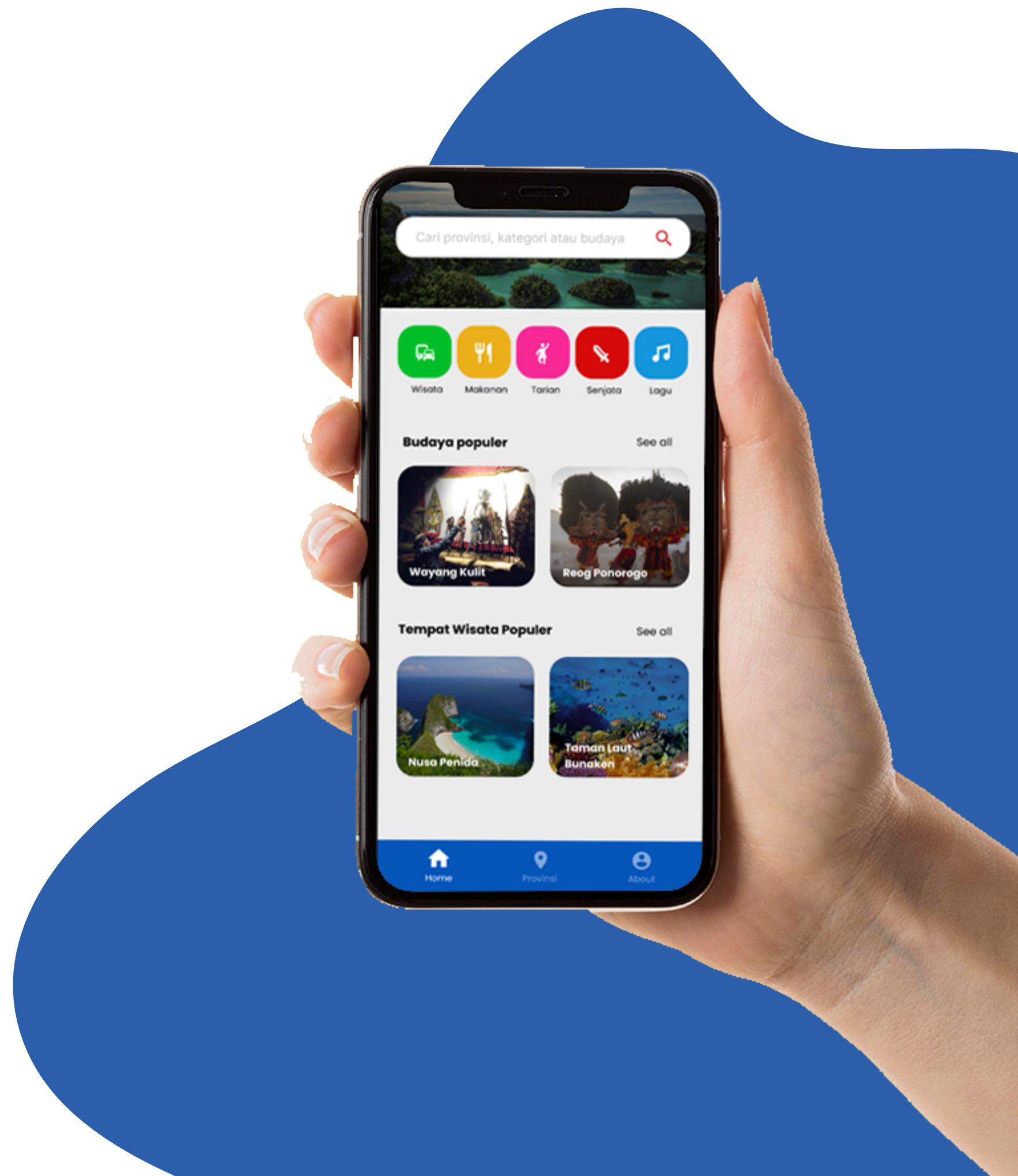


PRODUCT-BASED ICKET

Indonesia in your pocket

C23-PS326



WHAT IS ICKET?

Icket is an application designed to introduce and educate the younger generation of Indonesia about the diverse cultures and traditions across the country. The name "Icket" is derived from the combination of "Indonesia" and "in your pocket," symbolizing the idea of having Indonesia's cultural richness accessible at your fingertips.



BACKGROUND

Indonesia is occupied with 38 provinces with different ethnic expressions and various traditional cultures. The richness of traditional culture expressions and traditional culture legacies must be quite precious to be national identity and also important to support economic development in Indonesia. Either traditional culture expressions or traditional culture legacies have grown from various activities and creativities of indigenous people who settle into Indonesia regions with their distinctive features. Traditional culture expressions and traditional culture legacies have been admitted as the developed countries as their asset without receiving legal consent from Indonesia. Therefore, the question is "How can Indonesia protect its traditional culture expressions and traditional culture legacies?" [2]



BACKGROUND

Elements related to the formation of children's character, starting from educators, parents, society, and government, have a great moral responsibility in this regard.

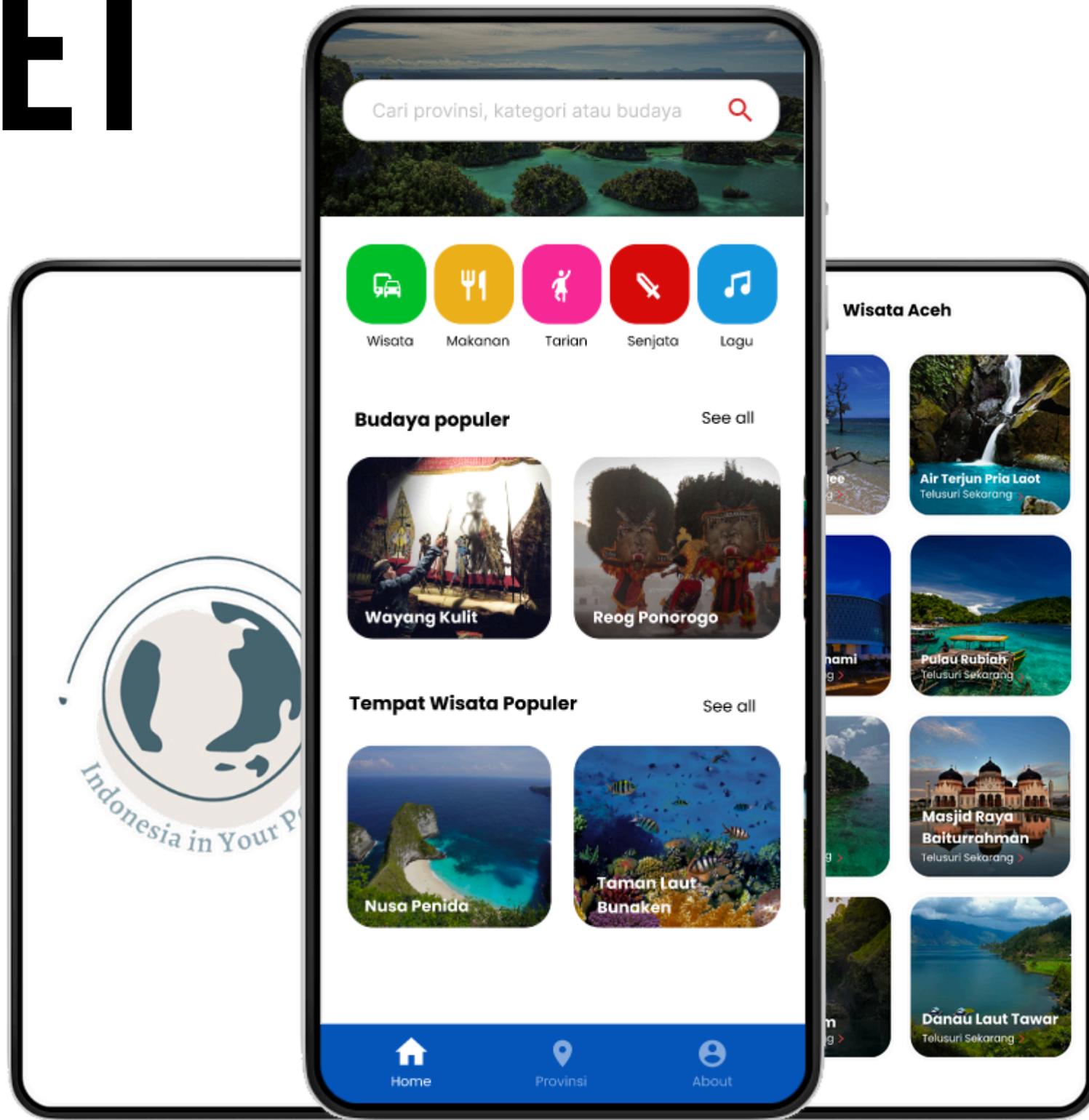
Ethnoscience-based education or cultural diversity in schools is important. In efforts to instill national character education, it is hoped that students can acquire knowledge contained in culture, students can know the noble values of the nation's culture, and students can internalize the cultural characters they learn. In Mayasari (2017), it is explained that cultural diversity in Indonesia is a capital that needs to be internalized in the world of education to form superior and cultured student characters.[1]



