

NUTRISCAN



Our Team

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Facts

54% of people

find it hard to be consistent in
maintaining a healthy diet

Indonesia is the country with the
fifth largest number of diabetic in
the world

Around **19.5 millions** suffer from
diabetic

many diseases arise from
unhealthy food nutrition and **bad**
eating habits

WHY?

Better food for better life

Bad eating habits are responsible for more deaths compared to other risk factors in the world

Making Better Food Choices

Can search and compare various foods, will helping make better food choices for specific needs

Implementation of the government campaign “Isi Piringku”

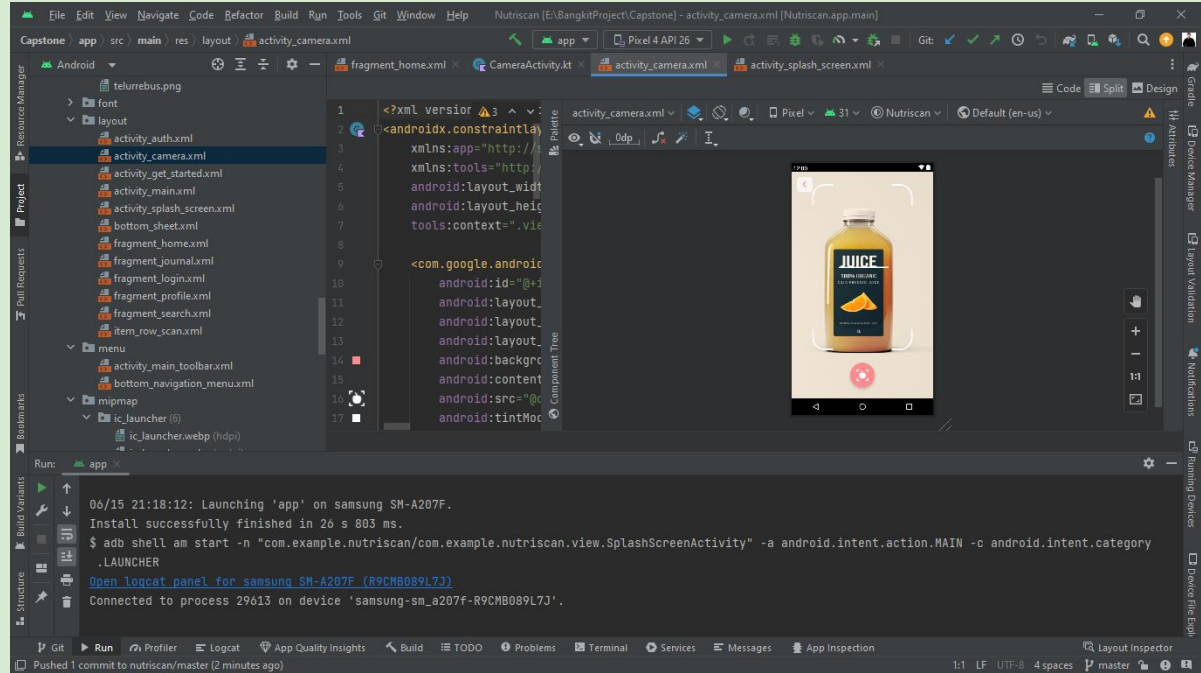
This campaign encourages Indonesians to adopt a balanced nutritional eating pattern, so with this application we can determine whether the food we consume contains a well-balanced nutritional profile or not



NutriScan,

by simply **scanning the food** you are going to consume

instantly know its nutritional content, make informed decisions and you will get **better food for better life** with just **one click**



Screenshots of Nutriscan

Target Market or Personas

1

People with
certain medical
conditions

2

Fitness
enthusiasts

3

Individuals
interested in
weight
management

4

Nutritionists,
dietitians, and
other healthcare
professionals





Why the target market needs this solution?

can motivate individuals to make healthier choices and stay committed to their nutritional plans

ensure they are meeting their dietary requirements

assists individuals in tracking their calorie intake and expenditure,

allowing them to set and achieve weight-related goals more effectively.

Aspect				
	NutriScan	FatSecret	Nutralio	Lose It!
Detection Food (not only barcode)	✓			
Monthly Tracker	✓	✓	✓	✓
Nutritions List	✓	✓		✓
Health Article	*Future feature			✓
Meal Planning	*Future feature	✓		

