Table of Content

The company Canadian Blood Services: -

In Canada, Canadian Blood Services is a not-for-profit organization responsible for managing the national blood supply. It collects, tests, and distributes blood and blood products across the country to ensure patients receive the care they need.

Goals: -

1. Ensure a safe and sustainable blood supply.
2. Promote public awareness and engagement in blood donation.
3. Support innovation and research in transfusion medicine.

Current situation: -

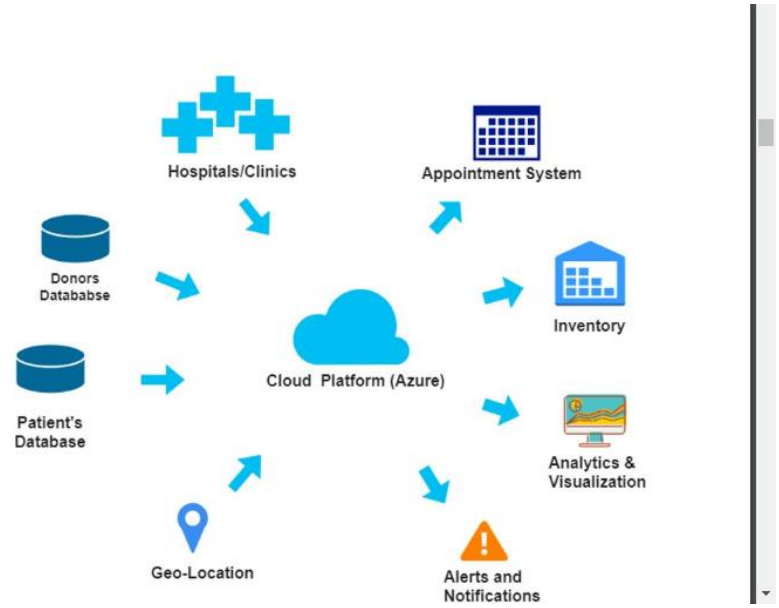
Canadian blood services, like many large corporations, likely utilizes a variety of data storage solutions depending on the type and volume of data they need to manage. Here are some common methods they might use:

1.Cloud storage

2.Data Warehousing

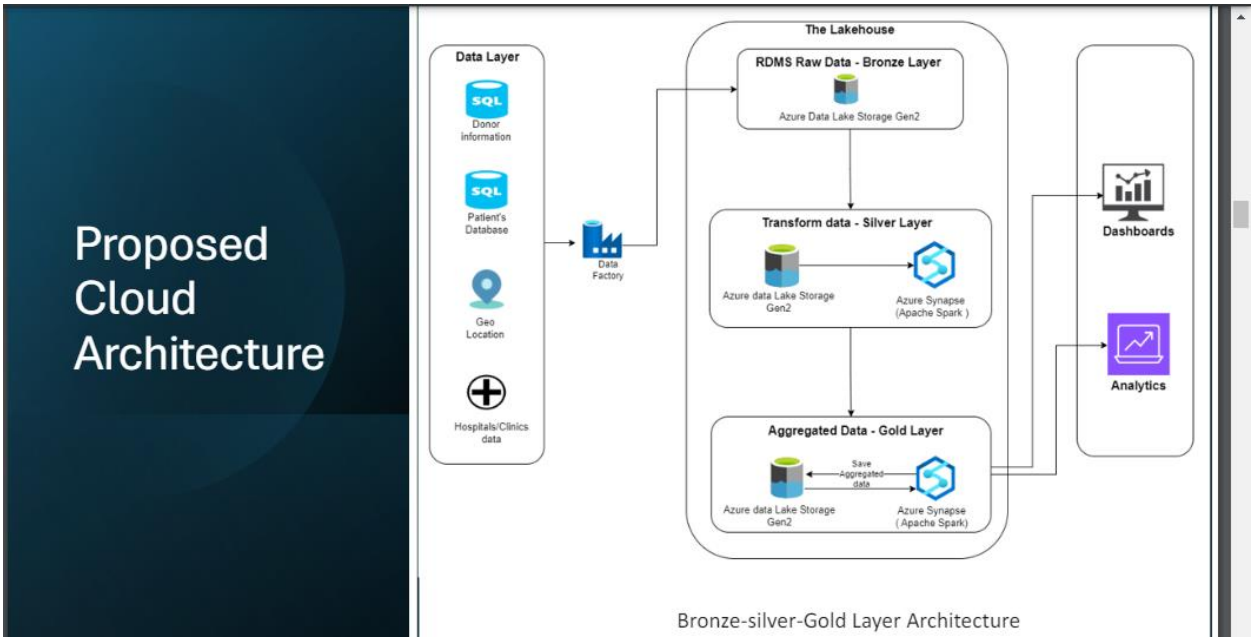
3.Electronic Health Records (EHR)

Vision: -



The vision is to create a streamlined system that manages donor and patient databases, track blood inventory, schedules appointments, and provides analytics and visualizations for better decision-making. It aims to ensure efficient blood collection and distribution, minimize shortages, and improve healthcare outcomes through proactive planning and resource allocation.

