

The background is decorated with various hand-drawn illustrations of fruits and leaves. At the top left are three blueberries. Next to them is a slice of orange. To the right is a green leaf. Further right is a slice of watermelon. At the top right is a lime. Below the watermelon is a small blueberry and a lime leaf. To the right of the title is a lime. Below the title is a slice of lemon. At the bottom left is a strawberry. In the bottom center is a banana. To the right of the banana is a slice of lime. At the bottom right is an orange and a cherry.

Make My Meal

By Gregory O'Connor, Gayun Kim,
Insub Lim, Jhon Rayo.

Have you ever struggled to cook the perfect meal with only the ingredients in your kitchen?

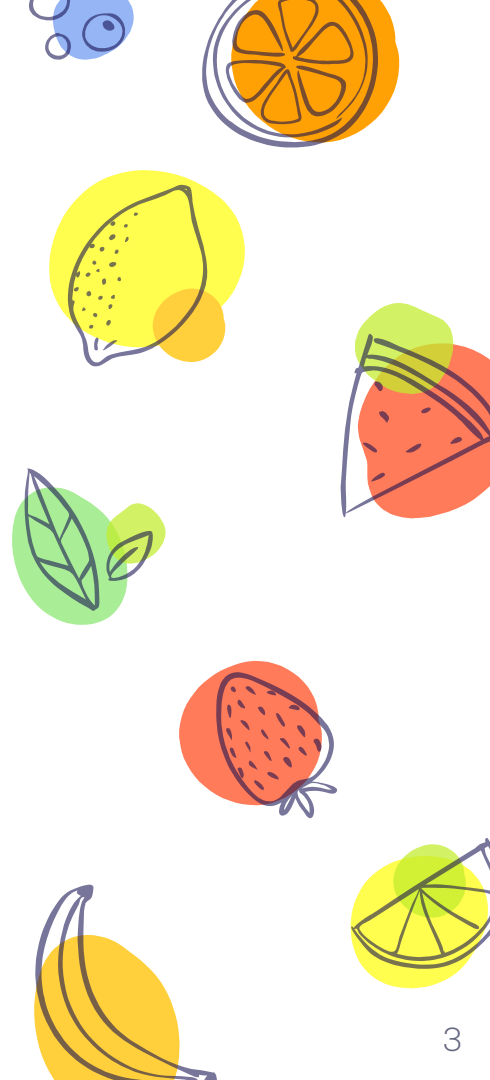


Make My Meal can make your life much easier!!



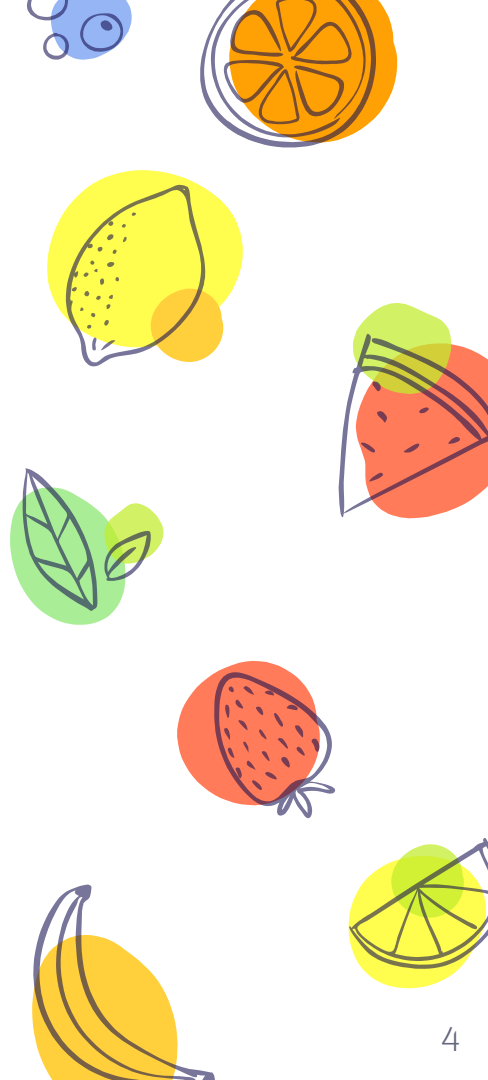
As simple as:

- 🍎 Scan the ingredients you have
- 🍎 Choose the recipe you like
- 🍎 Cook!



