

2025

MAPID Academy

WebGIS Development Bootcamp

4 Agustus - 30 Oktober

Code the Map
Decode the Future



Outline

Location Value

Materials:

1. Konsep Perspektif Lokasi
2. Problem Definition & Spatial Thinking
3. Location Analytics (Business Cases)
4. Recall: Cloud GIS Platform vs Desktop GIS Platform
5. Introduction to GEO MAPID (Map Viewer & Map Editor)

Hands-On:

1. Understanding Basic Features GEO MAPID
2. Quickstart Mapping on GEO MAPID

MAPID Academy

WebGIS Development Bootcamp



Code the Map
Decode the Future

Location Value

Lokasi menjadi salah satu aspek yang punya value dalam mengidentifikasi kebutuhan bisnis.

Masayoshi Son
Founder, Chairman & CEO

SoftBank was founded for what purpose? For what purpose was Masa Son born? It may sound strange, but I think I was born to realize ASI. I am super serious about it. Are you serious, you may ask, can you do it? Actually, that was a question I asked myself. But this morning, I solved the most complex problem. That's why I am super confident today. Don't ask me why. Looking back, evolution of humanity, 200,000 years back, human used to drive evolution. Humans created tools, humans drove evolution. Pretty soon, AGI will come, maybe in five years, even in three years, sometime in three years to five years, AGI will come. Beyond that, AGI will drive evolution. In the past, geniuses have driven evolution of humanity, different geniuses stimulated each other and delivered evolution. Going forward, AGI stimulates AGI and drives evolution. Because AGI is much smarter than humans. Smarter AGIs stimulate smarter AGIs accelerate evolution. It's non-stoppable. Then, ASI will come. I think ASI will come sometime in 10 years. 10,000x smarter than humans. Looking back 200,000 years of the human history, compared to that, just less than 10 years, ASI will come.

SoftBank Group • AGM 2024 21 Jun, 2024

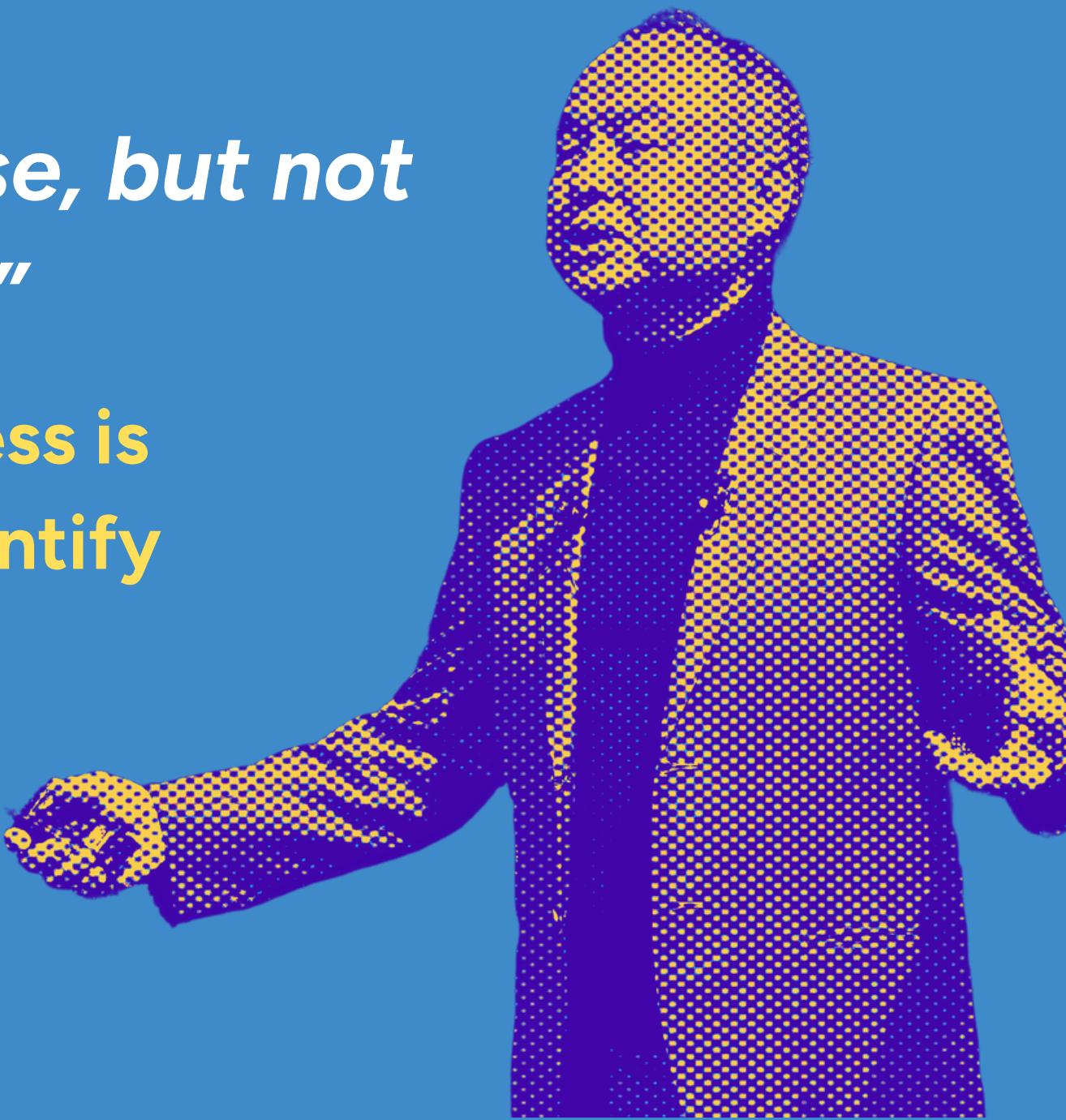
This highlight was created using Quartr Pro

Quartr

"Every company has a purpose, but not all have meaningful purposes"

CTA: If the core purpose of a business is to create value, then how do we identify that specific value?

