













## Make My Meal



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







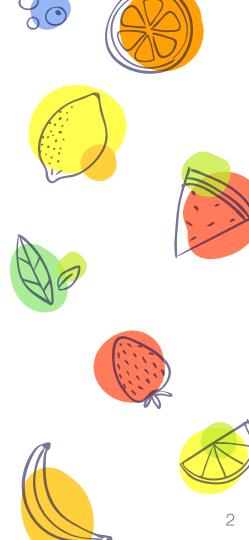








Have you ever struggled to cook the perfect meal with only the ingredients in your kitchen?

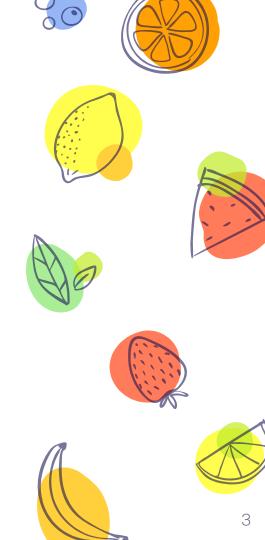


# Make My Meal can make your life much easier!!



### As simple as:

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



### The problem being solved

Variable States Stat

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

### Find recipes by + adding the items below to My Ingredients

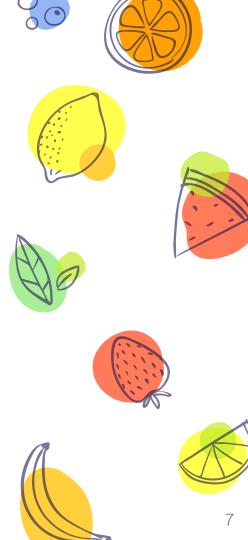
### ABCDEFGHIJKLMNOPQRSTUVWXYZ

- +Apples +Lamb + Akudjura + Almond Meal + Almonds + Almonds (Flaked)
- + Anchovies + Apple Juice + Apple Juice Concentrate + Apple Sauce + Apples (Green)
  + Apples (Red) + Apricot (dried) + Apricot Jam + Apricot Juice + Artichoke
- + Asafetida Powder + Asparagus + Asparagus (white) + Avocado/s + Baby Spinach
- + Bacon + Baking Powder + Balmain Rozelle Spice + Balsamic Glaze + Bamboo Shoots
- +Banana +Barley (Pearl) +Basil +Basil (Thai) +Bay Leaf +Bean (Beans)
- + Bean Sprouts + Beans (Black) + Beans (butter) + Beans (Cannellini) + Beans (Green)
- + Beans (Kidney) + Beans (Snake) + Besan (Chickpea Flour) + Bi-carbonate Of Soda
- + Biscuits (Savoiardi) + Blue Swimmer Crab + Bran + Brandy + Brazil Nuts
- + Bread (Baguette) + Bread (Ciabatta) + Bread (Mixed Grain) + Bread (Rve)
- + Bread (Sourdough) + Bread (White) + Bread Crumbs + Bread Flour + Bread Rolls
- + Broad Beans + Buckwheat + Bulgar + Bush Tomato Chutney + Butter Beans
- +Butternut Squash + Cabbage + Cacao Powder + Cake Crumbs + Calamari
- + Candied Mixed Peel + Canned Corn + Capers + Capsicum + Capsicum (Green)
- + Capsicum (Red) + Capsicum (Yellow) + Capsicums (Fetta-stuffed)
- + Cardamom (Ground) + Cardamom (Pods) + Carrot + Cashews + Cauliflower
- + Cavolo Nero + Cayenne Pepper + Celery (Leaves) + Chard + Cheese (Cheddar)
- + Cheese (Cottage) + Cheese (Feta) + Cheese (Goats) + Cheese (haloumi)
- + Cheese (marinated Feta) + Cheese (Mascarpone) + Cheese (Mozzarella)
- + Cheese (Parmesan) + Cheese (Persian Fetta In Oil) + Cheese (Quark) + Cheese (Ricotta)
- + Cherries (Glacé) + Chicken (Breast Fillet) + Chickpea Flour (Besan) + Chickpeas
- + Chilli Flakes + Chilli Paste (Sambal Oelek) + Chilli Sauce + Chinese Pancakes
- + Chinkiang Vinegar + Chipotle Sauce + Chocolate (Dark) + Chocolate (Powder)
- + Chocolate Chips + Cinnamon + Cinnamon Quills + Cocoa Powder
- + Cocoa Powder (dark) + Coconut (Desiccated) + Coconut Cream
- + Coffee Powder (Instant) + Coriander + Coriander (Ground) + Coriander (leaves)
- Coriander Seeds + Corn (Baby) + Corn (Creamed) + Cranberries + Cream
- \*Corrander seeds \*Corri (Baby) \*Corri (Creamed) \*Cramberries \*Cream
- + Cream (Double) + Cream (Sour) + Cream (Thickened) + Cream (Whipped)
- + Cream Cheese + Cream Of Tartar + Crème Fraîche + Curry Leaves + Curry Paste

