Avocados2Go

Business Use Case:

Avocados2Go is a retail organisation that:

- Sells all types of merchandises
- Acts as a broker for farmers by reselling their goods.
- Holds multiple branches across the country.

Operational issues:

Currently, the organisation's operation involves multiple issues and inconsistencies, some of which are:

1. Not all customer data is stored, only loyalty customer's data are stored.
2. Excel is used for tracking and reporting purposes, containing primitive structure and data points.
3. No standard return policy.
4. Not tracking important metrics such Quantity and Discounts offered, thereby leading to incompetent and mostly incorrect analytics.
5. Inventory, Procurement Costs and Regional data are not stored.

Requirements:

The organisation hopes to gain the following advantages from implementing a data warehouse:

1. Ability to store all customer's data.
2. Tracking inventory for acquiring goods on time.
3. Storing data regarding discounts offered and procuring costs for accurate analysis.
4. Track sales revenue and make forecasts using accurate data.
5. Optimizing customer feedback loop for swift action.
6. Utilize the regional data stored to develop an appropriate action plan.

Methodology:

Currently, the Kimball and Inmon methodologies are the most widely used architectures for designing a data warehouse. The choice between the two, however, depends on the organisation's use case and what they wish to leverage from the data warehouse.

For Avocados2Go, a bottom-up approach such as the Kimball method would be a better fit. This is because their requirements are specific to improving certain business processes and the data format is preferred to be denormalized.

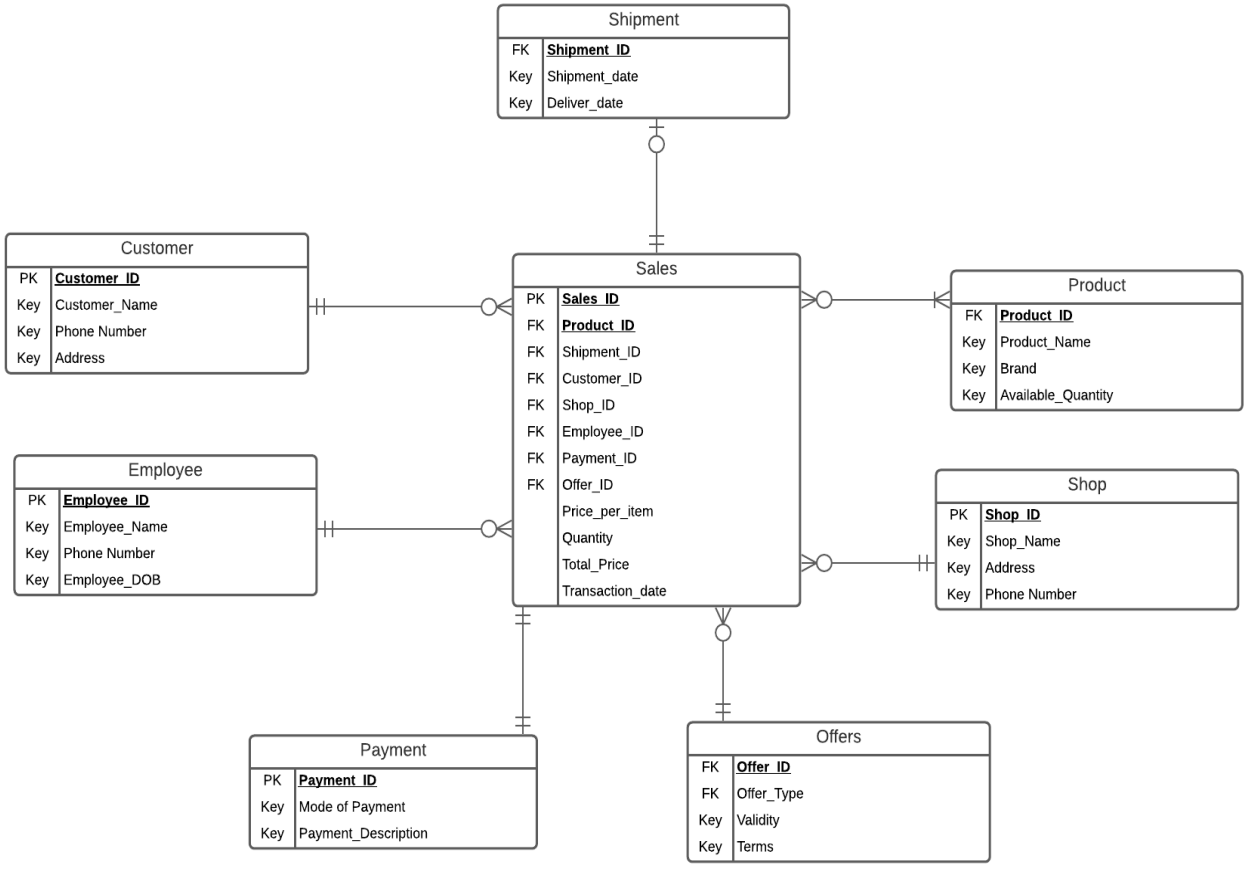
Activities:

1. Eliciting business requirements and KPIs from the appropriate stakeholders.
2. Negotiating on a feasible budget.
3. Choosing an appropriate methodology for the data warehouse architecture.
4. Plot the Enterprise Bus Matrix based on the business processes.
5. Design dimensional model.
6. Platform selection.
7. Plotting roadmap.
8. Development.
9. Launch.

Enterprise Bus Matrix:

Business processes	Customer	Payment	Shop	Offers	Employee	Product	Shipment
Inventory tracking			x			x	
Store deliveries	x		x			x	x
Promotional tracking			x	x		x	
Retail sales	x	x	x	x	x	x	
Delivery	x				x	x	x
Customer feedback	x		x				
Sales forecast			x			x	

Dimensional Model:



Limitations:

The following are the potential limitations that the data warehouse may face in the future:

1. Lack of historical data regarding non-loyalty customers to spot trends.
2. Data warehouse maintenance.
3. Denormalized data can lead to data redundancy.
4. Current OTC type of discounts will lead to big problems.
5. Standard format should be followed.
6. Schematic enforcement will cause data loading issues.

Outcomes:

The proposed data warehouses have great ROI and would in-effect make Avocados2Go a data-driven company that is on top of its finances and sales.

Appendix: Interview Questions

1. What is the end goal and the problem statements or pain points that you wish to solve?
2. What are the key performance indicators or metrics that will be needed for the data analysis?
3. What is the budget you wish to allocate for this project?
4. Do you wish to maintain the historical data along with the incremental data? If so, what is the period from which the data is expected to be loaded into the warehouse?