BACKGROUND

The cultures will not remain the same from time to time; some of those are getting fading away due to several changes in society. As it is stated by Spencer (2012:12), the culture is not static; it changes from year to year due to internal force or external forces. It also happens in Indonesia. The cause of this change can be due to the ongoing process of globalization. The increasing numbers of international trades among countries in the world allow people from other countries come to Indonesia bringing their cultures. In addition, the development of technology also allows people to connect and interact with other people in other counties. It enables people to access information and to see the world. The ongoing process of globalization and the development of technology are good in several aspects: economic, politic, social, for example. However, in cultural aspect, it may influence the culture that leads to the identity changes of nation. [3]

ICKET



EXPLORE, LEARN AND PRESERVE

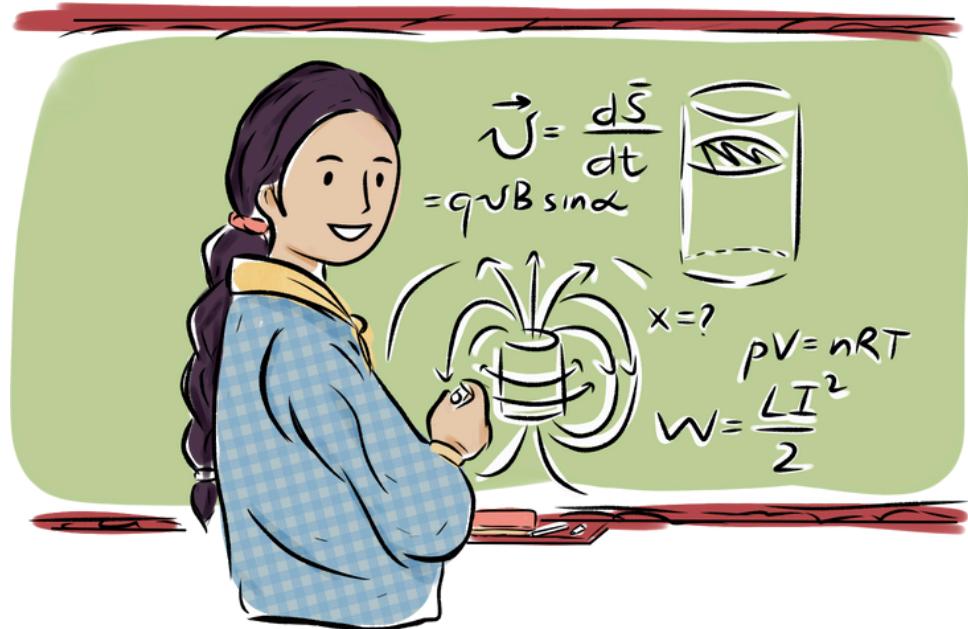


TARGET MARKET

LECTURER

STUDENT

TRAVELER



THINGS THAT APPS PROVIDE SOLUTIONS FOR

As an interactive teaching tool that empowers educators to educate students about Indonesian cultural diversity in a more engaging and interactive way.

1

For Indonesians, particularly Gen Z to gain deeper understanding of the cultural diversity in Indonesia

2

To help travelers learn about the culture of the region they are visiting

3



COMPARE



Only provides information about culture in Indonesia,
Without search culture feature



Using machine learning to provide tourist spot recommendations,
With search culture feature





IMPLEMENTATION

TENSORFLOW



The data was trained using a Recurrent Neural Network (RNN) by constructing the model using the TensorFlow framework.

Build recommendation model with content-based filtering.

MACHINE LEARNING

kaggle

DATA

Open source (kaggle), the data has 437 row and two column.



RESULT

ACCURACY

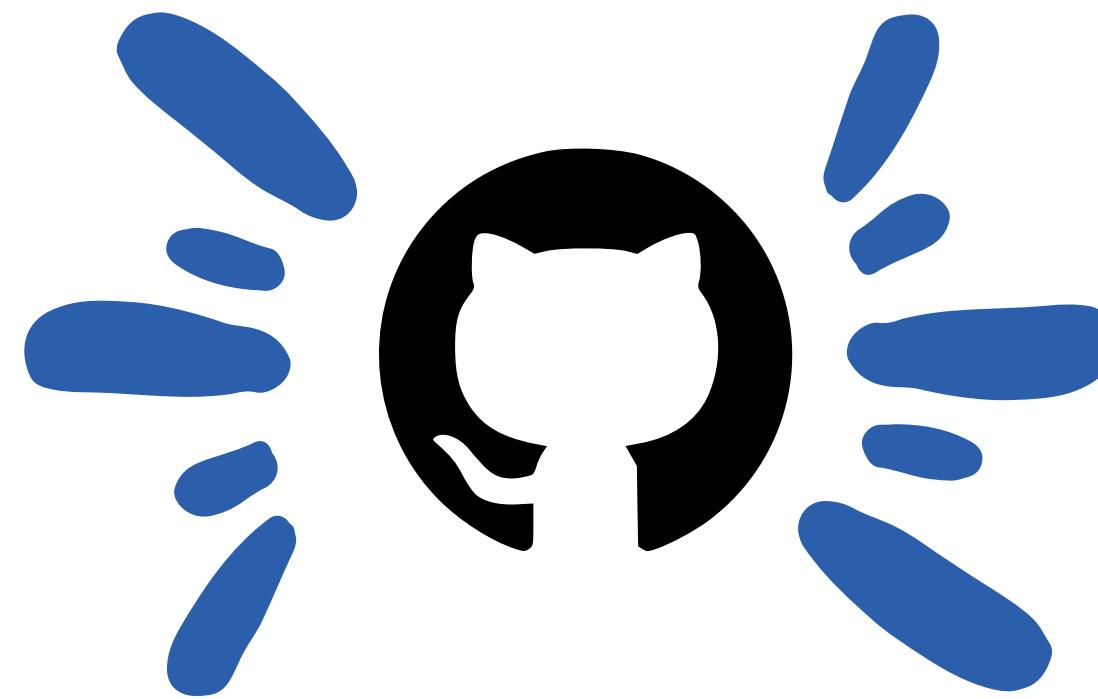
```
3/3 [=====] - 0s 5ms/step - loss: 0.3372 - accuracy: 0.5455
Loss: 0.3372216522693634
Accuracy: 0.5454545617103577
```

OUTPUT OF RECOMMENDATIONS

rekомендации_place(place_name)

	Place_Name	Category
0	Tebing Karaton	Cagar Alam
1	Situ Cileunca	Cagar Alam
2	Sunrise Point Cukul	Cagar Alam
3	Lereng Anteng Panoramic Coffee Place	Cagar Alam
4	The Lodge Maribaya	Cagar Alam
5	Observatorium Bosscha	Cagar Alam
6	Taman Bunga Cihideung	Cagar Alam
7	Perkebunan Teh Malabar	Cagar Alam
8	Sungai Palayangan	Cagar Alam
9	Babakan Siliwangi City Forest Path Bandung	Cagar Alam

RESULT MACHINE LEARNING



[Link Project Github Icket](#)

CLOUD COMPUTING



FIREBASE

Firebase is a powerful platform that provides developers with a range of tools and services for building web and mobile applications.



FASTAPI

FastAPI is a modern, high-performance web framework for building APIs with Python.

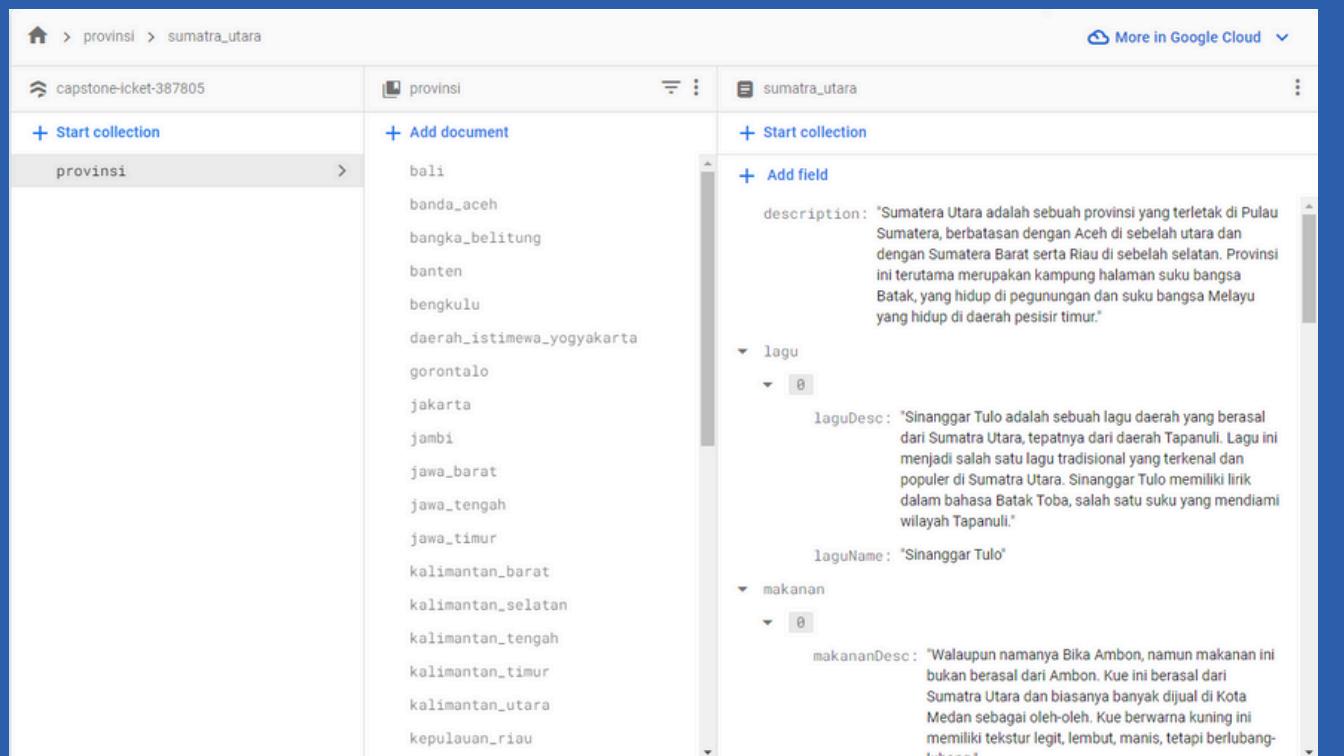


CLOUD RUN

Cloud Run is a serverless computing platform provided by Google Cloud that allows developers to deploy containerized applications quickly and easily.