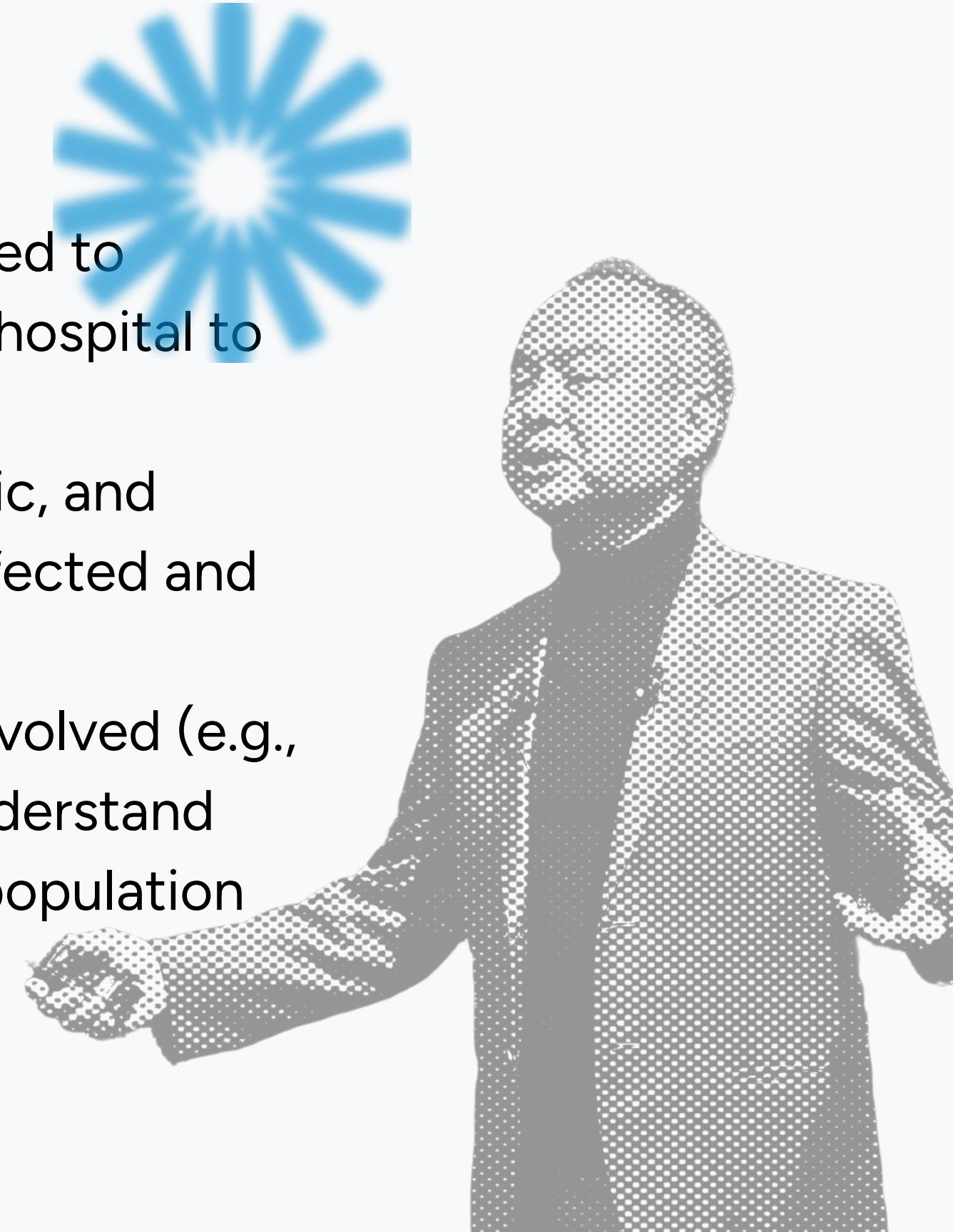
Let's think spatially!



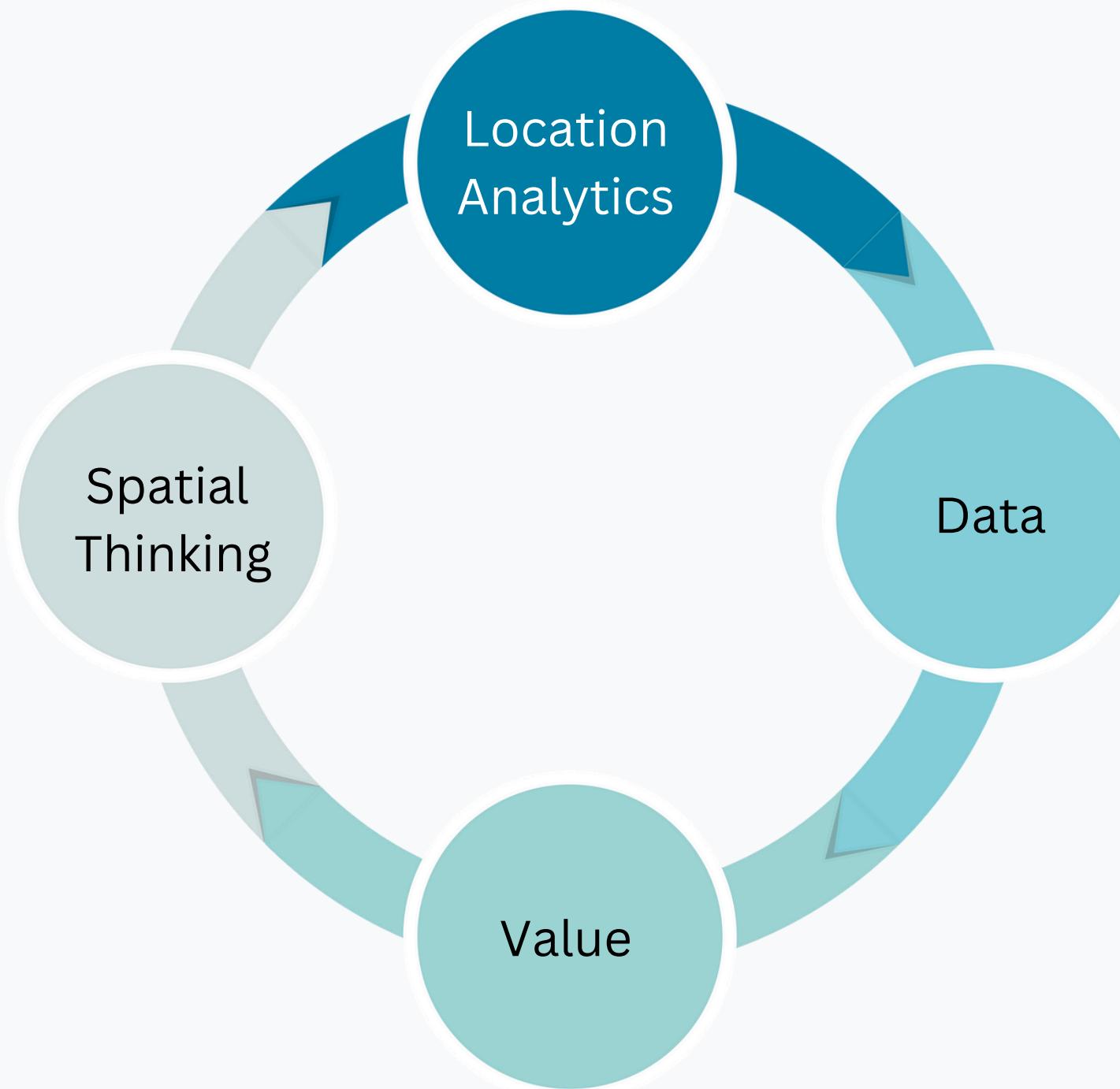
Understanding the Problems

Let's think spatially!

- **Define the Problem or Objective:** Clearly state what you need to address or achieve. Example: "Where should we build a new hospital to best serve the community?"
- **Understand the Context:** Consider physical, social, economic, and cultural aspects relevant to your problem. Identify who is affected and involved in the issue.
- **Identify Key Components:** List out the main components involved (e.g., population, transportation, existing healthcare facilities). Understand how these components interact with each other (e.g., how population density affects healthcare demand).



See This Cycle!



Value

Apa yang hendak dicapai oleh bisnis?

Spatial Thinking

Terjemahkan tujuan bisnis jadi pertanyaan tentang **LOKASI**

Location Analytics

Lakukan 4 teknik analisis, seperti **Deskriptif, Eksplanatori, Prediktif, dan Preskriptif**

Data

Perhatikan data lokasi yang akurat dan relevan



Edward Jones®

MAKING SENSE OF INVESTING

1980

Edward Jones conducted a series of analyses and consultations

discovered that its resonating value proposition was that it offered a highly personalized investment service to those individual customers who wanted to delegate investment decisions

This spatial reasoning resulted in the rapid growth of Edward Jones from 400 to 1,000 locations in a seven-year period



Code the Map
Decode the Future

Spatial Thinking/Reasoning

Catch the idea!

Value?

