

FOOD LOGGING AND VOLUME ESTIMATION

If the volume and unit is not chosen, force the user to choose it.

LOG FOOD

1

Please select the type of meal

- Breakfast
- Lunch
- Dinner
- Other

Next

2

Enter the food item name, quantity with units.

Rice

1

cup ▼

Salmon

1

slice ▼

Potato

1

count ▼

Spinach

10

oz ▼

Add new

Next

3

Please enter your carbohydrate estimates in gms

1 cup rice

100

grams

1 slice salmon

20

grams

1 count Potato

30

grams

10 oz spinach

30

grams

Next

4

Information from screen 4 and 5 needs to be passed on to API 1.


Choose the type of coin:

Cent


Nickel

Dime

Quarter



Top view



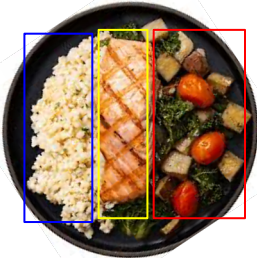
Side view

Next

5

API 1

Blue, yellow, red are sample colours. Colours need to be dynamically populated based on the output from API



This is a multiple select dropdown

Blue

Rice

Yellow

Salmon

Red

Potato, Spinach

Submit

6

API 2

Carbohydrate estimation comparison (in gms)

Food items	App estimate (with image)	App estimate (without image)	Your estimate
Rice	50 gms	60 gms	100 gms
Salmon	20 gms	30 gms	20 gms
Potato	10 gms	20 gms	30 gms
Spinach	10 gms	20 gms	30 gms
Total	X gms	X gms	X gms

Which of the following estimates are you most likely to use?

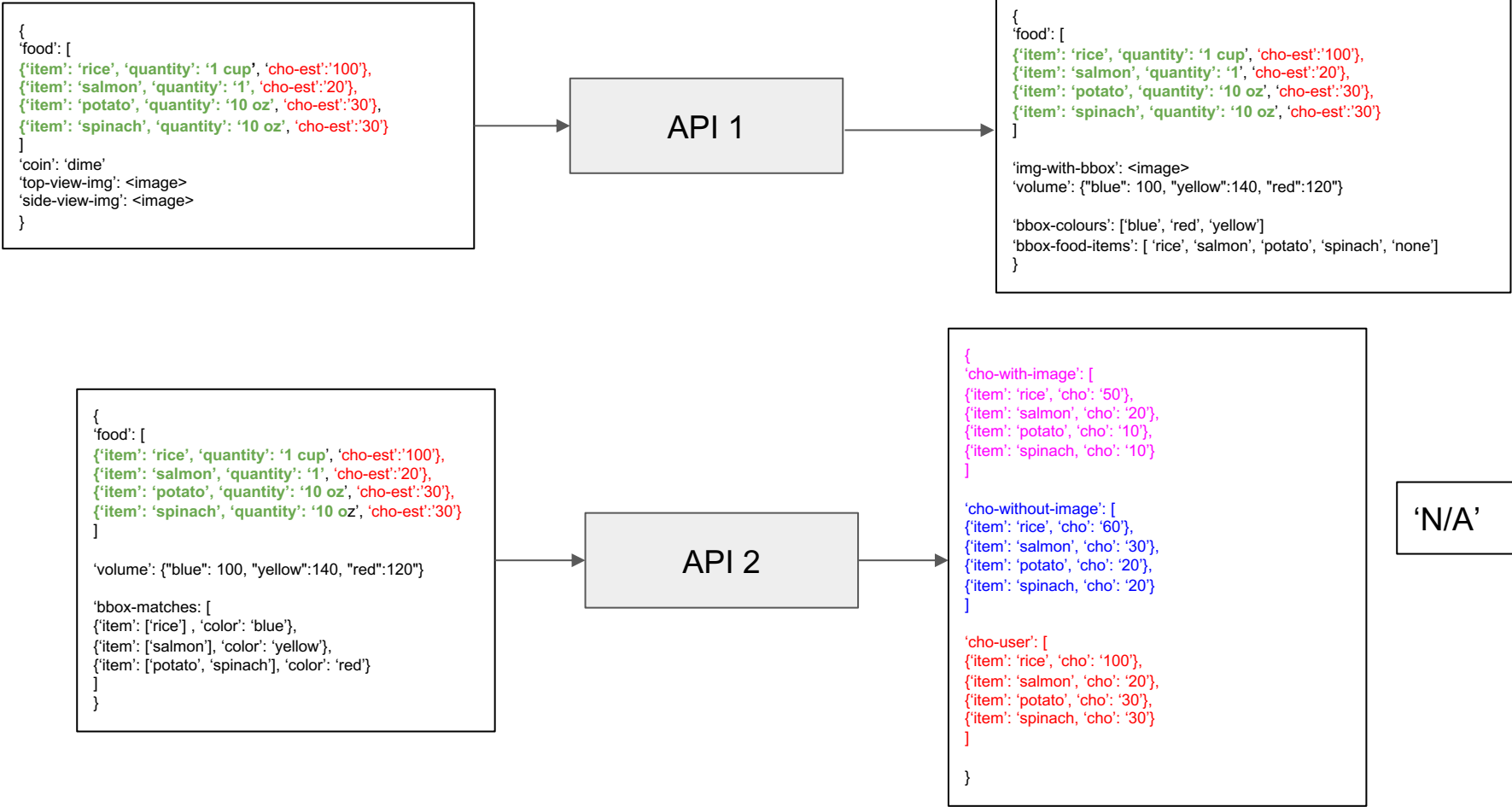
☐ App calculated estimation (with image)

