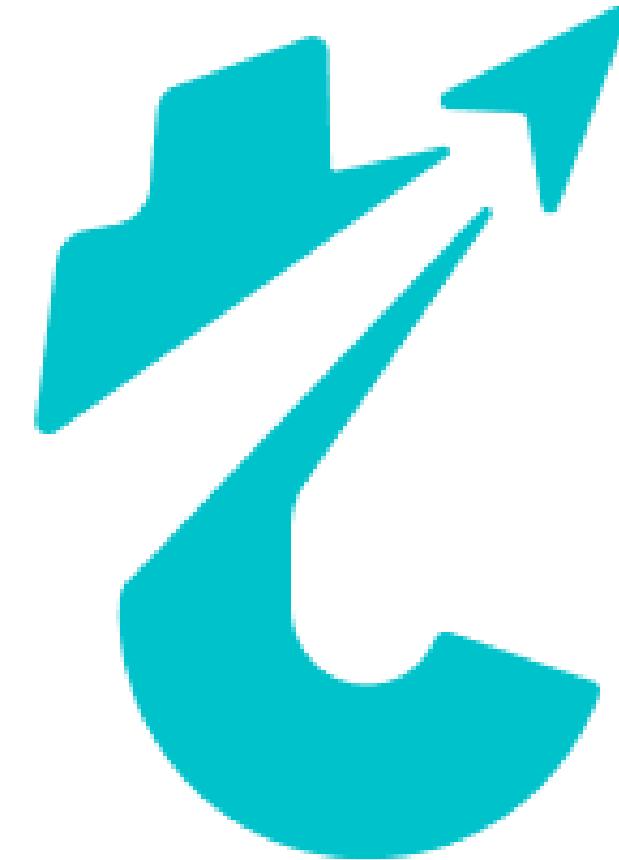


# TWEZE

*Travel with Ease*

C23-PS277

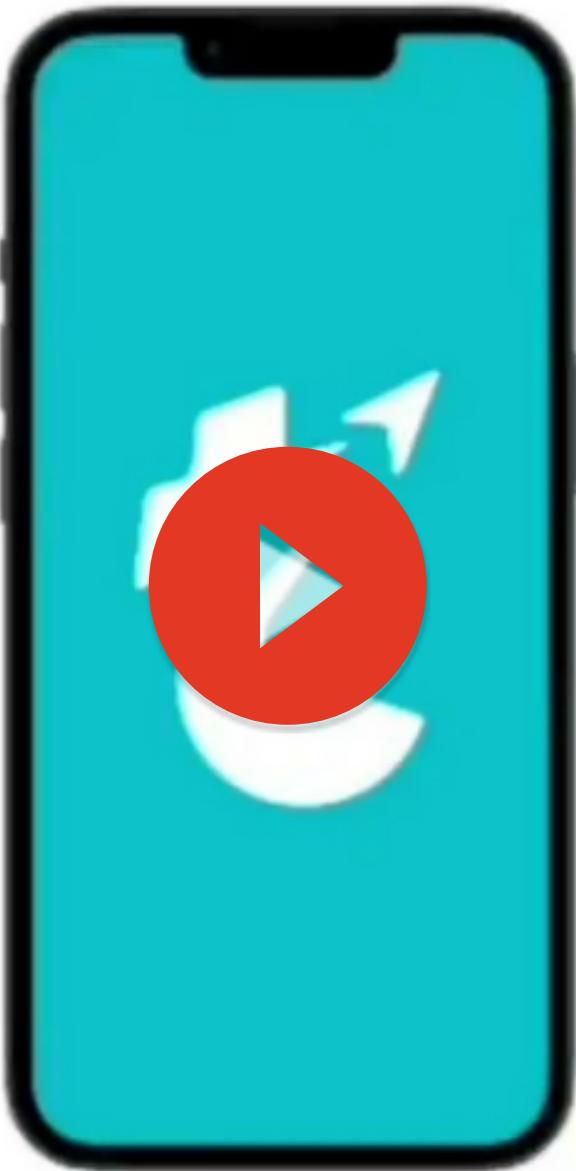
- Salma Azzahra Putri – M295DSY0181
- Miranda Rosely Manullang – M181DSY1455
- Dody Hogo Napitupulu – C374DSX4834
- Indra Nathanael – C151DKX3962
- Muhammad Naufal Anshori Abdusyahid – A309DSX3201
- Muhammad Rashannaufal Ghiffari – A151DSX2911



Start Slide →



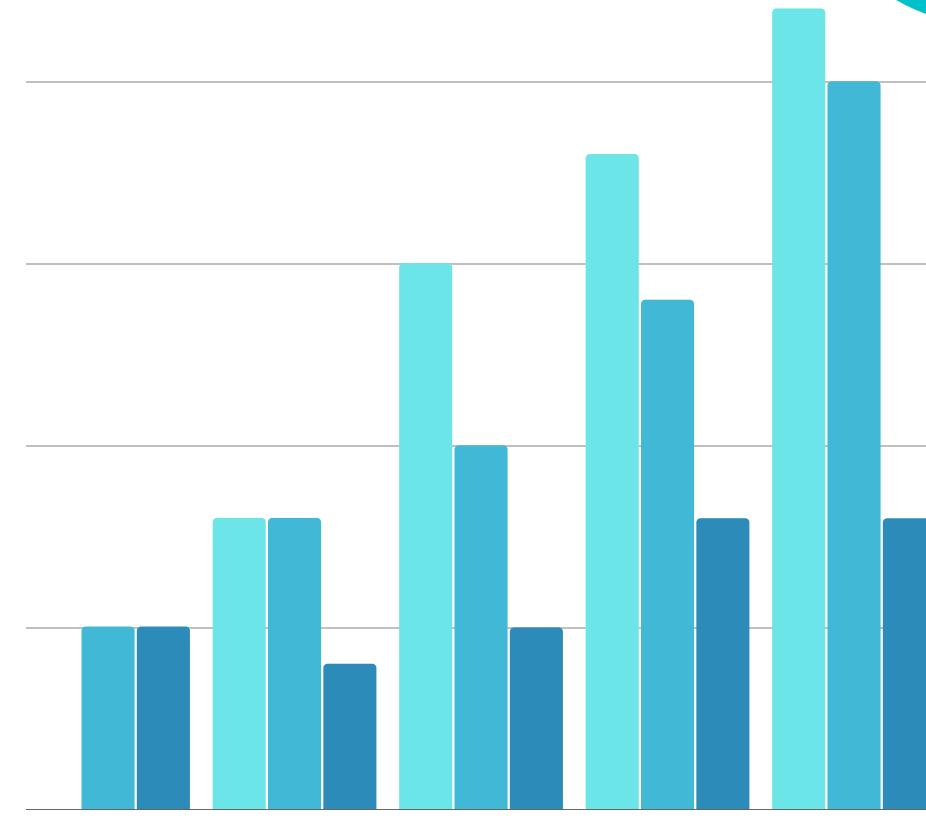
## DEMO VIDEO



Watch demo video of Tweeze [here](#)