The problem being solved

- ✗ Users do not have a way to easily find recipes tailored to what they have available at home.
- ✗ Most recipe applications do not provide searching via ingredients.



Target Audience

Young adults to middle aged people

- Independent people are the target, as they are likely to cook for themselves and also be able to use technology.



MMM vs. the competition

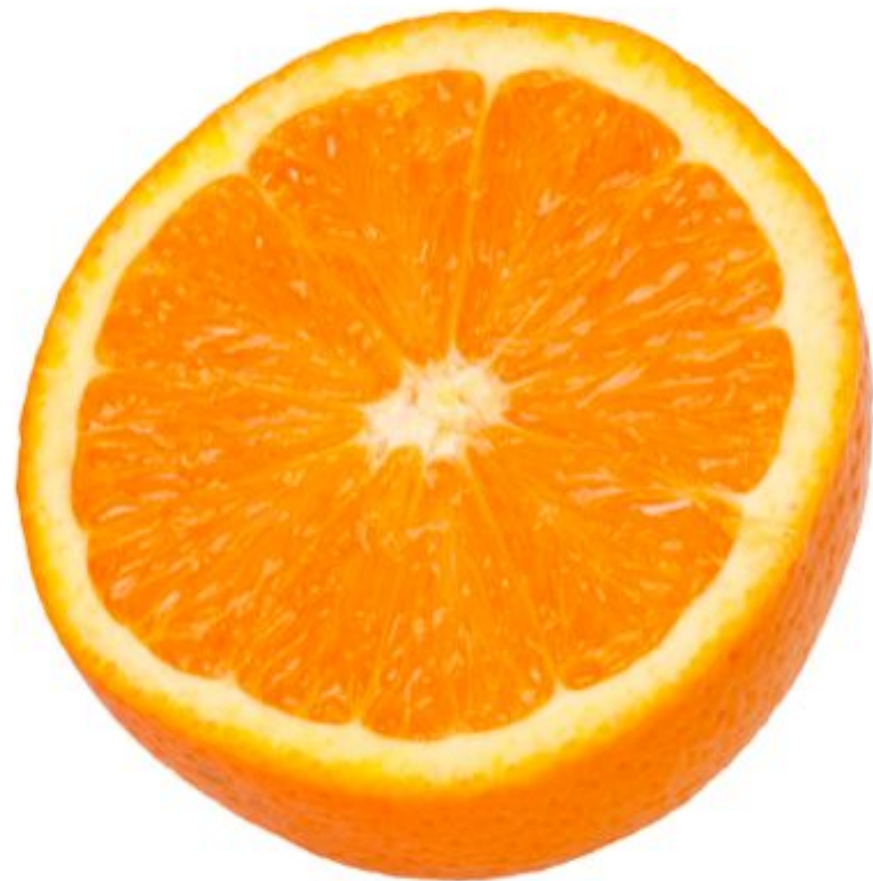


- Cluttered
- No search by typing
- No camera scan
- Difficult to use;
- simpler to google recipes yourself

<https://www.foodwise.com.au/recipe-room/our-recipe-finder/>

Demonstration









How does it work?



- 🍎 Core ML is a framework that helps integrate machine learning models into an app.
- 🍎 We used computer vision in order to recognize a variety of ingredients (Image recognition), paired with the ResNet50 model.

Different types of models



Resnet50
Image Classification

A Residual Neural Network that will classify the dominant object in a camera frame or image.

[View models](#)



SqueezeNet
Image Classification

A small Deep Neural Network architecture that classifies the dominant object in a camera frame or image.

