

Low-Level Design (LLD)

TRAVEL INSURANCE DATA ANALYSIS

Revision Number - 1.2

Last Date of Revision - 22/04/2022

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Document Control

Date	Version	Description	Author
04/04/2022	1.0	Introduction, Problem Statement	Rahul
07/04/2022	1.1	Dataset Information, Architecture Description	Rahul
22/04/2022	1.2	Final Revision	Rahul

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1. Introduction

1.1 What is Low-Level Design Document?

The goal of the Low-level design document (LLDD) is to give the internal logic design of the actual program code for the Sales Analysis dashboard. LLDD 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 What is 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.

1.3 Project Introduction:

In this Project, we will Analyze and Visualize Travel Insurance Dataset. First of all, what is Travel Insurance, Travel insurance is an insurance product for covering unforeseen losses incurred while travelling, either internationally or domestically. Basic policies generally only cover emergency medical expenses while overseas, while comprehensive policies typically include coverage for trip cancellation, lost luggage, flight delays, public liability, and other expenses. In this project, we are provided with a dataset that we will use to find meaningful Information.

2. Problem Statement

Finance is used as a collective term to refer to a broad range of economic services provided by the finance industry, which encompasses a broad range of organizations that manage money, including credit unions, banks, credit card companies, insurance companies, consumer finance companies, stock brokerages, investment funds.

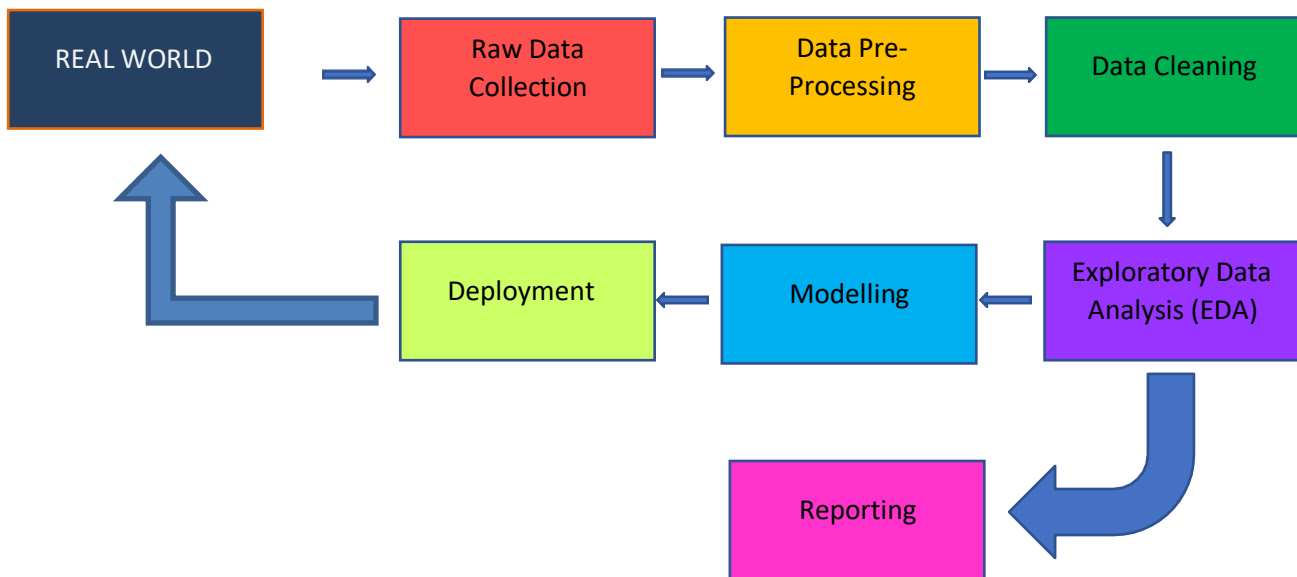
Do ETL: Extract-Transform-Load the dataset and find for me some information from this large data. This is a form of data mining.

Dataset Information:

The attributes present in the dataset are as follows:

1. **Product Name:** It consists of a set of plans or packages, offered to clients based on their selection.
2. **Destination:** Where the client is interested in Travel.
3. **Distribution Channel:** The product delivered to the client, whether it should be in either one mode i.e. online or offline.
4. **Agency:** Which Agency company client adapts.
5. **Agency Type:** Airlines or Travel Agency, whether clients want to travel by plane or they want to personalize their tour.
6. **Gender:** Distinguish between Male or Female, who travels the most.
7. **Claim:** Whether they had claimed some condition in the format of yes/no.
8. **Duration:** How much time they had spent on tour.
9. **Net Sales:** Overall sold price of the company product.
10. **Commission values:** After-sales how much amount of profit was made.

3. Architecture



3.1 Architecture Description

1. Raw Data Collection

The Dataset was taken from iNeuron's Provided Project Description Document.

<https://drive.google.com/file/d/1Rtk2ghGotR4NVOSKCSPi3LyTMm99n3Zc/view?usp=sharing>

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 of a data analytics field. Because being a Data Analyst you should be good in the easy and self-explanatory report because your model will be used by many stakeholders who are not from a technical background.

- High-Level Design Document (HLD)
- Low-Level Design Document (LLD)
- Architecture
- Wireframe
- Detailed Project Report
- 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 the 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 a Power BI Dashboard

