

# Low Level Design

## Amazon Sales Data Analysis

<b>Written By</b>	Priyanshu Prakash
<b>Document Version</b>	1.0
<b>Last Revised Date</b>	03/03/2025

## DOCUMENT CONTROL

### Change Record:

VERSION	DATE	AUTHOR	COMMENTS
1.0	03- Mar - 2025	Priyanshu Prakash	Introduction and architecture defined
2.0	03 - Mar - 2025	Priyanshu Prakash	Architecture & Architecture description appended and updated.

### Reviews:

VERSION	DATE	REVIEWER	COMMENTS

### Approval Status:

VERSION	REVIEW DATE	REVIEWED BY		APPROVED BY	COMMENTS

## Contents

1.	Introduction.....	04
	1.1 What is Low-Level Design Document? .....	04 1.2
	Scope .....	04
2.	Architecture .....	05
	Architecture Description .....	
	Project Introduction .....	
	Problem Statement .....	
	Dataset Information .....	

## 1. Introduction

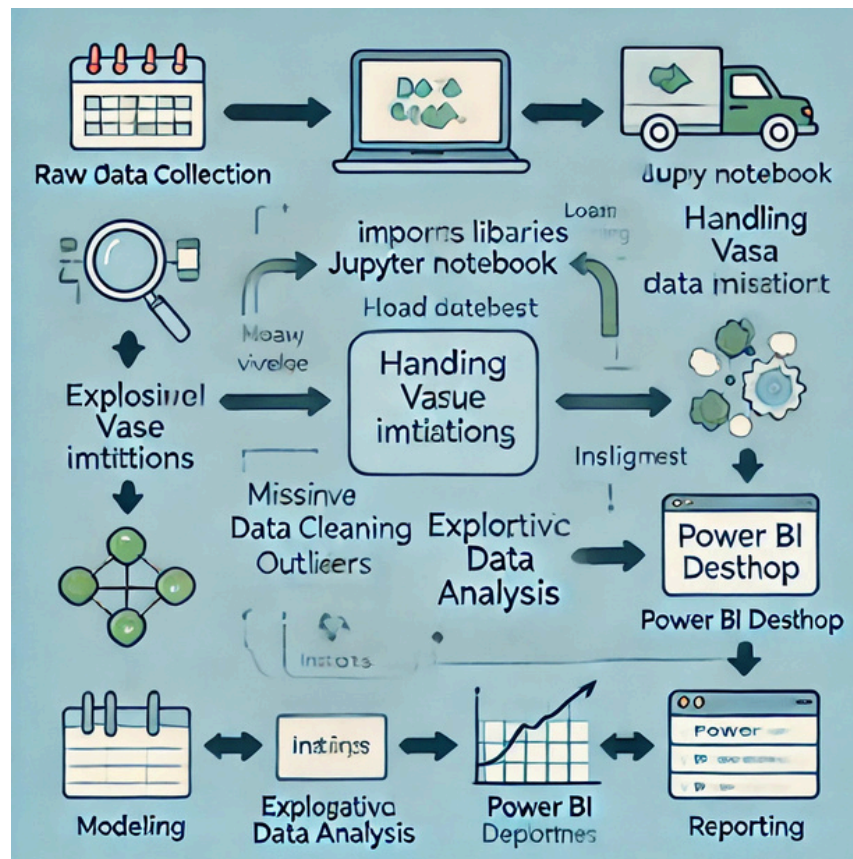
### 1.1 What is Low-Level design document?

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. Architecture



### 3.2. Web Scrapping

Web scraping is a technique to automatically extract content and data from websites using bots. It is also known as web data extraction or web harvesting. Web scrapping is made simple now days, many tools are used for web scrapping. Some of python libraries used for web scrapping are BeautifulSoup, Scrapy, Selenium, etc.

## 4.1 Architecture Description

### 1.Raw Data Collection

The Dataset was taken from iNeuron's Provided Project Description

## 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

- 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 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

We created Power BI Report