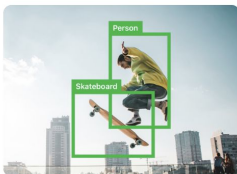
[View models](#)



DeeplabV3
Image Segmentation

Segment the pixels of a camera frame or image into a predefined set of classes.

[View models](#)



YOLOv3
Object Detection

Locate and classify 80 different types of objects present in a camera frame or image.

[View models](#)



YOLOv3-Tiny
(Real-time) Object Detection

Locate and classify 80 different types of objects present in a camera frame or image.

[View models](#)



















Design process

- 🍎 User friendly design
- 🍎 Simplicity



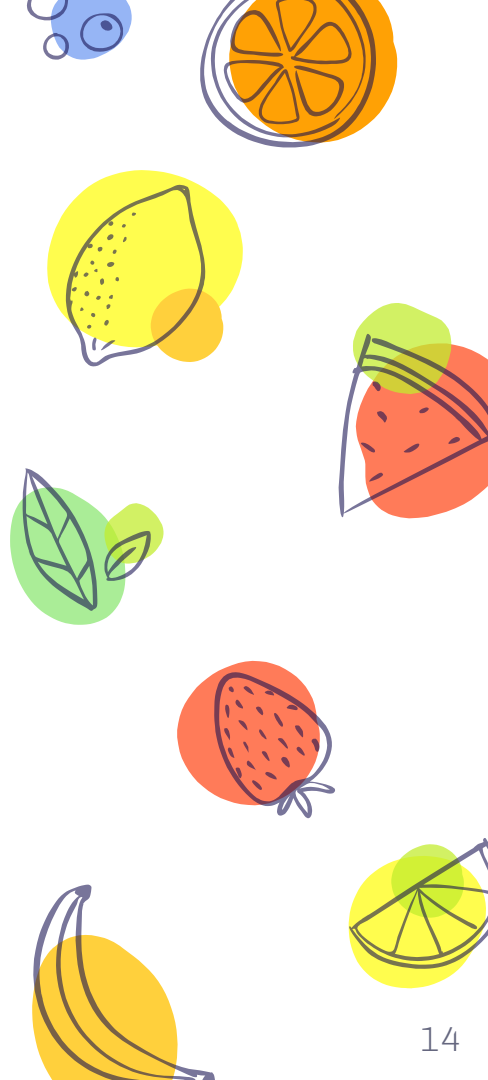
Development process

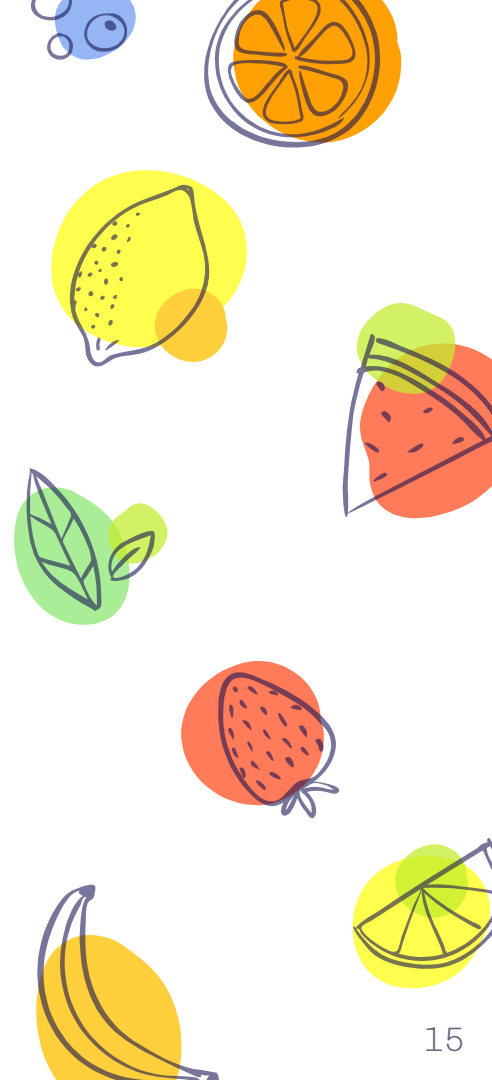
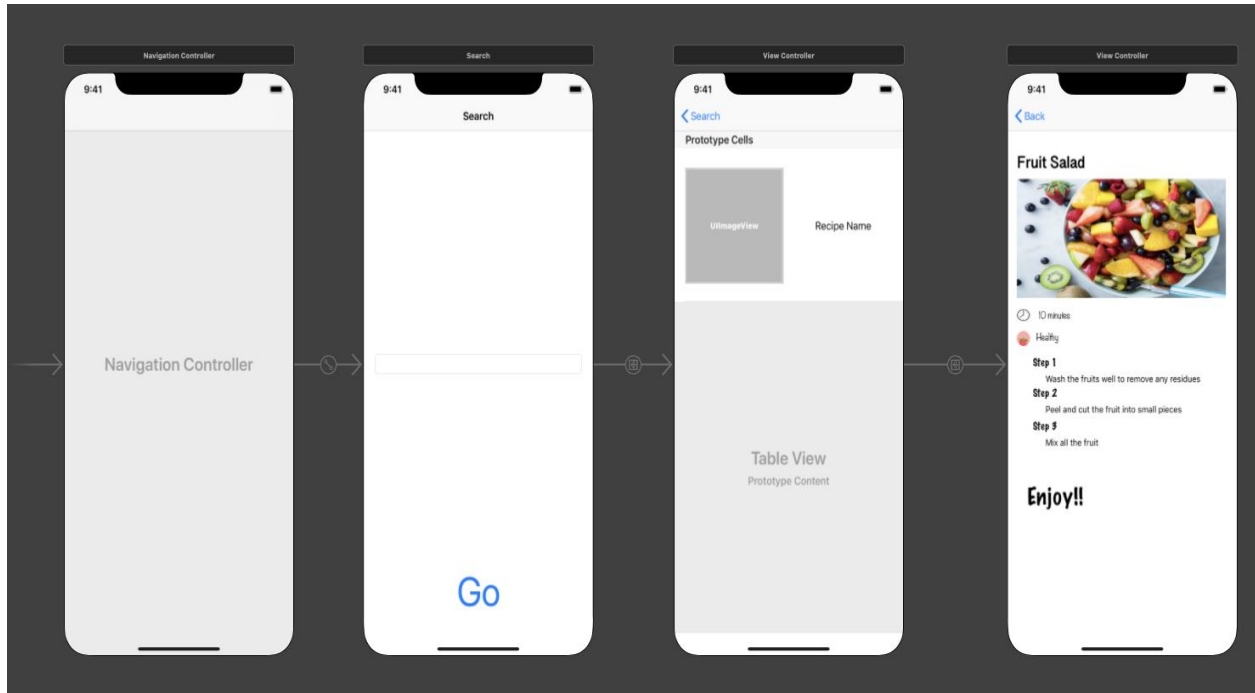
- 🍎 Team collaboration
- 🍎 Focus on core features

