

# Shopcom an e-commerce company

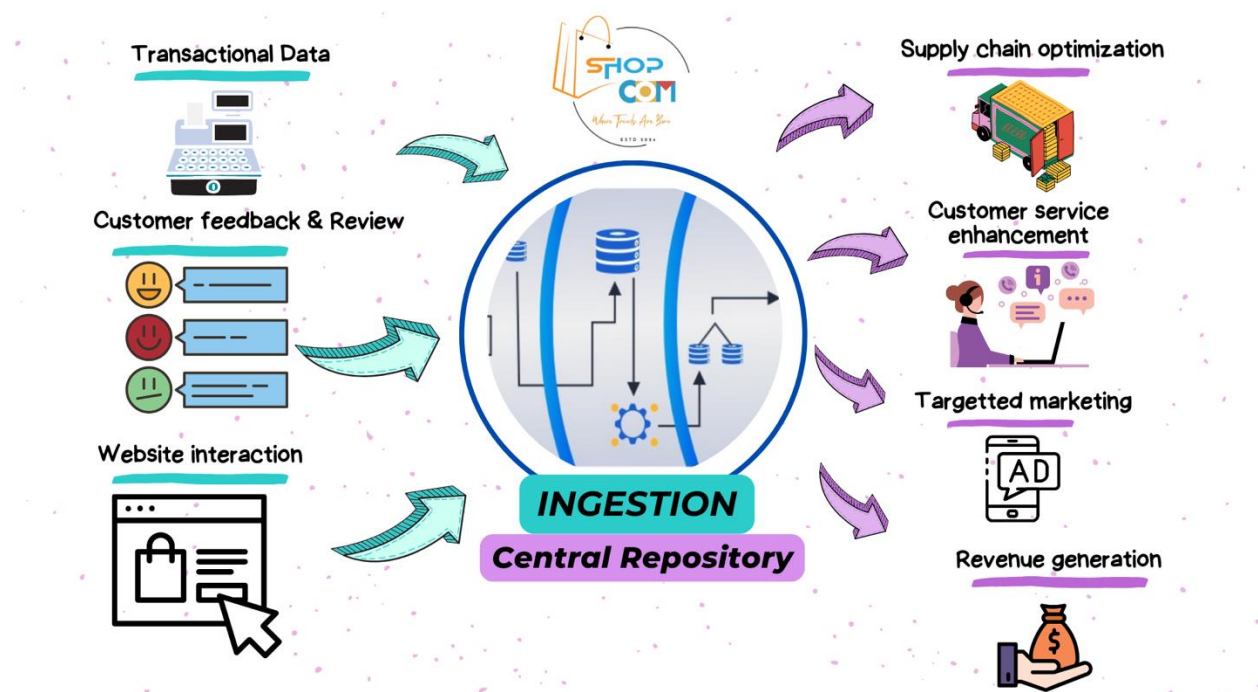
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## Introduction

In the fast-paced world of online retail, innovation is the key to staying ahead of the market. Shopcom is a modern company with an advanced pipeline strategy and cloud architecture designed to produce quality data to cater customers with efficient customer service while optimizing company's operations.

## The vision of Shopcom

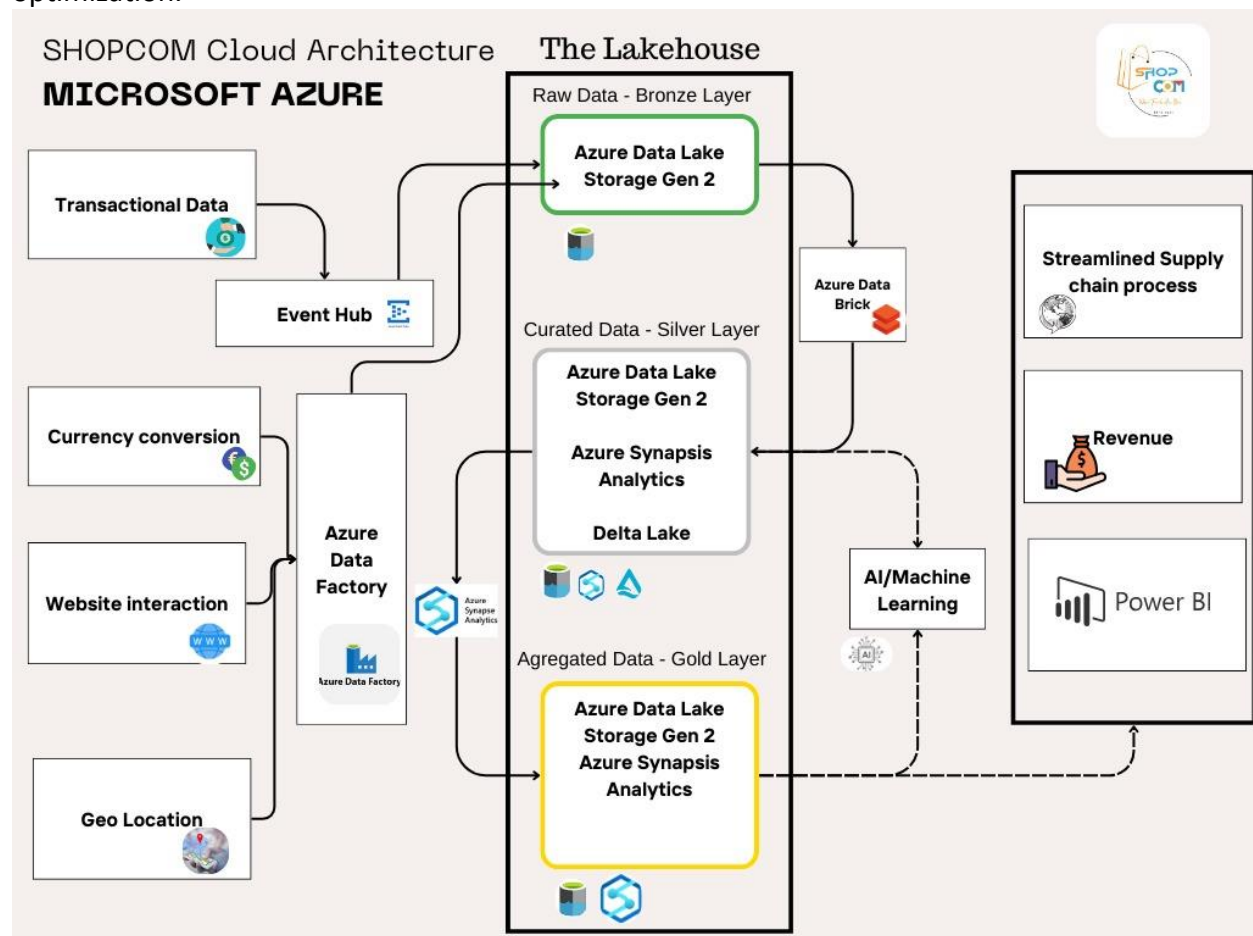
Firstly, we built the foundation for Shopcom by creating its visual vision. We outlined the product sources directing to the central repository by ingestion and then identified all the end users. By laying out the pipeline clearly it ensures a smooth flow of operations and minimizing bottlenecks while maximizing efficiency.



