Architecture

Consignment Pricing Prediction

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1.0	1-11-2021	Sooraj M.A, Akhila Saj	Introduction and Architecture Defined

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1.0				

Contents

1 Introduction

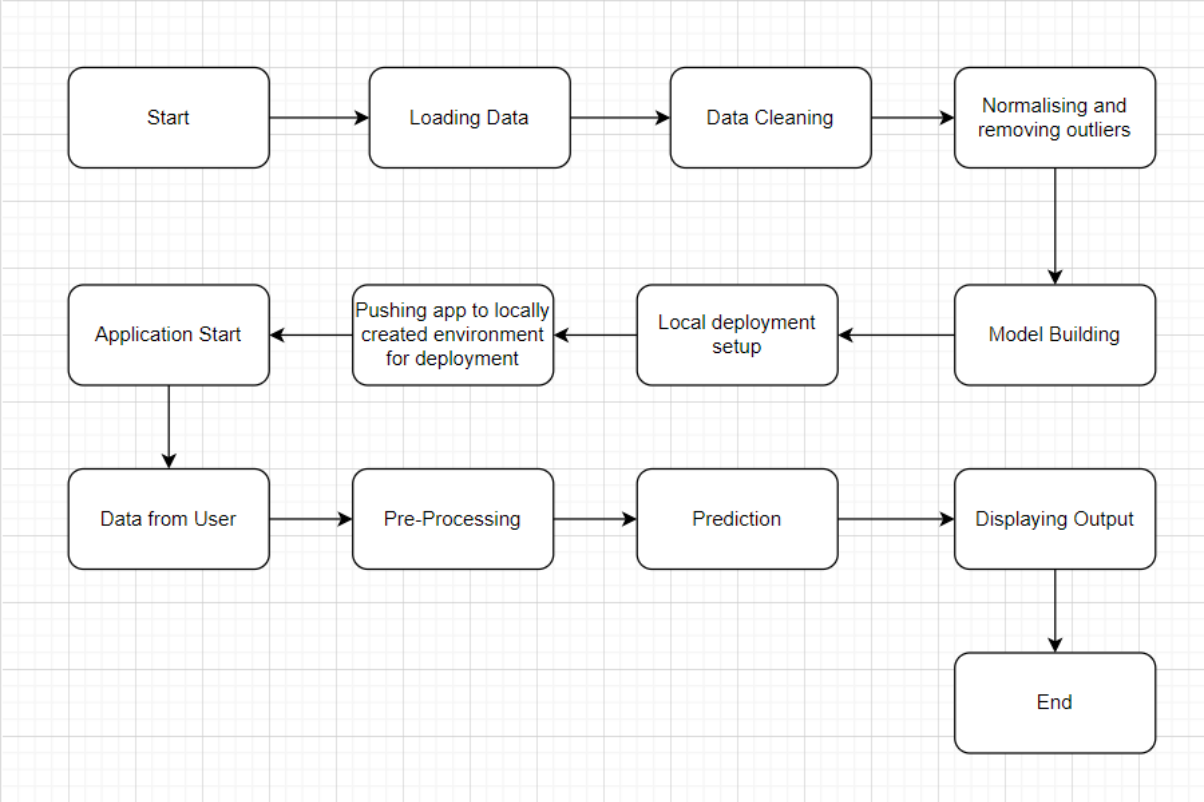
1.1 Why this Architecture Design Document?

The purpose of this document is to provide a detailed architecture design of the Consignment Pricing Prediction project by focusing of four key quality attributes:

Usability, Availability, Maintainability, Testability

This document will address the background for this project, and the architecturally significant function requirements. The intention of this document is to help the development team to determine how the system will be structured at the highest level. Finally, the project coach can use this document to validate that the development team is meeting the agreed-upon requirements during the evaluation of the team's efforts.

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.

3.9 User Interface

In front end creation I have made a user interactive page where users can enter their input values to our application. This HTML user input data is transferred in variable format to the backend. Made these HTML fully in a decoupled format.