MACHINE LEARNING

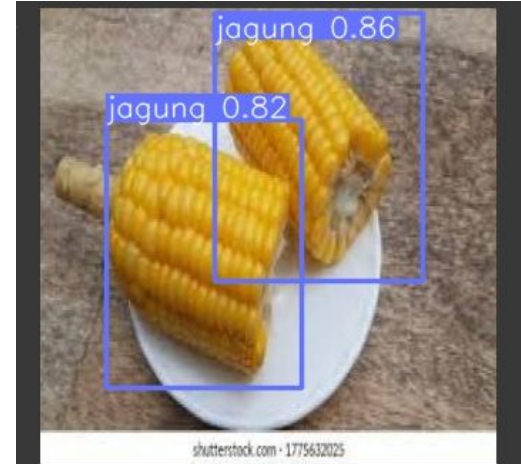
Object Detection

Collecting Dataset

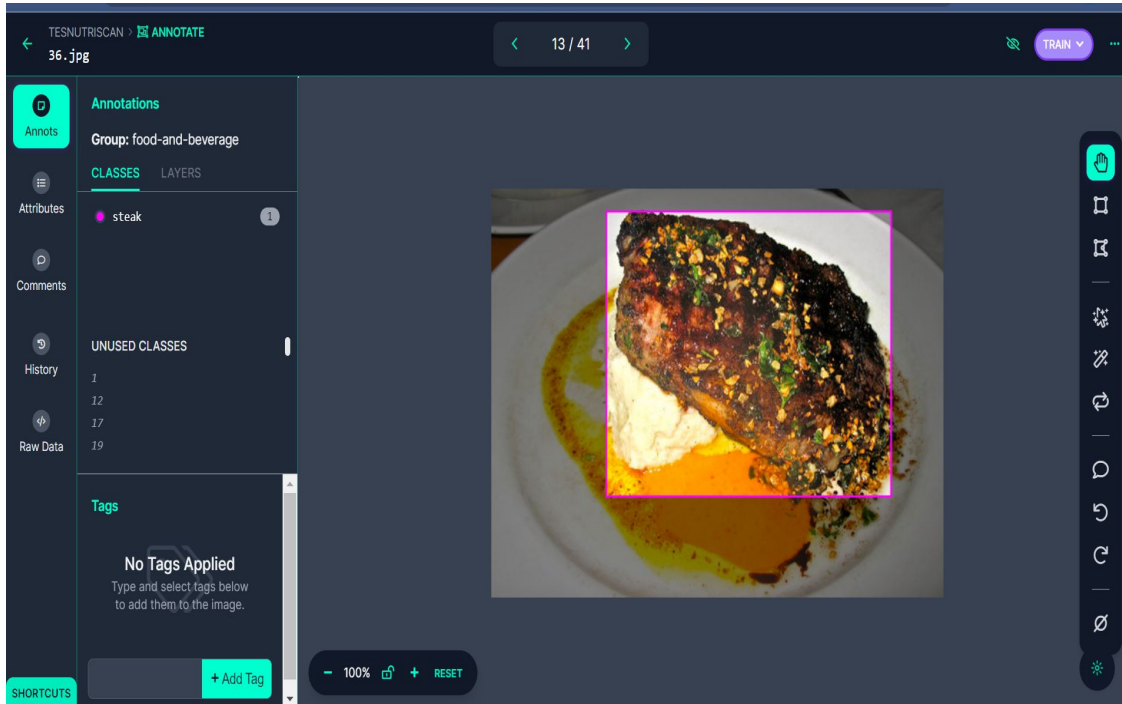
- Image From Internet
- Kaggle

Dataset have 65 class

Training Dataset : YOLOV8s



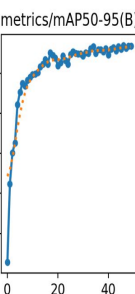
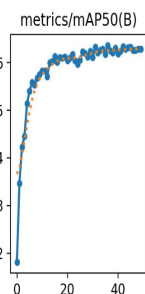
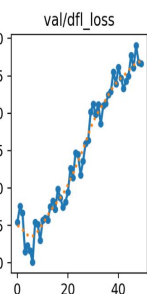
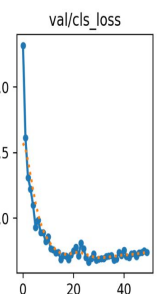
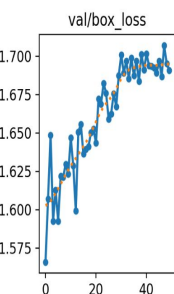
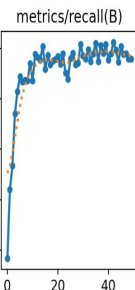
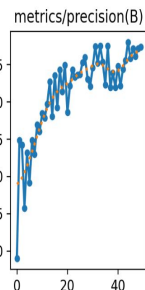
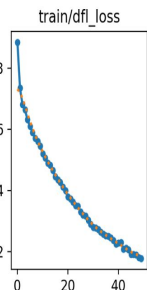
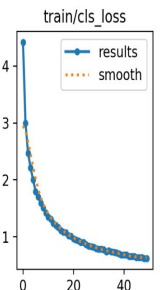
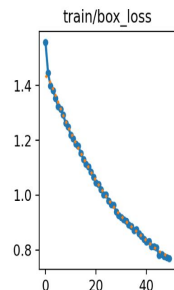
Object Labelling



