INEURON

LOW-LEVEL DESIGN (LLD)

E-COMMERCE DASHBOARD

PRESENTED BY

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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 Sales 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 What is 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

E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business (B2B), business-to consumer (B2C), consumer-to-consumer or consumer-to-business

The Analytics team of an Online E-Commerce Company wants to design a Sales dashboard to analyze the sales based on various product categories. The company wants to add user control for product category, so users can select a category and can see the trend month-wise and product-wise accordingly. The Analytics team also wants to create a histogram to analyze number of shipping days. The company's database keeps track of the following data fields: Brand Name, Company Name, Disease Medical Use, Invoice date, Company code, Ship to-Country, Ship-to-Country Full Name, Sold-to party- Code, Sold-to party Country, Sold to party Country Full Name, Delivery Plant, Payment terms, External Agent, Sales quantity, Price TC /Kg, Revenue, External commissions, Month.

2. Problem Statement

E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business (B2B), business-to consumer (B2C), consumer-to-consumer or consumer-to-business

3. Dataset Information

- InvoiceNo
- StockCode
- Description
- Quantity
- order cancelled
- Month
- Year
- Dater
- Invoice_Time
- Day/Night
- Unit price
- Country
- Sale

4. Architecture description

1. Raw Data Collection

The Dataset was taken from iNeuron's Provided Project Description Document

https://drive.google.com/drive/folders/1hLkL5HO4xG9rIjL8XeS6q-uAjwbTDSX6?usp=sharing

2. Data Pre-Processing

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 hypothesized 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

5. Reporting

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 to store the data 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

Dashboard created on Power Bi