Low Level Design

Amazon Sales Data Analysis

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DOCUMENT CONTROL

VERSION	DATE	AUTHOR	COMMENTS
0.1	14- Apr - 2023	Mohammad Aadil	Entire Document of LLD

Contents

1. Introduction

1.1 What is Low-Level design document?

The goal of the LDD or Low-level design document (LLDD) is to give the internal logic design of the actual program code for the House Price Prediction dashboard. LDD 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.

2. Problem Statement

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

3. Architecture Description

1. Raw Data Collection

The Dataset was taken from iNeuron's Provided Project Description Document.
https://drive.google.com/file/d/1tvNcSh1Ayfkv7NIE2oKqIMOLlfedNJvM/view?usp=share_link

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 hypotheses and check assumptions with the help of summary statistics and graphical representations.

5. Reporting

Reporting is a most important and underrated skill in the data analytics field. Because being a Data Analyst you should be good with the easy and self-explanatory reports 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

3.1. Data Description

1. Region: The geographic region where the sale occurred.
2. Country: The country where the sale occurred.
3. Item Type: The type of product sold.
4. Sales Channel: The channel through which the sale was made (e.g., online, in-store, etc.))
5. Order Priority: The priority of the order
6. Order Date: The date the order was placed

7. Order ID: A unique identifier for the order
8. Ship Date: The date the order was shipped
9. Units Sold: The number of units sold
10. Unit Price: The price of one unit of the product
11. Unit Cost: The cost of producing one unit of the product
12. Total Revenue: The total revenue generated by the sale (i.e., Units Sold x Unit Price).
13. Total Cost: The total cost of producing the units sold (i.e., Units Sold x Unit Cost)
14. Total Profit : The total profit generated by the sale (i.e., Total Revenue - Total Cost)