Using Roboflow for Computer vision annotations

Training

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
40/50	4.36G	0.8397	0.685	1.225	1	640: 100%	306/306	[01:39:00:00, 3.07it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:07:00:00, 2.32it/s]
	all	543	1133	0.62	0.688	0.63	0.382		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
41/50	4.34G	0.8292	0.679	1.227	1	640: 100%	306/306	[01:39:00:00, 3.06it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:07:00:00, 2.35it/s]
	all	543	1133	0.648	0.577	0.618	0.374		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
42/50	4.38G	0.8204	0.6814	1.23	1	640: 100%	306/306	[01:39:00:00, 3.10it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.48it/s]
	all	543	1133	0.621	0.589	0.624	0.381		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
43/50	4.34G	0.8129	0.6551	1.207	1	640: 100%	306/306	[01:41:00:00, 3.02it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.51it/s]
	all	543	1133	0.644	0.613	0.634	0.382		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
44/50	4.37G	0.8129	0.6549	1.212	4	640: 100%	306/306	[01:39:00:00, 3.07it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.69it/s]
	all	543	1133	0.656	0.596	0.628	0.379		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
45/50	4.34G	0.8097	0.6538	1.206	4	640: 100%	306/306	[01:41:00:00, 3.01it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.71it/s]
	all	543	1133	0.68	0.573	0.631	0.384		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
46/50	4.35G	0.7883	0.6327	1.191	2	640: 100%	306/306	[01:40:00:00, 3.04it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.66it/s]
	all	543	1133	0.658	0.603	0.633	0.381		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
47/50	4.34G	0.7941	0.6363	1.19	7	640: 100%	306/306	[01:40:00:00, 3.05it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.70it/s]
	all	543	1133	0.672	0.589	0.626	0.385		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
48/50	4.35G	0.7759	0.6348	1.189	13	640: 100%	306/306	[01:40:00:00, 3.03it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:06:00:00, 2.49it/s]
	all	543	1133	0.661	0.589	0.627	0.382		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
49/50	4.36G	0.7729	0.6185	1.181	4	640: 100%	306/306	[01:40:00:00, 3.04it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:07:00:00, 2.35it/s]
	all	543	1133	0.671	0.579	0.628	0.385		
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size			
50/50	4.34G	0.7689	0.6167	1.177	2	640: 100%	306/306	[01:40:00:00, 3.06it/s]	
	Class	Images	Instances	Box(P	R	mAP50	mAP50-95): 100%	17/17	[00:11:00:00, 1.46it/s]
	all	543	1133	0.673	0.579	0.629	0.385		



