



# Healthy Belly

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# *Introduction*

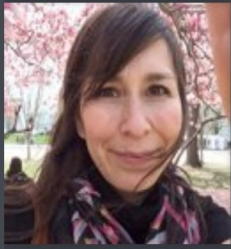
- How Did Healthy Belly come to be?
  - So many Ranches! Which ones are safe?!
- What will Healthy Belly do?
  - Reduce the long process of reading every label
  - Scan food, Buy food! NO MORE READING

# Personas

- Based off of our Secondary Market Research, we identified The 3 most common types of Personas we will encounter
- Emily Wilkerson
  - She's a pregnant woman, conceiving for the first time, looking for assistance with her proper dietary intake to ensure a healthy baby, but at the same time she has little to no time to read or consult with a professional every now and then.

PROJECT: untitled

NAME	TYPE
Emily Wilkerson	Rational




**Goals:** Being able to have a healthy baby, being able to pick food that is healthy as fast and easy as possible.


**Quote:** I just want something to tell me what i can and cant eat without having to read long paragraphs.

**Background:** Emily is a future mom. She works as an accountant in a busy firm. Due to this she needs to rush through her lunch break so finding time to do research on what to eat can be difficult due to time constraints. Also being a first time mom she has very little knowledge on what she needs to eat in order to have a healthy baby.


Motivations	Frustrations:
<ul style="list-style-type: none"><li>-Easy feedback on what i can eat</li><li>-All the information i need to know about pregnancy diet all in one place</li><li>-quick way to check if can eat this food.</li></ul>	<ul style="list-style-type: none"><li>- wasting time reading labels.</li><li>-wasting time looking up information about ingredients.</li><li>-Not having all the information needed about diet in one place</li></ul>


**Demographic**

 Female  years


 Los Angeles

**Technology**





**Browsers**



**Channels**

# Personas

- Kevin Smith
  - He's the husband of a pregnant woman looking for assistance with taking care of his wife and his baby. He constantly has to ask his wife what she can and can't eat and make sure it's good for the baby.

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  
45,000 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



## Browsers



## Channels

## 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





# Personas

- Alan Grant
  - He's a doctor and his goal is to help women who are expecting soon. He can't be there personally to answer any ambiguity a patient might have about their diet preferences.

PROJECT: untitled

NAME	TYPE
Alan Grant	Rational

	<p><b>Goals:</b> To help patients have the healthiest babies possible and to help guide them to a healthy diet.</p> <p><b>Quote:</b> 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.</p>
<p><b>Demographic</b></p> <p>Male 56 years</p> <p>Los Angeles</p> <p>Doctor</p> <p>150,000 a year</p>	<p><b>Background:</b> 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.</p>
<p><b>Technology</b></p> <p> </p>	<p><b>Motivations</b></p> <ul style="list-style-type: none"><li>-I want something i can recommend to my pregnant patients to help them with their nutritional needs</li><li>-I want something that wont overwhelm my patients with information and can give them the information they need quick and easy</li><li>-I want something that they can access anytime if they have questions about what they can and cant eat</li></ul>
<p><b>Browsers</b></p> <p></p>	<p><b>Frustrations:</b></p> <ul style="list-style-type: none"><li>- It takes a lot of time to go through each list of things a patient can and cant eat.</li><li>-He cant be there to answer every question a patient has about diet</li><li>-Patients can feel overwhelmed by the amount of papers that are given to them with nutritional information</li></ul>
<p><b>Channels</b></p>	

# Mini Business Plan

Strategy				
Problem	Solution	Value proposition	Unfair advantage	Customer segments
<p>Having to read the nutritional label</p> <p>Knowing what is healthy/unhealthy</p> <p>explaining to friends/families your needs</p>	<p>Scan and go system that requires no reading</p> <p>Information in system that filters (un)healthy</p> <p>Having profiles for easy access for everyone</p>	<p>An App that prioritizes simplicity and efficiency for its user while making the app as informant and accurate as possible, with the backing of Medical Professionals</p>	<p>Being able to combine both the ingredients that are safe/unsafe with the dietary restrictions of people who follow certain diets</p>	<p>Pregnant women, family of pregnant women, friends of pregnant women.</p>
	Key metrics		Channels	
	<p>How often a user scans an item, how often a user inputs data into database, what item is most scanned</p>		<p>Social Media as well as direct Doctor recommendations</p>	
Cost structure		Revenue streams		
<p>As it is an app that requires no monetization to run successfully, as well as a database that is open source, we have no need for a cost structure</p>		<p>The primary revenue generator would be advertisements, but we will have an option for customers to pay to end advertisements.</p>		