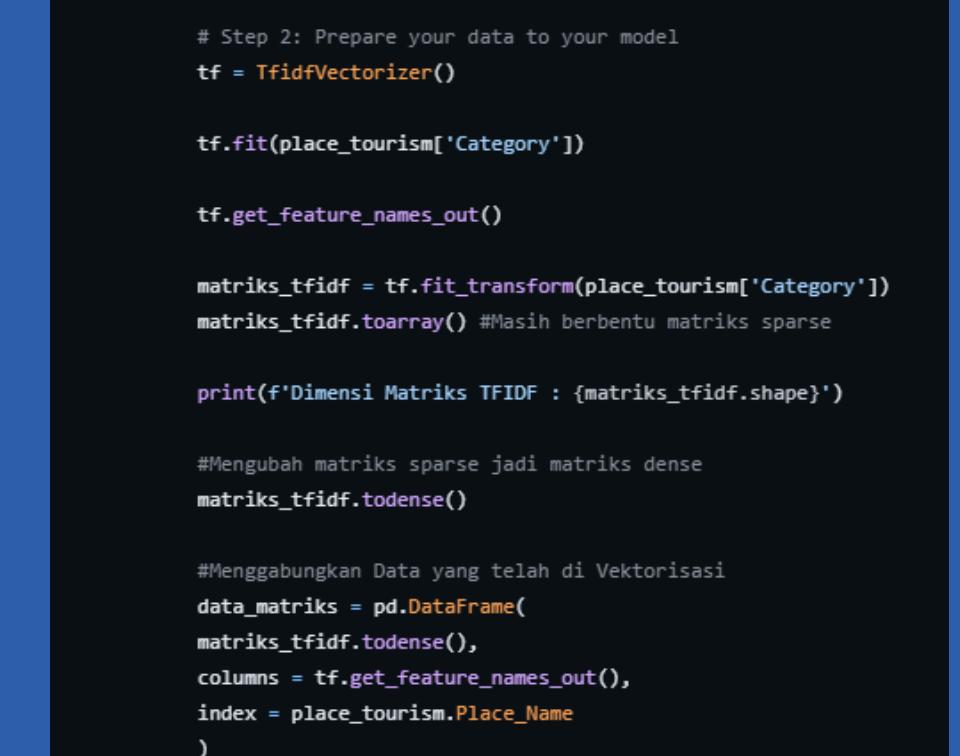


RESULT



The screenshot shows the Google Cloud Firestore interface. The path is capstone-icket-387805 > provinsi > sumatra_utara. The 'provinsi' collection contains documents for various provinces like bali, banda_aceh, bangka_belitung, banten, bengkulu, daerah_istimewa_yogyakarta, gorontalo, jakarta, jambi, jawa_barat, jawa_tengah, jawa_timur, kalimantan_barat, kalimantan_selatan, kalimantan_tengah, kalimantan_timur, kalimantan_utara, and kepulauan_riau. The 'sumatra_utara' collection contains documents for 'lagu' and 'makanan'. The 'lagu' document for 'sinanggar_tulo' has a description: "Sumatera Utara adalah sebuah provinsi yang terletak di Pulau Sumatera, berbatasan dengan Aceh di sebelah utara dan dengan Sumatera Barat serta Riau di sebelah selatan. Provinsi ini terutama merupakan kampung halaman suku bangsa Batak, yang hidup di pegunungan dan suku bangsa Melayu yang hidup di daerah pesisir timur." The 'makanan' document for 'bika_ambon' has a description: "Walaupun namanya Bika Ambon, namun makanan ini bukan berasal dari Ambon. Kue ini berasal dari Sumatra Utara dan biasanya banyak dijual di Kota Medan sebagai oleh-oleh. Kue berwarna kuning ini memiliki tekstur legit, lembut, manis, tetapi berlubang-lubang."

DATABASE



```
# Step 2: Prepare your data to your model
tf = TfIdfVectorizer()

tf.fit(place_tourism['Category'])

tf.get_feature_names_out()

matriks_tfidf = tf.fit_transform(place_tourism['Category'])
matriks_tfidf.toarray() #Masih berbentuk matriks sparse

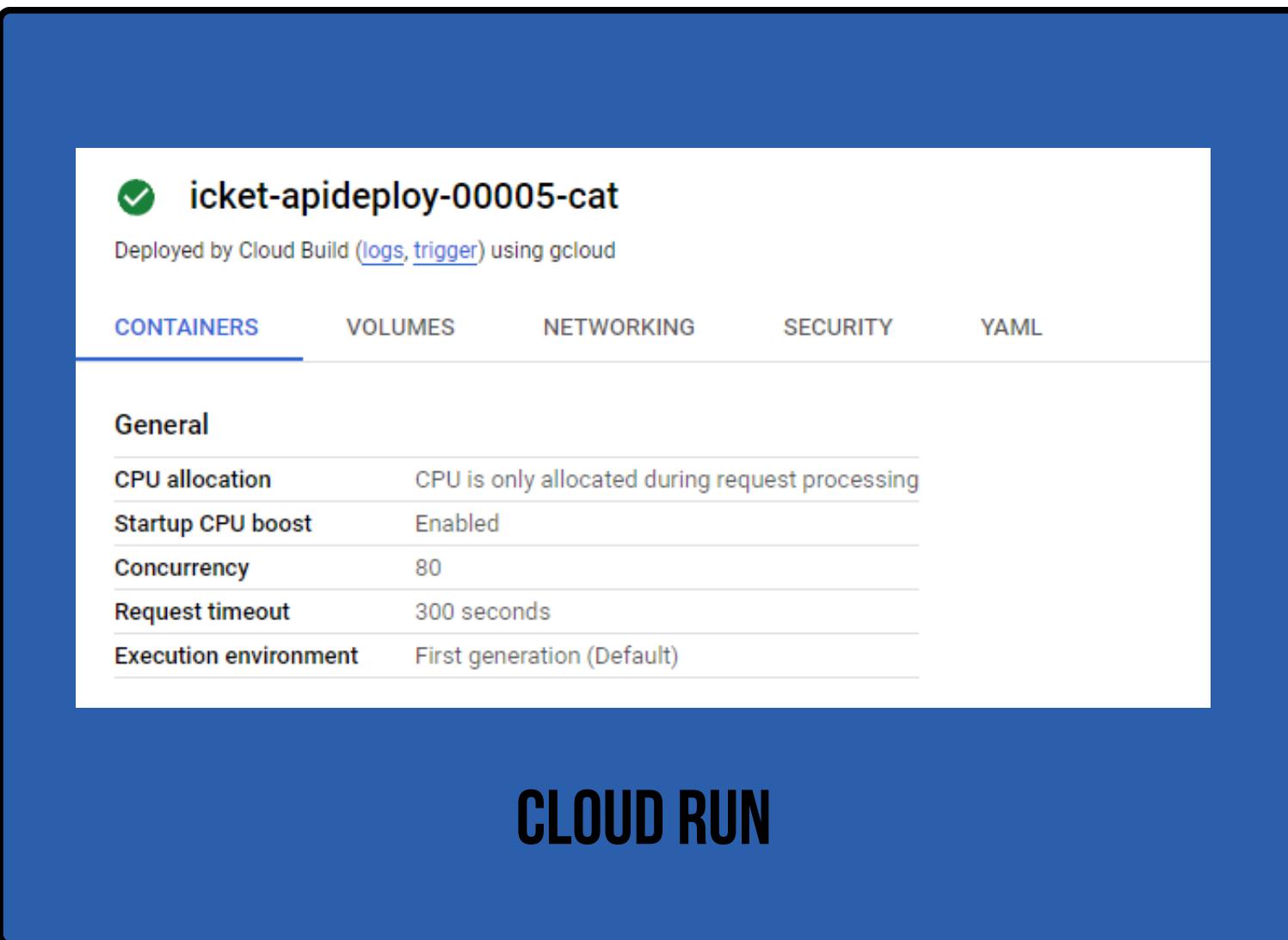
print(f'Dimensi Matriks TFIDF : {matriks_tfidf.shape}')

#Mengubah matriks sparse jadi matriks dense
matriks_tfidf.todense()

#Menggabungkan Data yang telah di Vektorisasi
data_matriks = pd.DataFrame(
    matriks_tfidf.todense(),
    columns = tf.get_feature_names_out(),
    index = place_tourism.Place_Name
)
```

