Milestone 1

Designing the Operational Database and creating a Project Justification report along with a simple Architecture diagram of project

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JLY Analytics

Project proposal for: LaCocina (Innovative Kitchen Appliances Wholesaler)

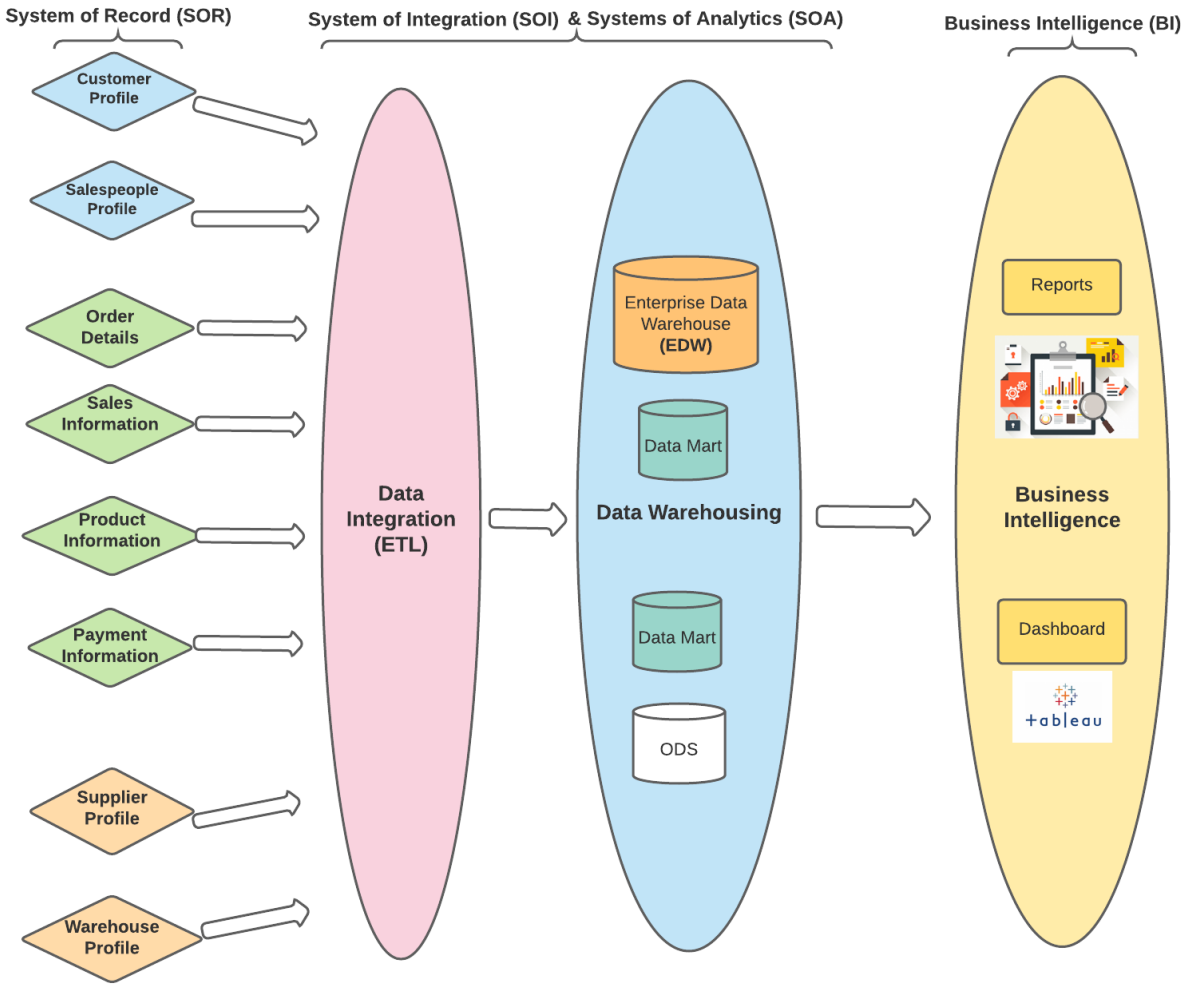
Project Report - JLY Analytics (For **LaCocina**)

The key to a successful wholesaler company is to have the right product, cost and quantities at the right timing. Given the nature of a wholesaler company that deals with enormous databases for products and customers, it's crucial to be able to understand and process the data that's being created by the business to stay competitive and profitable. For emerging wholesaler companies like LaCocina, it is important to analyze and understand the large volume of sales and customer data to bring best margins for the products, as well as forecasting demand for LaCocina's kitchen appliances. Also, being able to analyze and understand the customers data can help to support customer retention and relationship management. Furthermore, having the suppliers and product distribution data at a glance will certainly help to efficiently track and organize the company's inventories. How would we achieve this? JLY Analytics will bring a specialized data warehousing and business intelligence solutions that will help to achieve these goals for LaCocina. By bringing our analytics solutions to the table, LaCocina will be able to keep consistency and quality data warehouse system, make better decisions by looking at the analytics solutions and bring out efficient product/customer management system.

To start with, our data warehouse project will include customer and employee profiles, as well as order/sales/payment/supplier/product details and information that can be easily retrieved. Customer's data, orders, products, product detail, sales detail, and warehouse information can be tracked via the CRM system. Payment details, salespeople and supplier's information can be tracked and extracted from the ERP system. In order to create a consistent, comprehensive, clean, conformed and current data, data need to be normalized and cleaned through ETL tools. This is the data integration process and after the integration, data is stored in our data warehouse and ready to use for easily accessible reporting and analysis. Even though data warehouse can perform various analysis but if LaCocina is interested in having a special team to work on a particular department, for example sales, then a data mart can be created for that purpose. Lastly, Business intelligence is a critical layer on top of the data warehouse. Business intelligence tools like Tableau can offer data visualization and dashboard where data is easily tracked. In addition, predictive analysis and data discovery can also be performed on data warehouse.

Above all, with this information produced from our data, we can come up with business strategies for LaCocina. With inventory data, we can optimize our warehouse and limited spaces to make sure we don't run out of stock, especially for those with good selling potential. With customers data, we can study the consumer behaviors to target our best-selling products to different groups of buyers. Additionally, we can create recommendations and could send promotions to our customer database. Also, with customers information, we can improve our customer retention by exploring data on: why others don't come often or what products they have brought in the past. Is it because of our product or services that customers turn away? All these ideas will create an impact either directly or indirectly to our sales revenue and customers happiness. Further down the line, it can support bigger strategic decisions such as online investment or store expansion.

Diagram of the architecture for JLY Analytics Project



[**Cloud Database Host:** su.cbcfevlczkhy.us-east-1.rds.amazonaws.com]

- **Port**: 3306
- **Username**: reguser
- **Password**: 12345678

ER Diagram for the Operational Database