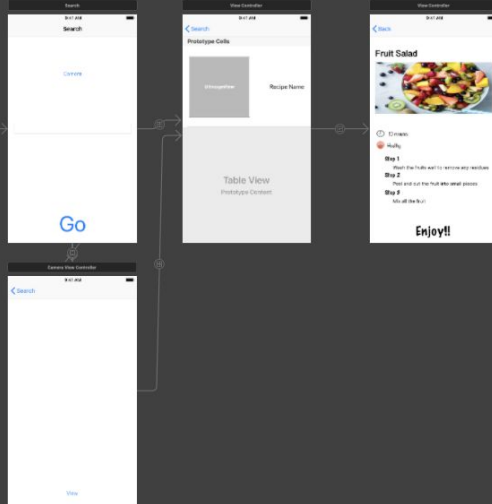
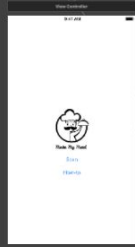
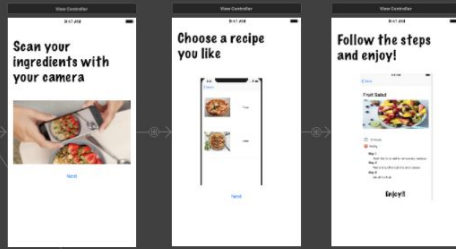
Revert "added favorite recipe list" ...	 58bd58f	
 gk4054 committed 5 days ago		
added favorite recipe list	 919667a	
 gk4054 committed 5 days ago		
Commits on May 29, 2019		
Favourite Interface and clean up	 4de9090	
 = committed 6 days ago		
Fixed constraints, homepage #1 and information page #2, again	 7cef6d3	
 JhonRayoCoder committed 6 days ago		
Fixed constraints, homepage #1 and information page #2	 b007ce0	
 JhonRayoCoder committed 6 days ago		
Fixed a few ingredients names ...	 91dcc0f	
 Inphecs committed 6 days ago		






Iterative product design cycle

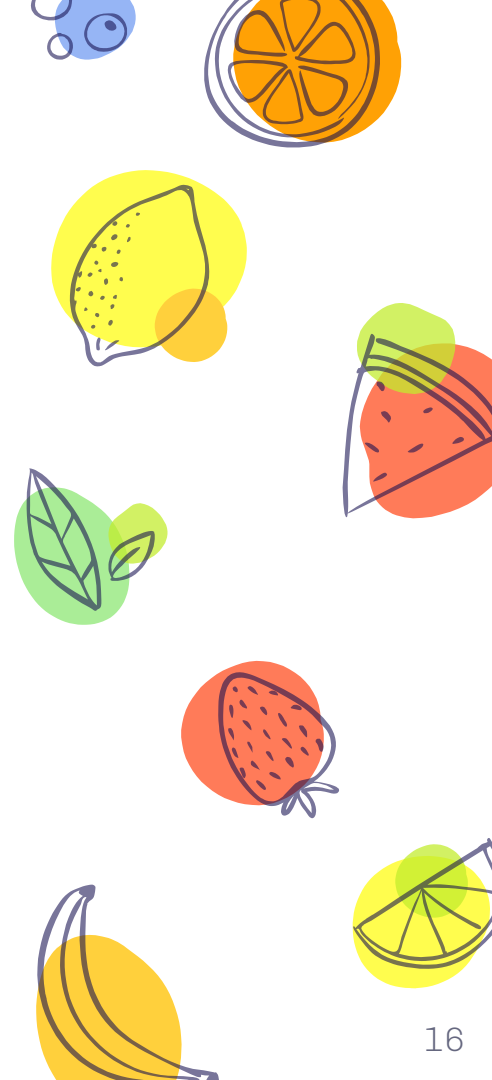
- Identifying list of screens we needed (and writing it down)
- Creating screens in XCode and getting feedback on them
- Building the new screens with feedback in mind
- Final minimum viable product