# Mini Business Plan

SWOT	
Strengths	Weaknesses
<p>Your advantages:</p> <ul style="list-style-type: none"><li>First of its kind</li><li>Customer Focused</li><li>Backed by Pediatricians and Family Doctors</li><li>Database is constantly growing due to Multiple Users</li><li>Considering dietary restrictions of people from different backgrounds</li><li>Designed to be as simple and easy to use</li></ul>	<p>Areas for improvement</p> <ul style="list-style-type: none"><li>Can be imitated by larger companies</li><li>Very little profit gain</li><li>Most information is for US products since majority of input is by US users</li><li>Relying on information by the people</li><li>Database might not have complete information on the ingredients</li></ul>
Opportunities	Threats
<p>Situations to apply your advantages</p> <ul style="list-style-type: none"><li>Everyone is more health conscious</li><li>Always a supply of pregnant people so the market is always there</li><li>Can expand to other countries since every country uses barcodes</li></ul>	<p>Where you are at risk</p> <ul style="list-style-type: none"><li>Database is open source so information could be altered</li><li>People inputting false information in the database since its open source</li></ul>

# Mini Business Plan

Segment Profile			
Geographic	Demographic	Behavioral	Psychographic
Primarily United States with Potential to go worldwide	Younger to Middle aged group with a good knowledge of using a phone, having a relationship of sorts with a pregnant	What typical actions can be observed?	Priorities are being nutritionally aware, tend to be quite time-poor,
Size		Growth potential	
Estimated at around 123 Million SUCCESSFUL pregnancies per year in the United States alone		Life always finds a way, and a need for an app that will assist in pre-natal nutritions is not only helpful, but vital for the health of both the baby and the mommy	
Competitive activity		Risk	
There is not a single app which does this. Majority of the app simply tell the users what to eat. Not what they cannot eat when they are at the grocery store. EX: There are many ranch options, but only a few have no raw eggs.		As discussed with 3 Doctors, two being pediatricians and one being a nutritionist, The success of the app depends entirely on its accuracy and simplicity	
Approach			
The approach is simple, we connect with users via Social media, going to nutritionists, and connecting with Doctors who specialize in pre-natal nutritions			





# *Primary Market Research*

- Created a set of questions for our connections in the medical field (specifically Pediatricians) to interview **(RESPONSES SO FAR)**
  - Are you willing to use/test our App to see if it meets standards and if the information is accurate **(YES)**
  - How many mothers/families contact you in regards to nutrition?  
**(>20 Patients a day)**
  - What are some great sources to use to gain a better understanding of what is considered healthy, what is not considered healthy, and what is something that is considered in between? **(Nutritionists are best sources for this information)**
  - How are malnutrition & miscarriages connected? In other words, how important is nutrition for pregnancy? **(Nutrition is very important for both mom and baby)**
  - Different needs during different trimesters? **(Strict in start, free in end)**
  - What do you think should be on the app? **(Consider Disease checks)**
  - What do you think would be the most important feature for this app? **(EOA)**
  - Based on the information that is given do you believe that you would be okay with recommending this app to a patient. **(Of course!)**



# *Primary Market Research*

- Created a survey for families and friends to gauge at their shopping habits
  - How often do you read the ingredients or nutritional label?
  - How often do you google an item before buying it?
  - How long does it take to shop?
  - Would you trust an application to tell you what food is hazardous/not hazardous?
    - If answered no then what could we do to make you trust this app
  - Would you rather pay for the app or would you rather have ads
  - Would you rather want the app to be simple or have in depth information
  - Do you use any health/nutrition app