API

RESULT



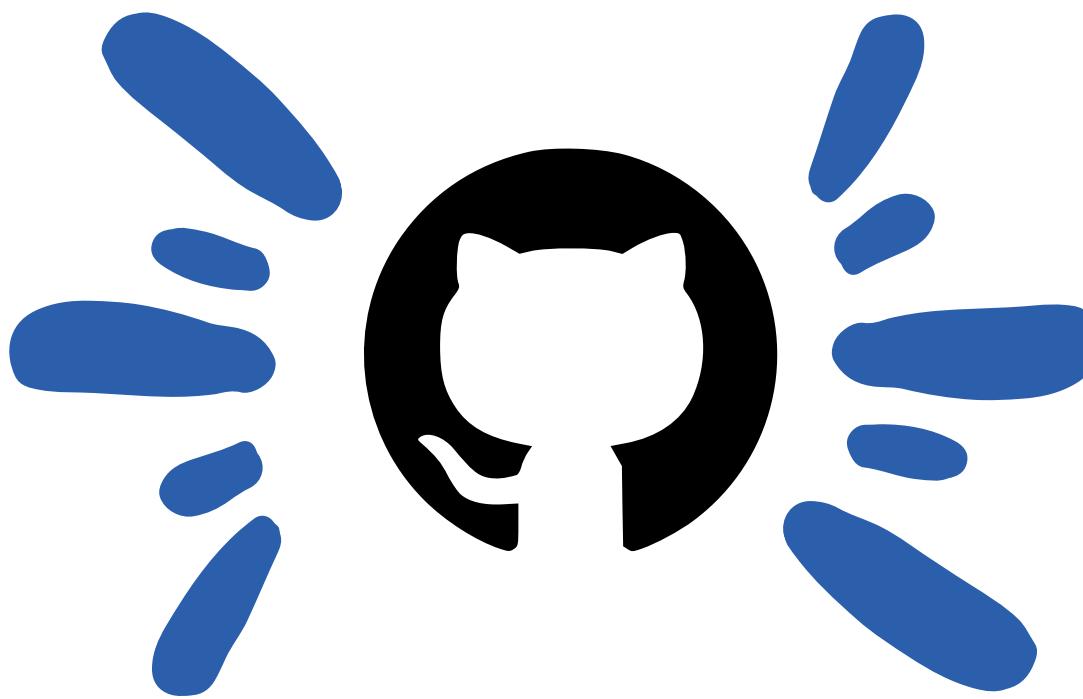
The screenshot shows the Google Cloud Run interface for a service named "icket-apideploy-00005-cat". The service was deployed by Cloud Build using gcloud. The interface includes tabs for CONTAINERS, VOLUMES, NETWORKING, SECURITY, and YAML. The CONTAINERS tab is selected, displaying configuration details under the "General" section:

CPU allocation	CPU is only allocated during request processing
Startup CPU boost	Enabled
Concurrency	80
Request timeout	300 seconds
Execution environment	First generation (Default)

Below the configuration table, the word "CLOUD RUN" is displayed in large, bold, black capital letters.



RESULT CLOUD COMPUTING



[Link Project Github Icket](#)

MOBILE DEVELOPMENT



PROTOTYPE

A prototype is an early version or initial model of a product or project used to test concepts, features, and functionality before further development is carried out.



SLICING UI

Slicing UI refers to the process of breaking down a user interface design into smaller components for easier development and implementation.

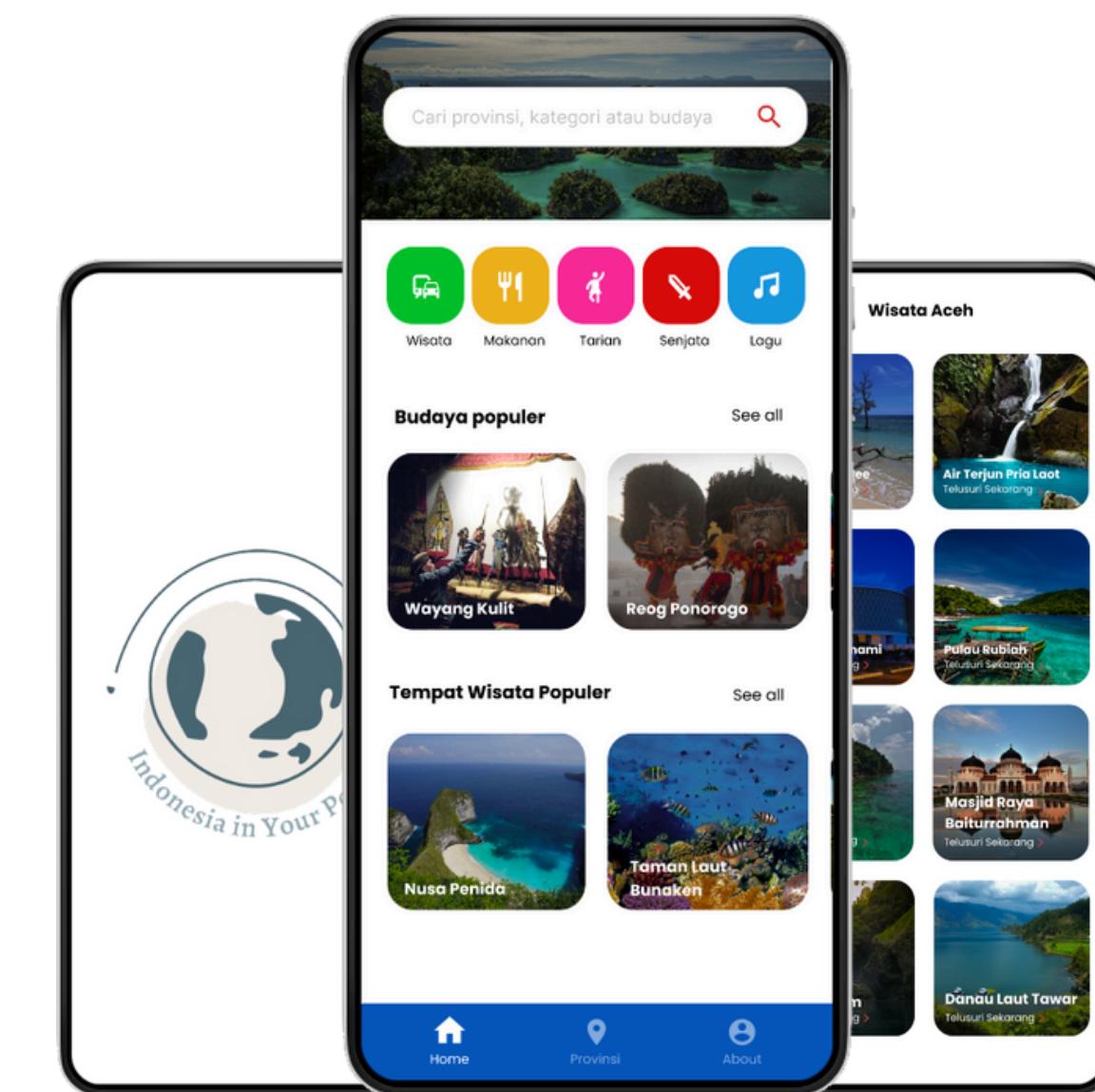
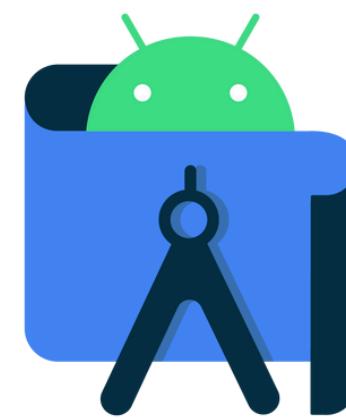


