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E-Commerce Dashboard

High Level Design (HLD)

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DOCUMENT VERSION CONTROL

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ABSTRACT

E-commerce, also referred to as electronic commerce, involves the exchange of goods, services, money, and data through electronic networks, primarily the internet. This encompasses various types of transactions, including Business-to-Business (B2B), Business-to-Consumer (B2C), Consumer-to-Consumer (C2C), and Consumer-to-Business (C2B) interactions.

E-commerce analytics entails the process of gathering information from diverse sources that impact an online store. This data is then utilized to comprehend shifts in consumer behavior and emerging trends in online retail. Extracting insights from this data empowers informed decision-making, ultimately leading to a surge in online sales. E-commerce analytics encompasses a wide array of Key Performance Indicators (KPIs) related to the entire customer journey, spanning discovery, acquisition, conversion, retention, and advocacy. Analyzing sales performance for products within specific categories aids in identifying top-selling items.

Dashboards play a pivotal role in analyzing sales and profit patterns, offering valuable insights into areas that require attention to enhance profitability.

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1. Introduction

1.1 Why this High-Level Design Document?

The goal of this High-Level Design (HLD) Document is to provide the current project description with the additional depth needed to describe an appropriate model for coding. This paper can be used as a reference guide for how the modules interact at a high level and is also meant to aid in identifying conflicts before coding.

The HLD will:

- Describe each aspect of the design in depth.
- Include design features and the project's architecture.
- Describe the user interface being implemented, hardware and software interfaces, and performance requirements.
- List and describe any non-functional characteristics such as security and reliability.
  - Maintenance
  - Mobility
  - Resource use
  - Application compatibility
  - Reusability
  - Serviceability

1.2 Scope

The HLD documentation outlines the system's architecture, including the technology architecture, application architecture (layers), application flow, and database architecture. The HLD employs simple to somewhat complex concepts that system administrators should be able to understand.

2. General Description

2.1 Problem Statement

An online e-commerce company's analytics team wants to create a sales dashboard to evaluate sales based on different product categories. The business aims to provide people more choice over product categories so they may choose one and can observe the trend month- and product-wise as appropriate.

