LOW LEVEL DESIGN DOCUMENT

(Swiggy Banglore Data Analysis)

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Swiggy Bangalore Data Analysis – Business Intelligence Project

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1.0	01/12/2022	Prashant Naima	First Version of Complete LLD

Abstract

The hotel and restaurant business domain, as a vital part of the overall supply chain, is expected to highly evolve in the upcoming years via the developments, which are taking place on the side of the Future Internet. This paper presents a novel business-to-business collaboration platform from the hotel-restaurant sector perspective, which aims to facilitate the collaboration of numerous stakeholders belonging to associated business domains, in an effective and flexible manner.

In the world of rising new technology and innovation, the Food industry is advancing with the role of Data Science and Analytics. Data analysis can help them to understand their business in a quite different manner and helps to improve the quality of the service by identifying the weak areas of the business. This study demonstrates how different analysis help to make better business decisions and help analyze customer trends and satisfaction, which can lead to new and better products and services. Different analyses were performed such as Exploratory Data Analysis and Descriptive Analysis on a variety of use cases to get the key insights from this data based on which business decisions will be taken.

This dataset provides a huge amount of information on who the best Hotels and best cuisines in Bangalore, India by rating and by price. Based on the Information the ultimate goal would be to predict best Hotels for common people and find important insights highlighting key indicators and metrics that influence the customer choice.

Contents:

Low Level Design (LLD)

1.Introduction:

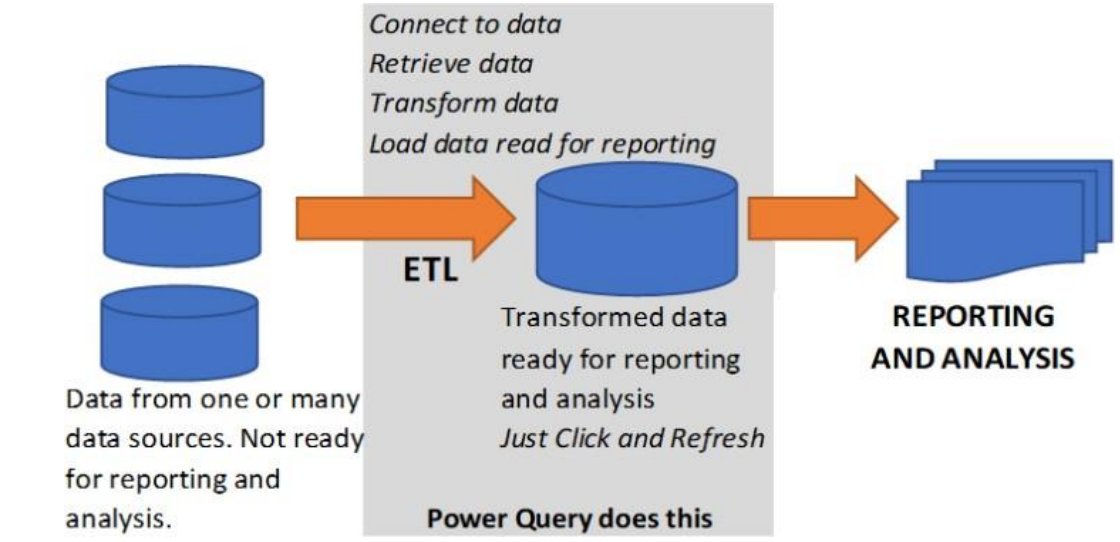
1.1. Why this Low-Level Design Document?

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 Bank Marketing Campaign Analysis. 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:



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ETL (extract, transform and load) in Power BI uses preparation of data sets for analysis by removing irregularities in the data. It also involves data visualization to draw meaningful patterns and insights.

Based on the results of ETL, companies also make business decisions, which can have repercussions later.

- If ETL is not done properly then it can damage the business a lot in many ways such as loss of client which we are working for, the decision making will go completely wrong and many more issues.
- If done well, it may improve the efficacy of everything we do next.