CONNECTING API

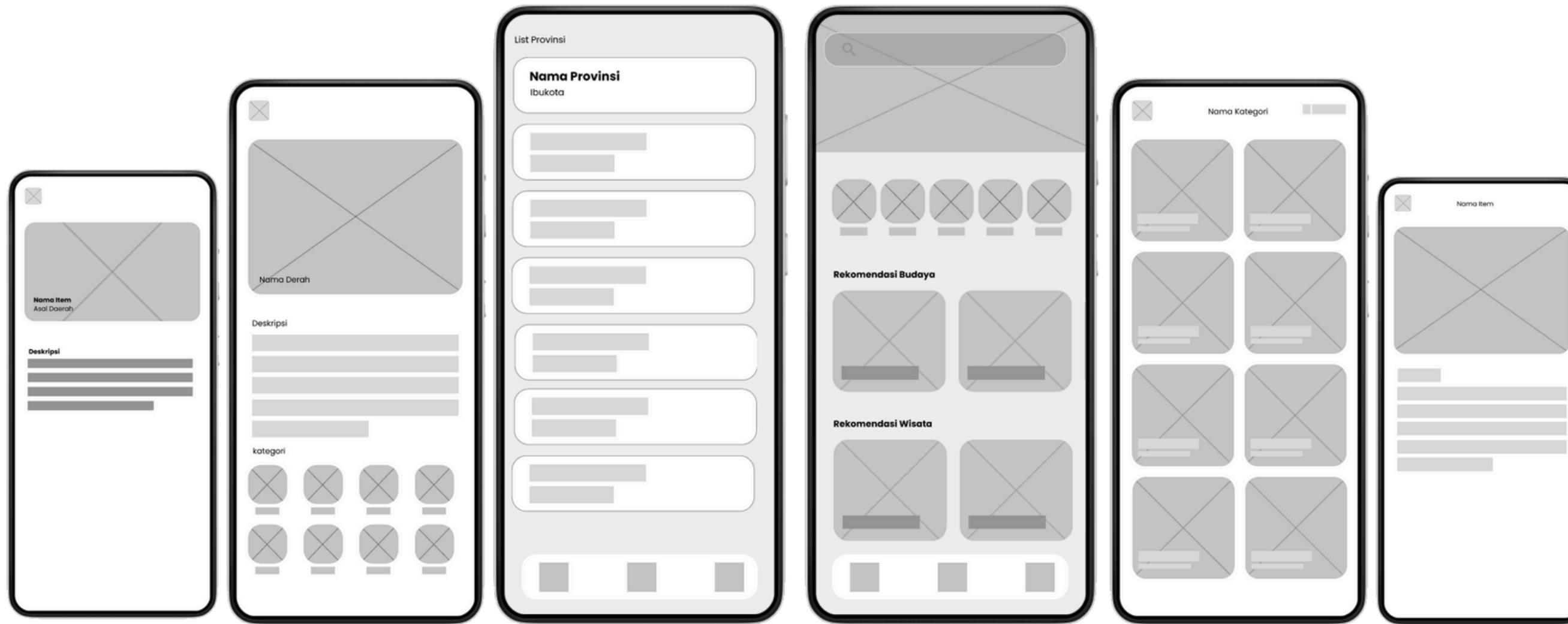
Connecting REST API to mobile involves the process of linking a mobile application with a web service using the REST protocol to efficiently send and receive data.



IMPLEMENTATION OF MOBILE DEVELOPMENT



WIREFRAME



[Link Wireframe](#)

