High Level Design (HLD)

Analysing Amazon Sales data

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Contents

Abstract

Amazon sales data is very important for digital marketing because now a days online marketing is on trend and maximum people interested in it because online marketing save times which is very important for everyone and to improve this market, we should analyse the data because only data can tell the truth of your success.

1 Introduction

1.1 Why this High-Level Design Document?

The purpose of this High-Level Design (HLD) Document is to add the necessary detail to the current project description to represent a suitable model for coding. This document is also intended to help detect contradictions prior to coding, and can be used as a reference manual for how the modules interact at a high level.

The HLD will:

- Present all of the design aspects and define them in detail
- Describe the user interface being implemented
- Describe the hardware and software interfaces
- Describe the performance requirements
- Include design features and the architecture of the project • List and describe the non-functional attributes like: Security, Reliability, Maintainability, Portability, Reusability, Application compatibility, Resource utilization, Serviceability

1.2 Scope

The HLD documentation presents the structure of the system, such as the database architecture, application architecture (layers), application flow (Navigation), and technology architecture. The HLD uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.

2 General Description

2.1 Product Perspective & Problem Statement

Sales management has gained importance to meet increasing competition and the need for improved methods of distribution to reduce cost and to increase profits. Sales management today is the most important function in a commercial and business enterprise.

2.2 Tools used

Business Intelligence Tool Tableau and Excel are used to build this Project.
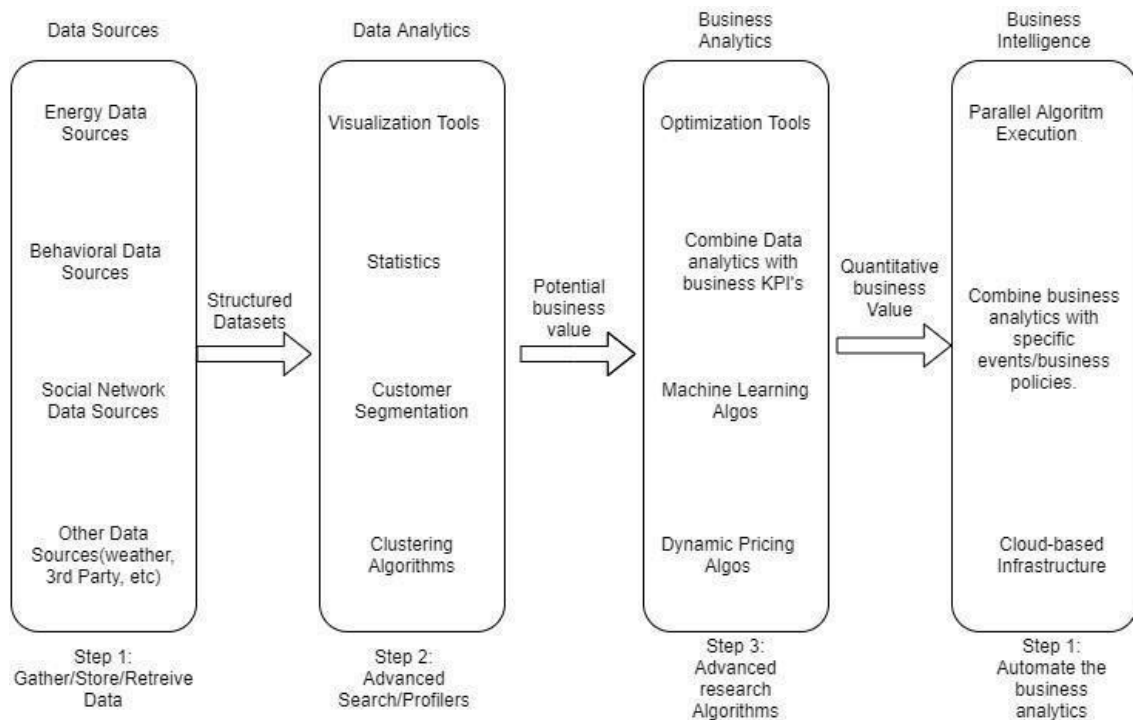
3 Design Details

3.1 Functional Architecture

Figure 1: Functional Architecture of Business Intelligence

3.2 Optimization

Your data strategy drives performance

- Minimize the number of fields
- Minimize the number of records
- Optimize extracts to speed up future queries by materializing calculations, removing columns and the use of accelerated views

Reduce the marks (data points) in your view

- Practice guided analytics. There's no need to fit everything you plan to show in a single view. Compile related views and connect them with action filters to travel from overview to highly-granular views at the speed of thought.
- Remove unneeded dimensions from the detail shelf.

