ElitSales AI-Powered Recommender

Recommendation Engine for Sales Increase

Elitmind for Business

Microsoft Partner

Gold Data Analytics
Gold Cloud Platform
Gold Data Platform
Gold DevOps
Gold Datacenter

Microsoft

www.elitmind.com

Are you familiar with these problems?

Which **product** should be stocked in which location?

Where are you **clients** and what are their key features?

How to use **sales** data to optimize stocking process?

Which **locations** support your business?

Why some **facilities** do better than others?

How to assess product sales based on its **history**?

If so, it's time to get to know **your business environment**

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Business environment tells all about your customers, contrahents, sales characteristic and sales potenial.

Your company can be described by **hundreds of parameters** representing business environment. It describes your business in holistic way enabling you to discover correlations between parameters and answear the qurestions how they affect your bussiness.

Many of them are hidden in geolocation. Information about your facilities neighbours provides characteristic of clients and sales potential.

How about to have deep understanding of **your business environment?**

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- to understand needs of customers
- to know dependencies between location and sales
- to evaluate sales of each product
- to stock up an appropriate products
- to find minimal stock level
- to find key features of best location
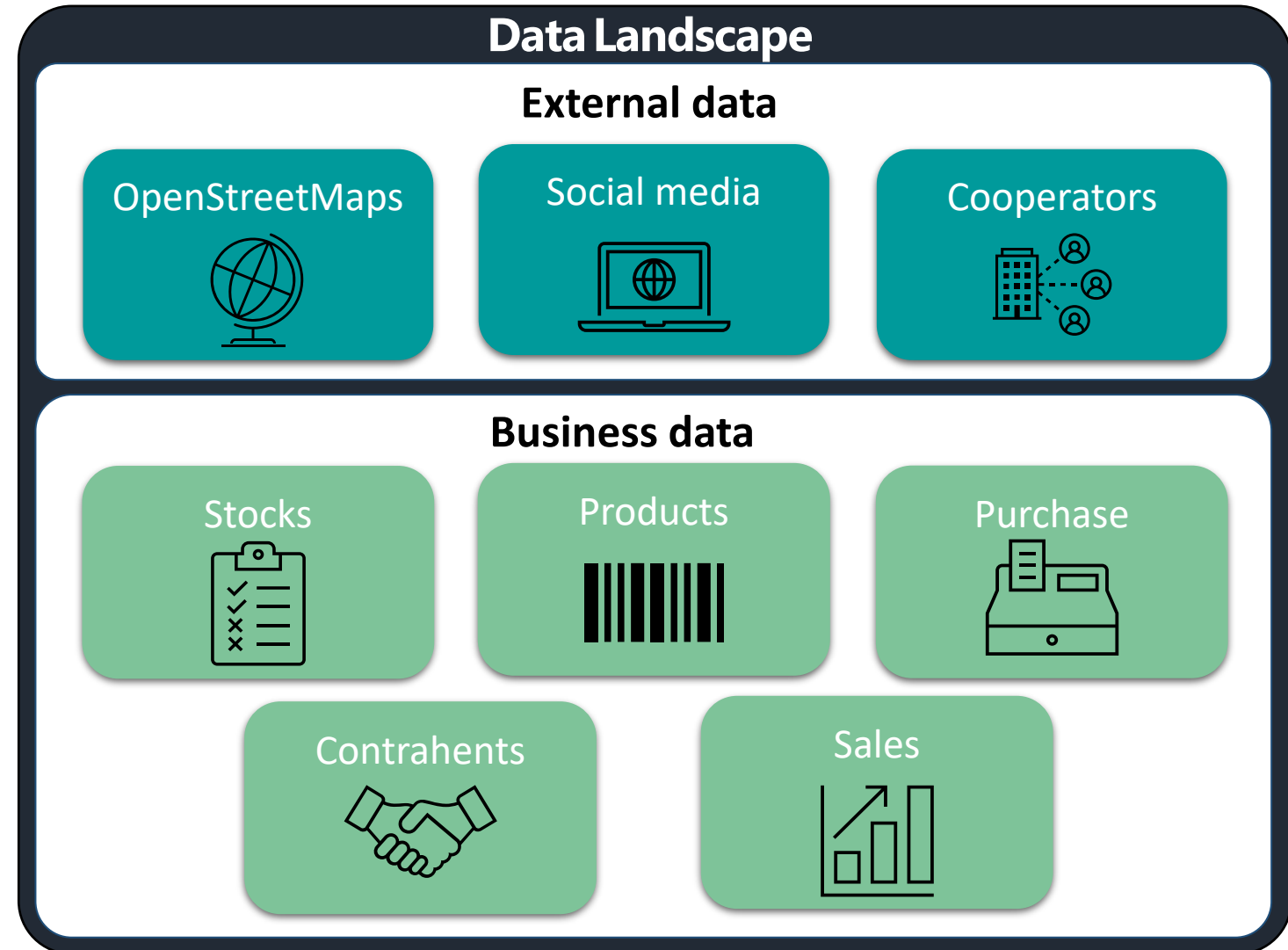
We have **solution**:

We help empower organizations to **understand** its **business environment** to derive insights that **power optimization processes**.

ElitSales AI-Powered Recommender is a ML solution developed by **Elitmind** based on Azure Machine Learning Service and Microsoft Azure platform.

We use wide data landscape to find all essential features which makes possible to analyze your bussiness from different perspectives.

We particularly focus on **correlation between geolocation and business data** like product's sales.

Data Landscape

External data

OpenStreetMaps	Social media	Cooperators

Business data

Stocks	Products	Purchase

Contrahents	Sales

Understanding of **location** is key to success

Facility location definies potential of your business. Good location may ensure high profits and success. Apart from choosing the right location, it is extremaly important to understand location, which definies your customer and your customer needs, and adjust goods to them accordingly.

Location gives you full information about your facilities neighborhood. It helps you to answear questions like what is in your neighborhood? Are there any offices or shopping mall? Is it housing area or business center? Are there many pedestrians?

Location data provides you:

- Characteristic of each facility neighborhood (city center, industrial area, housing estate, business center etc.)
- Distance to nearest specific type of facilities like shopping center, school, hospital, public transport spot etc.
- Number of specific type of facilities in closest area.
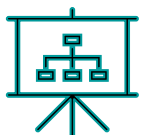
Analysis of location data provides conclusions about:

- What location is best for new facility.
- What is an impact of characteric of your facility neighborhood on your business.
- What correlations are between your location characteristc and sale of any specific product.
- What is an impact of specific type of facilities in your neighbourhood on your business.

Sales Recommender

Application

ElitSales AI-Powered Recommender is an analytical and decision support tool dedicated for:

- Analysts Team
- Sales Team
- Purchasing Team

It helps to make an optimal decisions related to stocking process based on business and geolocation data.

Reporting

ElitSales AI-Powered Recommender calculation results are presented in Power BI dashboard. Intuitive reports show all essential information and makes it easy to make an optimal decision and take an action. Dashboard may contain dedicated reports for different teams focusing on pameters which are especially important for each team.

Assessment tool

ElitSales AI-Powered Recommender allows to assess:

- Sales of each product
- Potential of location
- Potential of product sale in specific location

Analysis of potentials helps to decide which product should be stocked in which location. What's more it helps to evaluate location potential before new investment.

Integration

ElitSales AI-Powered Recommender API enables to integrate it with other systems like purchasing or sales systems. API integration can be used to provide an automatic decision-making feature, example: purchase process may be automatically optimized based on product sales assessment.

