

# Data Management

### Health & Wellness Firm

- Built a revamped data architecture including data lakes and a data warehouse to streamline data from various transactional, financial, and other third-party data sources.
- Created the visualization layer in PowerBI which included building new reports as well as re-factoring the existing reports to the new data warehouse.

### Revamping the Data Architecture to Enable Efficient Reporting

#### Situation

- The client needed to streamline the BI reporting infrastructure in order to enable more efficient and reliable reporting
- Partnered with the client to set up an Azure-based enterprise data warehouse and develop automated performance dashboards

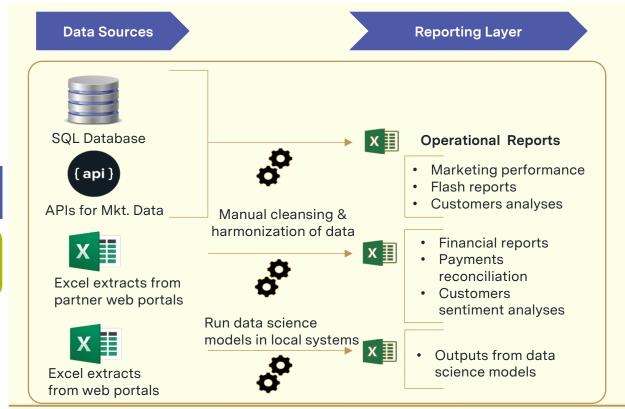
#### **Accordion Value Add**

- Analyzed the CRM system, marketing partners (Facebook, Google, Bing, etc.), accounting system (QuickBooks), customer engagement systems (Zendesk, Vonage, Trustpilot), and other partners (logistics, payments, etc.) to identify the relevant KPIs and cleanse the data
- Built an Azure-based enterprise data warehouse connecting different data sources through data pipelines and transforming the raw data as per business requirements
- Created tabular data models in Azure Analysis services to create ready-to-serve data cubes and developed automated Power BI dashboards (on top of the Azure Analysis services) to analyze the operational and financial performance
- Incorporated automated data validation and reconciliation rules at every step across the ETL process to ensure accuracy and consistency in the data

#### Impact

- Implemented an enterprise data warehouse that enables the availability of clean and validated data off-the-shelf across the company on a real-time basis
- Integrated and automated the BI reporting process including performance dashboards with consistent and accurate performance KPIs across different functions of the business
- Implemented central data access management and enabled easy distribution of reports to the respective owners

### **Prior Reporting Processes**



#### Observations on prior reporting plan:

- Extracting data from different sources is time consuming, inefficient, and creates the possibility of files being corrupted during transmission
- Creating financial reports was very cumbersome, as raw data from QuickBooks online needed to be transformed to develop the required financial reports
- Constrained architecture: time consuming and inefficient to add a new data source with different data accessibility method

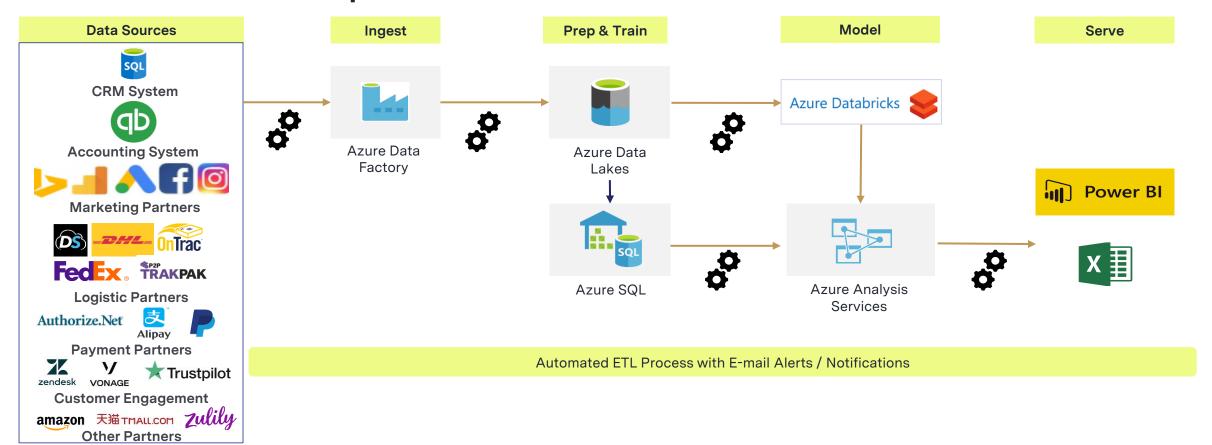
Data, Reporting, & Analytics

**Data Structures** 



- Lack of consistency of data sources across different reports
- Prone to errors as the data is manually updated
- Lack of availability of real-time data
- Data security challenges while extracting the data from different systems and reports distribution

## **BI Infrastructure Implementation**



- Built an enterprise data warehouse connecting different data sources through data pipelines and transformed raw data as per business requirements
- Incorporated automated data validation and reconciliation rules at every step across the entire ETL process to ensure accuracy and consistency in data
- Created a tabular data model on Azure Analysis services and developed ready-to-serve data marts for analytical and reporting purposes
- Created data science models on Apache-spark platform and integrated them in Azure using Databricks, and created automated reporting to showcase the outcomes
- Developed Power BI dashboards on top of the analysis services to monitor and track business performance

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