Low Level Design

Black Friday Sales Prediction

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1 Introduction

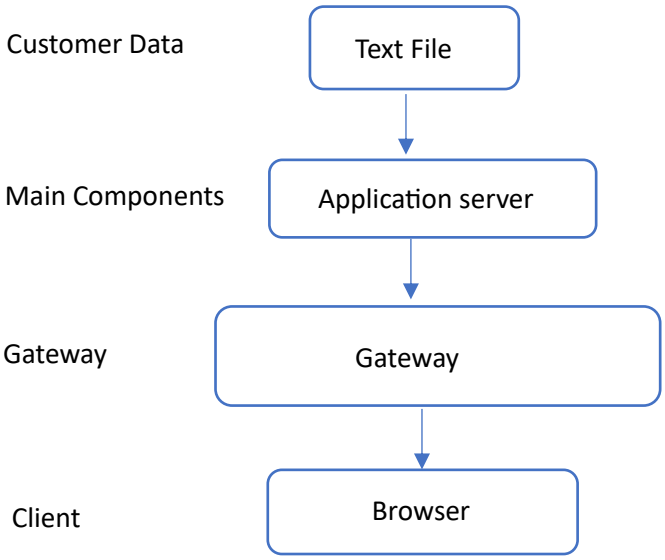
1.1 What is Low-Level design document?

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



- Text File - The Customer details are stored in CSV text file.
- Application server - Flask is the application server we use in this project.
- Gateway - It acts as an entry gate to the application server.
- Browser – We access a simple HTML page which gets the input from the user and display the predicted output with the help of browser.

3. Architecture Description

3.1. Data Description

The dataset contains the following fields:

1. User_ID - User ID
2. Product_ID - Product ID
3. Gender - Sex of User
4. Age - Age in bins
5. Occupation - Occupation (Masked)
6. City_Category - Category of the City (A, B, C)
7. Stay_In_Current_City_Years - Number of years stay in current city
8. Marital_Status - Marital Status
9. Product_Category_1 - Product Category (Masked)
10. Product_Category_2 - Product may belongs to another category also (Masked)
11. Product_Category_3 - Product may belongs to another category also (Masked)
12. Purchase - Purchase Amount (Target Variable)

3.2 Data Transformation

We will perform certain transformation processes to convert our original dataset to the cleaned format for the efficient model training. (Explained in brief in Detail project report)

3.3 Deployment

Once we complete the model training and testing, locally deploy the model in the browser using Flask API.