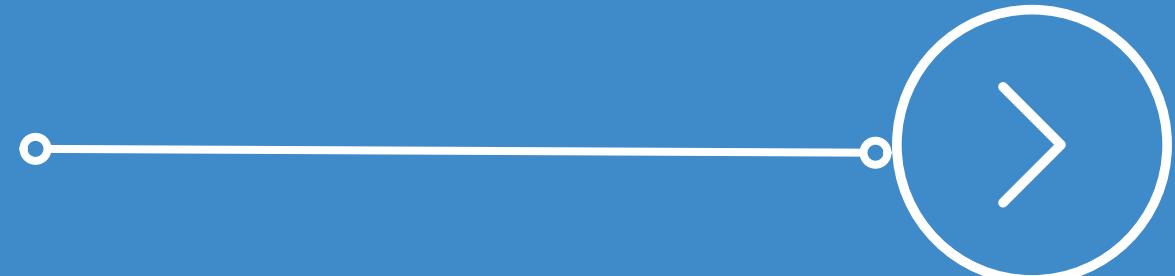
- Efficiently and quickly match passengers with drivers.
- Provide accurate and competitive estimates for time and pricing

Which driver is closest and has the fastest estimated time of arrival (ETA) to the passenger's location?

Spatial Thinking?

Location Analytics?

Data?



Location Analytics?

Code the Map
Decode the Future

Descriptive Analysis

What is happening?

Example: Displaying a real-time map in your app that shows the locations of nearby drivers

Explanatory Analysis

Why is this happening?

Example: Analyzing why wait times in Area X are consistently long every Friday night

Predictive Analysis

What is likely to happen?

Example: Based on historical data and upcoming events (e.g., a concert at GBK), we predict a spike in goride at 10 PM.

Prescriptive Analysis

What should be done?

Example: Based on historical data and upcoming events (e.g., a concert at GBK), we have to send notifications and offer incentives or bonuses to drivers near GBK before ends.

Data?

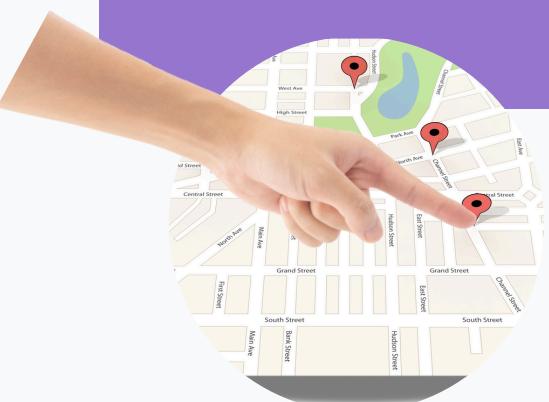


Real-time GPS data
Historical trip data
Third-party location data
Area polygons



Try to Respond!

Sebuah perusahaan manufaktur telah memproduksi barang konsumsi di kota Nairobi sejak 1995. Mereka sudah memiliki beberapa fasilitas produksi dan gudang di berbagai wilayah. Perusahaan ini ingin mengoptimalkan jaringan distribusi mereka agar lebih efisien, mengurangi biaya, dan memastikan produk sampai ke pelanggan dengan cepat.



Try to Respond!

Value

Apa yang hendak dicapai oleh bisnis?

Spatial Thinking

Terjemahkan tujuan bisnis jadi pertanyaan tentang **LOKASI**

Location Analytics

Lakukan 4 teknik analisis, seperti **Deskriptif, Eksplanatori, Prediktif, dan Preskriptif**

Data

Perhatikan data lokasi yang akurat dan relevan

Code the Map
Decode the Future

Business Use Cases



Logistics Optimization



Supply Chain Distribution



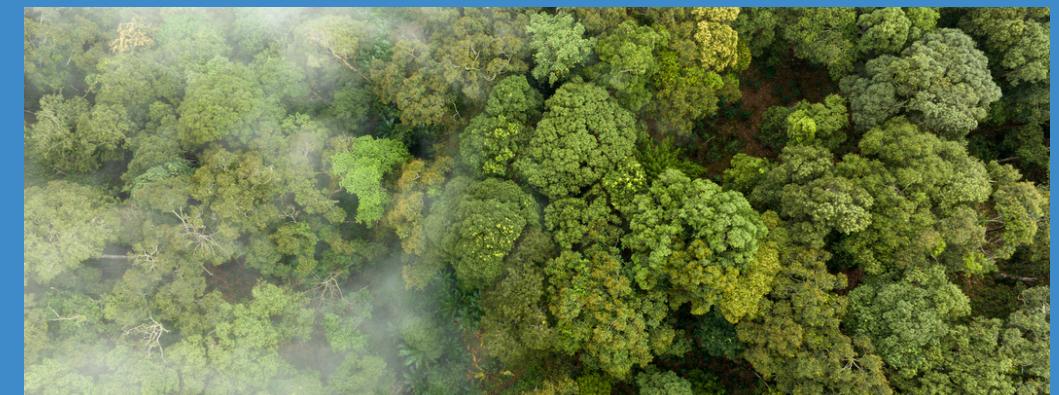
Land Development



Aset Appraisal



Transit Oriented Development



Environmental Protection

Business Use Cases

Logistics Optimization

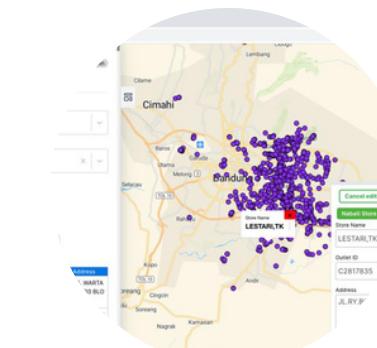


- Fleet Management
- Route Optimization
- Geofencing & Alerts
- Demand Forecasting
- Site Selection

The image displays a comprehensive logistics management interface. At the top right is a map of the Indonesian island of Java, showing numerous green icons representing truck locations across the coastal and inland areas. The map includes labels for major cities like Bandung, Yogyakarta, and Surakarta. Below the map are two mobile phone screens, each showing a navigation route from 'PPB Majalengka' to 'GTN CIKARANG'. The phones also show driver selection and route summary details. To the left of the phones is a desktop application window titled 'Advance Search' which includes fields for Order Number, Shipper, Receiver, Cargo Type, Schedule, and Vehicle. On the far left is another map of Java, identical to the one at the top, with green icons indicating truck locations.

Business Use Cases

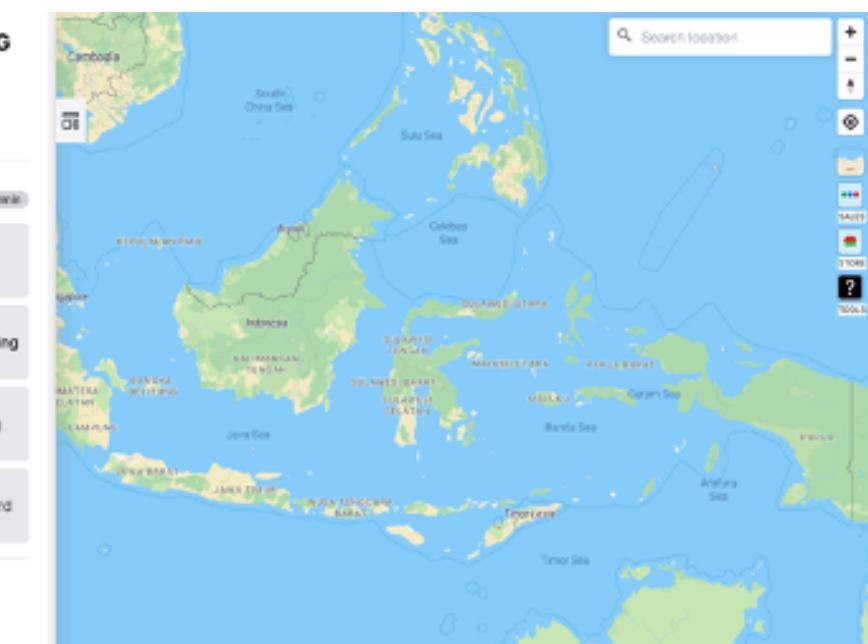
Supply Chain Distribution



Outlet Management

- Outlet Management
- Outlet Survey
- Salesman Activity
- Auto Planing
- Business Insight