CLOUD COMPUTING IMPLEMENTATION



Runtime

Framework

Express



Package Manager



Auth API

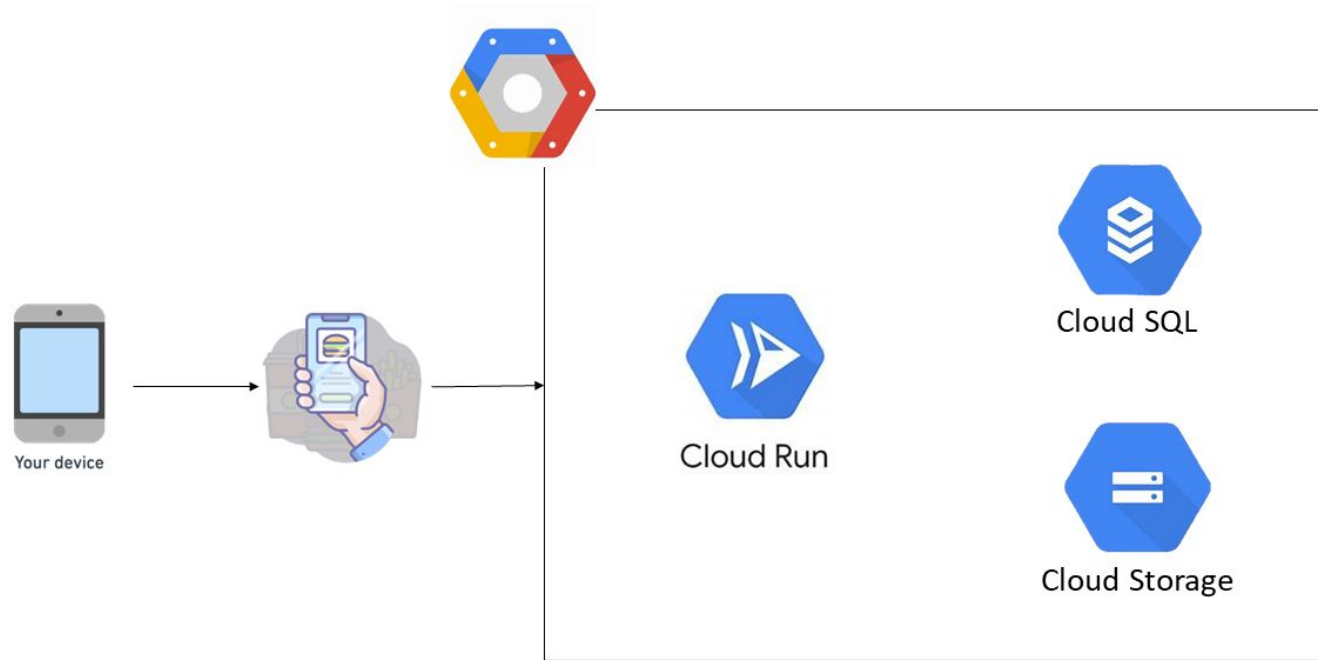
JWT



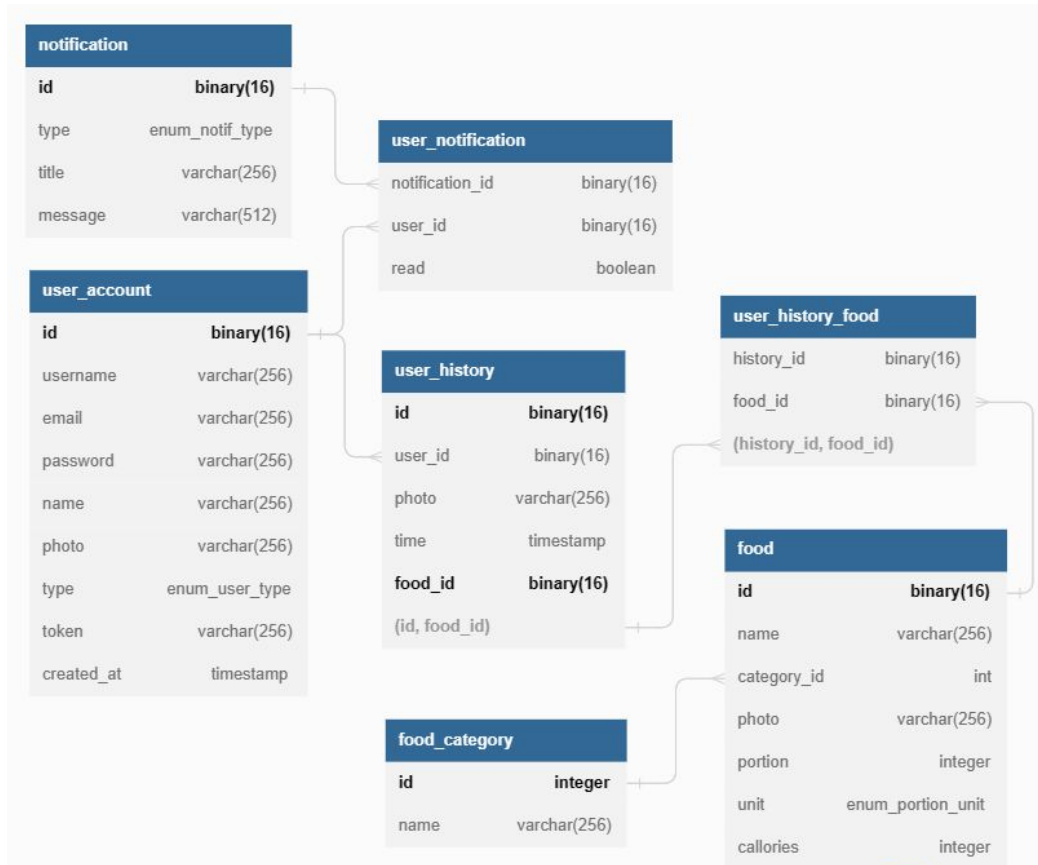
Sequelize.js

Object Relational
