High Level Design (HLD)

Investment Analytics

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Abstract

FDI is generally assumed to be more productive than domestic investment, because FDI encourages the incorporation of new modern technologies in the production function of the host economy. Hence it is believed that, FDI will enable the host economy to produce exportable goods, thus earn foreign exchange to them and also provide employment opportunities which will increase the level of income and decrease poverty. One of the biggest advantages of FDI enjoyed by India has been economic growth. A remarkable inflow of FDI in various industrial units in India has

boosted the economic life of country. The main objective of the project is to analyze the impact of FDI on Indian economy, as in the case of some industrial variables as well as some macro variables. The progress of these macro and industrial variables has also been studied by dividing them in the different categories.

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. This document is also intended to help detect contradictions prior to development, and can be used as a reference manualfor 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 Executive Summary

Investment Analytics is a project focused on analyzing the Foreign Direct Investment (FDI) inflow to India from 2000-2001 to 2016-17. The project aims to provide insights into the FDI trends, the impact of FDI, and the jobs generated because of FDI. The project will use Power BI to create reports and dashboards, which will highlight different KPIs such as YoY growth, FDI growth in Congress government and after Modi government comes into power, top sources of FDI, and impact of FDI.

2.2 Project Scope and Objectives

The scope of the project includes:
- Analysing FDI inflow to India from 2000-2001 to 2016-17
- Identifying FDI trends.
- Creating reports and dashboards to present the analysed data in a visually appealing manner

The objectives of the project include:
- Providing insights into the FDI trends.
- Analysing the effect of political changes on FDI inflow
- Creating interactive dashboards and reports that are user-friendly and easily understandable

2.3 Data Sources

The project will use the following data source:
- FDI_in_India.csv dataset available on Kaggle.

3 KPIs.

3.1 Reports and Dashboards

The following reports and dashboards will be created as part of the project:
- YoY FDI growth analysis
- FDI growth analysis under Congress government vs. BJP government
- Top sectors for FDI analysis

4 Data Security.

4.1 Data Governance and Security

The project will adhere to strict data governance and security measures to protect the data used in the project. Only authorized personnel will be allowed to access and manipulate the data.

5 Project Deadline.

5.1 Project Timeline and Deliverables

The project timeline is expected to be around five weeks. The deliverables of the project will include:

- Interactive dashboards and reports
- Detailed project report
- Low-level design document
- Architecture design
- Wireframe design
- Project Demo Video

6 Budget.

6.1 Project Budget

The project budget is estimated to be around $300, which includes software, hardware, and personnel costs. But this project is a part of ineuron internship, so the developer will bear the cost and time.

7 Risk Associated.

7.1 Project Risks and Mitigation

The potential risks associated with the project include:

- Lack of access to updated data
- Inaccurate or incomplete data
- Technical issues with the Power BI tool
- The risk of data breach

To mitigate these risks, we will ensure that we have access to updated and accurate data, perform rigorous data validation and testing, and take necessary security measures to protect the data.