☐ App calculated estimation (without image)

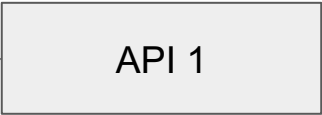
☐ My own estimation

SUBMIT

7



```
{
  'food': [
    {'food': 'rice', 'quantity': '1', 'measure': 'cup', 'cho-est': '100'},
    {'food': 'salmon', 'quantity': '1', 'measure': 'whole', 'cho-est': '20'},
    {'food': 'potato', 'quantity': '10', 'measure': 'ounce', 'cho-est': '30'},
    {'food': 'spinach', 'quantity': '10', 'measure': 'ounce', 'cho-est': '30'}
  ]
  'coin': 'dime'
  'top-view-img': <image>
  'side-view-img': <image>
}
```



```
{
  'food': [
    {'food': 'rice', 'quantity': '1', 'measure': 'cup', 'cho-est': '100'},
    {'food': 'salmon', 'quantity': '1', 'measure': 'whole', 'cho-est': '20'},
    {'food': 'potato', 'quantity': '10', 'measure': 'ounce', 'cho-est': '30'},
    {'food': 'spinach', 'quantity': '10', 'measure': 'ounce', 'cho-est': '30'}
  ]

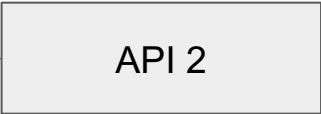
  'imageWithBbox': <image>
  'volume': {"blue": 100, "yellow": 140, "red": 120}

  'bboxColors': ['blue', 'red', 'yellow']
  'bboxFoodItems': ['rice', 'salmon', 'potato', 'spinach', 'none']
}
```

```
'food': [
  {'food': 'rice', 'quantity': '1', 'measure': 'cup', 'cho-est': '100'},
  {'food': 'salmon', 'quantity': '1', 'measure': 'whole', 'cho-est': '20'},
  {'food': 'potato', 'quantity': '10', 'measure': 'ounce', 'cho-est': '30'},
  {'food': 'spinach', 'quantity': '10', 'measure': 'ounce', 'cho-est': '30'}
]

'volume': {"blue": 100, "yellow": 140, "red": 120}

'bbox-matches': [
  {'item': ['rice'], 'color': 'blue'},
  {'item': ['salmon'], 'color': 'yellow'},
  {'item': ['potato', 'spinach'], 'color': 'red'}
]
```