Mapping

CLOUD COMPUTING ARCHITECTURE



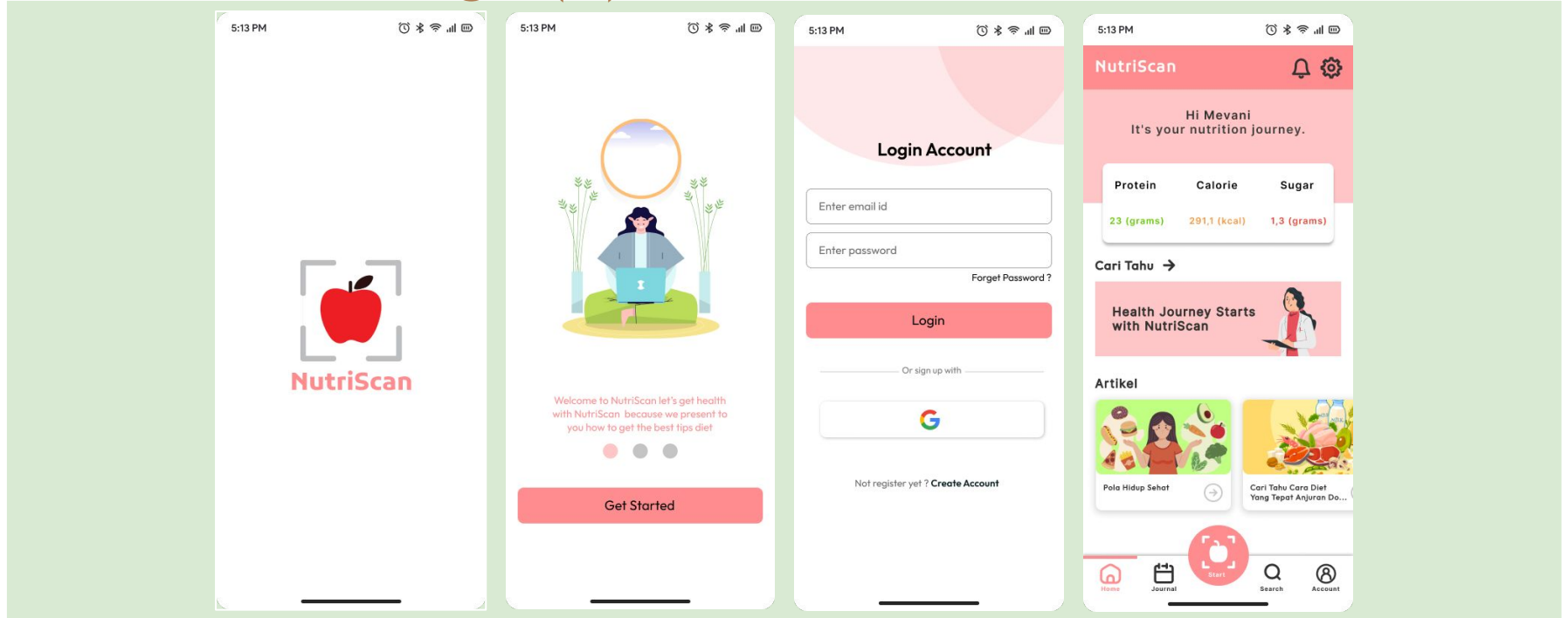
CLOUD COMPUTING DATABASE



CLOUD COMPUTING API

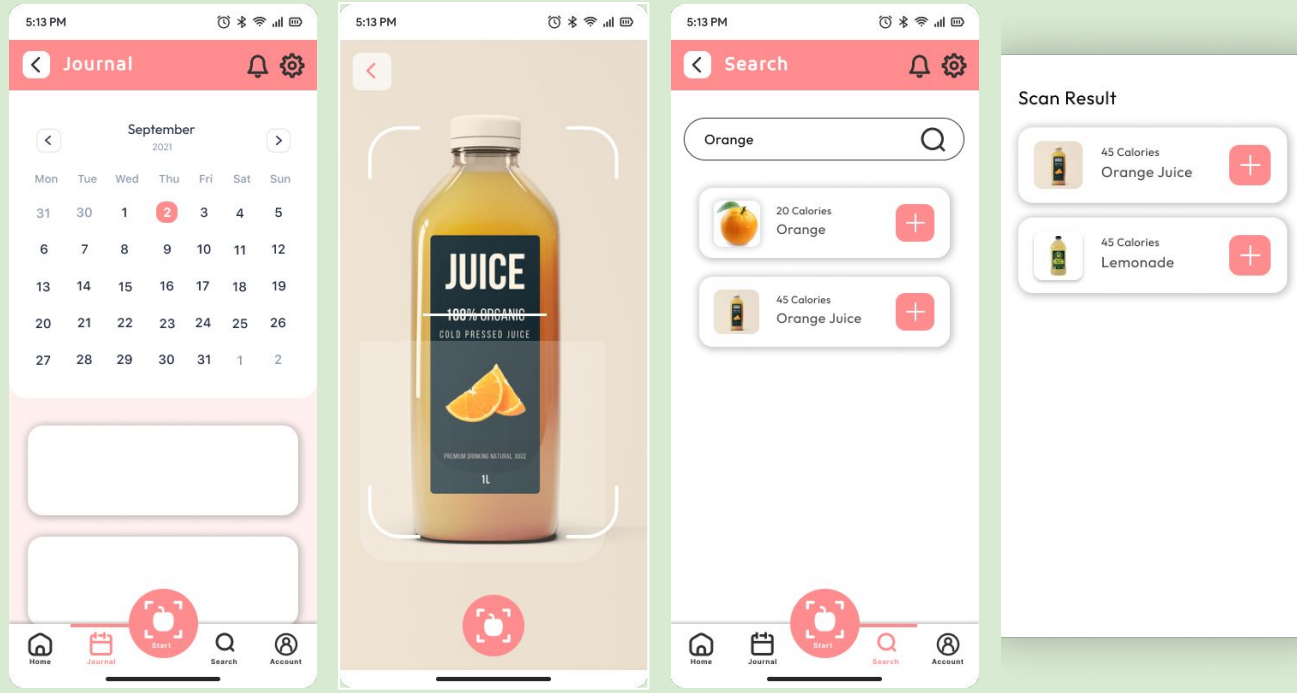
MOBILE DEVELOPMENT

UI / UX Design (1)