Sales Recommender

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Assess products sales

- ✓ **ElitSales AI-Powered Recommender** creates characteristics of product sale – set of factors describing sale efficiency,
- ✓ Finds minimal stock level,
- ✓ Calculates rotation factor
- ✓ Indicates 3 groups of cases (product & facility):
  - ✓ Positive sale efficiency
  - ✓ Negative sale efficiency
  - ✓ Products never sold in facility

Assess sale potential

- ✓ **ElitSales AI-Powered Recommender** finds key features affecting your sales efficiency based on you business environment
- ✓ Creates ML models to cluster facilities into 3 groups:
  - ✓ High sale potential
  - ✓ Medium sale potential
  - ✓ Low sale potential

Product recommender

- ✓ **ElitSales AI-Powered Recommender** combines products sale assessment and sale potential analysis and divides cases (products & facility) into 9 clusters
- ✓ Indicates which products should be stocked in which facility

Sales Recommender

ElitSales AI-Powered Recommender uses advanced analytics techniques and machine learning algorithms to create product recommendation:

✓ Based on rotation factor which is defined as sale in relation to minimal stock level, ElitSales Recommender indicated which product has negative (lower than 1) and positive (higher than 1) sale characteristic. It is calculated for every product in every facility.

✓ ML segmentation models group simillar products potential based on its characteristic parameters. It is calculated for every product in every facility.

✓ Combination of sale characteristic and sale potential creates **recommendation matrix.**

ElitSales AI-Powered Recommender provides:
✓ Assortment tailored to customer needs;
✓ Higher sales;
✓ Opportunity to attracks new loyal customers;
✓ Lower storage costs;
✓ Better understanding of environment impact on your business.

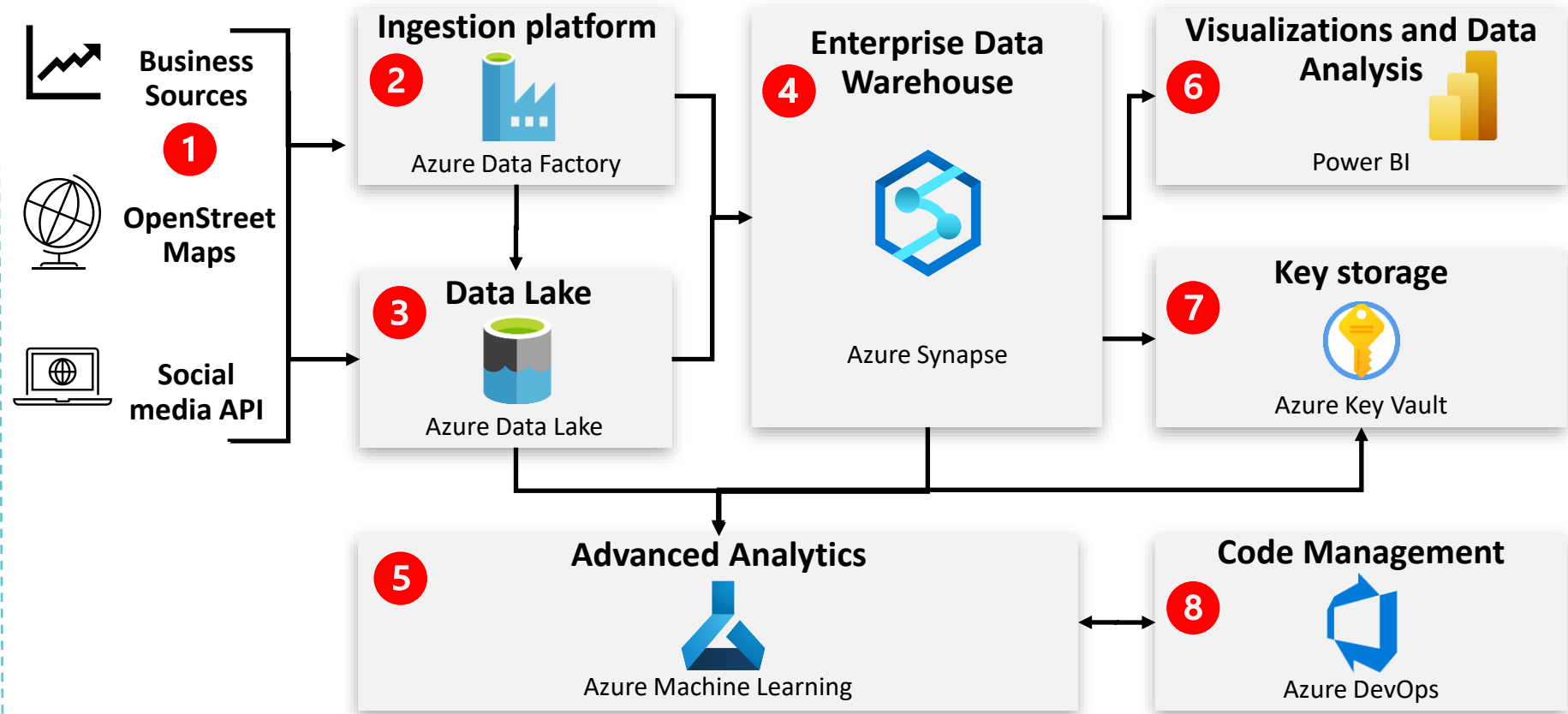| Sale characteristic	High	Medium	Low
Negative	12	345	1425
No data	252	2001	121
Poisitive	1245	145	14