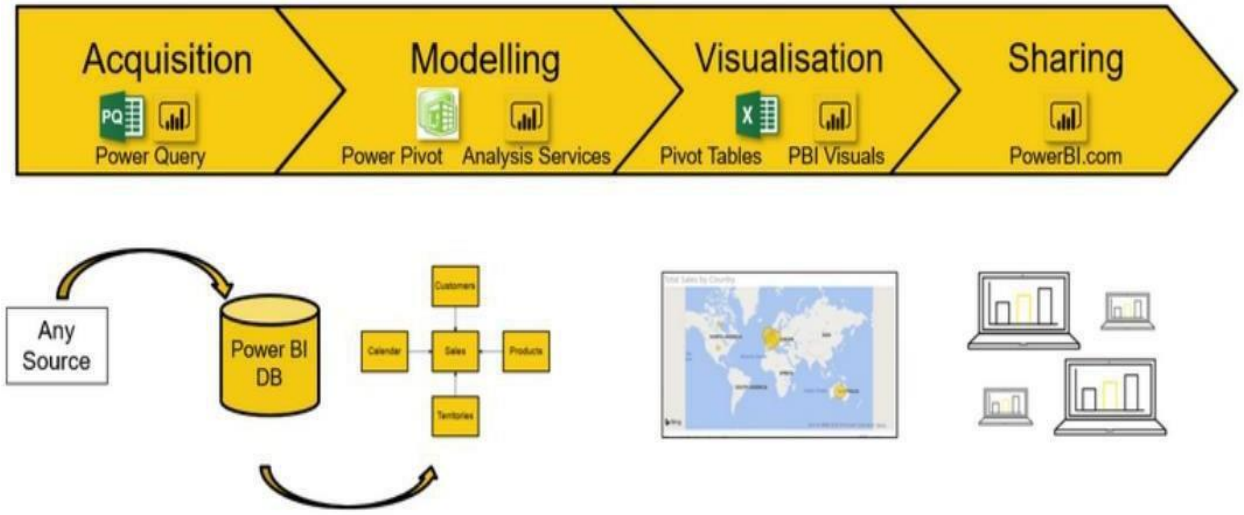
Below are following steps to follow for ETL:

1. Data Sourcing

2. Data Cleaning

3. Data Modelling

4. Data Visualization



3. Architecture Description:

3.1 Data Sourcing:

The dataset is in csv (comma separated values) format. MS Excel is used to load the data.

Citation Request:

This Dataset is publicly available for research, Available at https://drive.google.com/drive/folders/1FkmFVL8wlJmQWP1z52TD8PlhOJhitTyI?usp=s named as Swiggy Bangalore Outlet Details.csv.

1. Title - Swiggy Bangalore Outlet Details
2. Source - https://drive.google.com/drive/folders/1FkmFVL8wlJmQWP1z52TD8PlhOJhitTyI?usp=s

3.2. Data Overview –

- The Data includes single .csv file with all examples.
- The Number of Instance - 119 for Swiggy Bangalore Outlet Details.csv
- Number of attributes – 5 attributes

3.2 Data Description –

- Shop_Name - Name of hotels in Bangalore (categorical : 'Shanti Sweets', 'Mumbai Tiffin', 'Sri Krishna Sagar', 'Al Daaz',' Beijing Bites',' Kitchens of Punjab',' 99 VARIETY DOSA AND PAV BHAJ',' La Pino'z Pizza',' Hotel Manu',' Yumlane Pizza',' Ambur Star Briyani',' Cake Box',' Meghana Foods',' Momoz',' A2B - Adyar Ananda Bhavan',' Shawarma Inc',' WarmOven Cake & Desserts',' Sri Lakshmi Dhaba',' Falahaar & Kota Kachori',' Shree Khana Khazana',' Just Bake',' Maa Di Hatti',' Hotel Godavari',' Rolls On Wheels',' New Udupi Grand',' Swad Punjab da',' Rice Bowl',' High N Hungry',' Burger King',' Nandhana Palace',' Easy Bites',' Bengali Fun Foods',' Madurai Idly Shop',' Oottupura',' Taco Bell', Etc)

- Cuisine - Name of Cuisines corresponding to hotels, shop name (Categorical: 'North Indian, South Indian, Chinese' , 'Andhra, Biryani, Chinese, Desserts, Fast Food, Seafood, South Indian' , 'American, Fast Food' , 'Biryani, Seafood, North Indian, Chinese, Desserts, Andhra, South Indian' , 'Snacks, American' , 'South Indian' , 'Mexican' , 'North Indian, Chinese, Biryani' , 'Turkish, Portuguese, American' , 'Biryani' , 'South Indian, Snacks, North Indian, Chinese' , 'Desserts, Fast Food, Sweets, Chaat' , 'Chinese, South Indian, Andhra, Hyderabadi' , 'Biryani, Mughlai, South Indian' , 'Pizzas, Fast Food' , 'Chinese, Asian' , 'North Indian, Chinese, South Indian' , 'Italian, Desserts, Pizzas' , 'Biryani, Andhra, South Indian' , 'Pizzas, Chinese, Pastas, Salads, American, Continental' , 'Andhra, Biryani' , 'Fast Food, Beverages' , 'Beverages, Chinese' , Etc)