# ✖ BACKGROUND

The COVID-19 pandemic has caused severe disruptions for Indonesian tourism sector. **According to OEDC, tourism is a crucial source of foreign exchange, contributing 4.1% and 6.1% of the Indonesia's GDP in 2017 and 2019.** Thus, the tourism industry needs to be restored. Furthermore, the pandemic's have resulted in a significant surge in "**revenge travel**" where individuals are seeking their freedom to explore the world.



# REASON ✖

Our team is **inspired by the recent surge in post-pandemic travel behavior**, which has seen an increased desire to travel following the restrictions during the peak of the COVID-19 outbreak. With numerous travel options available, **our solution aims to meet diverse travel needs**, such as offering ideal tourist destinations and activities that align with the traveler's preferences.



# EXISTING RESULT



## Tripadvisor®

TripAdvisor is an online travel platform that provides information, let user make itinerary, and provides booking feature. It also has reviews, photographs, and informative forums about various hotels and resorts all over the world. Users can review the places they've stayed at for other users, so they can learn everything about an accommodation before booking.



Wanderlog is an one-stop app for planning and booking vacation, with a focus on excellent design. Users can track plans in this app's collaborative document, discover new places to visit and hotels to book, and share travel advice with friends and fellow travelers.



 **bangkit**

# IMPLEMENTATION/IMPROVEMENT & REASONING

*Machine Learning*

1. Tensor flow Keras API : High iteration velocity
2. Collaborative Filtering : Technique for recommendation system
- 3.Tflite Format : Convenient deployment
4. Recommender-Net : Special model for recommendation
- 5.Regularization : Helps prevent overfitting

Dataset used:

- Destination dataset (Kaggle)
- Web scrapping from google maps
- Dummy data



# IMPLEMENTATION/IMPROVEMENT & REASONING

*Cloud Computing*

- **Firebase Authentication**



Firebase Authentication by Google's Firebase platform enables user authentication and identity management in mobile apps. It provides UI components and an API for sign-up, sign-in, password resets, and more. We use it for login/sign-up in our app.

- **RESTful API's(JSON)**

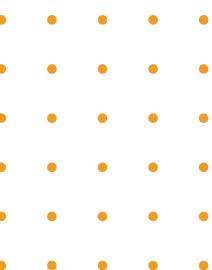


RESTful API (Representational State Transfer) is an architectural style for networked applications. It facilitates communication between systems over the internet. We're building a JSON-based RESTful API to fetch Machine Learning datasets for our application.

- **Postman**



Postman is a popular collaboration platform and API development tool that allows developers to design, test, document, and monitor APIs. We use Postman to validate if the API we have created is correct.



# IMPLEMENTATION/IMPROVEMENT & REASONING

*Mobile Development*

- **UIUX Design with Figma**



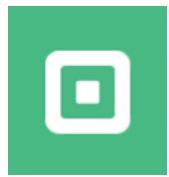
Figma is a collaborative design tools to create user **flows, mockups, and high-fidelity prototypes**.

- **Authentication System with Firebase Authentications**



Firebase Authentication in Android Studio provide functionality for **registration and login**.

- **Fetching Dataset from API with Retrofit**



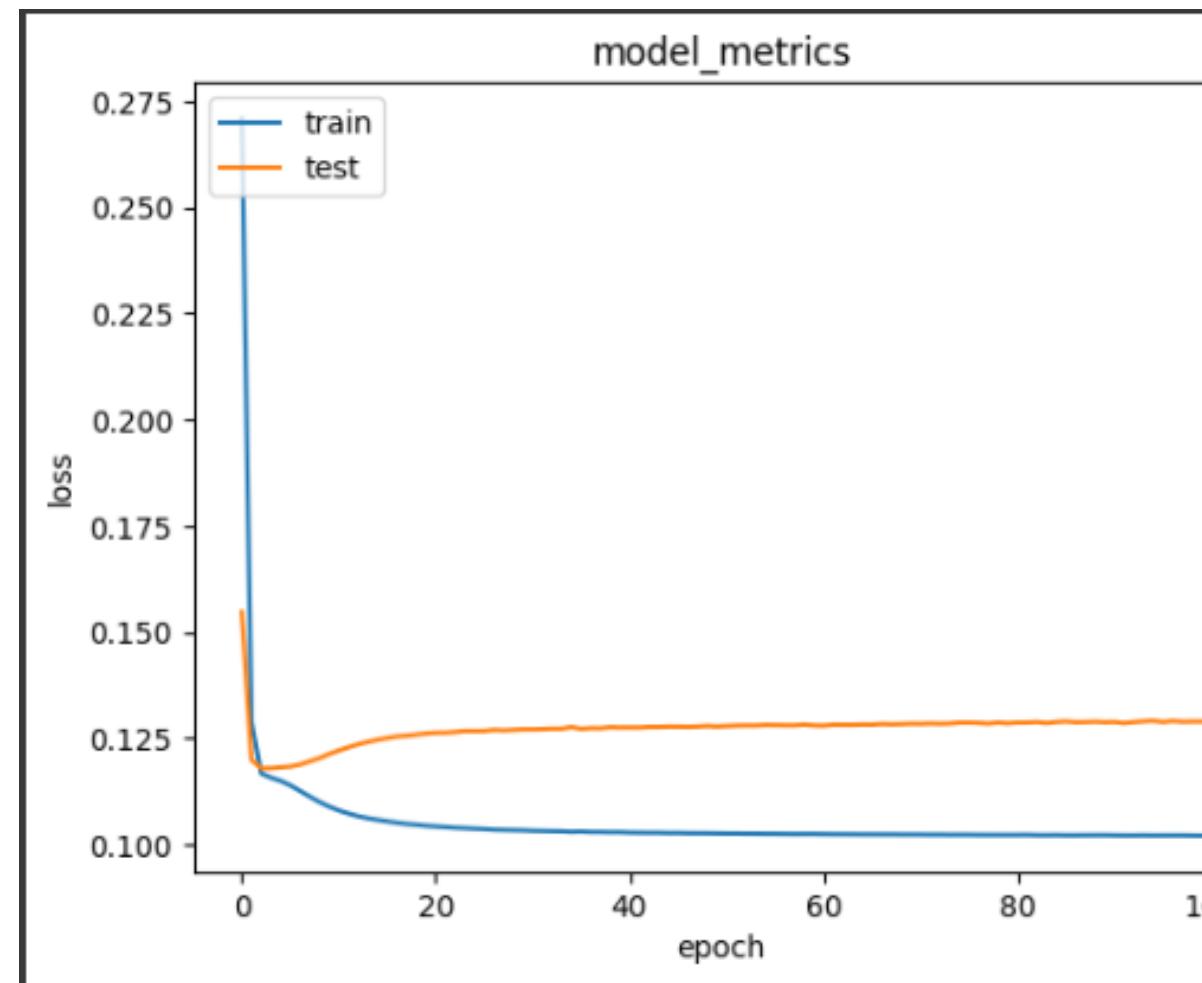
Retrofit is a HTTP client library for **handling API communication**.