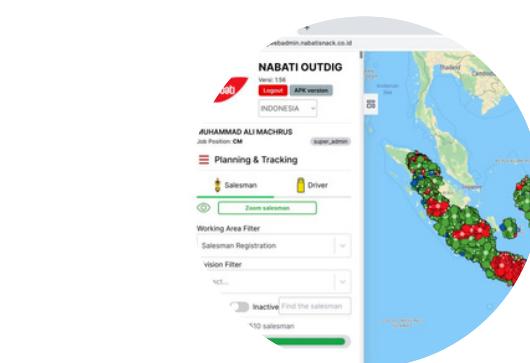
NABATI OUTDIG
Version: 1.56 Logout API version
INDONESIA
MUHAMMAD ALI MACHRUS
Job Position: CM super_admin
Outlet Management
Outlet Expansion
Sales Mapping
Stock & Depo
Outlet Survey
Planning & Tracking
Merchandising
Admin Dashboard



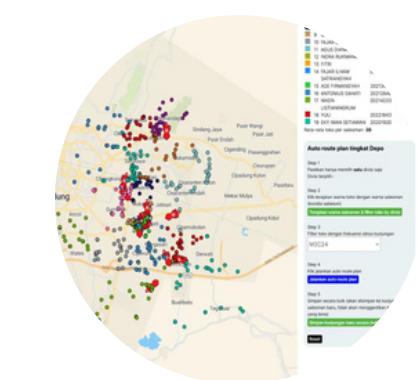
One-stop solution for
Planning & Tracking



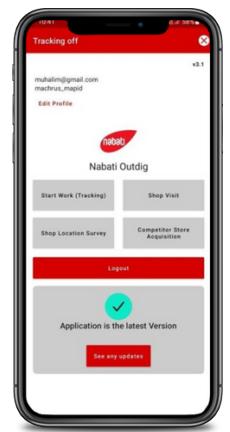
Outlet Survey



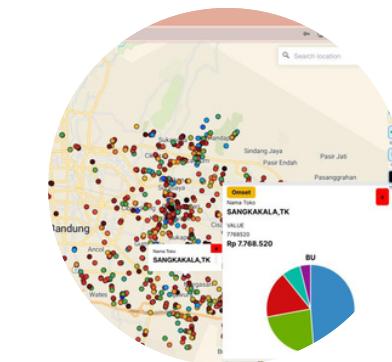
Tracking Salesman Activity



Auto Routing



Mobile Application



Omzet Outlet

Business Use Cases

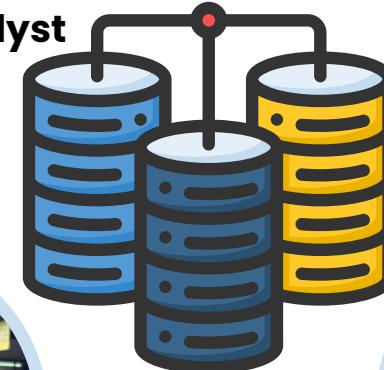
Land Development



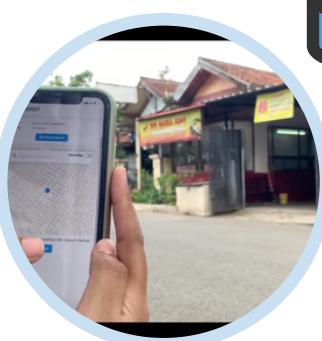
- Site Selection
- Infrastructure Planing
- Environmental Assessment
- Risk Assessment
- Market Analysis
- Land Use Planning



Business Analyst



Tech & Dev



Survey



Smart Sensing



Business Use Cases

Asset Appraisal



Danamas End-to-End Testing

No.	Surveyor	Status	Nama Borrower	Kode L
1.	M.Rinaldi Hasanudin	On Process	Titi Kamal	KC-MPA-
2.		Assign	Budi Andara	KC-MPA-
3.		Assign	Jumadi	

Pilih atau survei data pembanding (3 titik)

No	Latitude	Longitude	Jenis Objek
1			
2			
3			

Pilih minimal tiga data pembanding

isi indikasi nilai tanah setelah pengesahan	Percentase nilai	Jarak (meter)	Pilih jika memenuhi
922043	90	2.416	<input type="checkbox"/>
428032	90	2.453	<input checked="" type="checkbox"/>
360262	90	2.470	<input checked="" type="checkbox"/>
583364	90	2.517	<input checked="" type="checkbox"/>
780966	90	2.598	<input type="checkbox"/>
618495	90	2.595	<input type="checkbox"/>

LAPORAN HASIL PENILAIAN AGUNAN

No Laporan	X1234567				
I. PELAKU KEGIATAN PENILAIAN	Domi Salmanan domi.salm@gmail.com				
II. RINGKASAN HASIL PENILAIAN	Nilai Pasar Sesuai Fisik				
No.	Object	Luas (m ²)	Nilai/m ² (Rp.)	Total (Rp.)	Indikasi Nilai Likuidasi
1.	Rumah 1	70	4.792.900	335.902.971	3.355.030
	Sarana Pelengkup			26.860.000	25.802.000
	TOTAL SESUAI FISIK REAL		1.069.245.093	828.353.193	

Total Indikasi nilai tanah agunan

No	Nilai pembobotan	Nilai indikasi tanah setelah pembobotan
Data pembanding 1	33.3%	Rp.1.785.714
Data pembanding 2	33.3%	Rp.1.826.056
Data pembanding 3	33.3%	Rp.1.862.389
Total Indikasi nilai tanah agunan		Rp.5.474.159

- Accurate Valuation
- Comparable Analysis
- Market Trends
- Risk Assessment
- Zoning and Regulation
- Investment Analysis
- Data Validation
- Transparent Reporting

What's the difference?

Code the Map
Decode the Future

CLOUD
CLOUD
CLOUD
CLOUD

GIS ?



DESKTOP
DESKTOP
DESKTOP
DESKTOP

Basic Differences

Code the Map
Decode the Future

CLOUD GIS

Location Analytics

Simple to Medium Data Processing

Business Focused (Expand, etc)

