers and our machine learning that aims to give people recommendations. We want to make sure the recommendations will be not only appropriate but satisfactory to the user.
- Security: Because we plan on having user profiles that may deal with private information it is important that that kind of data is kept safe from any adversary.
- Integrity: As stated above our application will use user's characteristics, such as trimester and allergies/dietary restrictions in order to determine what is safe to eat and what is not. Thus it is of utmost importance that the data in our servers, both user and food databases, keeps as perfect integrity as possible as one mistake could be the difference between life and death.

Performance Requirements

Minimal Specs:

Android Version 5.0 (Lollypop) or higher

Must have a working Camera

Must have internet Access

Future Iterations

One of the most advanced and amazing functions we plan on adding to the Healthy Belly Application is the ability to scan actual Food in front of them! Be able to tell whether the food on their plate is safe to eat! It will work the same way like Google's Pixel camera works.

We want to expand to the iOS operating system first, followed by multiple language support (such as Spanish).