High Level Design

(Swiggy Data Analysis)

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Abstract

The Online food ordering and delivery is a new type of business model in the current era of e-commerce and that leads to the start-ups of several online businesses. Online food ordering and delivery is very successful because it bridges the gap between restaurants and consumers. It is a process where a customer will search for a restaurant and filter with the available items, cuisines and they delivered by an application in the mobile phone.

Swiggy is an application for food ordering and delivery which is a Bangalore based company. Swiggy was mainly to provide a complete order and delivery solution to the urban foodies. The main aim of this research is to study the factors influencing the consumer perception and buying decision of Swiggy and to study the level of consumer satisfaction of Swiggy.

1. Introduction

This study is conducted to study the consumer perception towards online food ordering Swiggy, how it bridges the gap between the consumer and the hotels. The factors influencing the consumers to buy through food ordering application Swiggy is also identified in the study and the satisfaction derived out of the food ordering applications Swiggy is also examined.

1.1 Purpose of the Document

The purpose of this plan is to

- Describe different design approaches.
- Describe different analysis approaches based on variety of Use Cases.
- Describe third party components/tools required for the system.
- Present complete Process Flow followed for this project.

1.2 Objective of HLD

1. To provide an overview of the entire system.
2. To provide introduction of Problem Perspective & Statement, Data Requirements, Tools used and many more.
3. To provide a module-wise breakup of the entire system.

1.3 Scope of HLD

This study is conducted to know a consumers perception towards the online food delivery service. This study helps us to quite a better understanding regarding the online food delivery services providers. This study conducted on Swiggy helps us to get a better understanding the factors that influence a customer towards an online food delivery portal.

2. General Description

2.1 Product Perspective & Problem Statement

Food industries are having important reflection of the economy from past few decades. Online food ordering is the process of ordering food from a website or other application. The product can be either ready-to-eat food or food that has not been specially prepared for direction consumption.
In this project, we are analyzing the various aspects with different use cases which covers many aspects of Swiggy Food Delivery Service. It helps in not only understanding the meaningful relationships between attributes, but it also allows us to do our own research and come-up with our findings.
The objective of the project is to perform an exploratory data analysis, data pre-processing, & data cleaning and at the end, apply different Data Visualization techniques to get the meaningful insight from the given data. This project aims apply some amazing Python Libraries such as Plotly and WordCloud which will give a boost to our visual understanding of the data.

2.2 Data Requirements

Data Requirement completely depend on our problem.

- In this project, to perform analysis, we are using datasets that are provided by iNeuron Intelligence Pvt. Ltd.
- The features which are taken into consideration are:
- Some of the important features are:

Name	Description
Shop_Name	Name of the Shop/Restaurants
Cuisine	Name of the different Cuisines provided by Restaurants.
Location	Restaurant Area/Location.
Rating	Rating given by the Customers out of 5.
Cost_for_Two (₹)	Approx. Cost of Two people w.r.t. Restaurants.

2.3 Tools Used

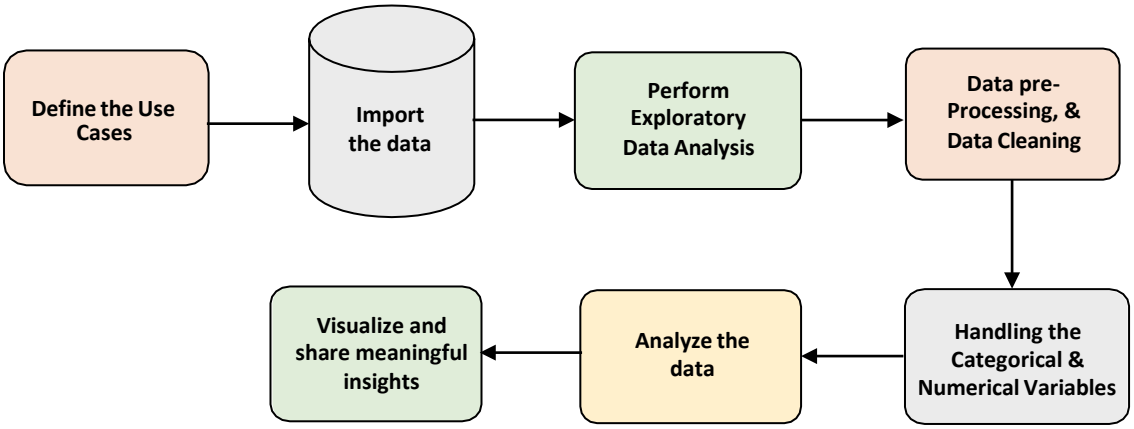
- Jupyter Notebook is used as IDE.
- Pandas and NumPy are used for Data Manipulation & Pre-processing and Mathematical functions respectively.
- Exploratory data analysis is automated by dataprep.
- For visualization of the plots, Matplotlib, Seaborn, Plotly are used.
- WordCloud is used to representing the Text Data.
- GitHub is used as version control system

2.4 Constraints

The analysis must be user friendly, code must be neat & clean, EDA must be automated as much as possible because it will save huge amount of time. Moreover, users should not be required to have any of the coding knowledge as the insights they are looking for are mentioned in-detail with respective visuals.

3. Design Details

3.1 Process Flow



3.2 Error Handling / Exception Handling:

We have designed this project in such a way that, complete script is tested and runs multiple times to make sure that there is no error occurred during process flow.
Additionally, we have also dismissed the un-necessary warnings to avoid confusion by usingfilter warnings class from warnings module.

4. Conclusion

In this analysis project, we have been analyzed several different use cases for the given dataset to make better business decisions and help analyze customer trends and satisfaction, which can lead to new and better products and services. It has been found that –

- Top restaurant chains in Bangalore have been identified with La pino'z pizza is topping list followed by Leon Grill, Easy Bites and so on.

- Total number of restaurants at different locations in Bangalore have been identified where BTM has the highest number of restaurants. Also top 10 location in having highest number of restaurants have been identified.

We have also analyzed the most luxurious restaurant in Bangalore that is Punjabi Rasoi.
Also top 10 restaurants in Bangalore have been analyzed.

On top of that, we have found out that, there are ***Total 64 number of the Affordable/Budgeted Restaurants*** are have ***Excellent Rating*** as well.
This might be because *Most of the people prefer Affordable/Budget-Restaurants* which also provides ***good quality*** of ***Cuisines***.

In addition to that, we have also found the average rating of each restaurant.

- Furthermore, we have also been analyzed Cheapest/Expensive & Highest Rated Restaurants with Approx. Cost for 2 People and many more.

5. References

1. Business Model Of Swiggy | How Swiggy works & Make Money | Casestudy (tristatetechnology.com)
2. Swiggy Business Model | How Swiggy Works & Makes Money | Feedough
3. Swiggy - Wikipedia