Real Time Processed

Cloud Based

DESKTOP GIS

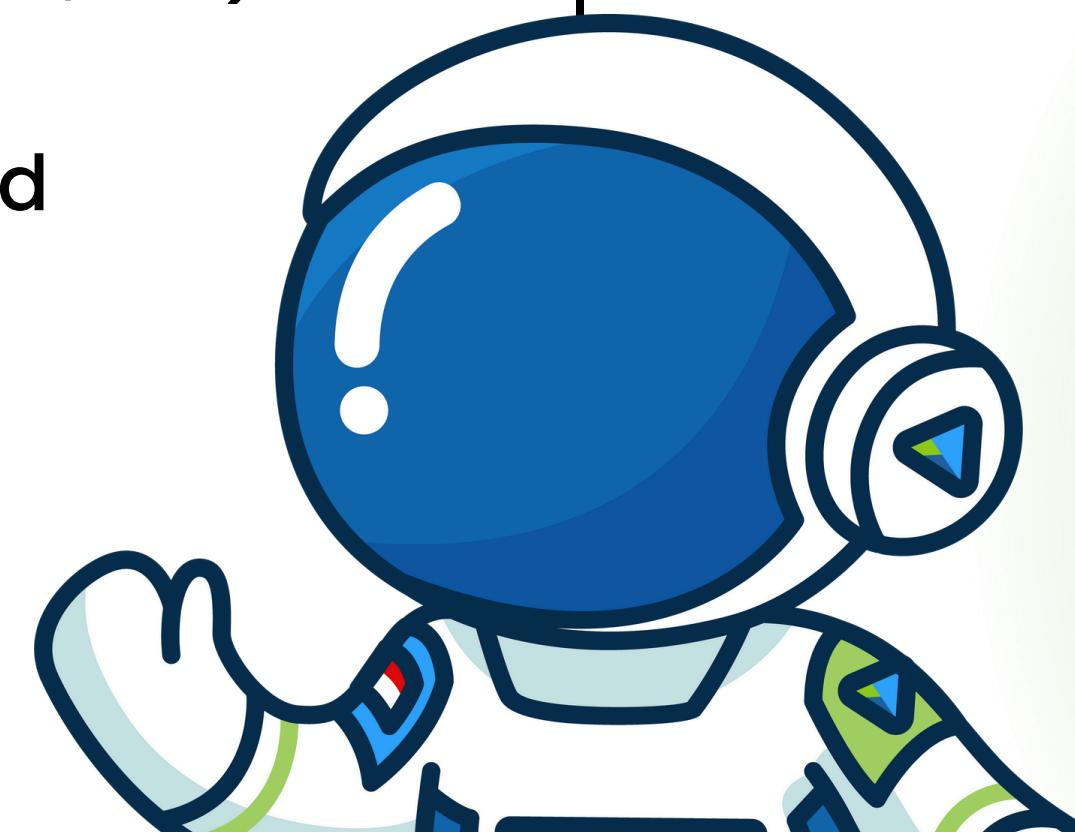
GIS Warehouse Analysis

Simple to Advance Data Processing

Majority on Academic Purposes

Statically Proccesed

Desktop Based



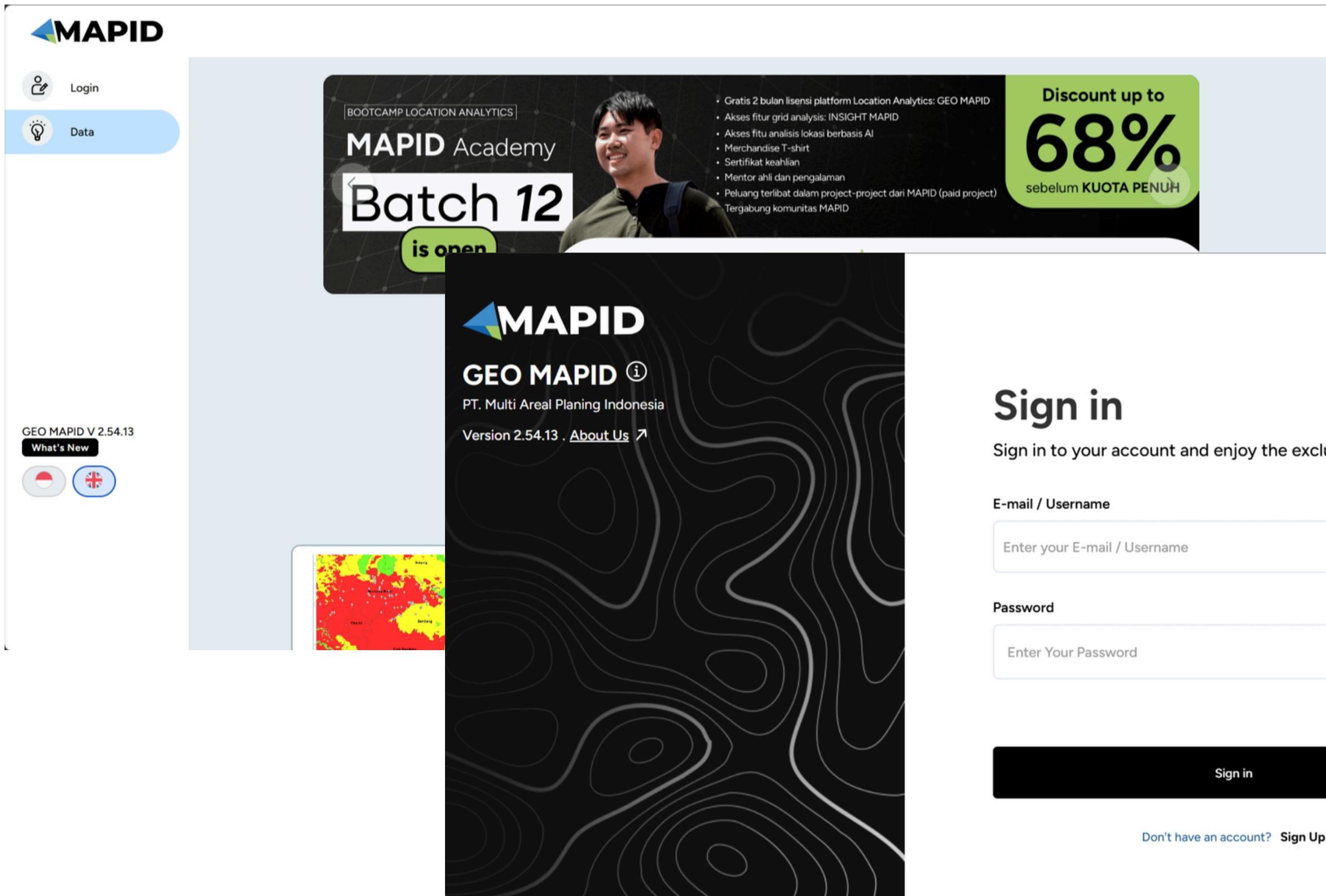
Introduction to GEO MAPID

Code the Map
Decode the Future

GEO MAPID: What can I do?

- Creating a custom map by self-digitizing,
- Visualizing existing data,
- Accessing data provided by MAPID,
- Identifying potential locations to expand business,
- Creating a MAPID FORM,
- Making a publication,
- etc.

Code the Map
Decode the Future



Sign in

Sign in to your account and enjoy the exclusive features.

