Low Level Design Document

Foreign Direct Investment Analysis

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Document Control

Date	Version	Description	Author
23th August 2023	1.0	Introduction, Problem Statement	Prashant
23th August 2023	1.1	Dataset Information, Architecture, Description	Prashant
24th August 2023	1.1	Final Revision	Prashant

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1. Introduction

1.1 What is Low Level Design Document

The goal of the Low-level design document (LLDD) is to give the internal logic design of the actual program code for the Foreign Direct Investment Analysis dashboard. LLDD describes the class diagrams with the methods and relations between classes and programs specs. It describes the modules so that the programmer can directly code the program from the document.

1.2 Scope

Low-level design (LLD) is a component-level design process that follows a step-by-step refinement process. The process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the data organization may be defined during requirement analysis and then refined during data design work.

1.3 Project Introduction

Foreign direct investment is a type of investment into enterprises in a country by other enterprises located in another country by buying a company in the target country or by expanding the operation of an existing business in that country. FDI offers several benefits like the overture of new technology involving products and extension of new markets, the opportunity of employment, introduction of new skills etc. Which reflects the growth of the economic income of any nation. Foreign direct investment is one of the measures of growing and economic globalization. Investment has always been an issue for developing economies such as India. The countries which are developed are focusing on new markets, where there is the availability of abundant labor, the scope for products, and high profit are achieved. Therefore foreign direct investment has become a battleground in the emerging market.
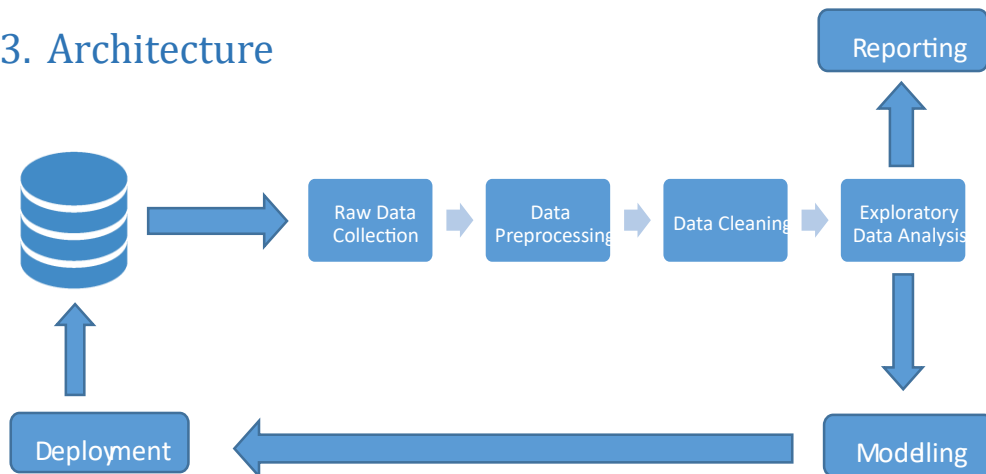
Foreign investment plays a significant role in the development of an economy like India. Many countries provide many incentives for attracting foreign direct investment. In the process of economic development, foreign capital helps to cover the domestic saving constraint and

provide access to the superior technology that promotes efficiency and productivity of the existing production capacity and generate. New production opportunity. India's recorded GDP growth throughout the last decade has lifted millions out of poverty and made the country of favoured destination form for direct investment. A recent UN CTAD survey projected India is the second most important FDI destination after China.

2. Problem Statement

Investment is a game of understanding historic data of investment of investment objects under different events but it is still a game of chances to minimize the risk we apply analytics to find the equilibrium investment. To understand the Foreign direct investment in India for the last 17 years from 2000-02 to 2016-17. This dataset contains sector and financial year wise data of FDI in India Sector-wise investment analysis, Year-wise investment analysis.

3. Architecture

3.1 Architecture Description

1.   Row Data Collection

The Dataset was taken from iNeuron Provided Project Description Document. https://drive.google.com/drive/folders/1M5z7z1NmWar7y1eFs67orfjqHL0iSV iL?usp=sharing

2.   Data Preprocessing

Before building any model, it is crucial to perform data pre-processing to feed the correct data to the model to learn and predict. Model performance depends on the quality of data fed to the model to train. This Process includes –

a) Handling Null/Missing Values

b) Handling Skewed Data

c) Outliers Detection and Removal

3. Data Cleaning

Data cleaning is the process of fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset.

a) Remove duplicate or irrelevant observations

b) Filter unwanted outliers

c) Renaming required attributes

4. Exploratory Data Analysis (EDA)

Exploratory Data Analysis refers to the critical process of performing initial investigations on data to discover patterns, spot anomalies, test hypothesis and check assumptions with the help of summary statistics and graphical representations.

5. Reporting

Reporting is a most important and underrated skill of a data analytics field. Because being a Data Analyst you should be good in the easy and self-explanatory report because your model will be used by many stakeholders who are not from a technical background.

a) High-Level Design Document (HLD)

b) Low-Level Design Document (LLD)

c) Architecture

d) Wireframe

e) Detailed Project Report

f) PowerPoint Presentation

6. Modelling

Data Modelling is the process of analyzing the data objects and their relationship to the other objects. It is used to analyze the data requirements that are required for the business processes. The data models are created for the data to be stored in a database. The Data Model's main focus is on what data is needed and how we have to organize data rather than what operations we have to perform.

7. Deployment

Create powerbi dashboard.