Cloud Architecture: -

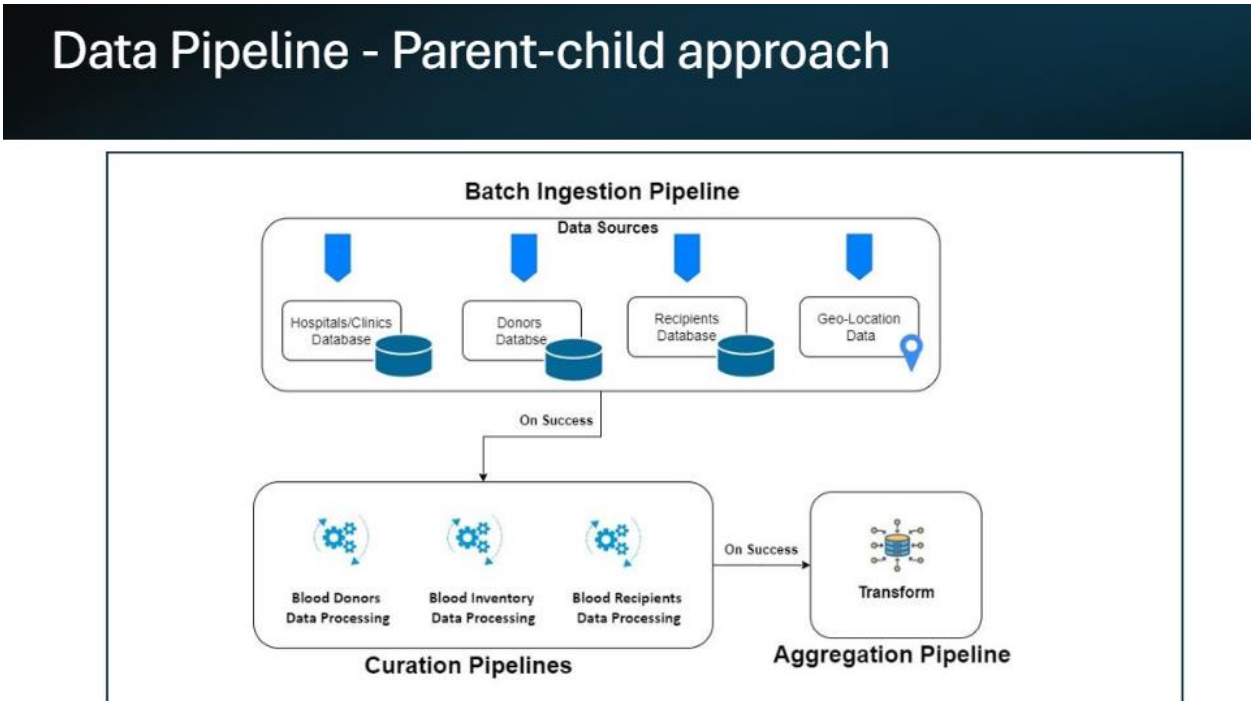


The cloud architecture of the blood service system involves hosting its databases, applications, and services on cloud platforms like AWS, Azure, or Google Cloud. This ensures scalability, flexibility, and accessibility while maintaining data security. It enables real-time insights and collaboration among healthcare professionals.

Benefits of moving to cloud:

1. Increased performance and efficiency
2. Accessibility
3. Lower IT costs
4. More flexibility and reliability

Pipeline: -



Parent Pipeline (daily schedule trigger): This pipeline manages updates to the inventory and blood donors daily. Initial tasks like determining whether data is available in the source (the current RDBMS) may be carried out by it.

The following child pipeline sequentially triggered by it: - Blood donor data is downloaded from the source by child pipeline 1.

Blood donor data processing: - carries out data transformation and cleansing using Data Factory operations.

Pipeline 2 (Blood inventory Data Processing): - carries out data transformation and cleansing using Data Factory operation. These are usually used with analytics services such as Azure Synapse Analytics or Data warehousing.

Conclusion: -

The Canadian Blood Service is the national organization responsible for managing the blood supply in Canada. Its primary mission is ensuring a safe, reliable, and cost-effective supply of blood, blood products, and stem cells. CBS operates collection sites, testing labs, and distribution centers across the country. It is a not-for-profit organization funded by provincial and territory governments. The CBS plays a vital role in Canada's healthcare system by providing blood products for medical needs.

Submitted by: - Sukhman deep Kaur