E-mail / Username

Enter your E-mail / Username

Password

Enter Your Password

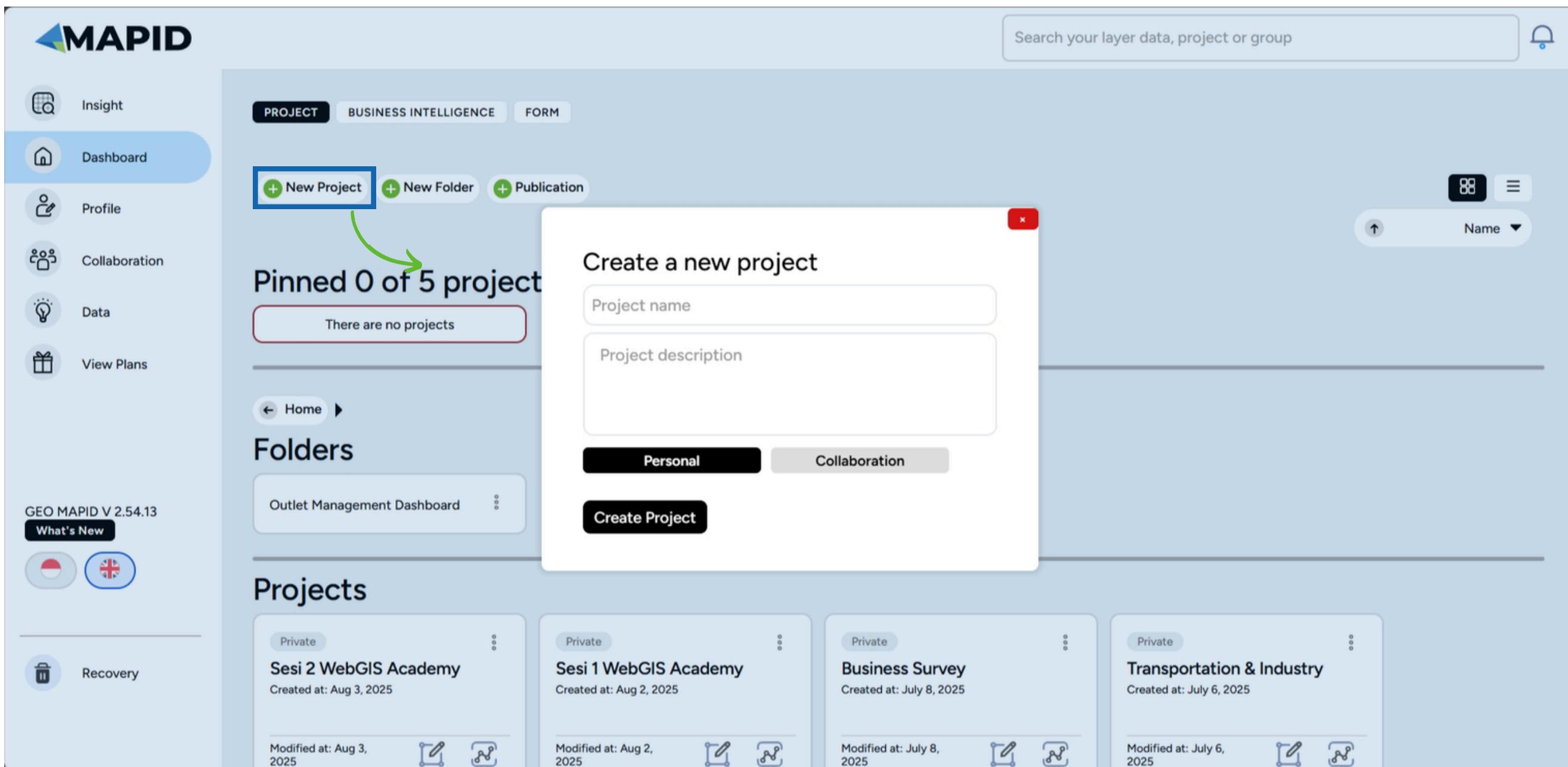
[Forgot Password?](#)

[Sign in](#)

Don't have an account? [Sign Up](#)

Sign in and generate your idea!

Pembuatan Project



The journey will begin with one click of this....

GEO MAPID as A Database Map Editor

Code the Map
Decode the Future

The image shows the GEO MAPID map editor interface. On the left is the 'Left Side Bar' with various tools and options. The main area is the 'Layer mode' map of Southeast Asia and Oceania. On the right is the 'Right Side Bar' with additional tools and settings.

Left Side Bar:

- Create your Own Map
- Upload your Own File
- Explore Data MAPID
- Merge Data
- Folder Management

Right Side Bar:

- Max/min the map
- "Your Location"
- GEO MAPID Tool
- Legend
- Basemap style
- Language

Layer mode

Layer "explore your data here"

Right Side Bar:

- Max/min the map
- "Your Location"
- GEO MAPID Tool
- Legend
- Basemap style
- Language

Click the plus button to get started SINI

1

2

3

4

GEO MAPID Tools

DATA

Layer: lereng
lereng
Project: Final Project

Pilih kolom untuk disaring
Pilih Kolom...
Parameter yang difilter:
X Reset filter & tampilkan semua data

Grafik Luas Zona utama Agroekologi

Zona	Luas (Ha)
Badan Air	850
Zona I	100
Zona II	100
Zona III	100
Zona IV	100
Zona V	100
Zona VI	100
Zona VII	100

Sum
Average

1

SINI

Klik di peta
Riwayat AI
Pintasan riwayat

Tampilkan SINI

Klik tombol plus untuk memulai SINI

2

TOOL

TOOL BOX

Distance

+ Measure distance

Distance
Measure the straight line distance between point A to point B or length of a line

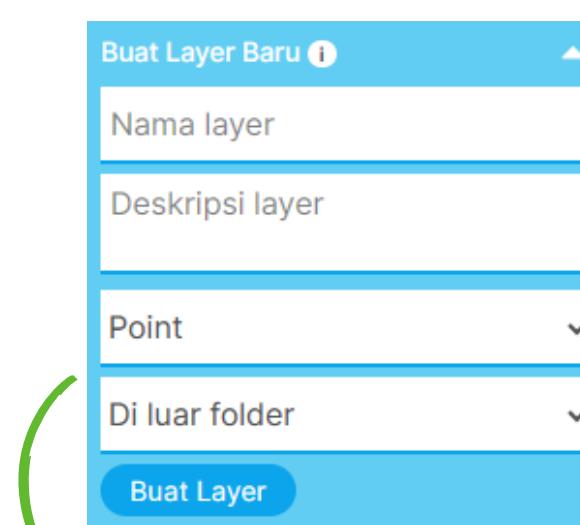
Distance
Elevation
Area
Radius
Isochrone
Grid count point

3

Simple to Medium Processing

Digitasi Pada Layer

Code the Map
Decode the Future



LINESTRING

POLYGON

Lainnya

SMA
Tipe : Polygon
digitasi V2

M. Ilham Habib

+

Unduh xls

1

2

3

MAPID
Mapid academy batch 8 Edit

Buat Layer Baru

Unggah File

Hubungkan ke API

Join Table

Impor data

Buat Folder

Lihat Aktivitas

Lengkap Ringkas Judul saja

Buka semua folder Tutup semua folder

Filter layer berdasarkan nama

Cari

Jalan S. Parman

Tachi Mart

Masjid Darul Jannah

Dinas Koperasi dan UKM

Masjid Nurul Yakin

Kantor Kecamatan Padang Utara

SMP Negeri 25 Padang

Yayasan Bangunan Cemerlang Indonesia (Build Change)

Jalan Belanti Raya

Beringin V

TAMAN MAKAM PAHLAWAN LOLONG

SD N 23 Lolong

Taman Makam Pahlawan Lolong

Kantor Lurah Lolong Belanti

Jalan Beringin

Masjid Darul Jadid

Hani Mart

No. ↑ New Column

1.

Search... TAMBANG BARIS COLUMNS Unduh xls

Rows per page: 100 1-1 of 1

4

5

6

Simple to Medium Processing Import Data

The screenshot shows the MAPID platform interface. On the left, a sidebar contains buttons for 'New Layer', 'Upload File', 'Connect to API', 'Join Table', 'Import data', 'New Folder Layer', 'View Activities', and 'Open all folder'. A dropdown menu is set to 'Name'. Below this is a preview of a feature named 'MRT Jakarta' with options to 'View', 'Heatmap', 'Geometry', 'Table', and 'Notes'. The main area features a search bar and a map showing regions like KAYAH STATE, XAISOMBOUN, KHAMMOUANE, and HAINAN. A blue callout bubble on the right says 'Data Anda: Data Anda: Data Dalam Project Yang Pernah Anda Buat'. Another blue callout bubble below it says 'Data Premium: Data MAPID Khusus Untuk Pengguna Yang Berlangganan'. The bottom right corner of the map area has the text 'GEO V 2.54.1'.

Data Anda: Data Anda: Data Dalam Project Yang Pernah Anda Buat

Data Premium: Data MAPID Khusus Untuk Pengguna Yang Berlangganan

Simple to Medium Processing Upload Data

The screenshot shows the MAPID platform interface for uploading data. On the left, there's a sidebar with various buttons like 'Buat Layer Baru', 'Unggah File', 'Pilih folder', and 'Di luar folder'. The main area has a map with markers for 'Tachi Mart' and 'Masjid Darul Jannah'. A blue callout points to the 'Unggah File' button.