# RESULT

## Machine learning

The model achieved a final validation RMSE of 0.358  
and validation MAE of 0.306



Model: "recommender\_net\_1"

Layer (type)	Output Shape	Param #
<hr/>		
embedding_4 (Embedding)	multiple	30000
embedding_5 (Embedding)	multiple	300
embedding_6 (Embedding)	multiple	73300
embedding_7 (Embedding)	multiple	733
dense_2 (Dense)	multiple	256
dense_3 (Dense)	multiple	129
<hr/>		
Total params: 104,718		
Trainable params: 104,718		
Non-trainable params: 0		

Final Validation RMSE: 0.35889819264411926  
Final Validation MAE: 0.30662062764167786



# RESULT

## Cloud Computing

For Cloud Computing, we use Firebase Authentication for login/register in our application. We also created APIs for dataset ML to MD. (postman)

The screenshot shows the Firebase Authentication section of the Firebase console. It displays a table of users with columns for Identifier, Providers, Created, Signed In, and User ID. Two users are listed: 'laptopdinas@gmail.com' and 'catneybrown@gmail.com'. The interface includes a search bar at the top and navigation links for Project Overview, Sign-in method, Templates, Usage, and Settings.

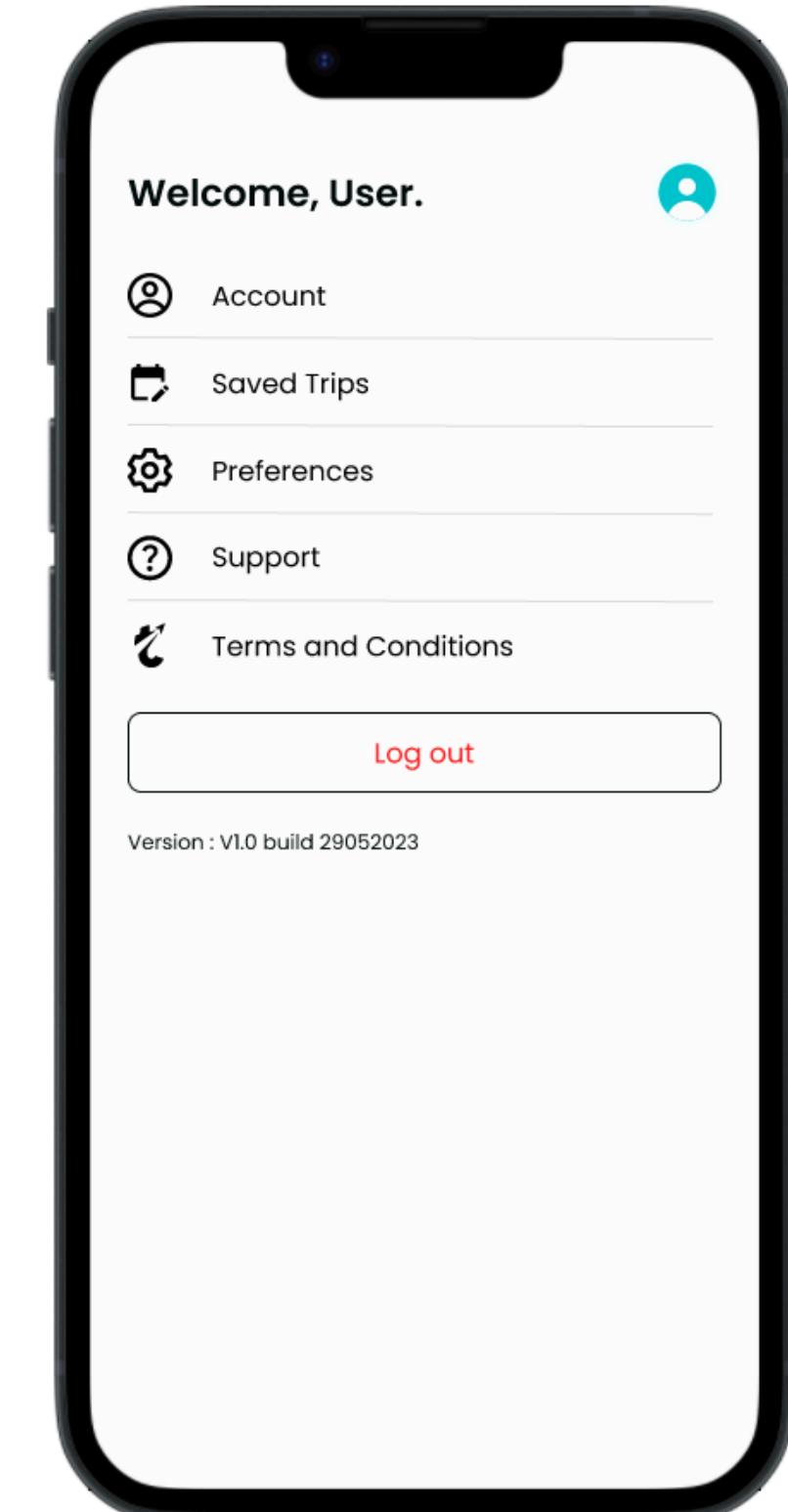
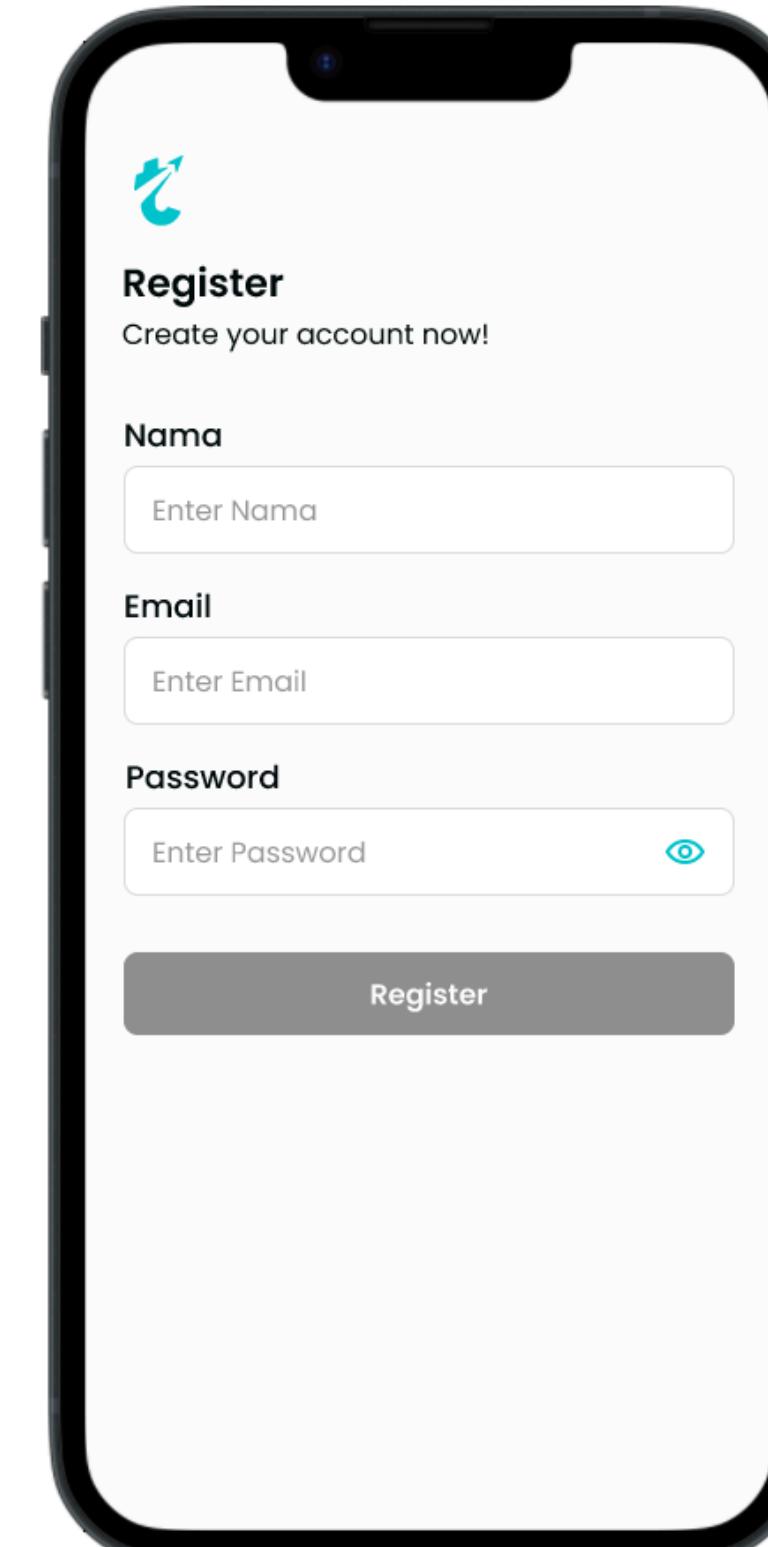
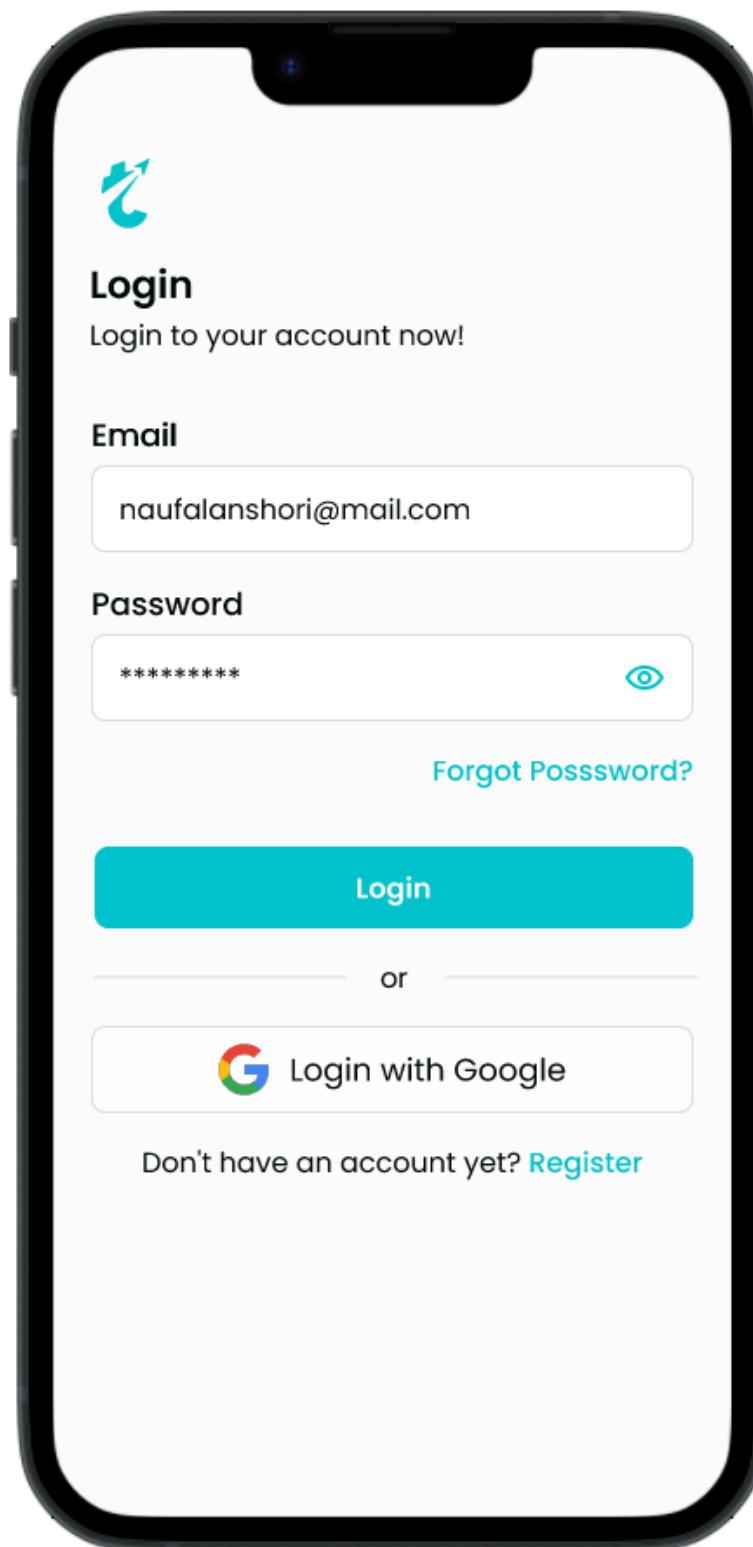
The screenshot shows a POST request in the Postman interface. The URL is <https://script.google.com/macros/s/AKfycbwAZ1RC18wHcBGeU2UvAIWcP8kNHUVJ8mJFU0paKyEzo7-UxW5qBqDvpQ03rVtA1fKvhA/exec?action=g...>. The body of the request contains the JSON object: { "action": "getTopDestination", "key": "Key" }. The response tab shows a 200 OK status with a JSON payload: { "Place\_Id": 179, "Place\_Name": "Candi Ratu Boko", "Category": "Budaya", "Description": "Situs Ratu Boko atau Candi Boko (Hanacaraka: han...)", "City": "Yogyakarta", "Dots\_1": "Membara topi dan kacamata", "Dots\_2": "menjaga kebersihan", "Donts\_1": "me zusak showcase", "Donts\_2": "Membara benda tajam", "photo\_ID": "https://tinyurl.com/ykz2wz7m" }.