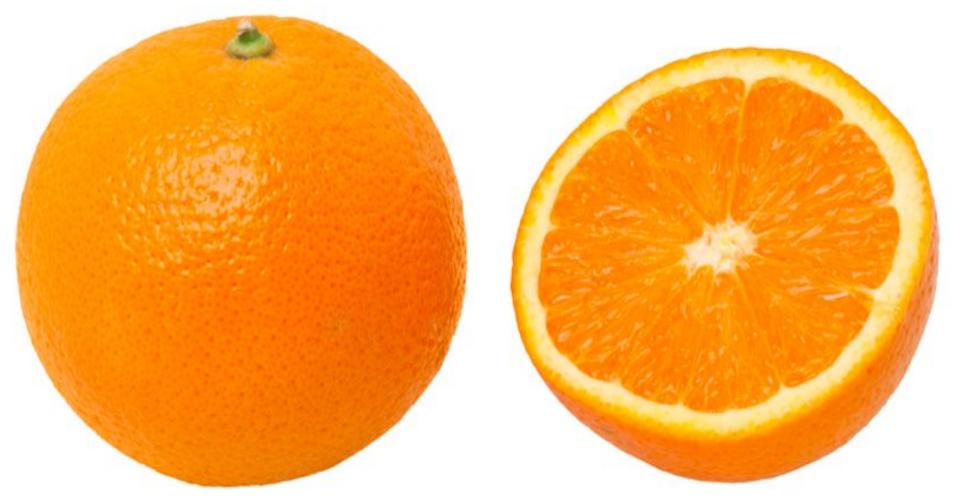
- Cluttered
- No search by typing
- No camera scan
- Difficult to use;
- simpler to google recipes yourself
- https://www.foodwise.com.au/recipe-room/our-recipe-finder/



### Demonstration







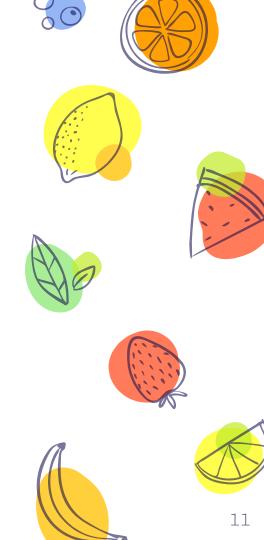




### How does it work?



- 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.







### Resnet50

Image Classification

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

View models



### YOLOv3 Object Detection

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



### 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-Tiny

(Real-time) Object Detection

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

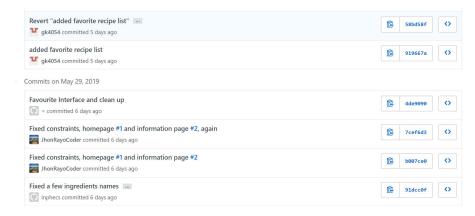
### Design process

- User friendly design
- Simplicity



### Development process

- Team collaboration
- Focus on core features

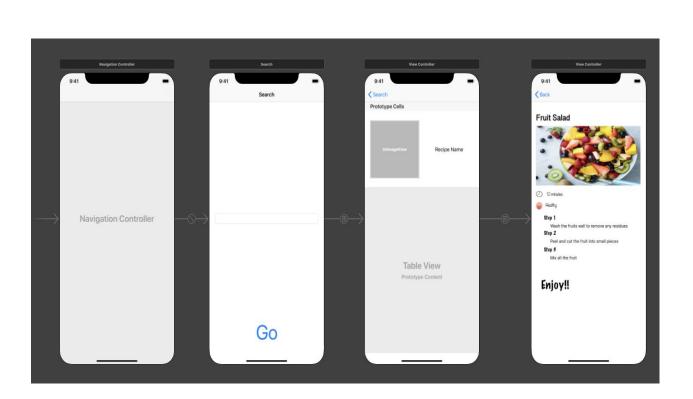




### Iterative product design cycle

- 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







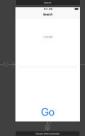






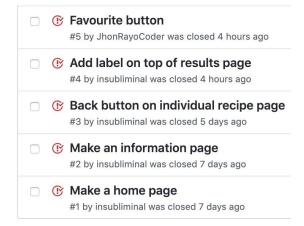
























### References

https://developer.apple.com/documentation/coreml