Unggah File

Geojson Batch Upload

Catatan:

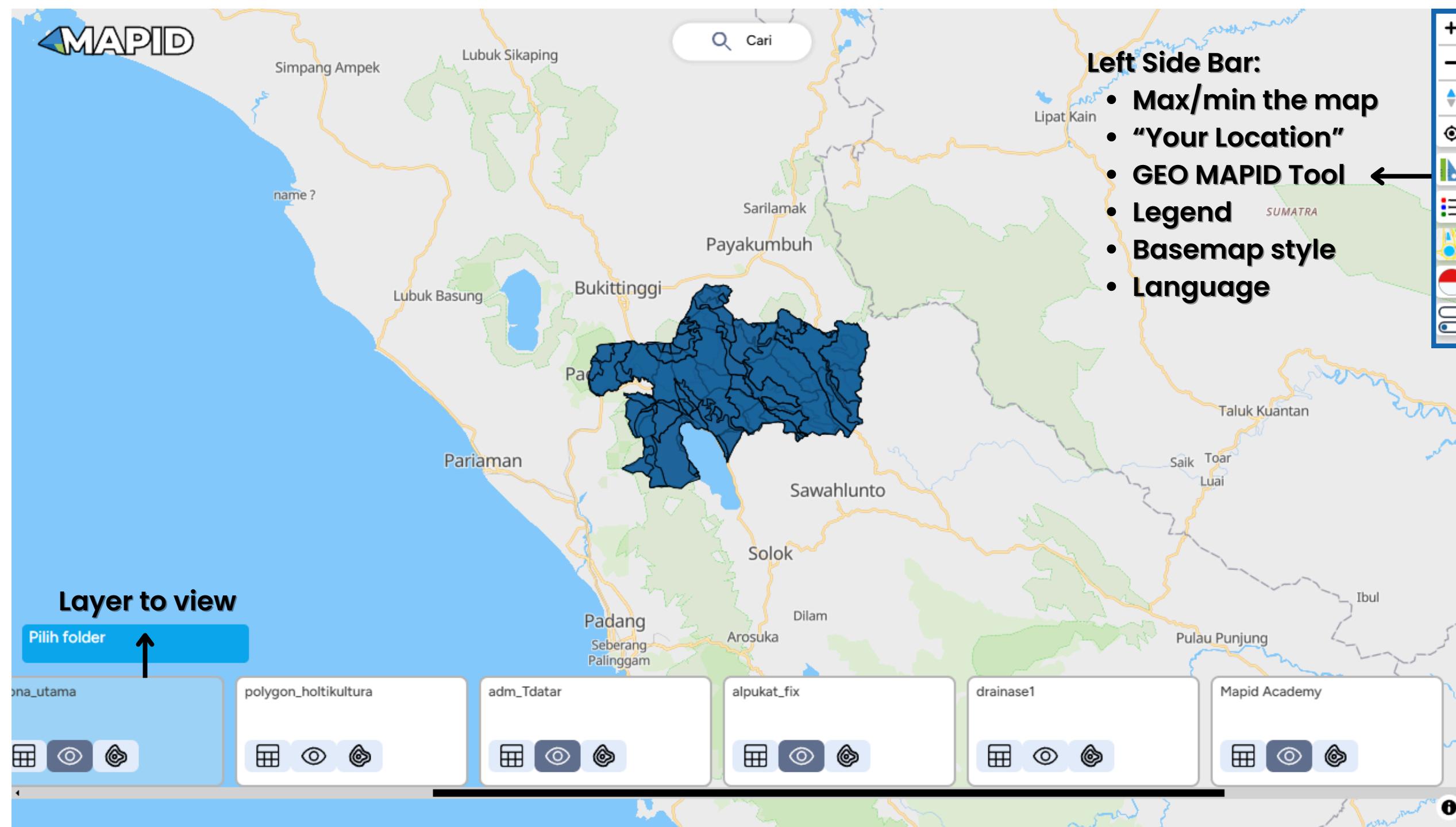
- Tipe koordinat yang diterima adalah latitude longitude bertipe WGS84 / CGS dalam derajat desimal.
- Untuk berkas shapefile, harus berisi 4 berkas didalamnya (prj, shp, shx, dbf) yang disatukan menjadi .zip.
- Maksimum besar file 14 MB namun bisa lebih kecil jika ukuran geometri dalam satu feature terlalu besar.
- Mendukung ekstensi .csv, .xlsx, .geojson, .GeoJSON, .json, .JSON, .shp, .zip, dan .kml
- Untuk berkas xlsx pastikan data berada pada Sheet1
- Desimal harus dipisahkan dengan titik. Contoh: 106.8858778

Filter layer berdasarkan nama

No. ↑	New Column
1.	

Search... **TAMBAH BARIS** **COLUMNS** **Unduh xls** **Rows per page: 100** **1–1 of 1**

Map Viewer



TOOLBOX

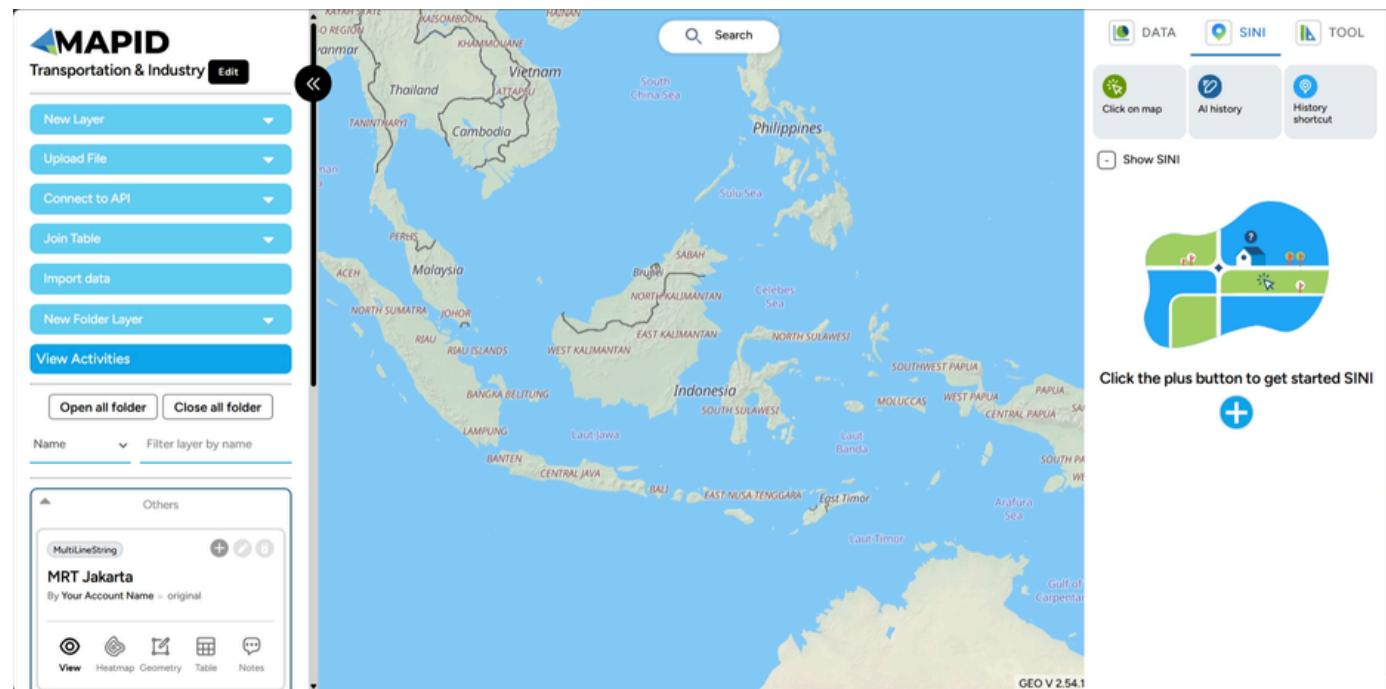
The collage consists of six screenshots arranged in two columns and three rows:

- Top Left:** A 2D map of Jakarta showing a red polygon area. A blue line with a 'driving 10 min' label connects a point on the polygon to another point. The 'Isochrone' tab of the Toolbox is active.
- Top Middle:** A 2D map of a residential area with a large blue circular buffer drawn around a central point. The 'Radius' tab of the Toolbox is active.
- Top Right:** A 2D map showing elevation contour lines across a line feature. The 'Elevation' tab of the Toolbox is active.
- Middle Left:** A 3D perspective map showing a green polygon area. The 'Area' tab of the Toolbox is active.
- Middle Middle:** A 2D map showing a straight line between two points. The 'Distance' tab of the Toolbox is active.
- Middle Right:** A 2D map showing a line feature with elevation data points plotted along it. The 'Elevation' tab of the Toolbox is active.