Sale potential

Our approach
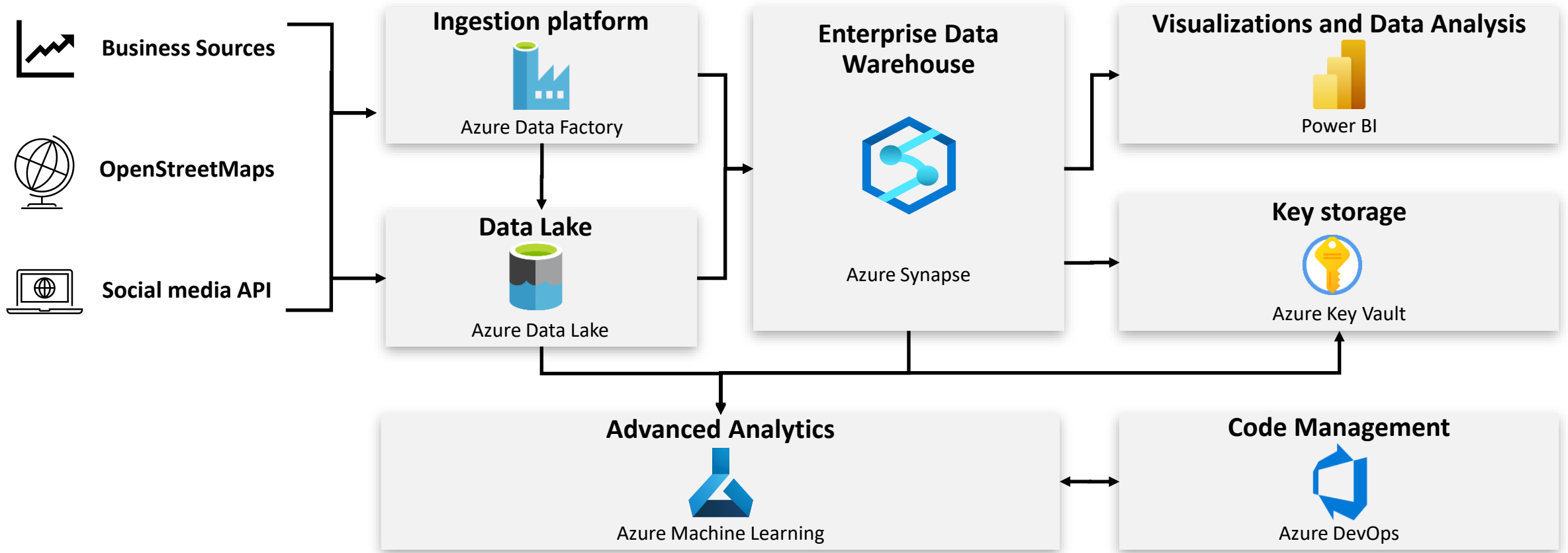
Our approach

1. Load data from different source systems including external databases.

2. Ingest data using ELT processes.

3. Store your data in Data Lake storage for Data Warehouse and Advanced Analytics usage.

4. Build Trusted & Standarized Data platform in Azure Synapse Analytics.

5. Create one analytical platform for Data Analytics and Advanced analytics.

6. Create Business Intelligence and Reporting solutions in Power BI.

7. Secure keys and cerificates in one safe place.

8. MLOps improves the quality and consistency of your machine learning solutions

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Business Sources

OpenStreet Maps

Social media API

Ingestion platform
2
Azure Data Factory

Data Lake
3
Azure Data Lake

Enterprise Data Warehouse
4
Azure Synapse

Advanced Analytics
5
Azure Machine Learning

Visualizations and Data Analysis
6
Power BI

Key storage
7
Azure Key Vault

Code Management
8
Azure DevOps

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Business Story
Pharmacy product recommendation engine

Problem: How to optimize pharmacy stocking process? What product should be stocked in which store?

Solution: Extension and analysis of data landscape including OpenStreetMaps, Facebook, national healthcare provider (NFZ). Indication of key features and based on that ML segmentation model training. Delivery of recommendation matrix by Machine Learning model which categorized products for each pharmacy. Enablement of making an optimal decision about stocking up and evaluating historical sales.

Business value: Assortment tailored to customer needs. Less resignation due to better product supply match. Increased customer loyalty.

Extended data landscape

Sales evaluation

Location assessment

Sales potential calculated

Optimized storage

Choose your path to
ElitSales Recommender

Envisioning workshops

- Discuss about use cases
- Discuss about data landscape and possibilities of its extension
- Envision best suited architecture based on customers requirements
- Provide workshops showing Azure Service analytics components
- Propose Implementation Roadmap
- Estimated cost – **5.000$**