# *Response from User Survey (158+ ANS)*

- Create a survey for families and friends to gauge at their shopping habits
  - How often do you read the ingredients or nutritional label?
    - Sometimes
  - How often do you google an item before buying it?
    - Sometimes
  - How long does it take to shop?
    - 1-2 Hours
  - Would you trust an application to tell you what food is hazardous/not hazardous?
    - Yes
  - If answered no then what could we do to make you trust this app
    - N/A
  - Would you rather pay for the app or would you rather have ads
    - Have ads
  - Would you rather want the app to be simple or have in depth information
    - Simple
  - Do you use any health/nutrition app
    - No



# Secondary Market Research

- How Does Poor Diet During Pregnancy May Have Long Term Impact On Child's Health?
  - <https://www.sciencedaily.com/releases/2008/06/080630200951.htm>
- Malnutrition that can cause miscarriages? (Miscarriages due to malnutrition)
  - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4163795/>
- How many people in the United States are pregnant per year?
  - <https://www.cdc.gov/nchs/fastats/births.htm>
- How many people actually read the nutritional information
  - <https://www.agri-pulse.com/articles/6952-most-people-read-nutrition-facts-label-at-least-some-of-the-time>
- Customer trust on information on label
  - <https://nypost.com/2018/06/07/most-people-think-food-labels-are-misleading/>
- Percentile of Stillborns and miscarriages leading to miscarriages
  - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2679409/>
- What percentage of pregnant women are concerned about what they eat? To what level is that concern?
  - <https://www.parents.com/pregnancy/my-body/nutrition/what-pregnant-women-really-eat/>
- And many more sources!



# *Commercialization Strategy*

- The App is One-of-a-kind
  - One of the main strategies is that since there is a lack of an application that is anything like Healthy Belly, when someone looks up an application for solving the problem of figuring out if a certain product will be hazardous for a pregnant individual, Healthy Belly will show up.
- Social Media Influence
  - Having multiple connections in the Pediatrician world, as well as having a strong media influence will aid us in spreading the word of Healthy Belly.



# *Monetization Strategy*

- Advertisement
  - We will have advertisements built into our app
- Paid premium version
  - The users will have an option to pay for the premium version which will get rid of the ads



# *Our Total Solution*

## ➤ Scan and go, no need to carry a list!

- How to use:
  - Open the app
  - Scan the barcode on a product
  - Wait for the result

## ➤ How this app works

- Reads the barcode and Looks it up on a database
  - Open food facts
  - Goes through the ingredients
- If there is any ingredient that is marked unsafe in our app, it warns the user
  - 3 results depending on the ingredient:
    - Green: Can eat as much as they want
    - Yellow: Can eat but not too much
    - Red: Cannot eat at all



# *Our Total Solution*

## ➤ Personalized Results

- Create Profile
  - Users will be able to create their own profiles
- User's dietary preference
- Items that the users are allergic to
  - Refines result depending on user's allergy
- Different result depending on the trimester
  - Pregnant woman have different food restriction on each trimester





# *Implementing Machine Learning*

- Recommended suggestion
  - Suggest users items that are good for health during pregnancy
- Better alternative suggestion
  - If the user scans a certain item, if a better alternative is available from a better brand, the app will suggest the user to buy that instead



# *Alternative Solutions & Why Ours*

- An alternate solution for the problem we are addressing would be an application that lists ingredients or products that are dangerous or need to be consumed in moderation through a menu. It does not inform the users of which PRODUCT is not safe, only the ingredient. Healthy Belly does EXACTLY that.
- The primary objective of Healthy Belly is to make life easier for pregnant women. We believe that using the barcode scanning feature is pivotal to ease of access and ease of use in day to day life of any pregnant woman or anyone that must assist them. Simply scan a product and learn if it is safe or not!