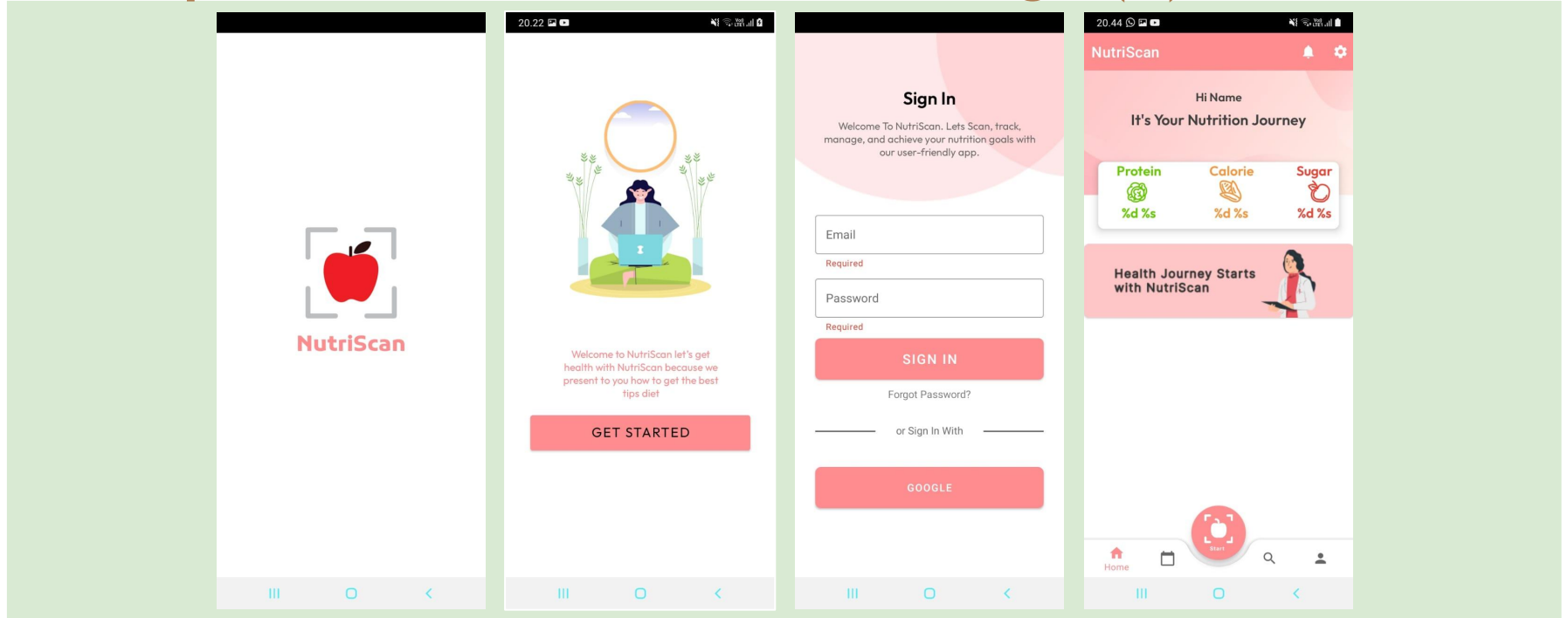
MOBILE DEVELOPMENT

UI / UX Design (2)



