

# **Proposed Cloud Architecture for Dry & Shine Laundry Services**

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## **1.0 Business Architecture**

### **1.1 Introduction**

Dry N' Shine is a laundry service in existence for over six years, dedicated to providing top notch residential and commercial laundry solution to our customers in Alberta, Canada. We are committed to minimizing environmental hazard by implementing eco-friendly practices throughout our operations and delivering excellence to their customers.

Our vision is to become the leading laundry service provider in Alberta known for unwavering commitment, expand our business horizon across Canada and build positive impacts by providing employment opportunities to Alberta residents. Since our inception six years ago, Dry N' Shine has undergone significant growth and evolution. Initially starting as a small local operation in the house, we have expanded our services to cater to a wide range of customers.

### **1.2 Business Operation Overview**

Dry N' Shine's operation involves the following:

- Receiving and sorting Laundry
- Transaction recording such as customer's name and contact details.
- Accept cash and credit/debit card payments from customers.
- Laundry delivery and pickup
- Monitor inventory level and replenish stock.
- Purchase laundry supplies like detergents, fabric softener and bleach.
- Reconcile cash registers and sales.

### **1.3 Business Objectives**

Transition our paper-based data storage to a cloud-based infrastructure to;

- Improve data accessibility and efficiency.
- Enable scalability.
- Elevate customer experience.
- Compete with top laundry companies in Canada by being able to forecast and determine market trends.
- Make informed decisions.
- Security
- Business continuity

## 2.0 Problem Statement

After series of meeting with our client, we have been able to identify some prominent problems peculiar to data storage on paper, listed below.

- Time consuming, searching for specific information within paper records can be labor-intensive for employees.
- Security Risks, as these documents are susceptible to natural disasters such as fires, floods and theft.
- Lack of scalability, as the company grows in operation, storing data on paper becomes really challenging.
- Limited accessibility as records are often stores in physical files, making it difficult to access information remotely.