- Locations - Complete Address of the hotels or shop name (Categorical: 'Koramangala' , 'Sector 5, HSR' , 'HSR, HSR' , 'BTM 2nd Stage, BTM' , '3rd

main, BTM' , '3rd Sector, HSR' , 'Mico Layout, BTM' , '4th Cross, Koramangala' , '8TH BLOCK, Koramangala' , 'SG palaya, BTM' , Etc.)

- Rating - It refers to the rating starting from 3.6 to 4.8 (Numerical: '3.6' , '3.7' , '3.8' , '3.9' , '4' , '4.1' , '4.2' , '4.3' , '4.4' , '4.5' , '4.6' , '4.7' , '4.8')

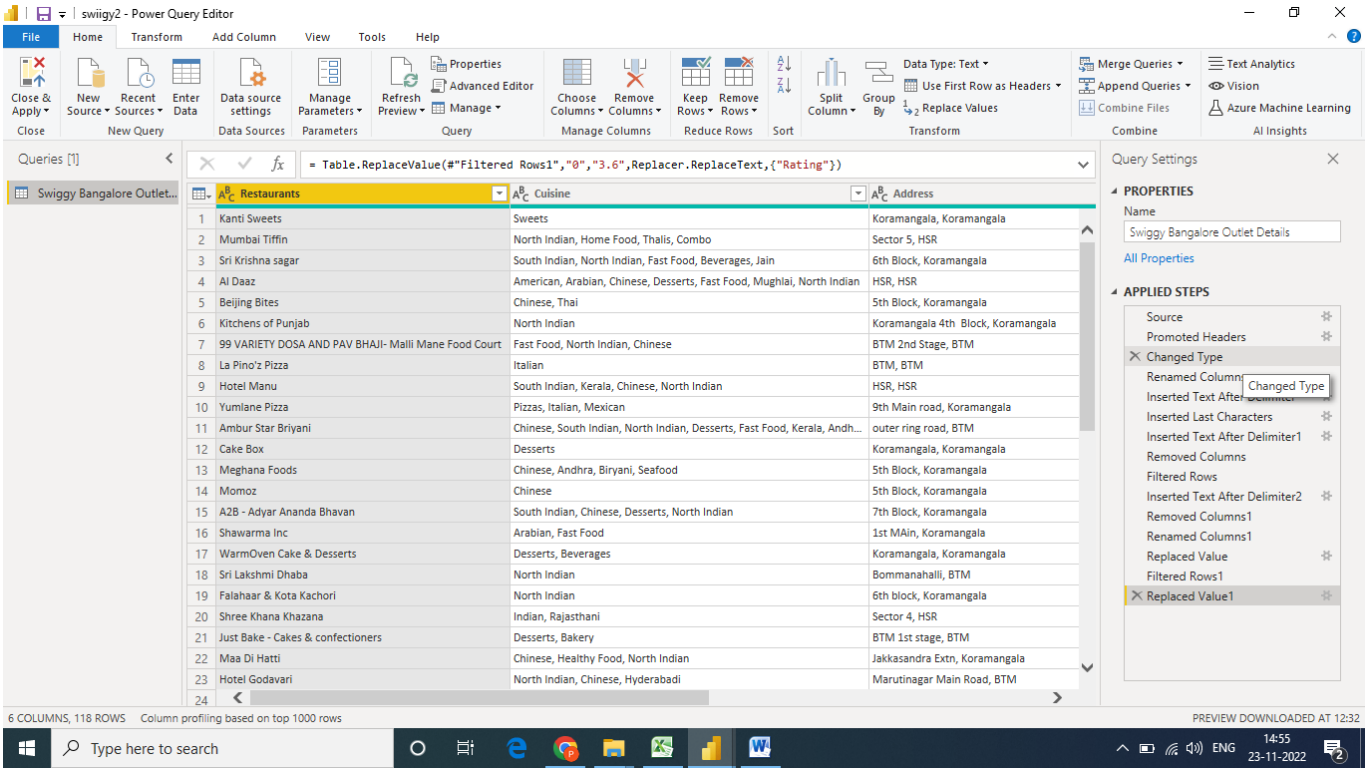
- Cost_for_Two - It simply refers to the bill amount for 2 persons (Numerical: '150' , '200' , '250', '300', '400', '450', '500', '550', '600', '650', '700', '750', '800')