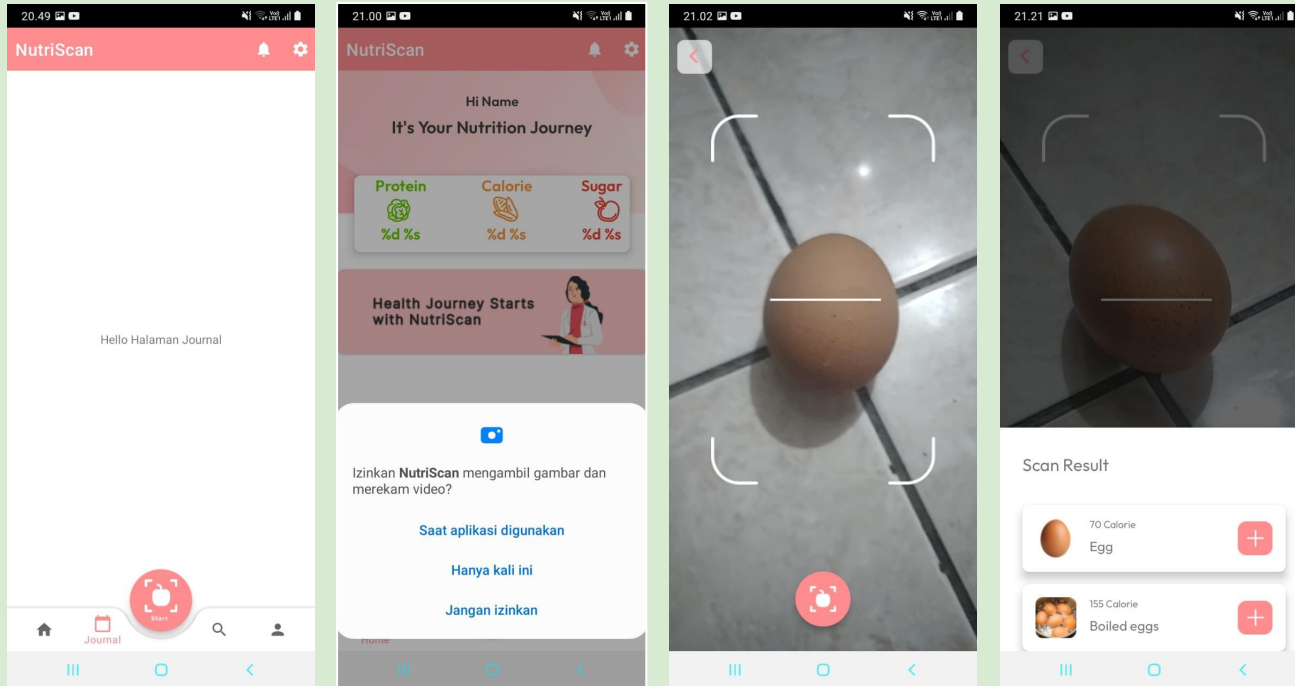
MOBILE DEVELOPMENT

Implementation of UI / UX Design (1)



MOBILE DEVELOPMENT

Implementation of UI / UX Design (2)



MOBILE DEVELOPMENT

API/ENDPOINT

```
Yanuar Eka Putera
class ApiConfig {
    Yanuar Eka Putera
    companion object {
        Yanuar Eka Putera
        fun getApiService(): ApiService {
            val loggingInterceptor =
                HttpLoggingInterceptor().setLevel(HttpLoggingInterceptor.Level.BODY)

            val client = OkHttpClient.Builder()
                .addInterceptor(loggingInterceptor)
                .build()

            val retrofit = Retrofit.Builder() Retrofit.Builder
                .baseUrl("https://sandbox-388314413993.as.r.appspot.com/") Retrofit.Builder
                .addConverterFactory(GsonConverterFactory.create())
                .client(client)
                .build()
            return retrofit.create(ApiService::class.java)
        }
    }
}
```

MOBILE DEVELOPMENT

API/ENDPOINT

```
Yanuar Eka Putera
@FormUrlEncoded
@POST("login")
fun login(
    @Field("email") email: String,
    @Field("password") password: String
): Call<LoginResponse>
```

```
Yanuar Eka Putera
@POST("register")
fun register(
    @Field("name") name: String,
    @Field("email") email: String,
    @Field("password") password: String
): Call<RegisterResponse>
```

```
Yanuar Eka Putera
@GET("food")
fun getfoodList(): Call<FoodListResponse>
```

```
Yanuar Eka Putera
@GET("food/find")
fun findFood(
    @Query("q") query: String
): Call<FindFoodResponse>
```

```
Yanuar Eka Putera
@Multipart
@POST("addfood")
fun addfood(
    @Part file: MultipartBody.Part,
    @Part("description") description: RequestBody,
): Call<AddFoodResponse>
```