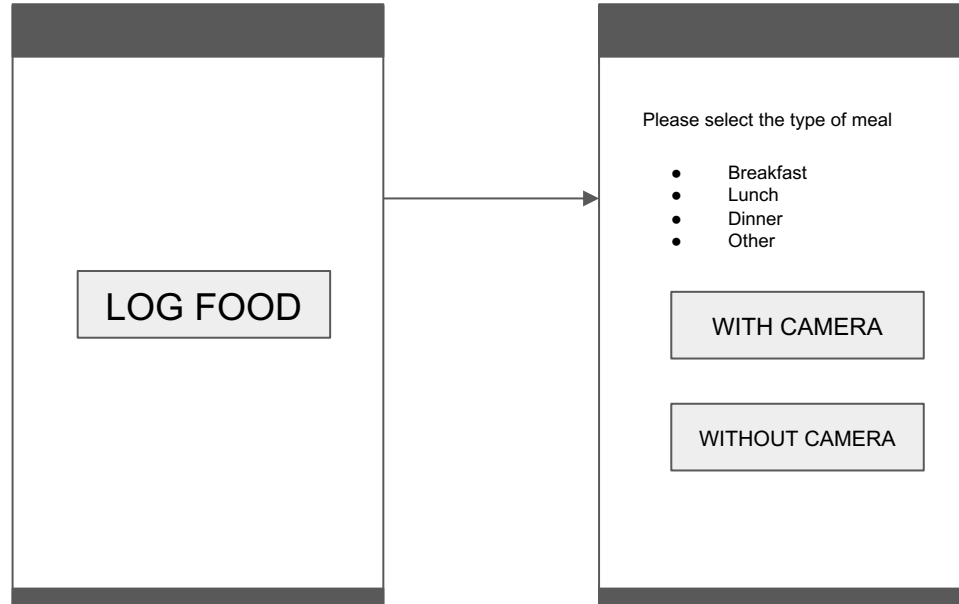
```
"choWithImage": [
  { "cho": "32.69", "food": "rice"},
  { "cho": "2.87", "food": "potato"},
  { "cho": "0.11", "food": "spinach"},
  { "cho": "0", "food": "salmon"}
],

'choWithoutImage': [
  {'food': 'rice', 'cho': '60'},
  {'food': 'salmon', 'cho': '30'},
  {'food': 'potato', 'cho': '20'},
  {'food': 'spinach', 'cho': '20'}
]

"choUser": [
  { "cho": "100", "food": "rice"},
  { "cho": "20", "food": "salmon"},
  { "cho": "30", "food": "potato"},
  { "cho": "30", "food": "spinach"}
],
}
```