HIGH FIDELITY PROTOTYPE



Splash Screen



OnBoarding

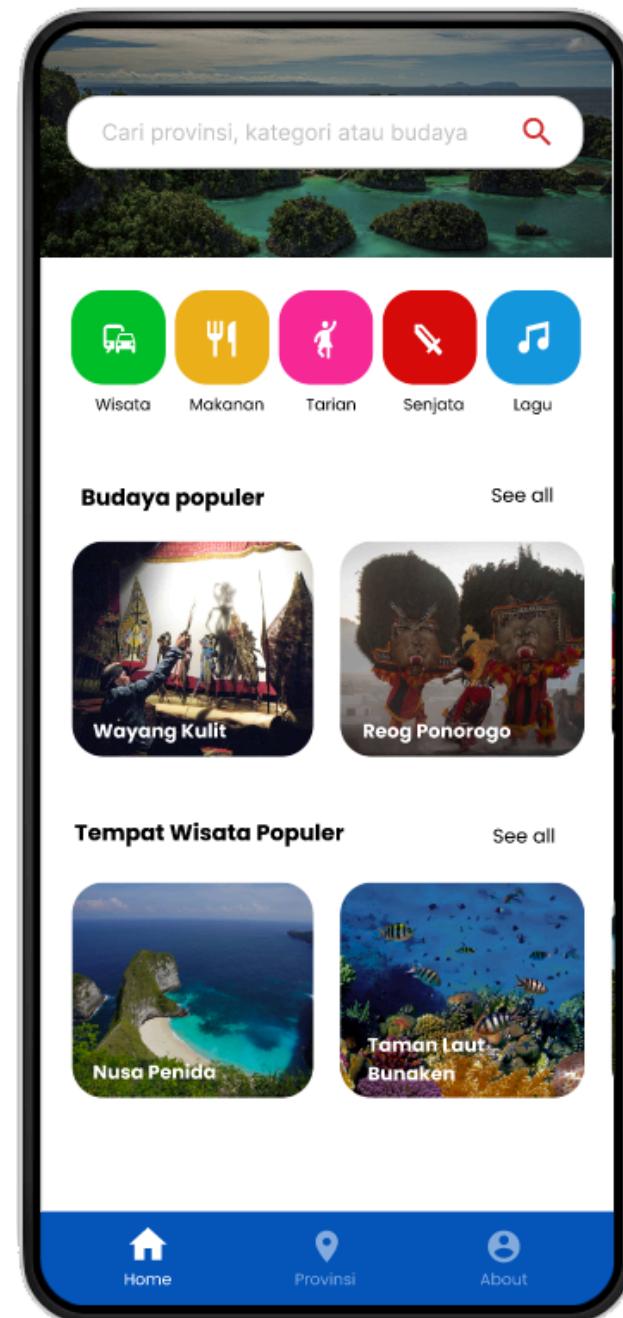


OnBoarding



OnBoarding

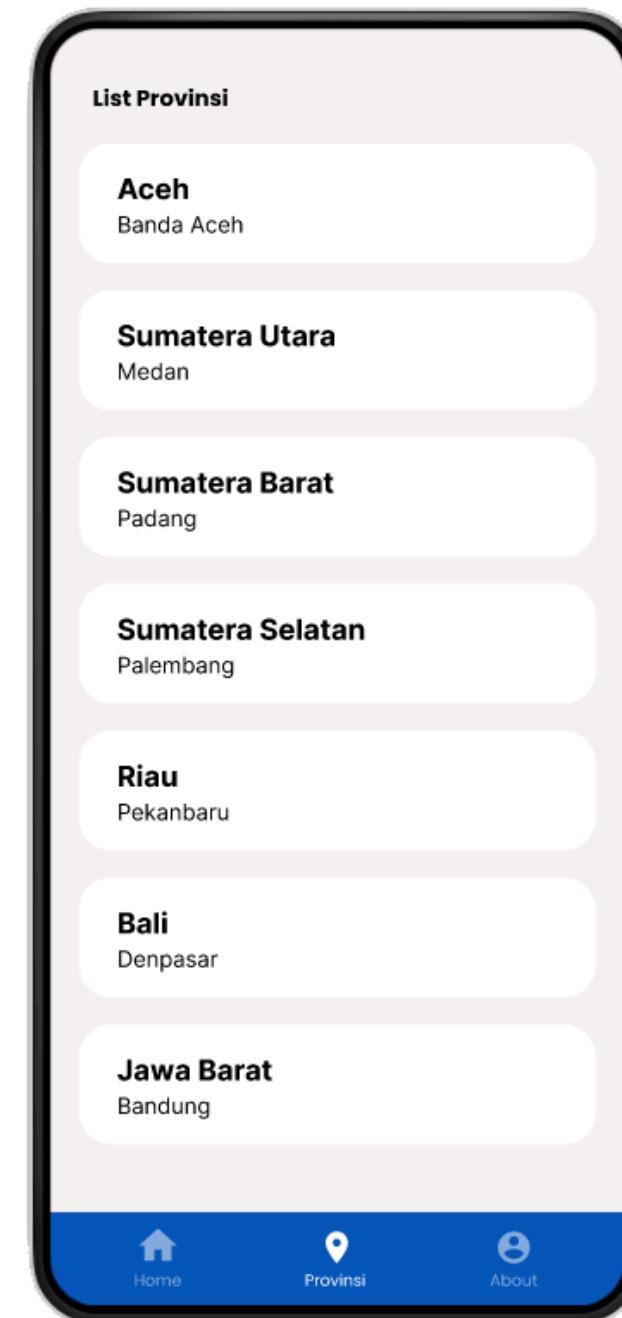
HIGH FIDELITY PROTOTYPE



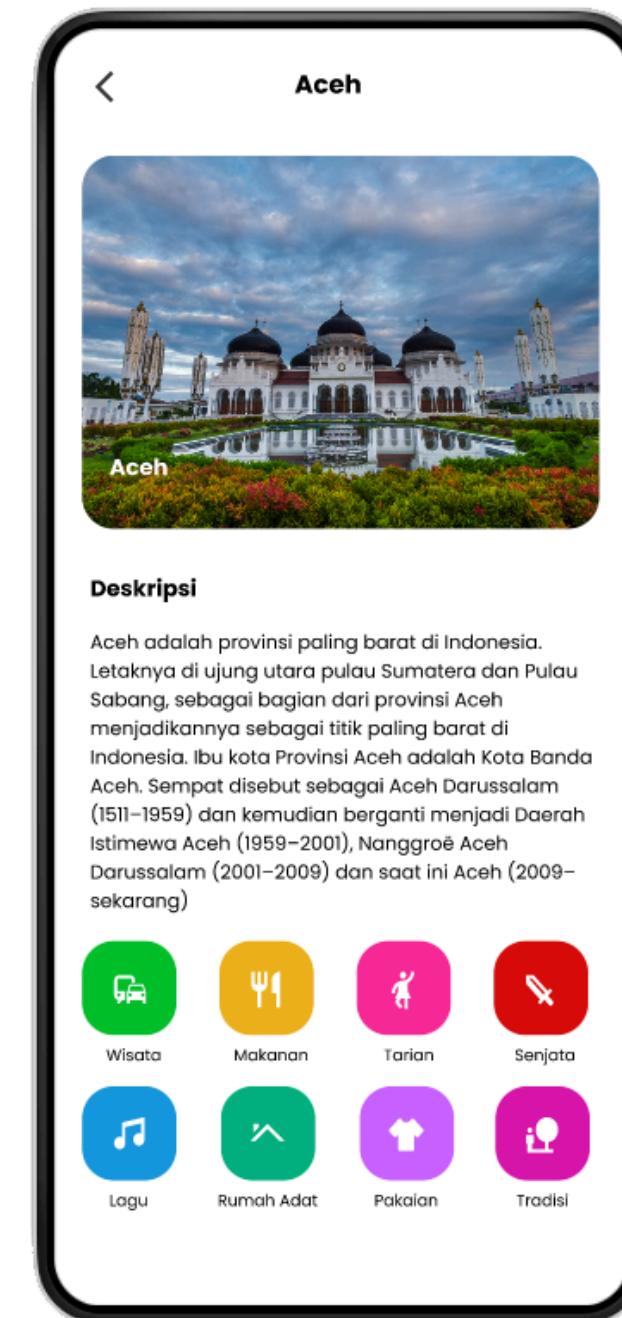
Home page



Detail Budaya

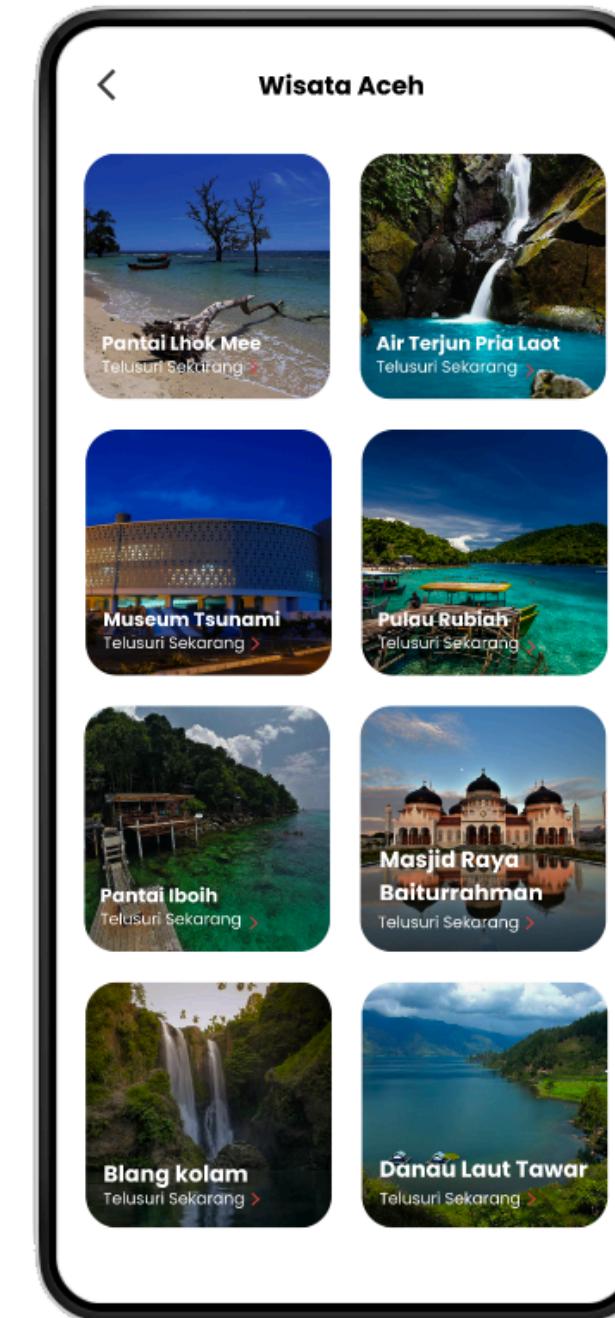


List Provinsi

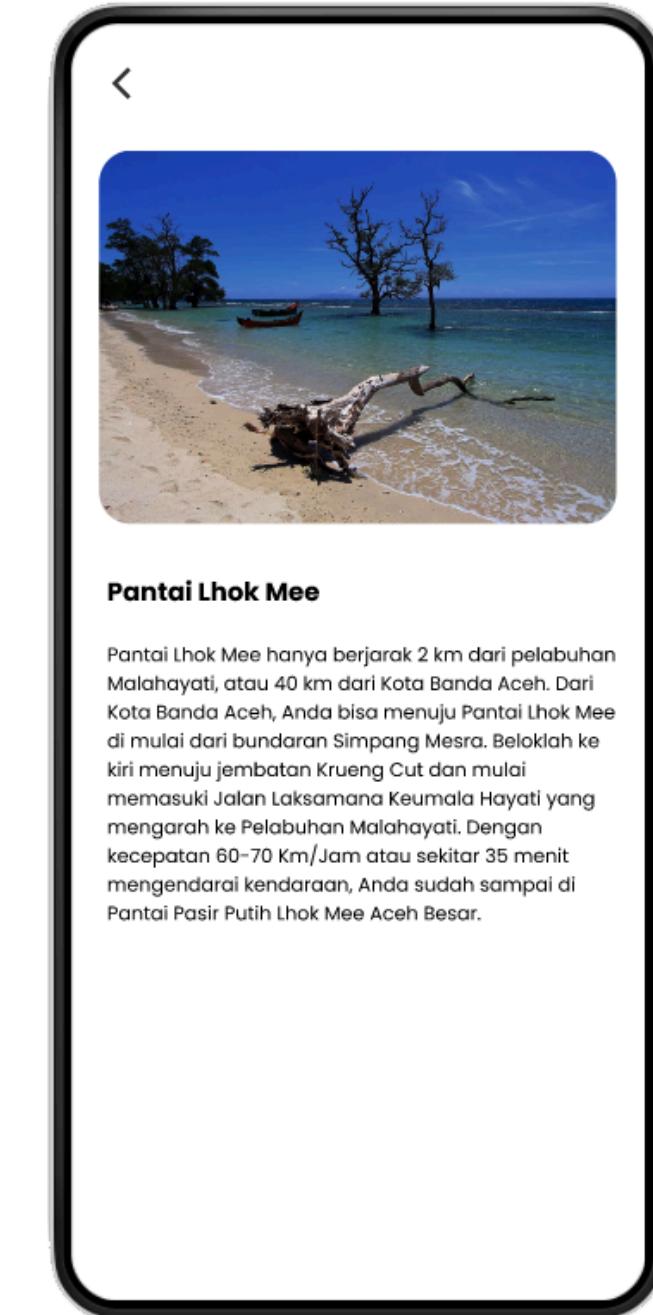


Detail Provinsi

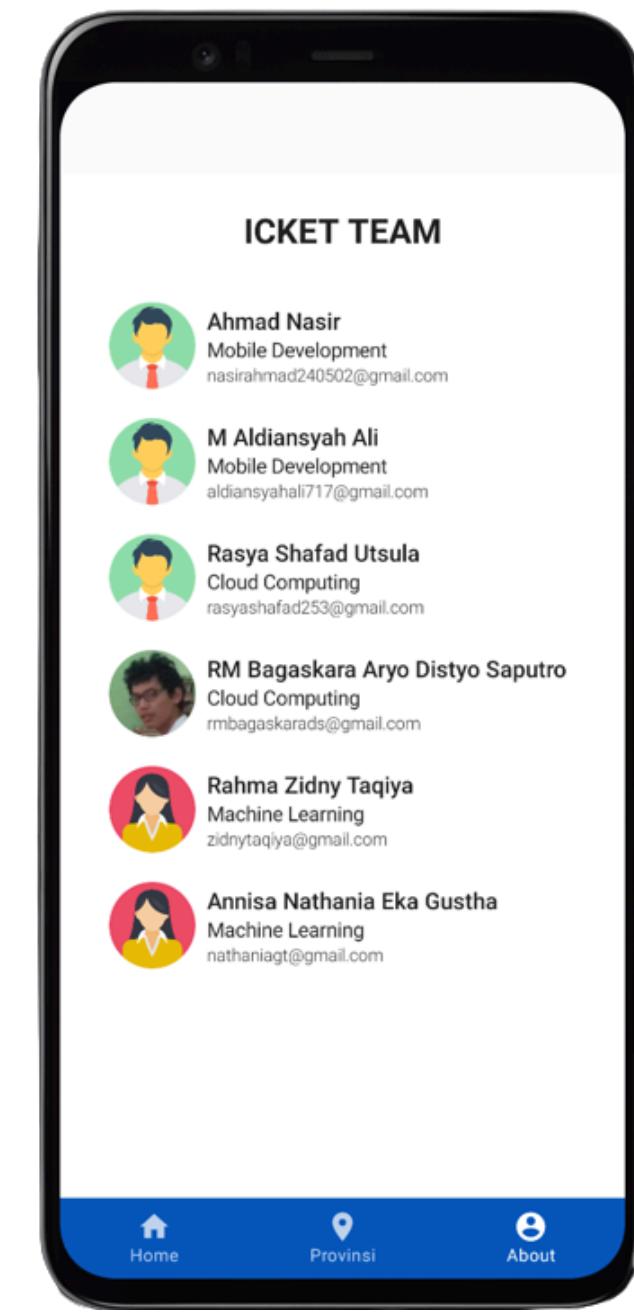
HIGH FIDELITY PROTOTYPE



List Wisata Provinsi

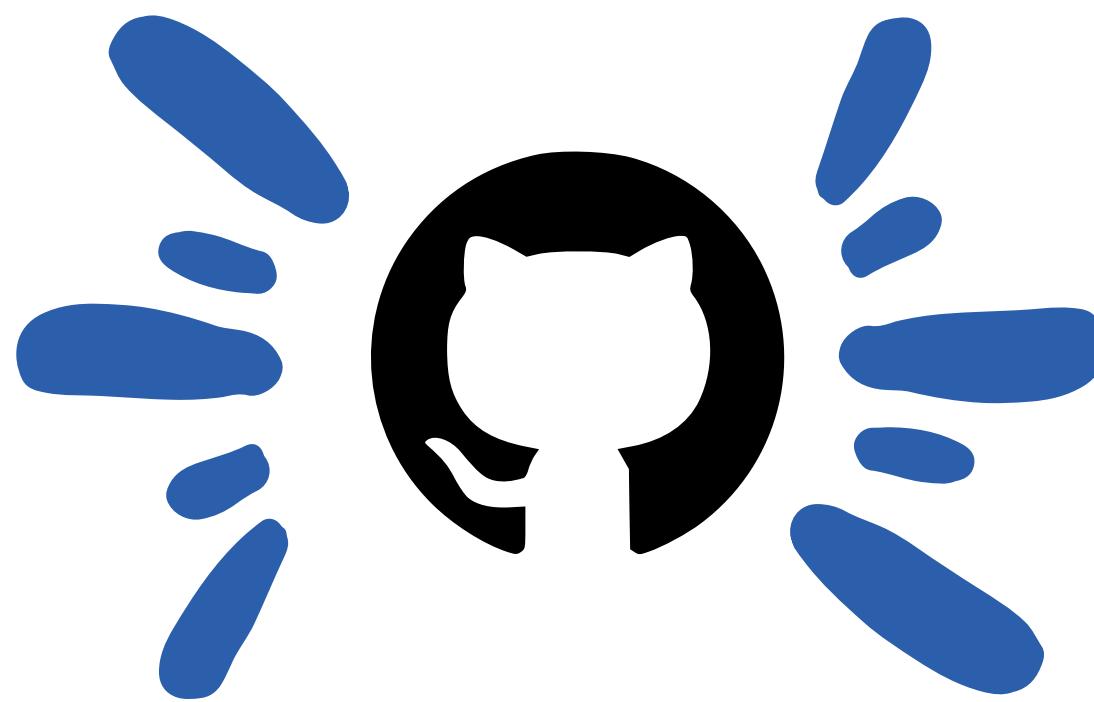


Detail Wisata Provinsi



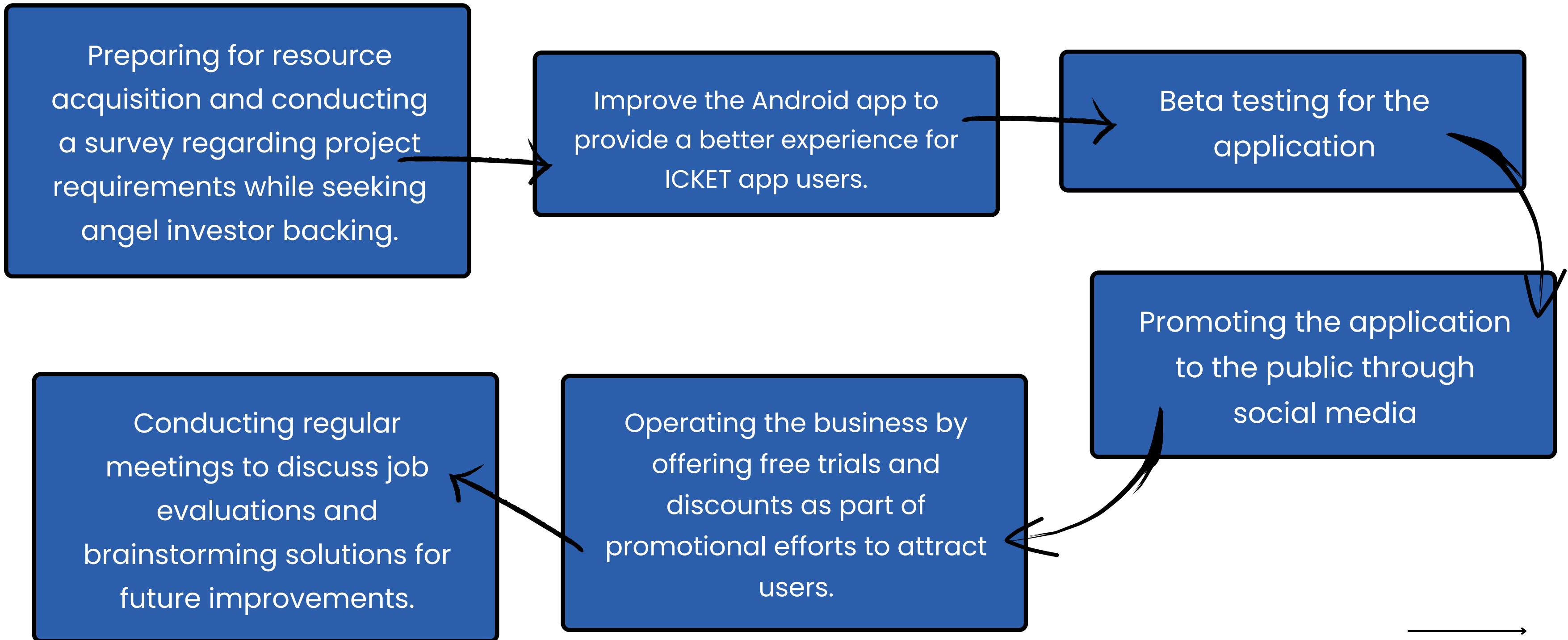
About Screen

RESULT MOBILE DEVELOPMENT



[Link Project Github Icket](#)

PLAN DEPLOYMENT



BUSINESS MODEL

FREE

Free access for indonesian culture

FREE



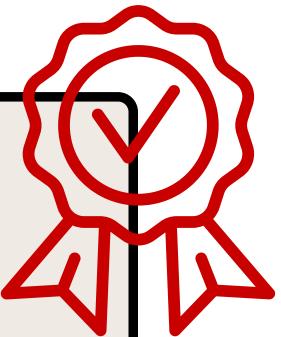
Get all access feature but **limited** for the recommendation spot

STANDARD



Get all access feature and have **unlimited** recommendation spot

PREMIUM



BUDGETING

Category	Proportions	IDR
Working space	34%	Rp. 37.500.000
Maintenance Server	10%	Rp. 12.500.000
Launching Application	0.8%	Rp. 1.000.000
Team Salary	14,5%	Rp. 30.000.000(Rp.5.000.000*6)
Development	6,5%	Rp. 10.000.000
Advertisement	2,5%	Rp. 5.000.000
Other Expenses	15%	Rp. 18.750.000
Budget Max	92%	Rp.125.000.000