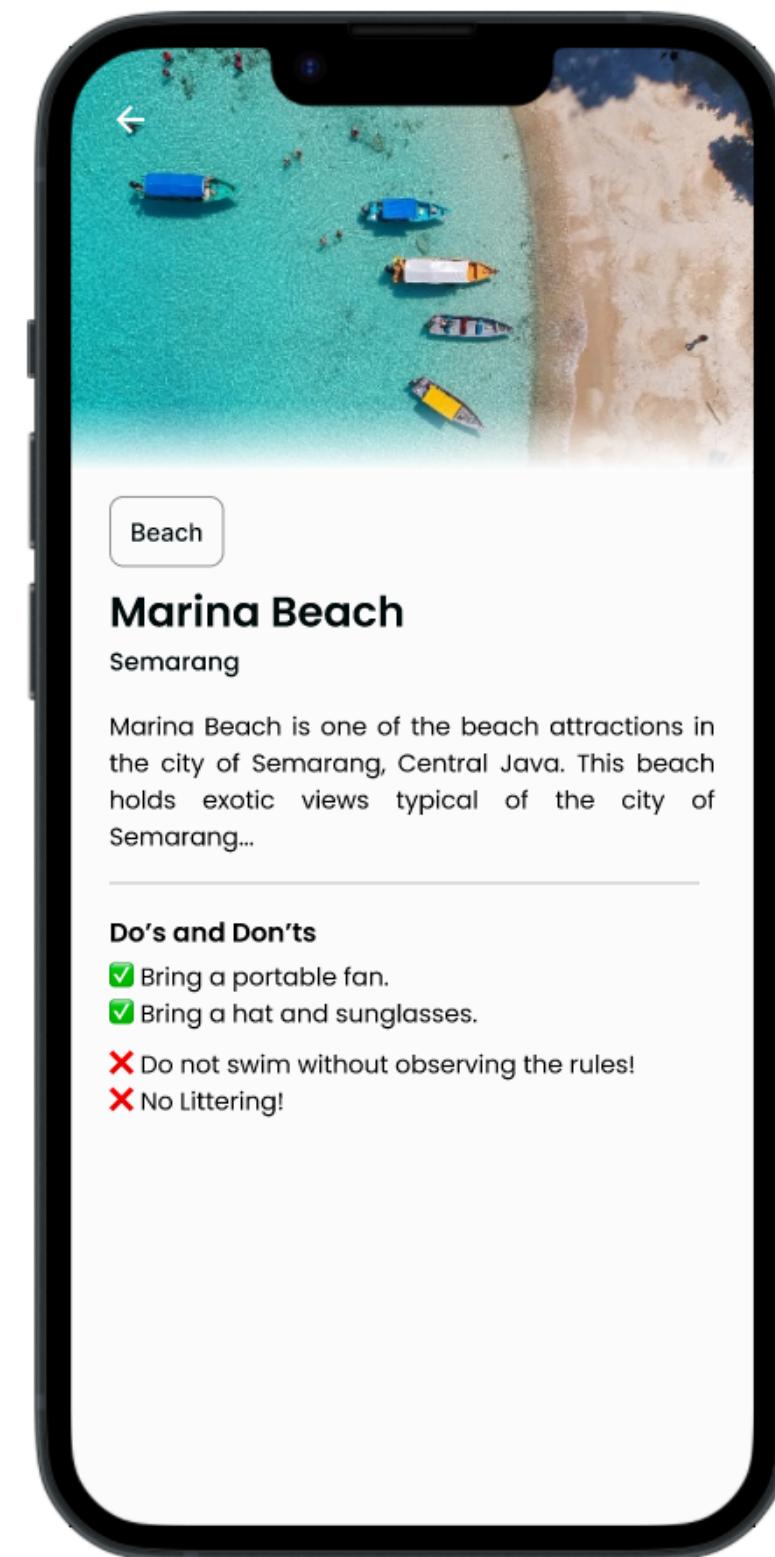
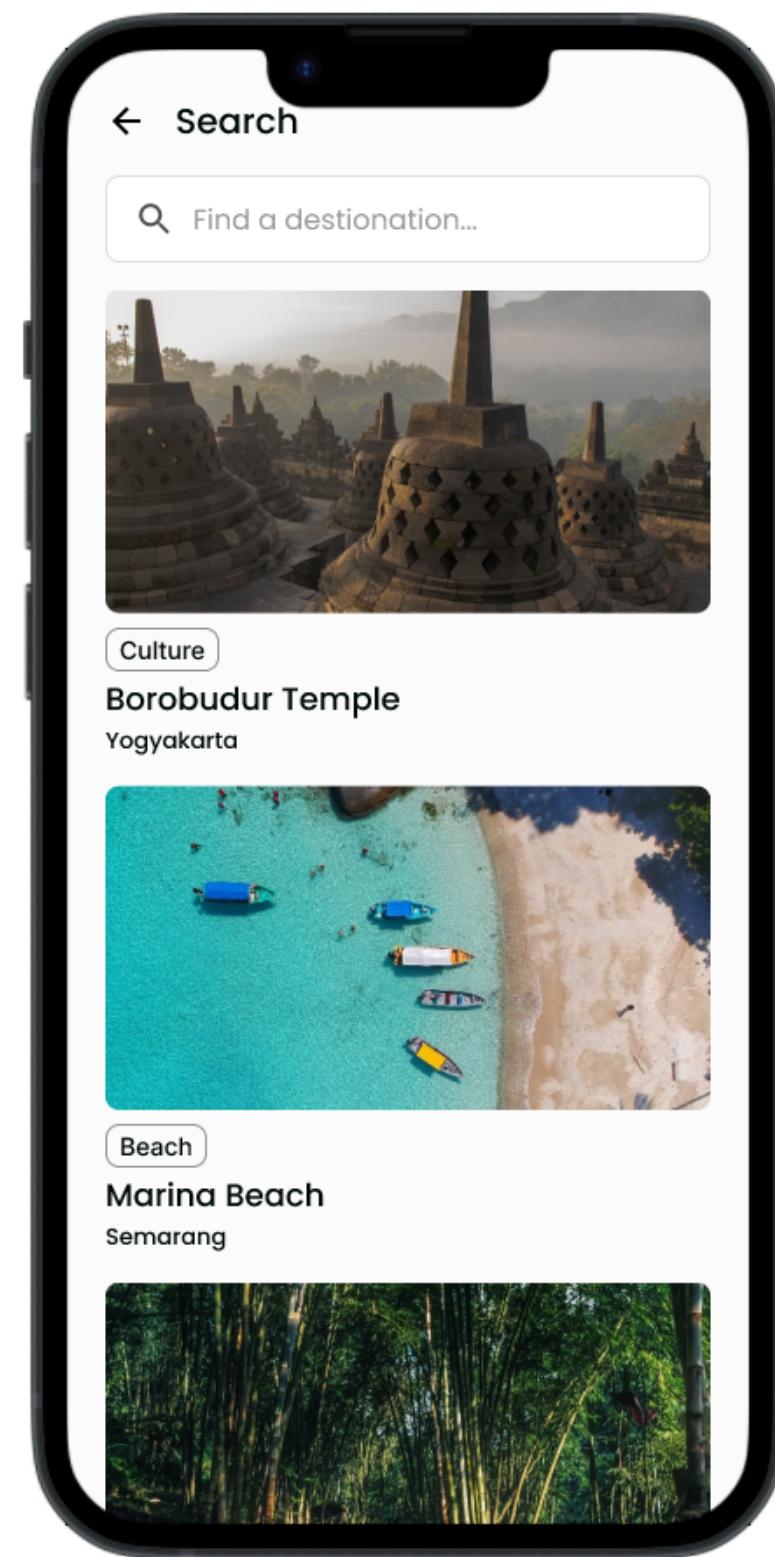