# Gantt Chart

## Healthy Belly Gantt Chart

Roster: [M]arty, [Mat]eo, [J]osue, [H]assan, [N]isal, [P]riyanshi

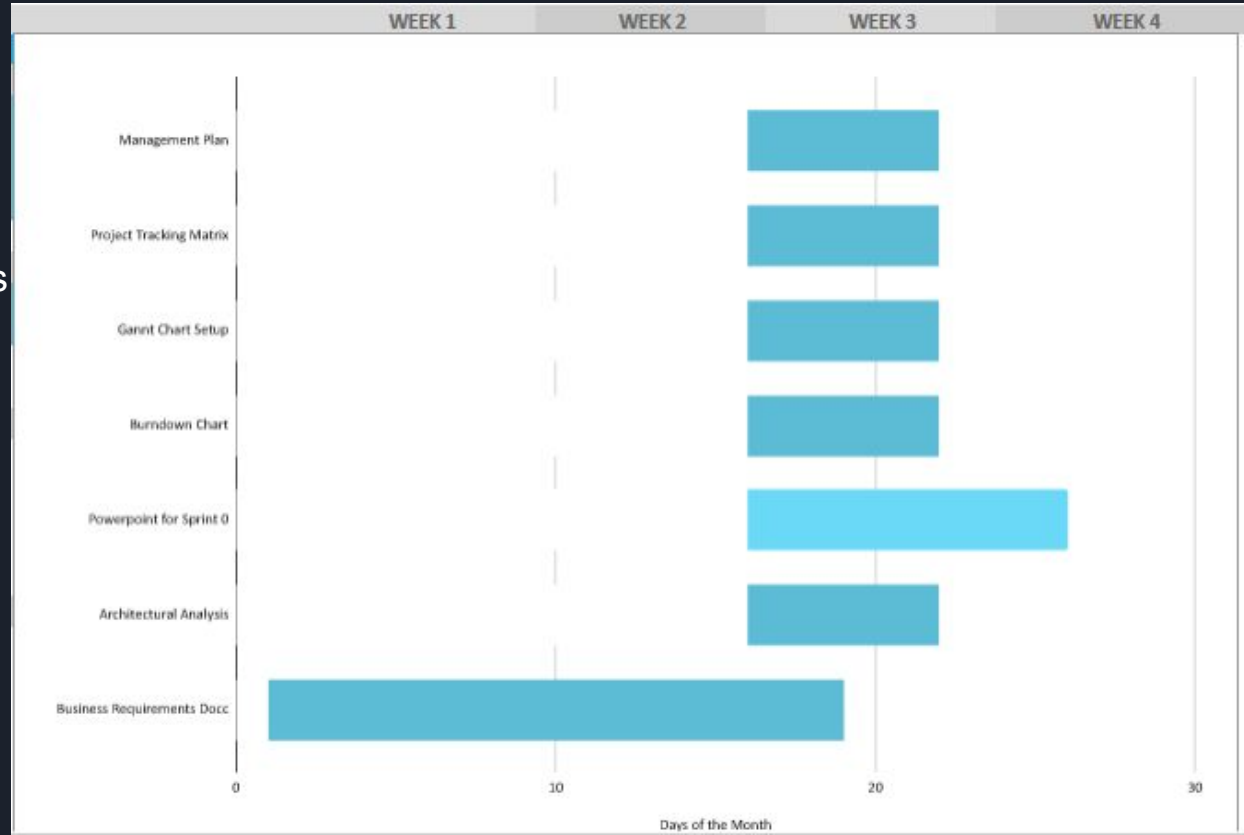
\* = an automatically calculated cell

TASK NAME	START DATE	DAY OF MONTH*	END DATE	DURATION* (WORK DAYS)	DAYS COMPLETE*	DAYS REMAINING*	TEAM MEMBER	PERCENT COMPLETE
Management Plan	9/16	16	9/21	6	6	0	[J]	100%
Project Tracking Matrix	9/16	16	9/21	6	6	0	[M]	100%
Gantt Chart Setup	9/16	16	9/21	6	6	0	[Mat]	100%
Burndown Chart	9/16	16	9/21	6	6	0	[P]	100%
Powerpoint for Sprint 0	9/16	16	9/25	10	0	10	[H]	0%
Architectural Analysis	9/16	16	9/21	6	6	0	[N]	100%
Business Requirements Docc	9/1	1	9/18	18	18	0	All	100%

# Gantt Chart

When we first started the Gantt chart everything started at 0% as we worked on the tasks we were assigned we updated the Gantt chart. The first tasks that were completed were the Business requirement document, Project Tracking Matrix, Gantt chart setup, Burndown chart and Architectural Analysis. As the sprint went on we finished the other tasks and updated the Gantt chart to reflect it.