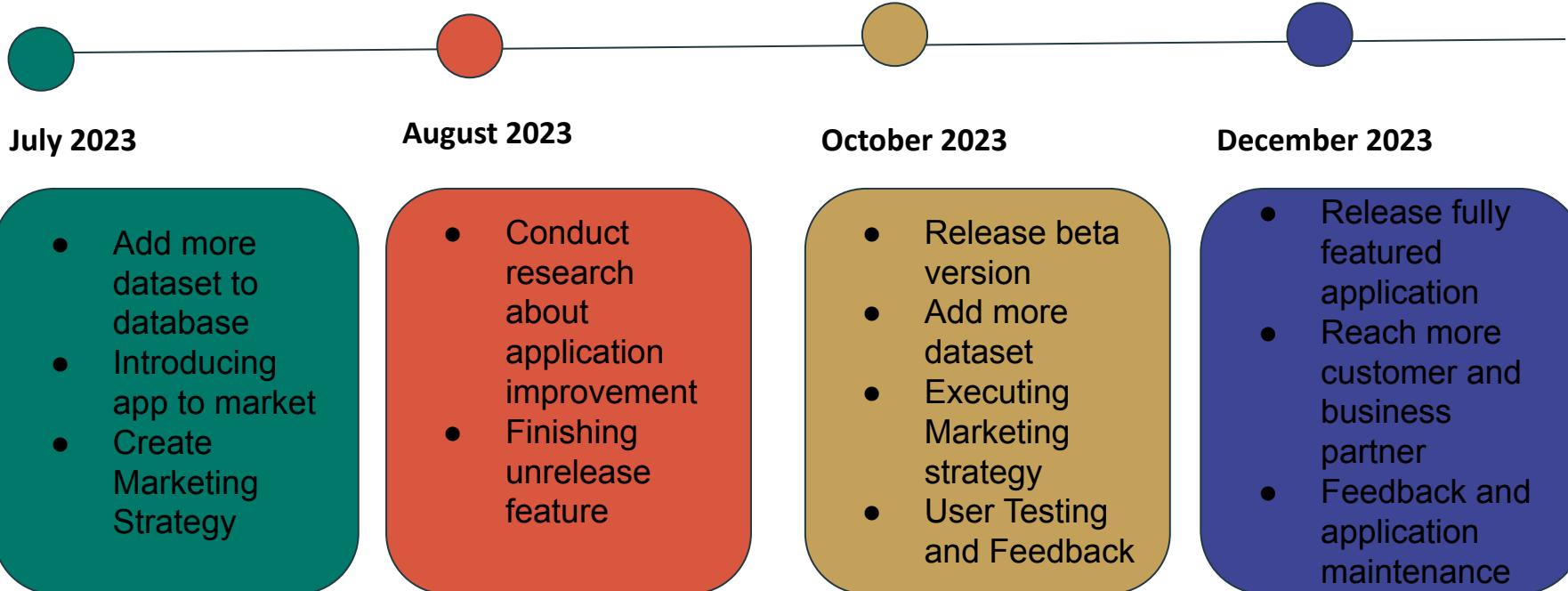
```
Yanuar Eka Putera
@GET("logout")
fun logout(): Call<LogoutResponse>
```

DEMO



What's Next?

Plan to expand and develop our project – for the next 6 month



Category	Proportion	Budget (max) in USD
Team Salary	30%	\$1500 ~Rp 22.000.000,00
Research / Operational		
Google Cloud Platform	24%	\$1200 ~Rp18.000.00,00
Google Colab Pro	1,2%	\$60 ~ Rp900.000,00
Internet	1,4%	\$70 ~Rp1.000.000,00
Play Store Publish	1%	\$50 ~Rp750.000,00
Capacity Building	8%	\$400 ~Rp6.000.000,00
Marketing Budget	4,4%	\$220 ~Rp3.300.000,00
Transportation	2%	\$100 ~Rp1.500.000,00
Copyright	10%	\$500 ~Rp7.500.000,00
Emergency	6%	\$300 ~Rp4.500.000,00
Utilizing Third-Party API	12%	\$600 ~Rp9.000.000,00

Budgeting - 1
USD 5k / IDR 70m

Budgeting - 2 - USD 10k / IDR 140m

Category	Proportions	Budget (max) in USD
All aspects covered in Budgeting - 1	50%	\$5.000 / Rp 70.000.000
Additional Budget for Team Salary	15%	\$1.500 / Rp 21.000.000
Additional Budget for Research/Ops	20%	\$2.000/ Rp 28.000.000
Marketing and Sales	20%	\$2.000 / Rp 28.000.000
Market research and competitive analysis	10%	\$1.000 / Rp 14.000.000
Future Development / R&D	20%	\$2.000 / Rp 28.000.000
Other Expenses (taxes, reserves)	10%	\$1.000 / Rp 14.000.000

Sustainability

Sources of Income

- Consumer Subscription (After full Release):
IDR 20.000/user/month
- Crowdsourcing (Before full release) :
IDR 15.000/month
- Bangkit Grant :
\$5000 one time

*Far Future Income

Affiliate Program with health foods product corporation

Efficiency Priority

1. Bangkit Grant
2. Crowdsourcing
3. Customer Subscription

Based on the 5k/10k USD Budgeting, expectations are

5K Funding

Expected Runway: 5,6 months

Expected Headcount: 6 people

Assets : - User Data

- Brand right
- Food Database

10K Funding

Expected Runway: 1 years

Expected Headcount: 8 people

Market Positioning: Increasing User Base and Keeping up with Industry Trends, User-Friendly Interface

Assets: - Partners

- Brand Awareness
- User Feedback and Reviews
- Extensive User and Food Database



THANK YOU