## Shopcom's Cloud Architecture

Shopcom's cloud architecture is designed to scale effortlessly with demands of our customers and company's operations. We have selected Microsoft Azure as our cloud service provider as it is very cost efficient while catering the needs of our e-commerce store. The main sources ingested are transactional data, currency conversion data, customer website interaction and their geo-location. These raw data are ingested into the Lakehouse for further refining via EventHub and Azure Data Factory.

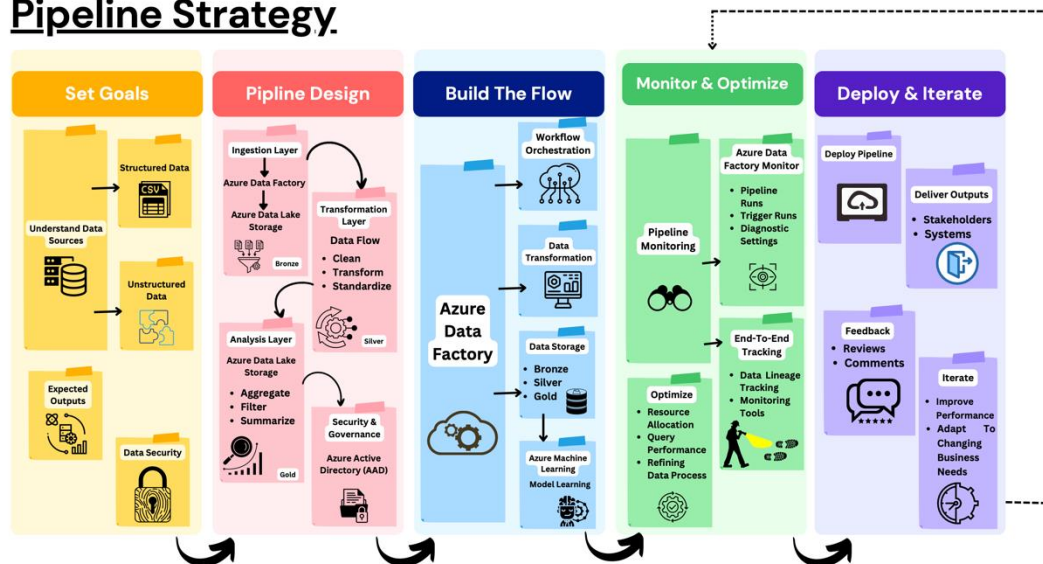
Once the raw data are ingested into the lake house, it undergoes a data refining process to filter out any data redundancy and data errors. All the data are passed from layer to layer as such. From the bronze layer to silver layer Azure data bricks is used. From the silver layer to gold layer, Azure synapse analytics is used. Finally, the aggregated data from gold layer is used for several services such as AI/Machine learning, Power Bi, revenue generation and supply chain optimization.



## Shopcom's Pipeline Strategy

The pipeline strategy for Shopcom's cloud architecture on Microsoft Azure starts with data ingestion via EventHub and Azure Data Factory. Raw data from various sources, including transactional records, currency conversion rates, website interactions, and geolocation data, are ingested into the Lakehouse infrastructure for further processing. After ingestion data undergoes through refinement within the Lakehouse environment to eliminate redundancies and errors. The data refinement happens through distinct layers via Azure's specialized tools. Azure Databricks facilitates efficient data transformation and enrichment as the data transitions from the bronze layer to the silver layer. Subsequently, Azure Synapse Analytics takes over, driving the refinement process from the silver to the gold layer.

## Pipeline Strategy.



## Conclusion

All in all, Shopcom is a very advanced e commerce company due to its very organised pipeline and cloud architecture. It is important for a company to focus on building an efficient pipeline for better data analytics which in turn can improve company's performance.