**OUR GANTT CHART NEEDS TO BE UPDATED.** Currently our chart only shows tasks for this Sprint only.



# Project Tracking Matrix

## Healthy Belly Project Tracking Matrix

Project

Healthy Belly

Project Start Date

September 2nd, 2019

Task	Task Type	Task Status	Est SLOC	Actual SLOC	Priority
UI Design	Enhancement	Assigned	<800		High
Backend (Databases & Servers)	Development	Assigned	>1000		High
API	Development	Created	<1000		High
AI/Machine Learning	Development	Created	<1000		Medum
R&D	Customer Issue	In-Progress	Not Applicable		High
User Login Credential	Customer Issue	Created	<500		Low
Testing And Developing	Bug	In-Progress	Not Applicable		Medum

Total Hours Spent

0

Project Progress

0.00%

# Project Tracking Matrix

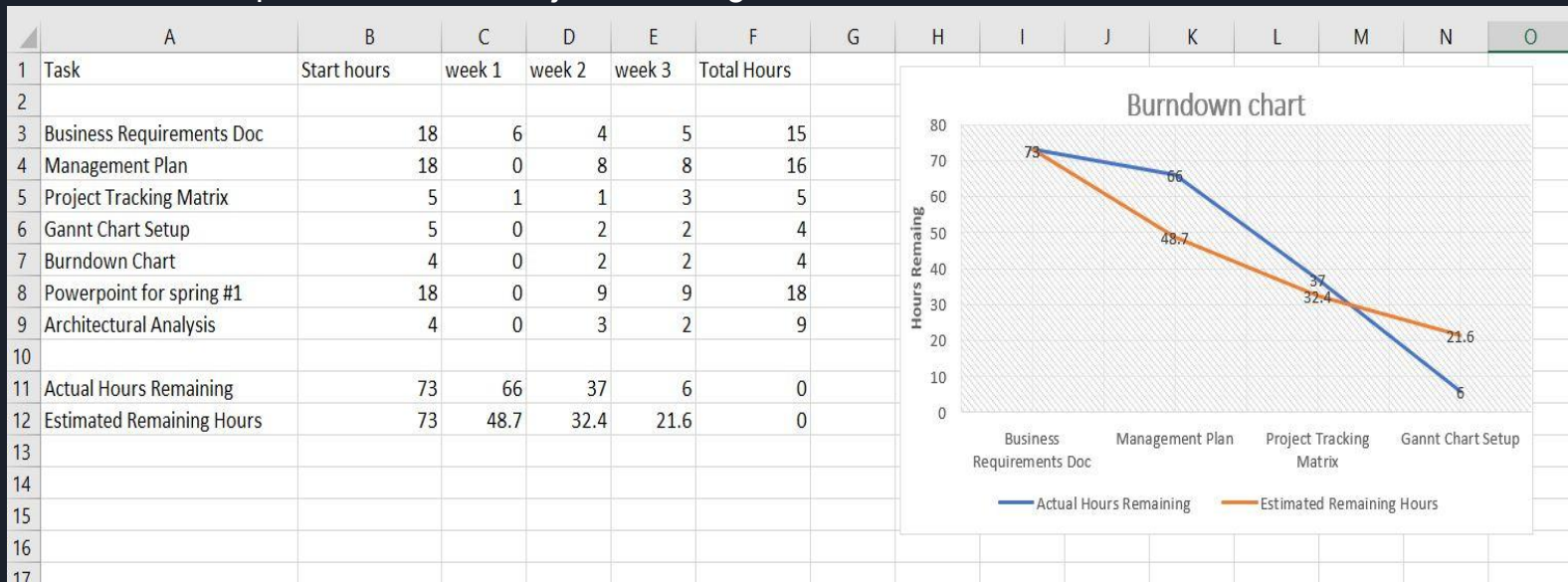
Project Tracking Matrix is best used for breaking down the project into multiple sections so the Project can be divided and be assigned to group members. Some items together on it after they complete their assigned work. Deadline is universally assigned, and is subject to change.

