# 

October 15, 2022

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LOW LEVEL DESIGN (LLD)

E-COMMERCE COMPANY

# Document Version Control

**Change Record:**

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| --- | --- | --- | --- |
| Date Issued | Version | Author | Comments |
| 15-10-2022 | 1.0 | Gopi Krishnan S |  |

**Reviews:**

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| Date Issued | Version | Reviewer | Comments |
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| Version | Review Date | Reviewed By | Approved by | comments |
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# Introduction

## 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.

## 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.

# Architecture Description

## Data Description

The Dataset contains orders placed across the year 2015 and the products ordered along with the customer name and ID, this dataset also contains the total sales and profit obtained from each order.

Order ID – Order ID of each individual order placed

Order Date – Date on which the order was placed

Ship Date – Date on which the order was shipped

Aging – Age of the customer

Ship Mode – Shipping mode used

Product Category – which category the order belongs to

Product – The product ordered

Sales – Sales generated by the order

Quantity – Quantity of product ordered

Discount - Discount for each order

Profit – Profit received for each order

Shipping Cost – Total cost spend on shipping for each order

Order Priority – Status of the order

Customer ID – ID of the customer who ordered a product

Customer Name – The customer name

Segment – Which segment the order belonged to

City – from which city the order was received

State– from which State the order was received

Country– from which Country the order was received

Region– from which Region the order was received

Age Group – Age of the customer grouped into an age bracket

## Data Transformation

In the Data Transformation process , the Data types of the original dataset is converted to perform EDA , and also added additional column (Age Group) to categorise the orders according to the age of the customers.

## Data Insertion in Power Pivot(Excel)

The Data is downloaded from Google Drive , in a CSV format. Under Power pivot tab , the Data Model (Manage) tool will help open the data in a Power Pivot window were , we can load the downloaded data. Once the data is loaded, EDA can be performed within Power Pivot to transform the data to meet the requirements.

# Unit Test Cases

|  |  |
| --- | --- |
| **Test Case Description** | **Expected Results** |
| Slicer | Display the data for different regions |
| Relation between Product Category, sales and profit | The Bar chart should display the relationship between Sales and profit across each month for different product categories |
| Relation between Product Category, Age group and Orders | The Bar chart should display the Orders across each age group for different product categories |
| Relation between Product Category, sales and Region | The Bar chart should display the Sales across each Region for different product categories |