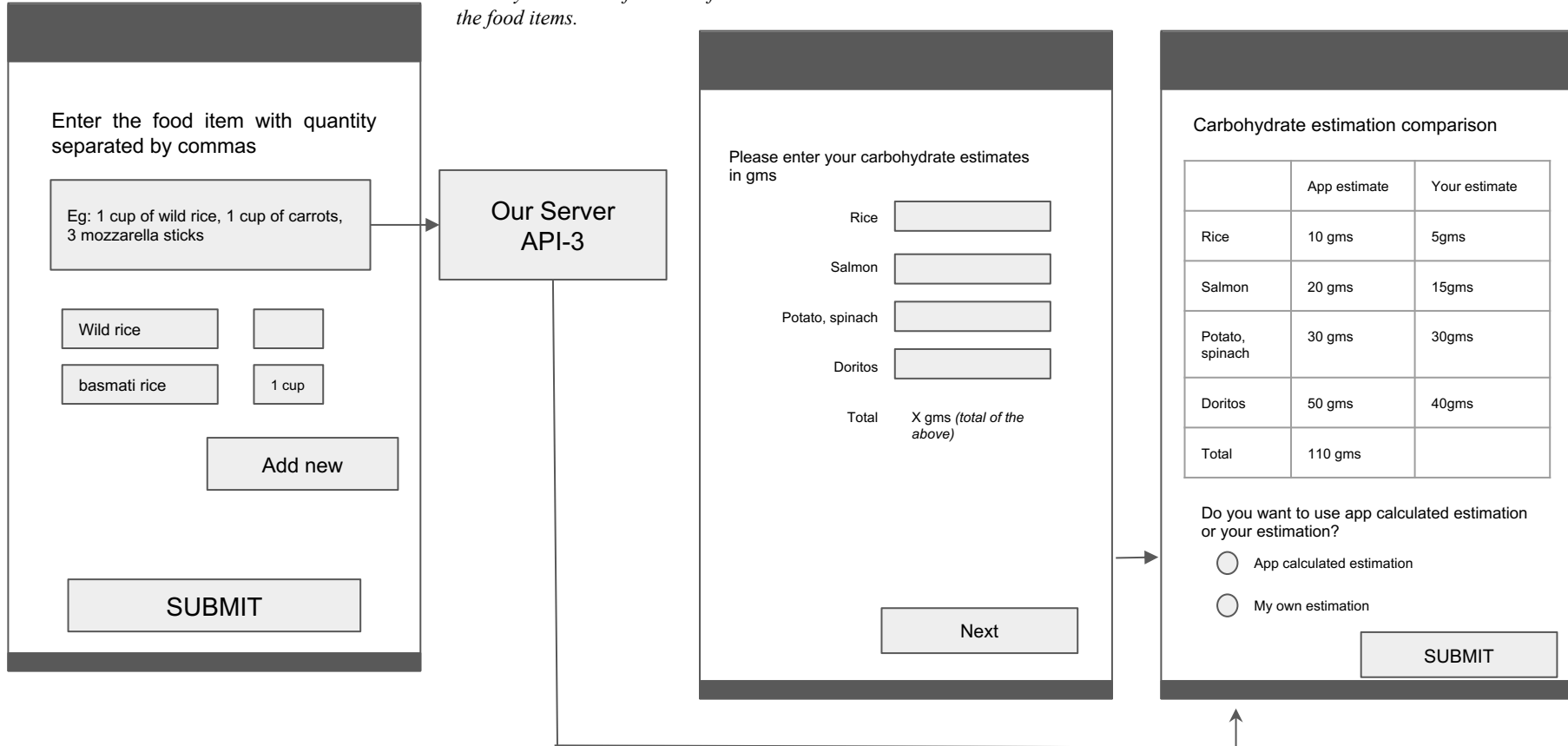
'N/A'

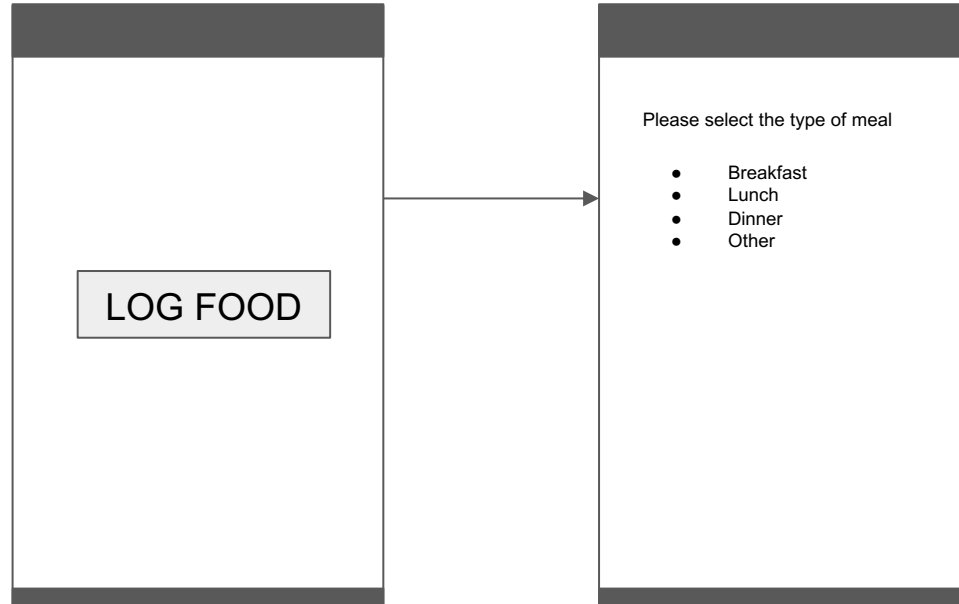
LEFT BLANK INTENTIONALLY



WITHOUT CAMERA

Our API will give the direct carbohydrate count for each of the food items.