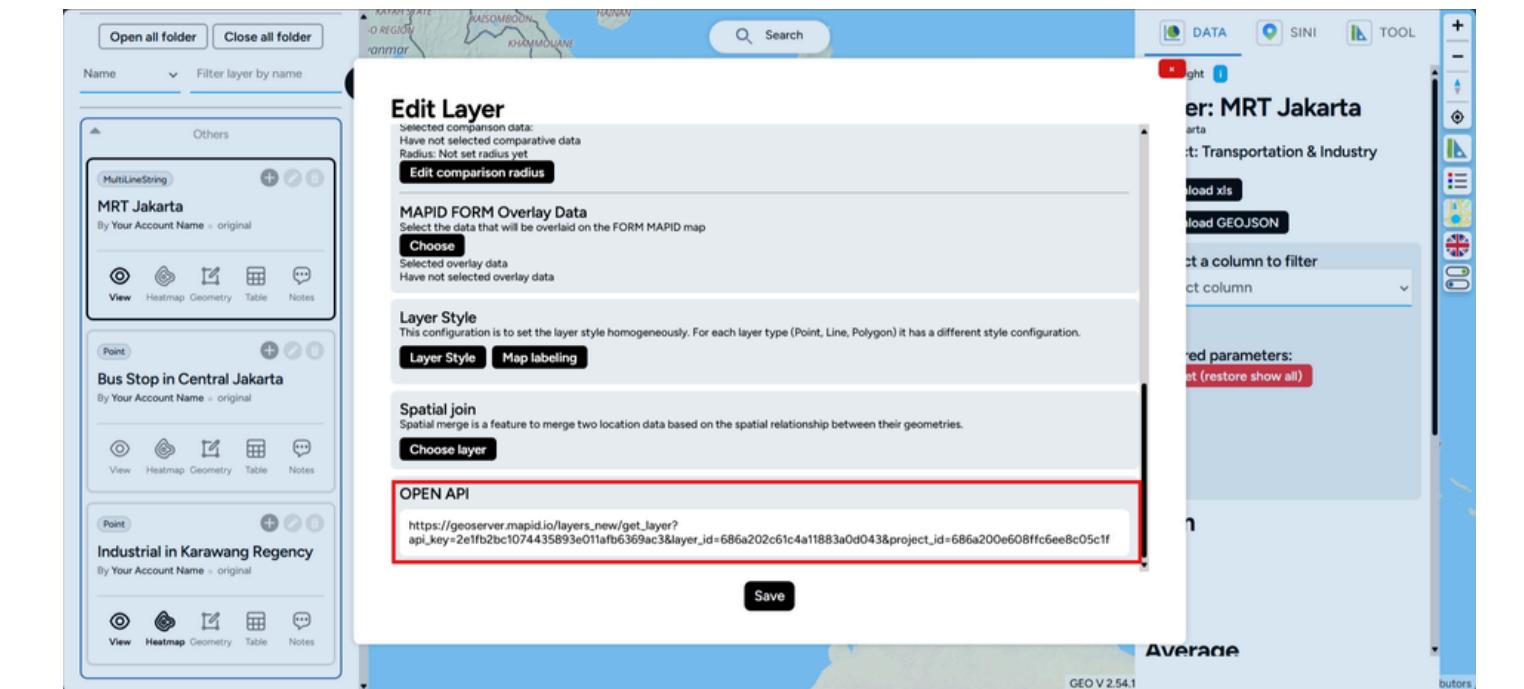
What can I do with TOOLBOX?

- Measure the distance or length of line features (linestrings)
- Calculate the area covered during travel
- Filter data based on a specified radius or area
- Create cross-sectional profiles along a defined line

How to Access Open API Layer



Pilih **Project** Tempat Anda
Menyimpan Data



Pilih **Layer** untuk Diakses
untuk data WebGISmu

OPEN API

```
https://geoserver.mapid.io/layers_new/get_layer?  
api_key=2e1fb2bc1074435893e011afb6369ac3&layer_id=686a202c61c4a11883a0d043&project_id=686a200e608ffc6ee8c05c1f
```

Access via your code!

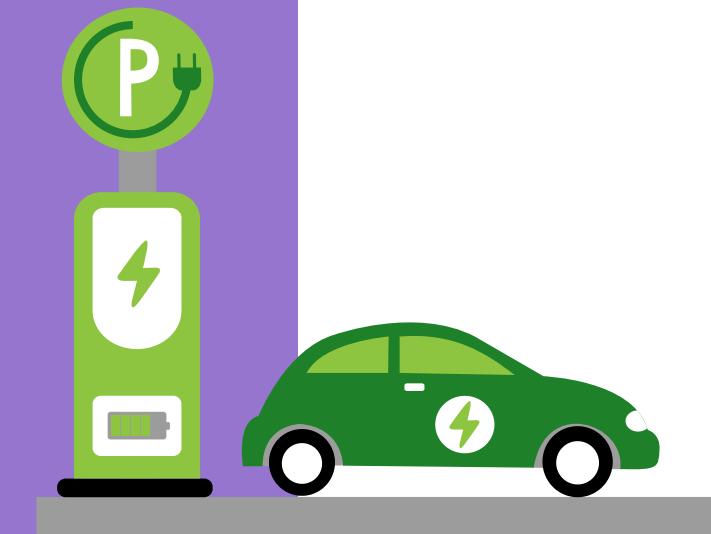
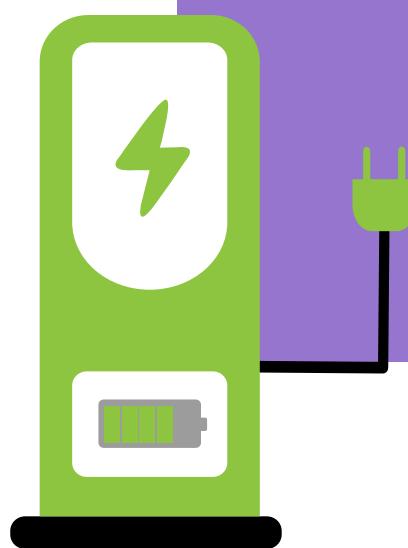
Hands-On

Location Analytics & GEO 1

Code the Map
Decode the Future

Apa yang akan kita lakukan?

- Tujuan: Mencari Lokasi Strategis untuk Jaringan "Charge & Chill" EV Charging Station di Surabaya!
- Langkah-langkah:
 - *Understanding business*
 - *Data collection*
 - *Visualization*
 - *Analyze*
 - *Pick your recommendation*



mapid.co.id/handsongeo1

Home Task

Location Analytics & GEO 1

Code the Map
Decode the Future



Home Task: Menentukan Lokasi "Blockbuster" untuk Jaringan Bioskop CineMAX di Surabaya

Misi: melakukan analisis nilai lokasi (Location Value Analysis) secara lengkap dari deskriptif hingga preskriptif untuk memberikan satu rekomendasi lokasi baru yang didukung oleh data.



Check the details on: mapid.co.id/taskgeo1