Low-Level Design (LLD)

Consignment Pricing Prediction

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Document Version	1.0
Last Revised Date	1-11-2021

Document Control

Change Record:

Date	Version	Author
1-11-2021	1.0	Sooraj M.A Akhila Saj

Contents

1 Introduction

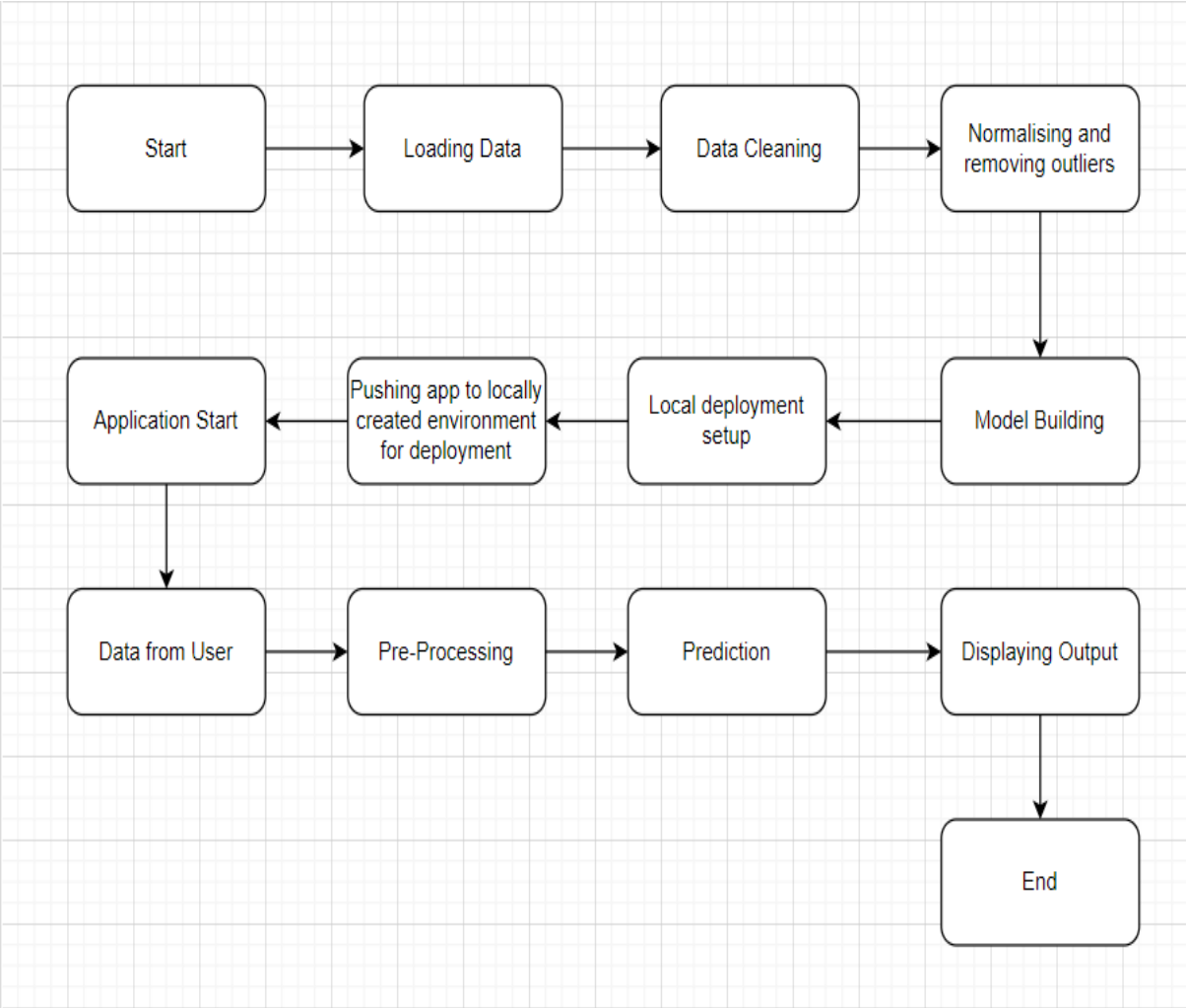
1.1 What is Low-Level Design document?

The purpose of this document is to present a detailed description of the Consignment Pricing Prediction. It will explain the purpose and feature of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system and will be proposed to the higher management for its approval.

1.2 Scope

Low-Level design (LLD) is a component-level design process that follows a step-by-step refinement process. This process can be used for designing data structures required software architecture, source code and ultimately, performing algorithms. Overall, the data organization may be defined during requirement analysis and then refined during data design work.

2 Architecture



3 Architecture Description

3.1 Data Description

The dataset contains 10326 data of delivery history via various modes of transportation like Air, Air Chartered, Truck, Ocean.

3.2 Data Cleaning

The dataset consists of many unwanted data. Those data are removed from the dataset and a new dataset is created which is having only required data for modelling.

3.3 Normalising and removing Outliers

The data is not uniformly distributed. This affects the performance of the model, so we have converted the data into normally distributed data by using various techniques.

3.4 Model Building

After data cleaning and feature engineering suitable models are created. And the model with highest r2 score is considered. The best parameters are chosen using Grid-Search.

3.5 Creating local Deployment Setup

With the help of flask frame work local deployment setup is created.

3.6 Data from User

Here we will collect information such as Country, Shipment mode, Manufacturing site, weight, item description, Band, first line designation and Insurance cost.

3.7 Pre-Processing

Before loading the data into the model, the values have to normalised. This is because the model has seen only the normalised value. So, it is necessary to normalize the values before loading into the model.

3.8 Prediction and Displaying the output

The model will make its prediction and the result will be displayed on screen.

4 Unit Test Cases

Test Case Description	Pre-Requisite	Expected Result
Verify whether the application loads completely for the user when the URL is accessed.	1. Application URL is accessible. 2. Application is deployed.	The application should load completely for the user when the URL is accessed.
Verify whether the user is able to sign up in the application.	1. Application is accessible.	The user should be able to sign up in the application.
Verify whether user is able to see input fields on logging in.	1. Application is accessible. 2. User is signed up to the application 3. user is logged in to the application	The user should be able to see the input fields on logging in.
Verify whether user is able to edit all input fields.	1. Application is accessible. 2. User is signed up to the application 3. user is logged in to the application	User should be able to edit all the inputs.
Verify whether user gets submit button to submit the inputs.	1. Application is accessible. 2. User is signed up to the application 3. user is logged in to the application	User should get the submit button to submit the inputs.
Verify whether user is presented with recommended results on clicking submit.	1. Application is accessible. 2. User is signed up to the application 3. user is logged in to the application	User should be presented with recommended results on clicking submit.
Verify whether user is presented with correct result.	1. Application is accessible. 2. User is signed up to the application 3. user is logged in to the application	User should be able to get the correct result.