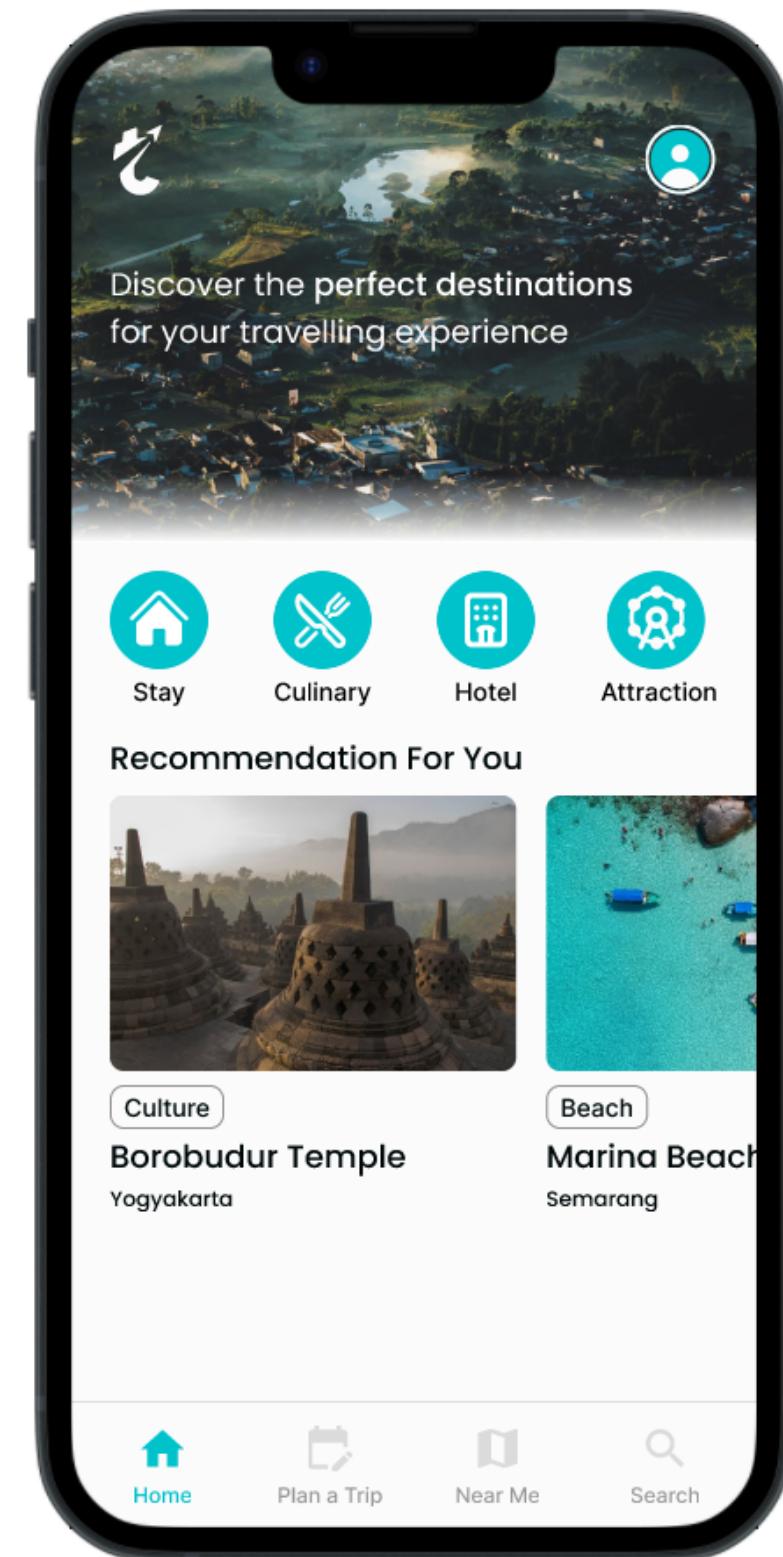
# RESULT