Project Manager	Mohammad-Murtuza Bharoocha						
Project End Date							
Assigned To	Assigned Date	Deadline	Estimated Hrs	Start Date	End Date	% Done	Actual Hr.
JR and MB	18-Sep-19	17-Dec-19					
HI, NG, and MO	18-Sep-19	1-Nov-19					
UNASSIGNED	NA	1-Nov-19					
EVERYONE	18-Sep-19	1-Nov-19					
PV	18-Sep-19	1-Nov-19					
UNASSIGNED	NA	1-Nov-19					
EVERYONE	18-Sep-19	1-Nov-19					

# Burndown Chart

A burndown chart is a graphic representation of how quickly the team is working. The burndown chart shows the total effort against the amount of work for each iteration. Below is the burndown chart for Sprint #1. We started with Business Requirement Document as our base description document and then proceeded with Project Tracking Matrix, Gantt Chart, and

Burndown chart. We then combined everything together to make a Management Plan Document.





# Sprint Board (TRELLO)

**Healthy Belly** ☆ Personal Private JR JT L +3 Invite

**IMPORTANT LINKS**

- Our Main GOOGLE DRIVE Link
- GitHub
- Gantt Chart
- + Add another card

**Project Backlog**

- High**  
2. As a user, I should be able to determine whether an item scanned is safe, so that I may consume it [8 hours]
- High**  
3. As a user I should be able to search a food without scanning it, so that I may find information on foods without barcode [2 hours]
- High**  
4. As a user I should be able to make a profile, so that I may enter my personal dietary restrictions [8 hours]
- Medium**  
5. 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 [5 hours]
- Low**  
6. 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 [2 hours]
- Low**  
7. As a user I should be able to see what other people are scanning near me, so that I may learn of new foods [7 hours]
- Low**  
8. 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 the additives [5 hours]
- Medium**  
9. 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 [15 hours]
- High**  
10. As a user I should be able to
- + Add another card

**Sprint Backlog**

- High**  
1. As a user, I should be able to scan the barcode of an item, so that I may learn of it's ingredients/contents [8 hours]
- + Add another card

**To-Do**

- Architctural Analysis User Story 1 NG
- BurnDown Chart PV
- + Add another card

**In Progress**

- PowerPoint For Sprint #0
- Public Surveys JR
- + Add another card

**Completed**

- BRD Sep 14 JR NG PV
- Project Tracking Matrix
- Setting Up Trello 2 JR
- Rating the User Stories 1 JR PV
- Gantt Chart 1
- Management Plan JR PV
- + Add another card

**SPRINT OBJECTIVE**

- Sprint Objective of Sprint #0: To complete The Required Document and Architecture analysis of User 1
- + Add another card





# *First Architectural Analysis*

- Architectural Analysis of our first and most Important User Story:
  - “As a user, I should be able to scan the barcode of an item, so that I may learn of it's ingredients/contents”
  - The mobile takes a picture. The picture scans the barcode. After the phone recognizes the barcode it checks the information about it from the website([openfoodfacts.org](https://openfoodfacts.org)). Then we check our database to see if any of the ingredients maps to our ingredients
  - Technology
    - Our Node server will be running on a cloud computer
    - Our users will be interacting with the android application running on java where the camera application will recognize the barcode
    - A user can search for our recommended products



# *Sprint Retrospective*

- After the finishing Sprint #0 there are a lot of things that went well and things that we can improve on.
  - The Pros:
    - Constant communication between all the members of the team.
    - Workload Divide
  - The Cons:
    - Team change, having members leave and new members join caused a few issues (bringing up to speed on objectives)
    - Finding the best sources and references
  - Moving Forward:
    - Time Management needs to improve, since this was our first go at tasks together



# *For Next Sprint*

- Begin working on a simple UI Design
- Begin User Manual for Code Release
- Gain better understanding of how to use Android Studio
- Plan out how our Database will be structured
- Complete Project Requirements Document
- Update Business Requirement Document
- Update Management Plan Document



*End of Presentation!*

Thank you for your time!

QUESTIONS??