WITHOUT CAMERA

Our API will give the direct carbohydrate count for each of the food items.

Enter the food item with quantity separated by commas

Eg: 1 cup of wild rice, 1 cup of carrots, 3 mozzarella sticks

Mozzarella sticks

count ▼

basmati rice

1

cup ▼

(cup, bowl, oz, count, slice, sticks)

Add new

SUBMIT

Our Server
API-3

Please enter your carbohydrate estimates in gms

Rice

Salmon

Potato, spinach

Doritos

Total

X gms (total of the above)

Next



Carbohydrate estimation comparison

	App estimate	Your estimate
Rice	10 gms	5gms
Salmon	20 gms	15gms
Potato, spinach	30 gms	30gms
Doritos	50 gms	40gms
Total	110 gms	

Do you want to use app calculated estimation or your estimation?

☐ App calculated estimation

☐ My own estimation

SUBMIT

WITH CAMERA

Choose the type of coin:

- Cent
- Nickel
- Dime
- Quarter



Top view



Side view

Next



Display as checkboxes

Rice
Cake
Muffin
Fries
Food-x
food-y

Enter the missed food item here separated by comma if any

Salmon, potatoes, spinach, mozzarella sticks

Next

If there are any food item based on count, enter here

- | | |
|--|----------------------|
| <input type="checkbox"/> Rice | <input type="text"/> |
| <input type="checkbox"/> Salmon | <input type="text"/> |
| <input type="checkbox"/> Potatoes | <input type="text"/> |
| <input type="checkbox"/> Spinach | <input type="text"/> |
| <input type="checkbox"/> Mozzarella sticks | <input type="text"/> |