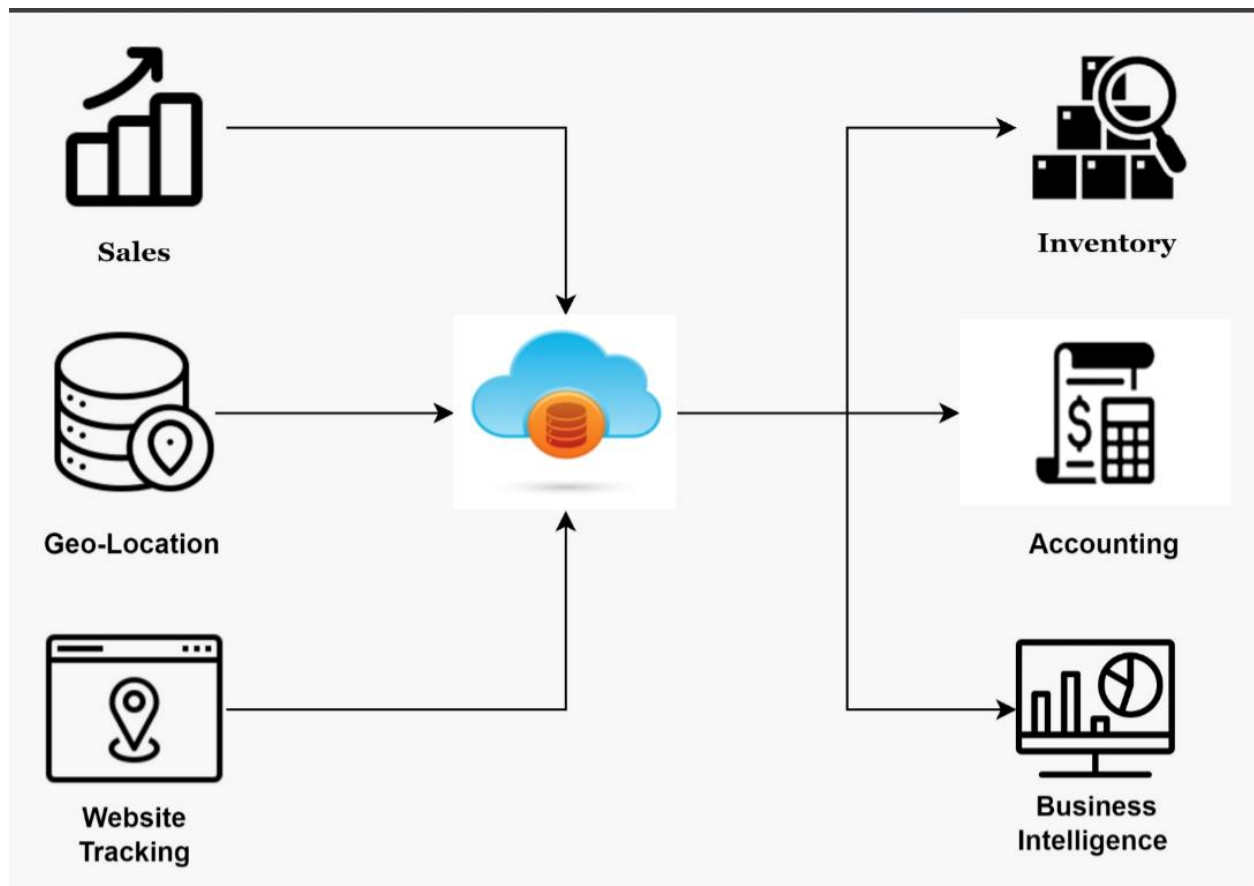


Figure 1: The Vision

### 3.0 Proposed Solution and Benefits

Upon conducting a thorough analysis of the enterprise, we have been able to formulate a clear and comprehensive vision of their intended objectives and goals.

Conducting a detailed examination and assessment of our business requirements and objectives, we have singled out a cloud service provider that caters to our exact specifications and demands. We will be using Microsoft Azure cloud services. Why? Microsoft Azure is one of the leading players in cloud computing, provides a wide range of services and global availability, is cost-effective, and integrates well with the Microsoft ecosystem.

The architecture will include Azure Services such as: Azure Synapse Analytics, Azure Data Lake and Azure Data Factory. To ensure the smooth and efficient management of our data, we will begin by extracting from our data sources. Once extracted, we will then proceed to ingest the data into the Data Factory, then store data in batches in Azure Data Lake Storage.

Afterwards, we will curate the data by processing it through a series of pipelines. Once we are satisfied, we will aggregate it and store it in Azure Synapse Analytics. Below is the architectural design.