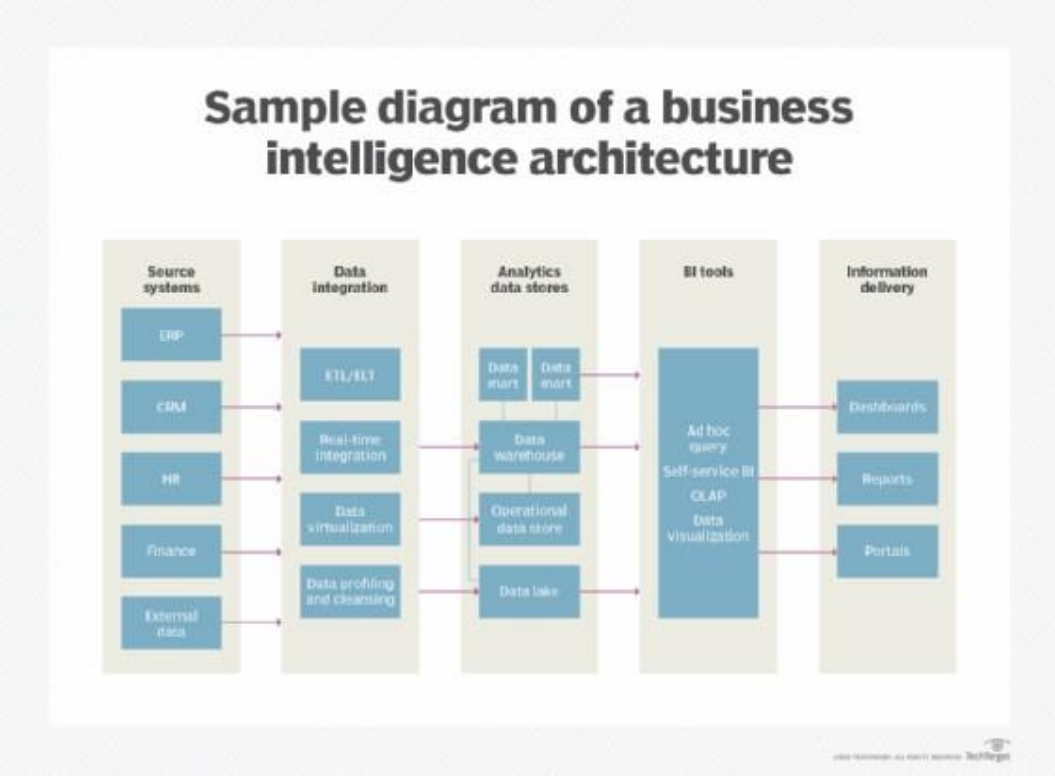
2.2 Tool Used

Microsoft Excel is used to design the dashboard to gain insights about the sales and profits trends of the company.

Source:
https://commons.wikimedia.org/wiki/File:Microsoft_Office_Excel_%282019%E2%80%93present%29.svg

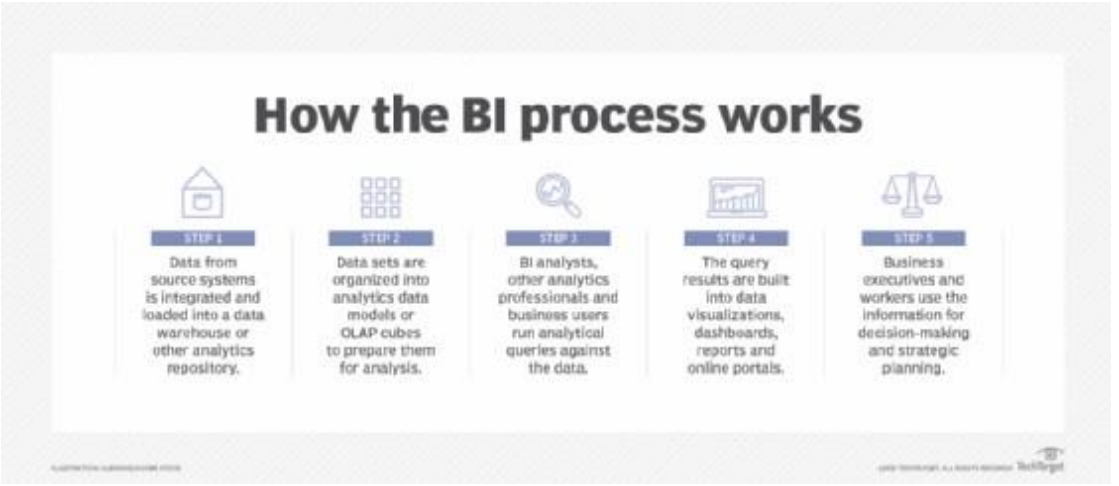
3. Design Details

3.1 Functional Architecture



Source:

https://www.techtarget.com/searchbusinessanalytics/definition/business-intelligence-architecture



Source: https://www.techtarget.com/searchbusinessanalytics/definition/business-intelligence-BI

3.2 Optimization

Goal-seeking analysis for one or more variables under certain restrictions includes optimization analysis, which is a more complicated component. Even there is power to modify the restrictions and manage the optimization procedure, it could sound quite difficult. However, Solver was launched by Microsoft Excel to make such optimization analysis simpler.

The What-if analysis tool known as Excel Solver has a unique collection of commands. In many commercial and engineering models, it serves as a simulation and an optimization tool.

The finest tool for optimization with constraints is Excel Solver. It aids in calculating the return on investments, ideal budget, production costs, labour scheduling, and many other things.

4. KPIs

Dashboard will be used to display and highlight KPI and important factors affecting the sales and profits. Dashboards will be incorporated as soon as the system begins collecting historical or regular data for a user in order to show progress on various indicators or factors over time.

4.1 Key Performance Indicators

In the dashboard, the following indicators have been used:

- Sales
- Quantity
- Profit

5. Deployment

Whatever strategy is chosen to grow the e-commerce business, there are certain activities and actions that must be performed. The e-commerce business can be boosted by taking important steps like accounting, sales tracking, scheduling, marketing, and reaching a larger target audience and these may be completed by designing dashboard corresponding to the business data in Microsoft Excel which can help generate useful insights for the business.