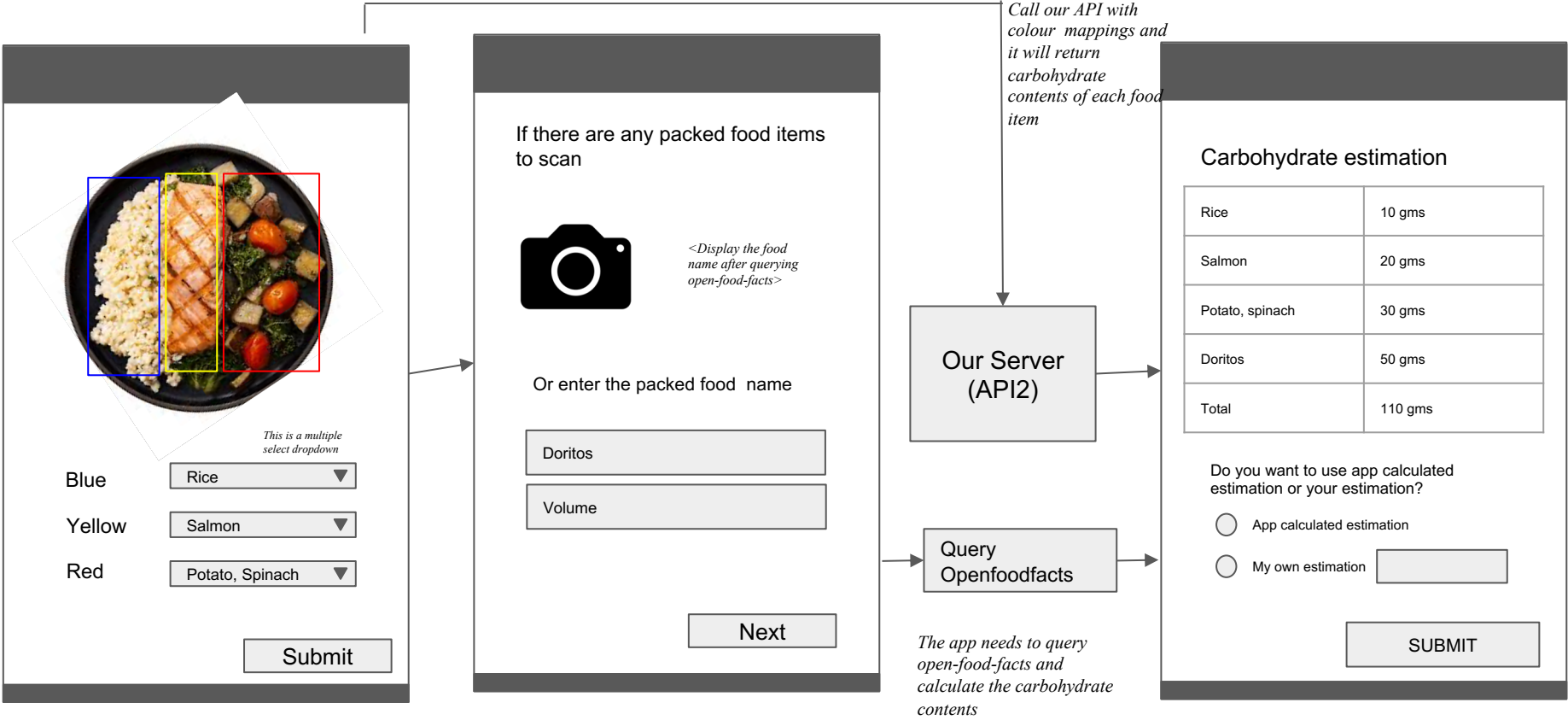
Submit

Our Server (API1)

Call our API with both the food image, food names and food count (if any)

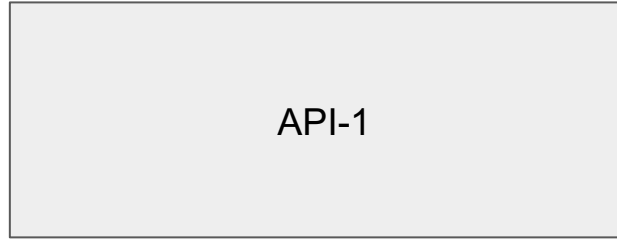
Our API returns *image with colour coded bounding box, the colours and the list of food of items*

WITH CAMERA CNTD..



input

- Image (Photo, top view and Side view)
- Food item name, Count



output

- Food Item names
- Colors: [name of the colours]
- Image with bounding box

input

- Colors and Food item mappings
- Colours: Volumes



output

- Food item: Carbohydrate counts

input

- List of food items entered by the user

- List of dict

```
[ {'item': 'rice', 'quantity': '1 cup'},  
  {'item': 'salmon', 'quantity': '1'},  
  {'item': 'potato', 'quantity': '10 oz'},  
  {'item': 'spinach', 'quantity': '10 oz'} ]
```



output

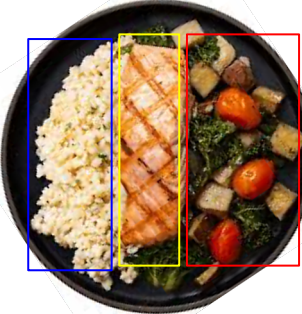
- Food item:Carbohydrate counts

Next action items (with Camera Scenario)

- Demonstration
 - Demonstrate API 1 and API2 with Camera Scenario (Ishan, Revathy) , Slide # 4 - Slide # 7 (Monday January 24, @11:30 AM, EST)
 - HTTP Call (FastAPI, Flask) (Ishan, Revathy)
 - Provide AWS EC2 credentials to Ishan, Revathy (Pankesh)
- Integrate API1 and API2 into Mobile App (Martin)

WITH CAMERA CNTD..

Our API returns **image with colour coded bounding box, the colours and the list of food of items**



This is a multiple select dropdown

Blue

Yellow

Red

Call our API with colour mappings and it will return carbohydrate contents of each food item

Our Server
(API2)

Please enter your carbohydrate estimates in gms

Rice

Salmon

Potato, spinach

Doritos

Total

Carbohydrate estimation comparison

	App estimate	Your estimate
Rice	10 gms	5gms
Salmon	20 gms	15gms
Potato, spinach	30 gms	30gms
Doritos	50 gms	40gms
Total	110 gms	

Do you want to use app calculated estimation or your estimation?

☐ App calculated estimation

☐ My own estimation