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- Explore. Try displaying your data in different types of views. **Limit your filters by number and type**

- Reduce the number of filters in use. Excessive filters on a view will create a more complex query, which takes longer to return results. Double-check your filters and remove any that aren't necessary.

- Use an include filter. Exclude filters load the entire domain of a dimension, while include filters do not. An include filter runs much faster than an exclude filter, especially for dimensions with many members.

- Use a continuous date filter. Continuous date filters (relative and range-of-date filters) can take advantage of the indexing properties in your database and are faster than discrete date filters.

- Use Boolean or numeric filters. Computers process integers and Booleans (t/f) much faster than strings.

- Use parameters and action filters. These reduce the query load (and work across data sources).

Optimize and materialize your calculations

- Perform calculations in the database •

- Reduce the number of nested calculations.

- Reduce the granularity of LOD or table calculations in the view. The more granular the calculation, the longer it takes.

- LODs - Look at the number of unique dimension members in the calculation.

- Table Calculations - the more marks in the view, the longer it will take to calculate.

- Where possible, use MIN or MAX instead of AVG. AVG requires more processing than MIN or MAX. Often rows will be duplicated and display the same result with MIN, MAX, or AVG.

- Make groups with calculations. Like include filters, calculated groups load only named members of the domain, whereas Tableau's group function loads the entire domain.

- Use Booleans or numeric calculations instead of string calculations. Computers can process integers and Booleans (t/f) much faster than strings.
Boolean>Int>Float>Date>DateTime>String

4 KPIs

Dashboards will be implemented to display and indicate certain KPIs and relevant indicators for the disease.
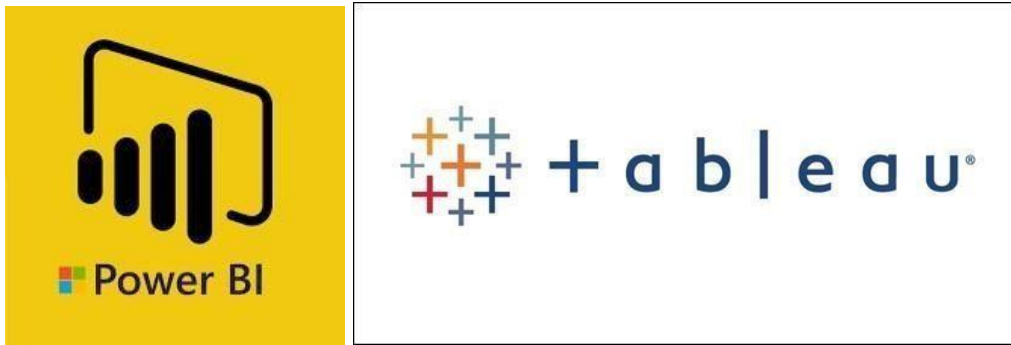
As and when, the system starts to capture the historical/periodic data for a user, the dashboards will be included to display charts over time with progress on various indicators or factors

4.1 KPIs (Key Performance Indicators)
Key indicators displaying a summary of the Amazon Production and its relationship with different metrics

1. Impact of Amazon sales data according to the Sales amount.
2. Impact of Amazon sales data according to the Sales Quantity.
3. Impact of Amazon sales data according to the Months.
4. Impact of Amazon sales data according to the Yearly
5. Impact of Amazon sales data according to the monthly yearly
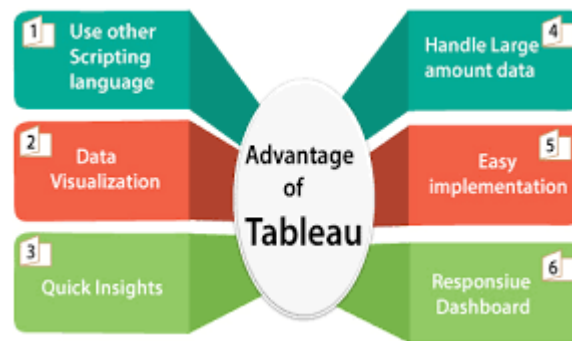6. Impact of Amazon sales data according to the matrix.
   .

5 Deployment

The deployment process lets you clone content from one stage in the pipeline to another, typically from development to test, and from test to production.

During deployment, Tableau copies the content from the current stage, into the target one. The connections between the copied items are kept during the copy process. Tableau also applies the configured deployment rules to the updated content in the target stage. Deploying content may take a while, depending on the number of items being deployed. During this time, you can navigate to other pages in the Tableau portal, but you cannot use the content in the target stage.

5.1   Advantages

5.2   Disadvantages