STIMULATED SITUATION

MCDONALD'S TRANSFORMATION TO CLOUD STORAGE

INTRODUCTION

This study is a part of Data Delivery Course (Professional Certificate – Data Science) at Southern Alberta Institute of Technology. The study is about transferring all database system to cloud storage to have better data approaching e.g. real-time data management, data security, and centralization the whole company database.

Mcdonald's is a well-known biggest fast-food restaurant chain which has established more than 36,000 branches across global. Despite the size of the company, in each regional Mcdonald's collects its big data every day for transactions along with other data. In order to transfer their data from on-premise to cloud storage, Mcdonald's would need to have a well-designed cloud architecture and pipeline. A well-designed cloud architecture and pipeline will help the company in cost saving such as storage cost and service costs. It is also help in deployment process and further development of the cloud system.

CURRENT SITUATION

- McDonald's is holding a great deal of data everyday and storing it on-premise locally
- Data is not centralized and could not access real-time data
- New Application feature for store pick-up is implemented
- Problems of on-premise storage management cost, maintenance cost and level of data security

OBJECTIVES

Storages

- On-demand feature and Scalability of data storage on cloud eliminate storage management and maintenance
- Data safety and security services provided by the cloud operator
- Real-time data accessible from anywhere in the world

OBJECTIVES CONTINUE

- Assurance of back-up storage service in the case of software failure or hardware broken down

- Data Centralization

Real-time data accessibility

- Local stores live inventory management for supplier to refill the stock
- Application and Website order notifications for local stores to prepare the pick-up and delivery orders for local customers
- Data availability and updated for management and marketing purposes
- Remotely solution for software or data issues for entire company

Data management and Centralization

- One-stop cloud service helps company in reduce human workforce, data management cost, as well as centralized the data in a highly safe and secure environment
- The company's data will be stored on cloud service which can be accessed from anywhere in the world, yet remain safe and secure

VISION PLANNING VISUALIZATION

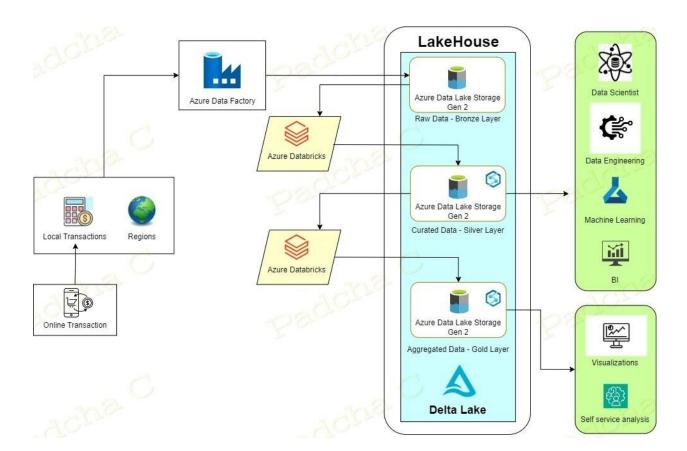
Data from sources will be transferred to cloud then transformed on cloud and used by clients as per permission setting.



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CLOUD ARCHITECTURE

Data from Online transactions will be passed directly to local stores and they will be processed there as store pick-up orders or delivery orders. Then by regions, all transactions including online, offline and their location will be sent to cloud by passing through Azure Data Factory before stored in the Lakehouse then to the clients.



PIPELINE OVERVIEW

Pipeline overview shows how data flow and transformations process in the pipeline from sources to visualization.