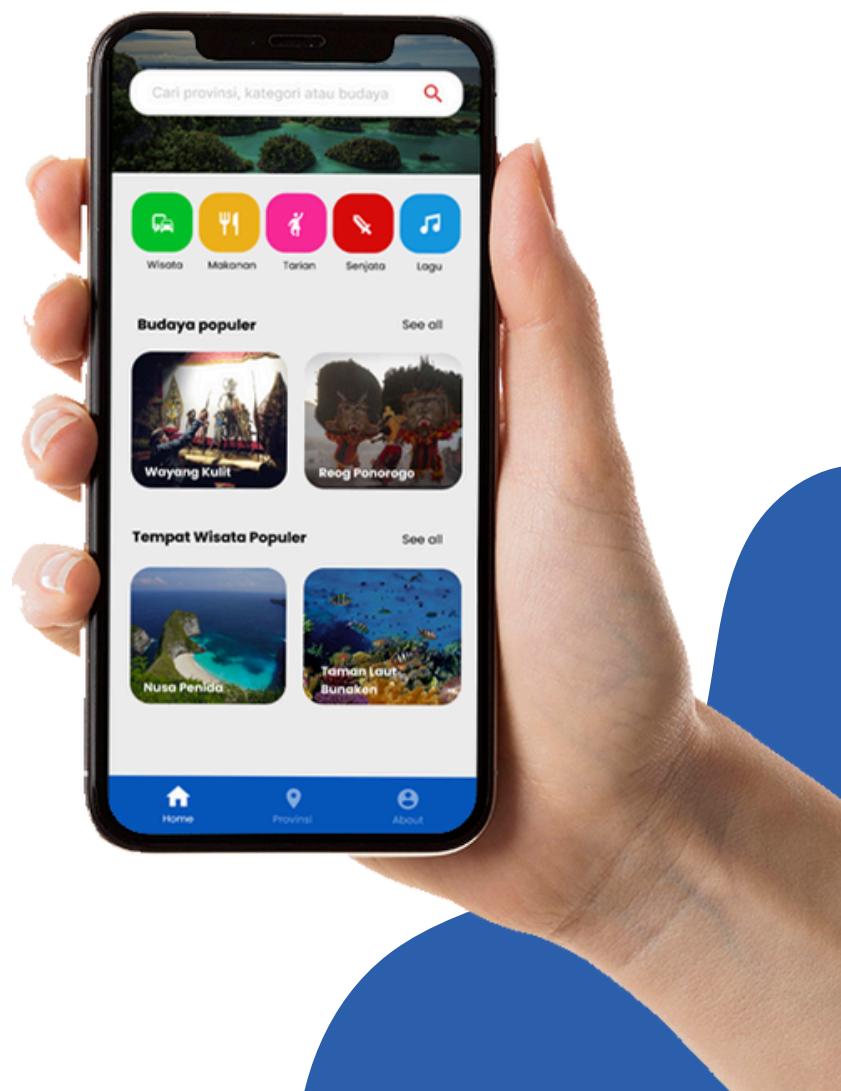


Kampus
Merdeka
INDONESIA JAYA



ICKET
Indonesia in your pocket

THANK YOU

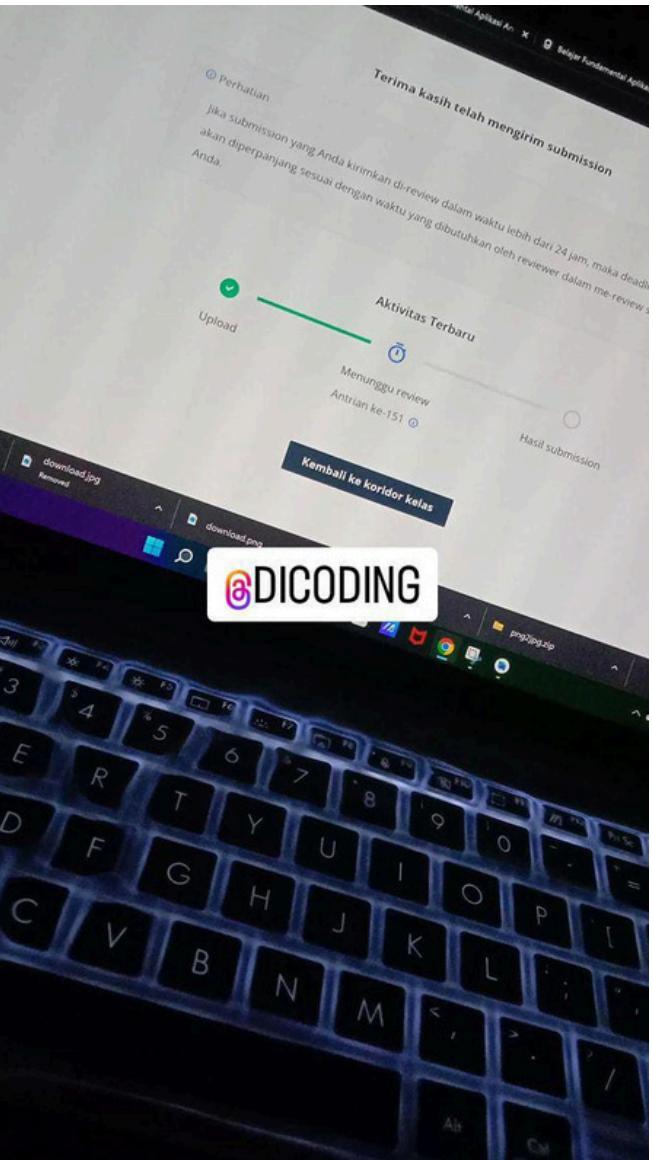




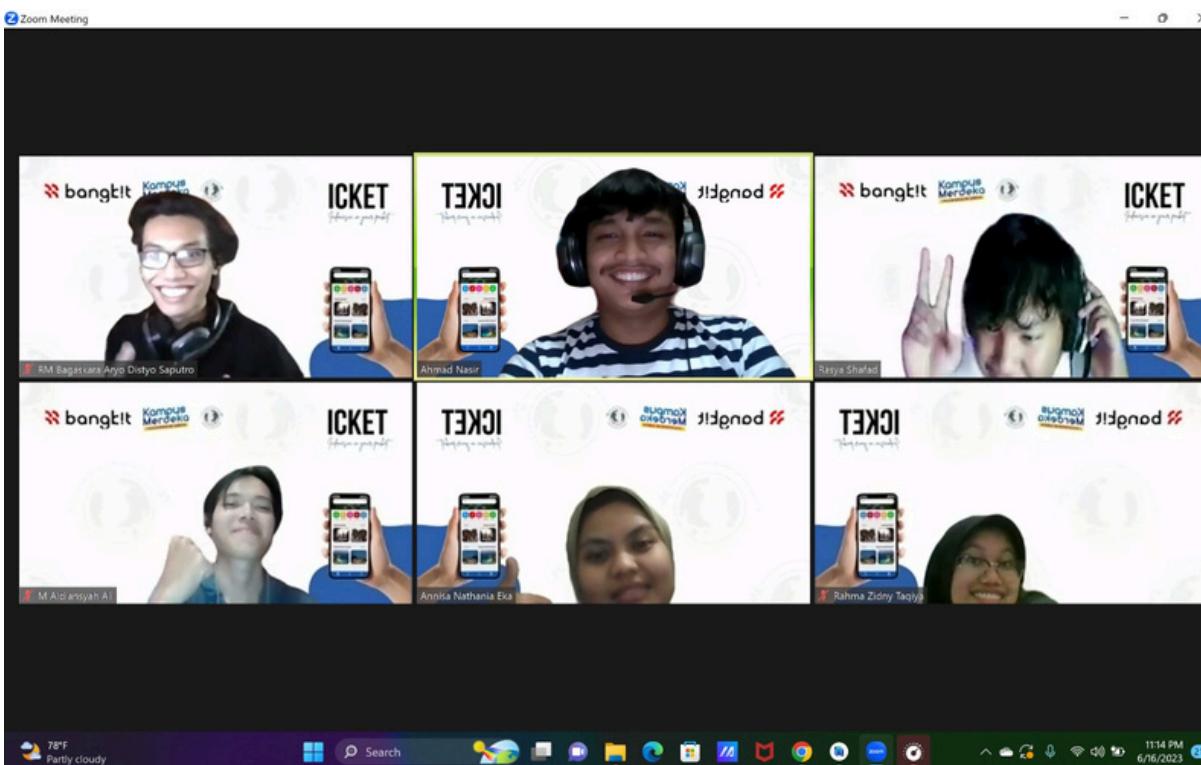
REFERENCE

1. Fatmawati, E. (2021). Strategies to grow a proud attitude towards Indonesian cultural diversity. *Linguistics and Culture Review*, 5(s1), 810–820. <https://doi.org/10.21744/LINGCURE.V5NS1.1465>
 2. Kurniawati, R., & Lestari, S. P. (2016). Preserving Indonesian Traditional Food An Overview of Food Museum Attraction. 431–434. <https://doi.org/10.2991/ATF-16.2016.64>
 3. Asfina, R. (Risda), & Ovilia, R. (Ririn). (2016). Be Proud of Indonesian Cultural Heritage Richness and Be Alert of Its Preservation Efforts in the Global World. *Humanus: Jurnal Ilmiah Ilmu-Ilmu Humaniora*, 15(2), 195–206. <https://doi.org/10.24036/JH.V15I2.6428>
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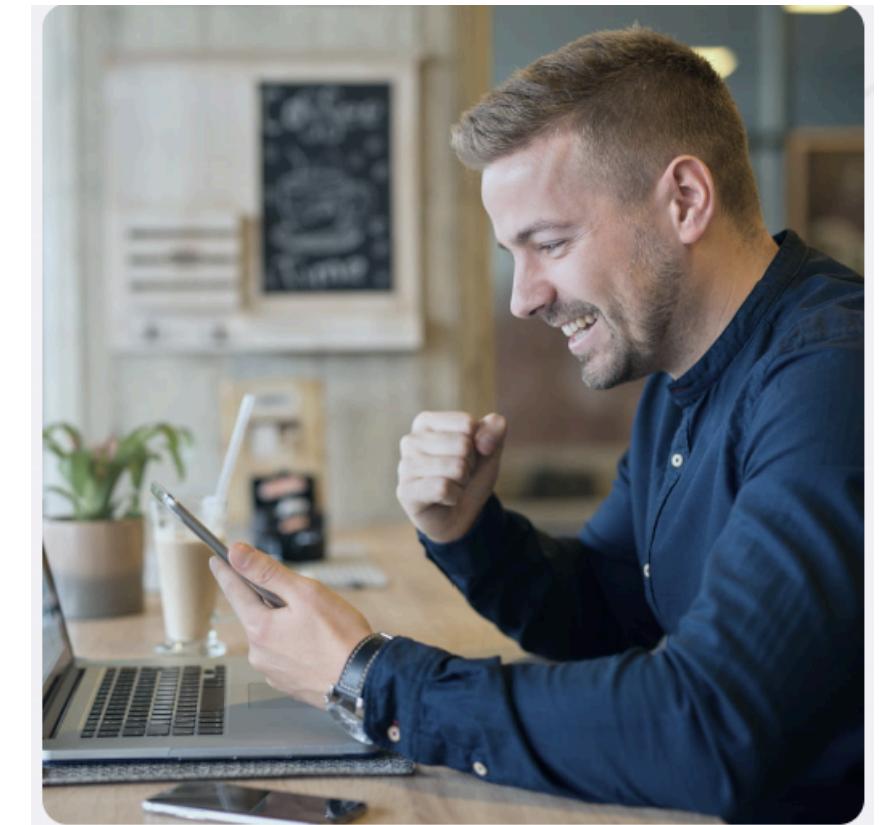
BEST MOMENT



Deadline submission



Team Capstone



MSIB
magang dan studi independen bersertifikat

AAD X MSIB