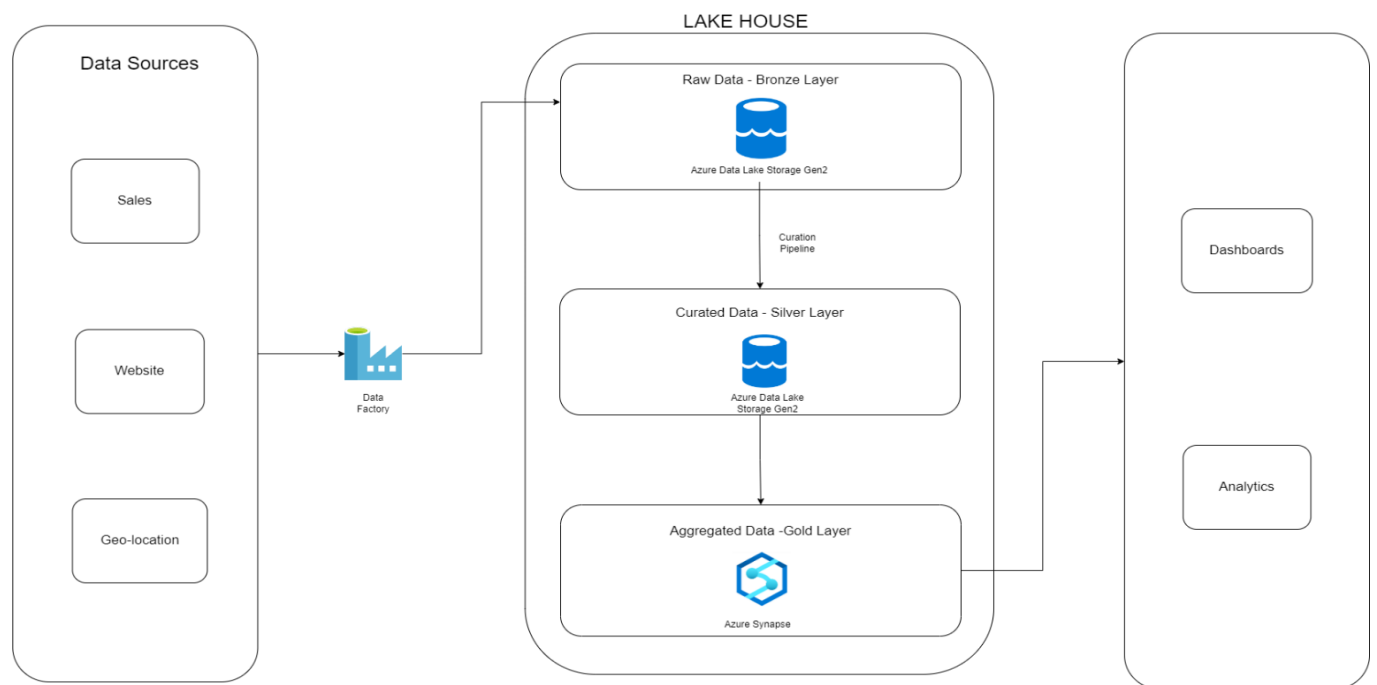
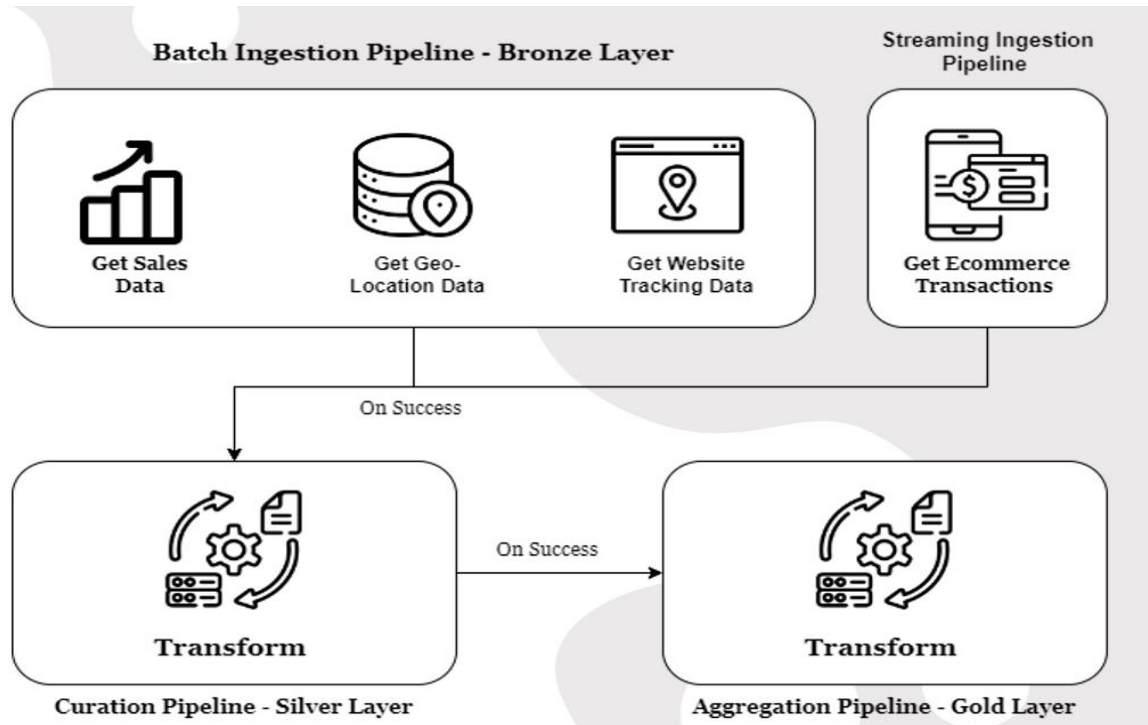


Figure 2: The cloud design.

## 4.0 Pipeline Strategy

For our company, the ingestion, curation and gold pipeline will run as one complete unit and each pipeline will work by invoking the ingestion pipeline, pulling data from our sources. Here is a visual representation.



## 5.0 Conclusion

By implementing the cloud architecture plan we proposed for Dry N' Shine Laundry Services, it will help them to save cost, ensure their data is secure, eliminate all the issues identified with paper storage and provide them insights which will enable them to make informed business decisions and achieve their business goals more efficiently.

## References

<https://app.diagrams.net/?src=about>

<https://learn.sait.ca/d2l/home/637645>