

High Level Design (HLD)

Entertainer Data Analysis

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Abstract

Analyzing entertainer data helps identify trends and patterns within the industry. It allows us to examine the success factors, breakthrough moments, and career trajectories of entertainers. By studying this data, we can gain insights into what makes an entertainer successful and how the industry evolves over time.

Entertainer data analysis can aid in talent discovery and development. By examining patterns and characteristics of successful entertainers, industry professionals can identify emerging talent, provide guidance, and support their growth. This analysis can also help in understanding the qualities that contribute to an entertainer's breakthrough 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

The dashboard serves as a centralized information hub for all relevant entertainer data. It brings together various attributes such as entertainer names, genders, breakthrough years, awards, professions, and more into a single platform. This allows users to access comprehensive and up-to-date information about entertainers in an organized and easily navigable manner.

2.2 Tools Used

Business Intelligence tools and libraries works such as NumPy, Pandas, Excel, Python, Power BI are used to build the whole framework.



pandas



NumPy



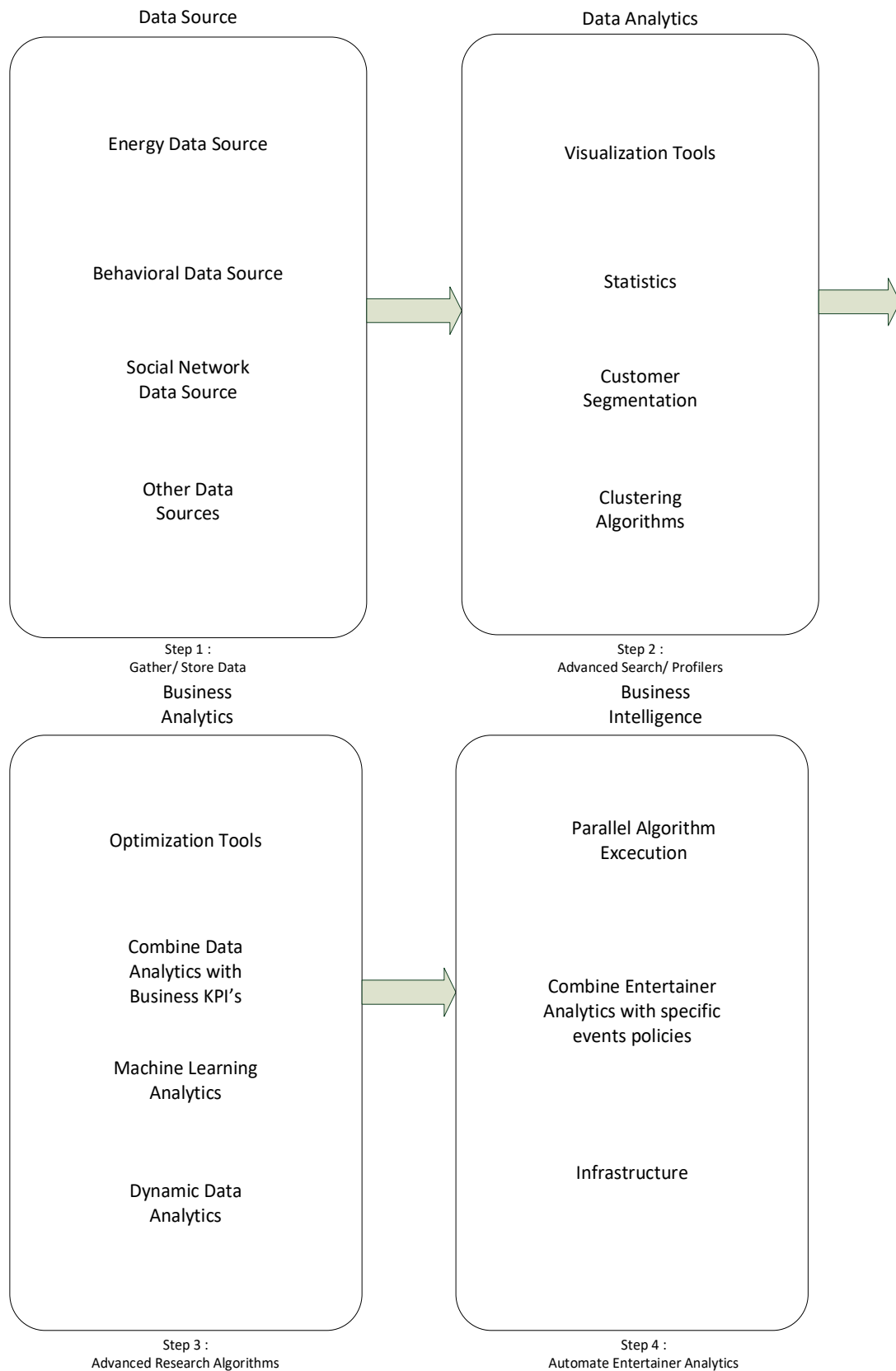
Power BI



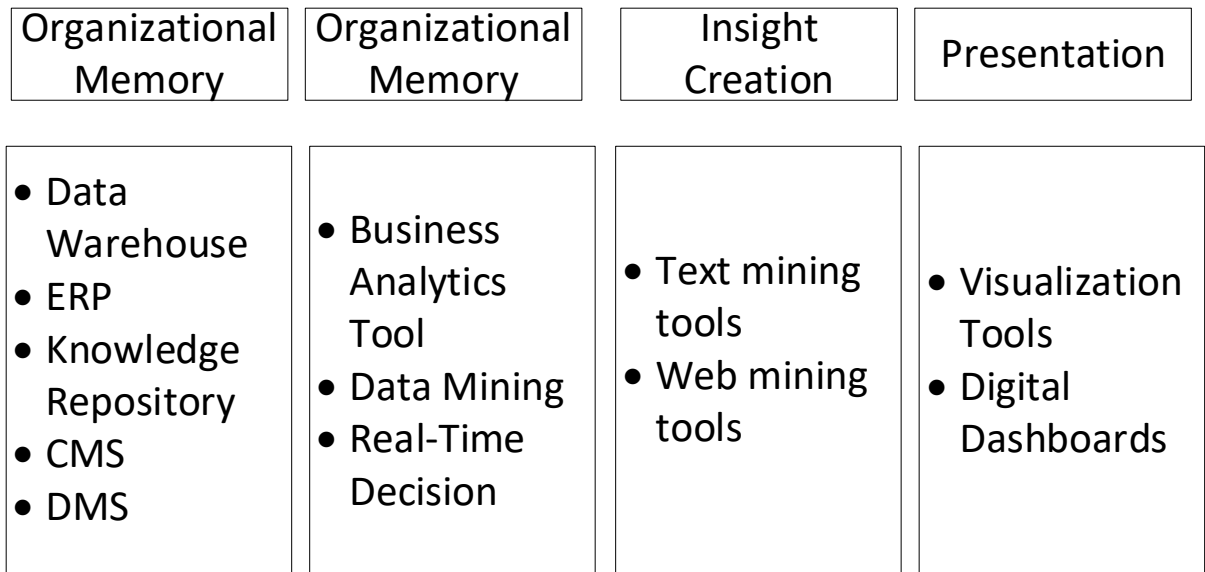
3 Design Details

3.1 Functional Architecture

Fig. Functional Architecture of Business Intelligence



How BI Really Works



3.2 Optimization

1. Data Processing Efficiency: Optimizing data processing operations can improve the overall performance of the dashboard. This includes efficient loading and parsing of the data, minimizing unnecessary data transformations or calculations, and utilizing appropriate data structures to optimize data access and manipulation.

2. Query Performance: If the dashboard allows users to interactively explore and query the data, optimizing the underlying query performance is crucial. This involves indexing relevant columns, optimizing database queries, utilizing query caching techniques, and employing efficient algorithms for filtering, sorting, and aggregating data.