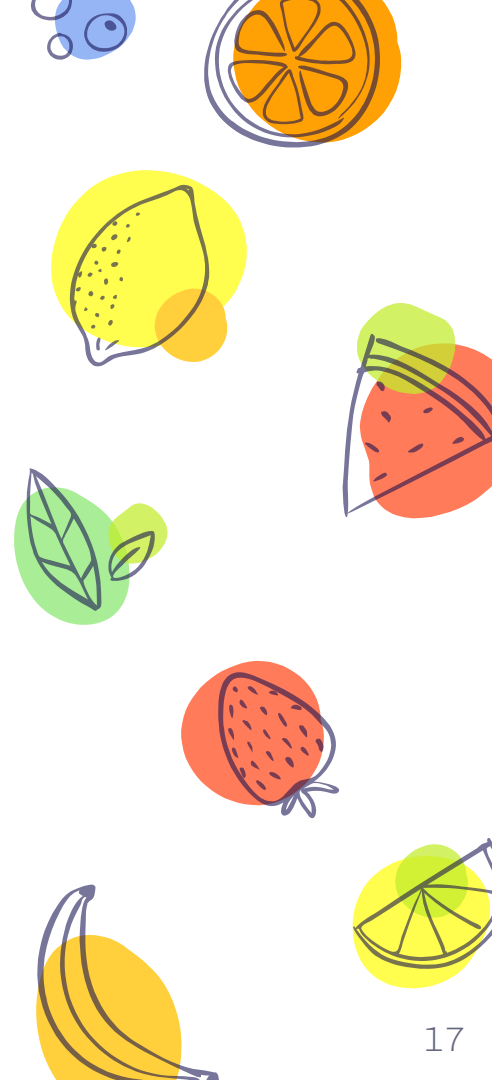
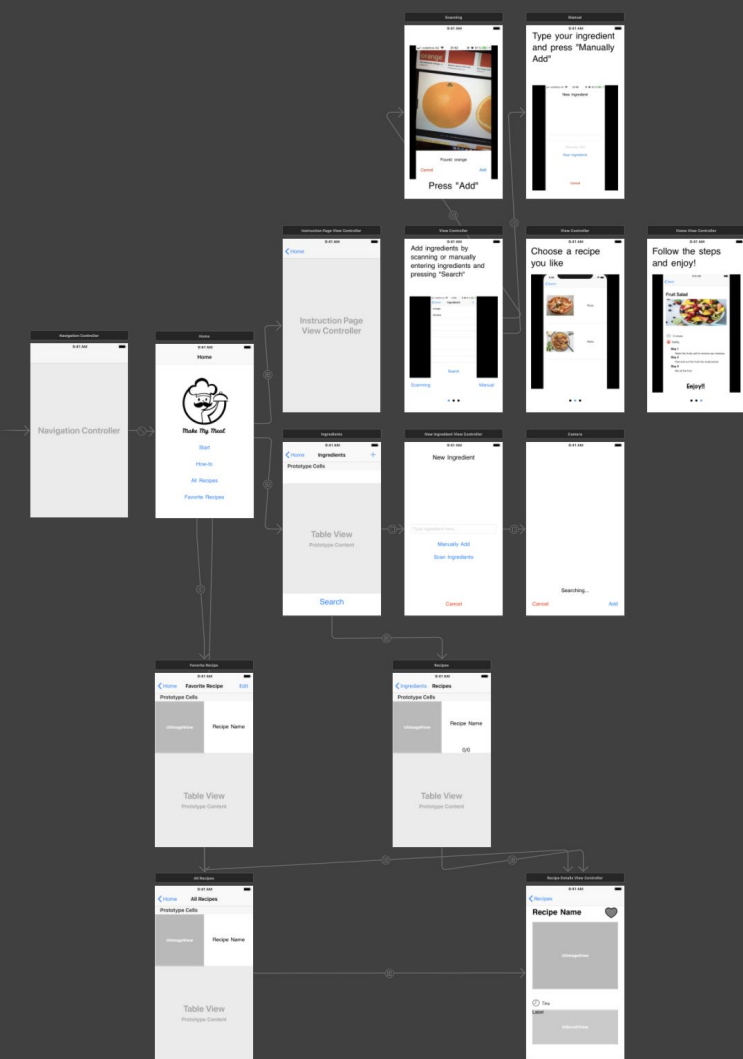






- ☐  **Favourite button**
#5 by JhonRayoCoder was closed 4 hours ago
- ☐  **Add label on top of results page**
#4 by insubliminal was closed 4 hours ago
- ☐  **Back button on individual recipe page**
#3 by insubliminal was closed 5 days ago
- ☐  **Make an information page**
#2 by insubliminal was closed 7 days ago
- ☐  **Make a home page**
#1 by insubliminal was closed 7 days ago





Any Questions?



References

- <https://developer.apple.com/documentation/coreml>