Proof of Concept

- Testing implementation starting from 5-6 weeks
- Provide solution for chosen business area
- Provide all necessary Azure architecture elements
- Provide algorithms and ML models dedicated for your business case
- Additional payments for MS Azure platforms utilizations
- Estimated cost – **20.000$**

Full Implementation

- Full Implementation starting from 12 weeks
- Additional business areas
- Additional Machine Learning models (if necessary)
- Provide models and solution operationalization
- Provide Power BI reports to track results
- Additional payments for MS Azure platforms utilizations
- Estimated cost – **50.000$** (Extensions' cost depends on requirements and scope)

Maintenance

- starting from **2.000$** per month

How we make it **work**

Fast & Agile

- **Scrum** methodology with **Azure DevOps**

- **Faster and frequent delivery** of products to customer by integrative delivery

- **Less formalism** by using tools and developed practices

Reliable Team of Experts

- **We deliver what we promised**

- Our **team is individually selected** to meet the needs of the project

- **95%** of consultants **Microsoft certified**

- **9 years of experience** on average

Quality and Partnership

- We always **think strategically** and build **long term partnerships**

- We use our **frameworks** to make projects **predictable and measurable**

- We use **experience** to provide the **highest quality standards**

MVP Microsoft® Most Valuable Professional

Gold
Microsoft
Partner

Microsoft

About **Elitmind**

In June 2021 Elitmind has achieved **Microsoft's Advanced Specialization in Analytics on Microsoft Azure**.

This advanced specialization is an assurance that **Elitmind meets the highest standards, confirm deep experience, high capabilities**, and build strong connections with customers through their ability to plan and deliver tailored Microsoft analytics solutions using Azure Synapse Analytics, Azure Data Lake, Azure Data Factory, and Azure Databricks, enabling clients to use the full potential of their data assets to help build transformative and secure enterprise-scale analytics solutions.

Selected Customers

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