3.4 Data loading in Power BI Query Editor

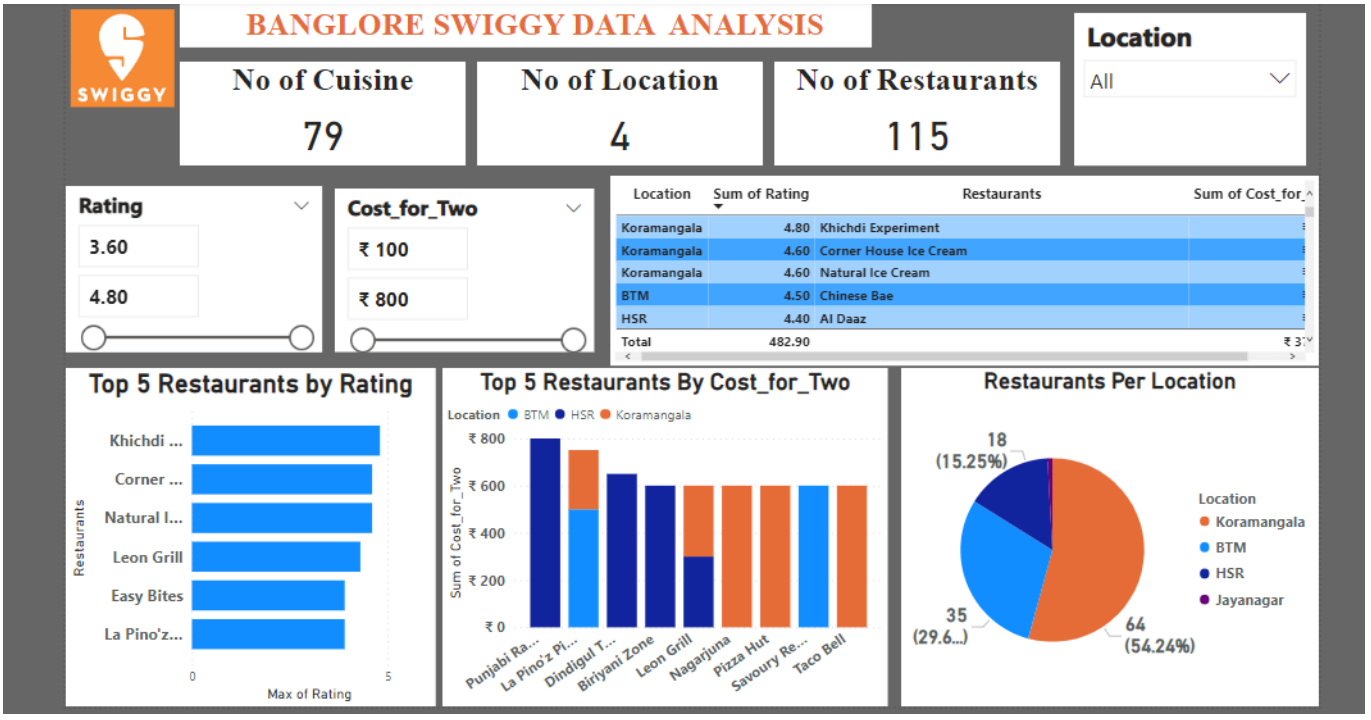
Power Query is the data connectivity and data preparation technology that enables end users to seamlessly import and reshape data from within a wide range of Microsoft products, including Excel, Power BI, Analysis Services, data verse, and more with the following characteristics:

- There can be multiple rows and columns in the data.
- Each row represents a sample of data,
- Each column contains a different variable that describes the samples (rows).
- The data in every column can be a different type of data – e.g. numbers, strings, dates, Boolean etc.

Low Level Design (LLD)



3.5 Data to Insights through Visualizations and Excel Data Analysis



3. Deployment to Power BI Service