3. Visualizations and Rendering: Enhancing the rendering speed and responsiveness of the visualizations is important for a smooth user experience. This can be achieved by optimizing the rendering code, leveraging caching mechanisms for static visualizations, and utilizing efficient rendering libraries or frameworks.

4. User Experience Optimization: Improving the overall user experience can make the dashboard more intuitive and user-friendly. This includes optimizing the layout and design of the dashboard, providing clear and informative tooltips or help text, and organizing the information in a logical and easy-to-understand manner.

4 KPIs (Key Performance Indicators)

1. User Engagement: Measure the level of user engagement with the dashboard, including the number of active users, session duration, and frequency of visits. This KPI indicates the level of interest and utilization of the dashboard by its target audience.

2. Data Completeness: Assess the completeness of the entertainer data within the dashboard. Measure the percentage of data coverage for attributes such as breakthroughs, awards, nominations, and other relevant information. This KPI helps ensure that the dashboard provides comprehensive and accurate information.

3. Data Accuracy: Evaluate the accuracy of the data within the dashboard by monitoring the occurrence of data inconsistencies, errors, or outdated information. Measure the percentage of data accuracy to ensure the reliability of the insights derived from the dashboard.

4. User Satisfaction: Gauge user satisfaction with the dashboard through user surveys, feedback ratings, or qualitative feedback. Measure user perceptions of the dashboard's usability, usefulness, and overall satisfaction. This KPI helps identify areas for improvement and ensures the dashboard meets user expectations.

5. Impact on Decision-Making: Assess the impact of the dashboard on decision-making processes related to entertainers. Measure the number of instances where the dashboard insights have influenced strategic decisions, industry trends, or research outcomes. This KPI demonstrates the value and effectiveness of the dashboard in supporting decision-making.

5 Deployment

When we deploy a Power BI dashboard, we make it accessible in the cloud, allowing users to view and interact with the visualizations and data without the need for local installations or software. The Power BI service provides a centralized platform for hosting and sharing dashboards, reports, and datasets.