Mobile Development

## AUTHENTICATIONS & ACCOUNT PAGE



# HOME & SEARCH PAGE



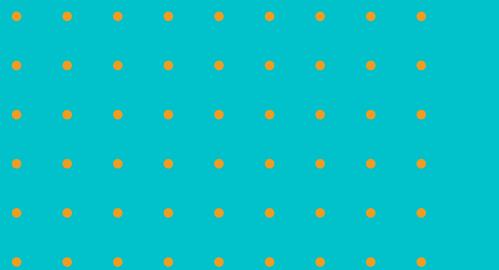
## ✖ DOCUMENTATION

*how others may replicate our steps:*

1. Pre-processing data.
2. Trial & model training.
3. Building RESTful API.
4. Mockup designing.
5. Develop front-end interface.
6. Implement back-end logic.

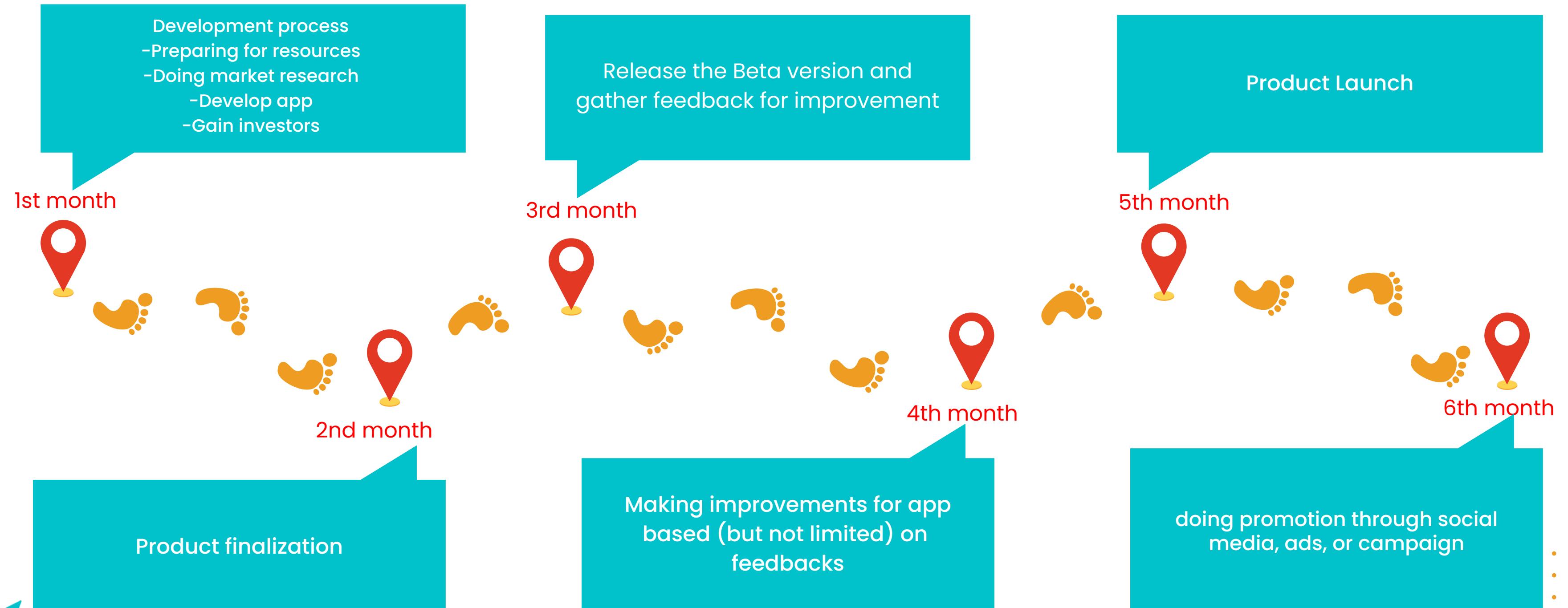
Link to github:

<https://github.com/salsqwiks/tweeze.git>



# LOCAL DEPLOYMENT PLAN

## Timeline



# ✖ LOCAL DEPLOYMENT PLAN

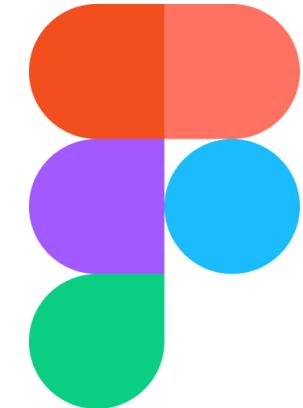
*Tools*



Android Studio



Swift



Figma



Google Colab



Firebase



Google Cloud

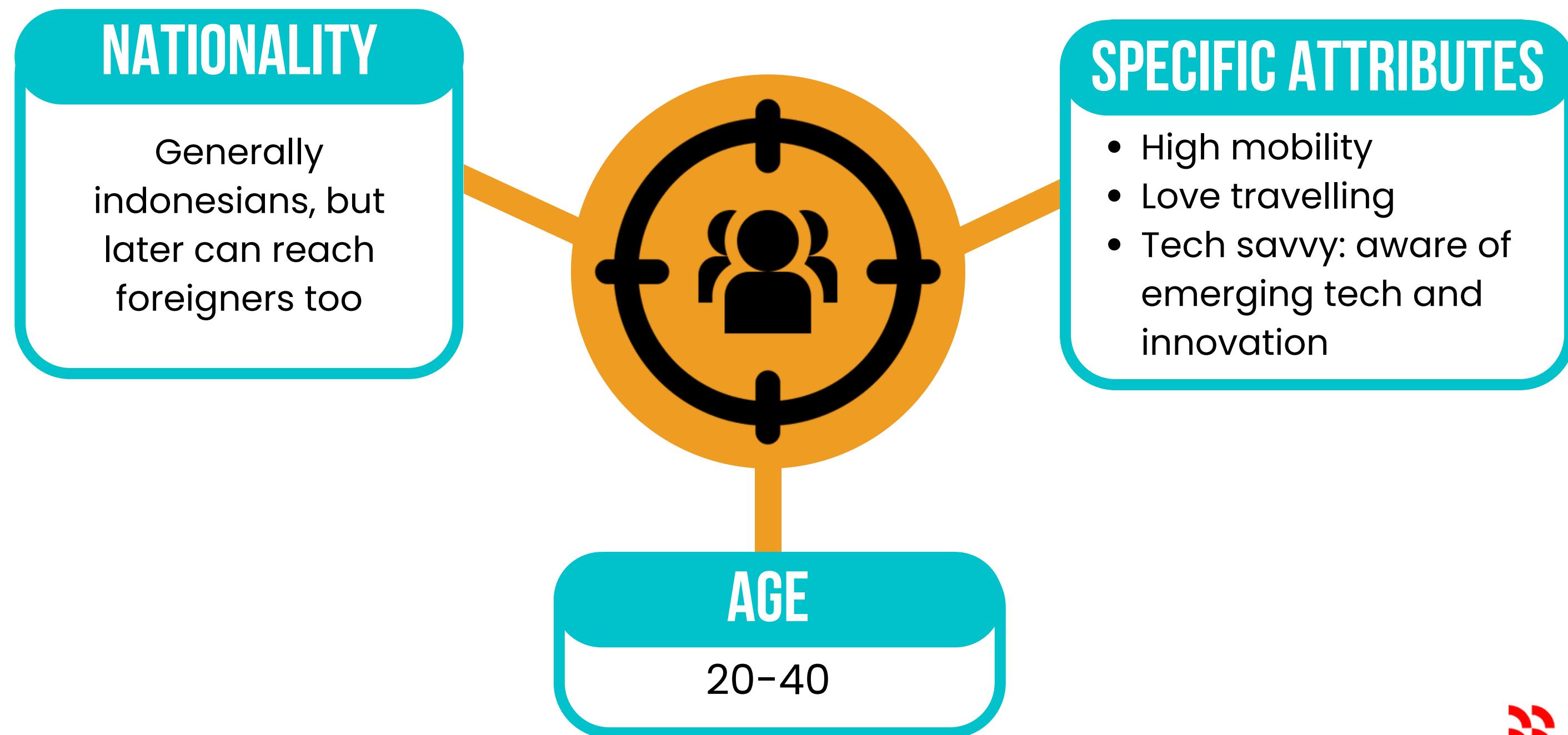


Google Apps Script



# \* BUSINESS PITCH & GO-TO MARKET PROPOSAL

## Target Market



# X BUSINESS PITCH & GO-TO MARKET PROPOSAL

*Sustainability*

## SOURCES OF INCOME

Sources	Fund
Premium subscription	Rp 10.000.000
AdSense	Rp 7.000.000
Sponsored contents	Rp 5.000.000
Incubation and investor funding	Rp 80.000.000

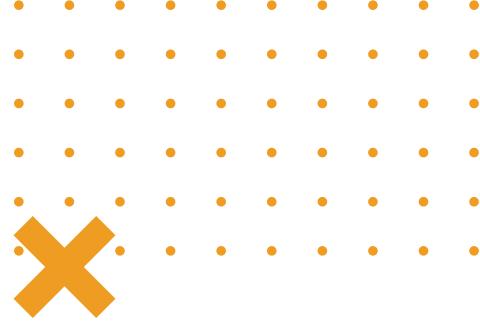
## EFFICIENCY PRIORITY

1	Running with bare-minimum operations
2	Reducing overhead and unnecessary costs
3	Reducing travel and miscellaneous expenses
4	Choose appropriate services and third-party vendors



# BUSINESS PITCH & GO-TO MARKET PROPOSAL

USD 5000 funding

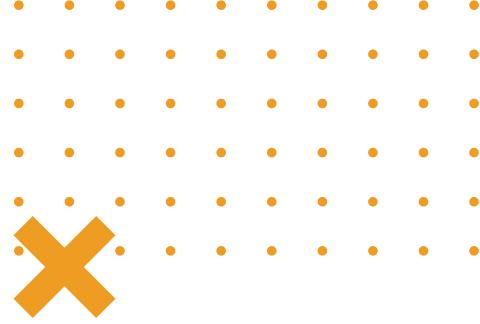


Category	Budget
Ads	USD 3000
Colab Pro	USD 60
Google Cloud Credit	USD 150
Firebase Services	USD 50
Team Salary	USD 625
Google Play Store	USD 25
Other expenses (taxes, reserve, etc)	USD 1000



# BUSINESS PITCH & GO-TO MARKET PROPOSAL

USD 10000 funding



Category	Budget
Ads	USD 4000
Campaign	USD 3000
Colab Pro	USD 60
Google Cloud Credit	USD 150
Firebase Services	USD 65
Team Salary	USD 1700
Google Play Store	USD 25
Other expenses (taxes, reserve, etc)	USD 1000





Want to  
travel  
with ease?

GET TWEEZE



**THANK** *You*  
**FOR YOUR ATTENTION**

Link to github:

<https://github.com/salsqwiks/tweeze.git>

