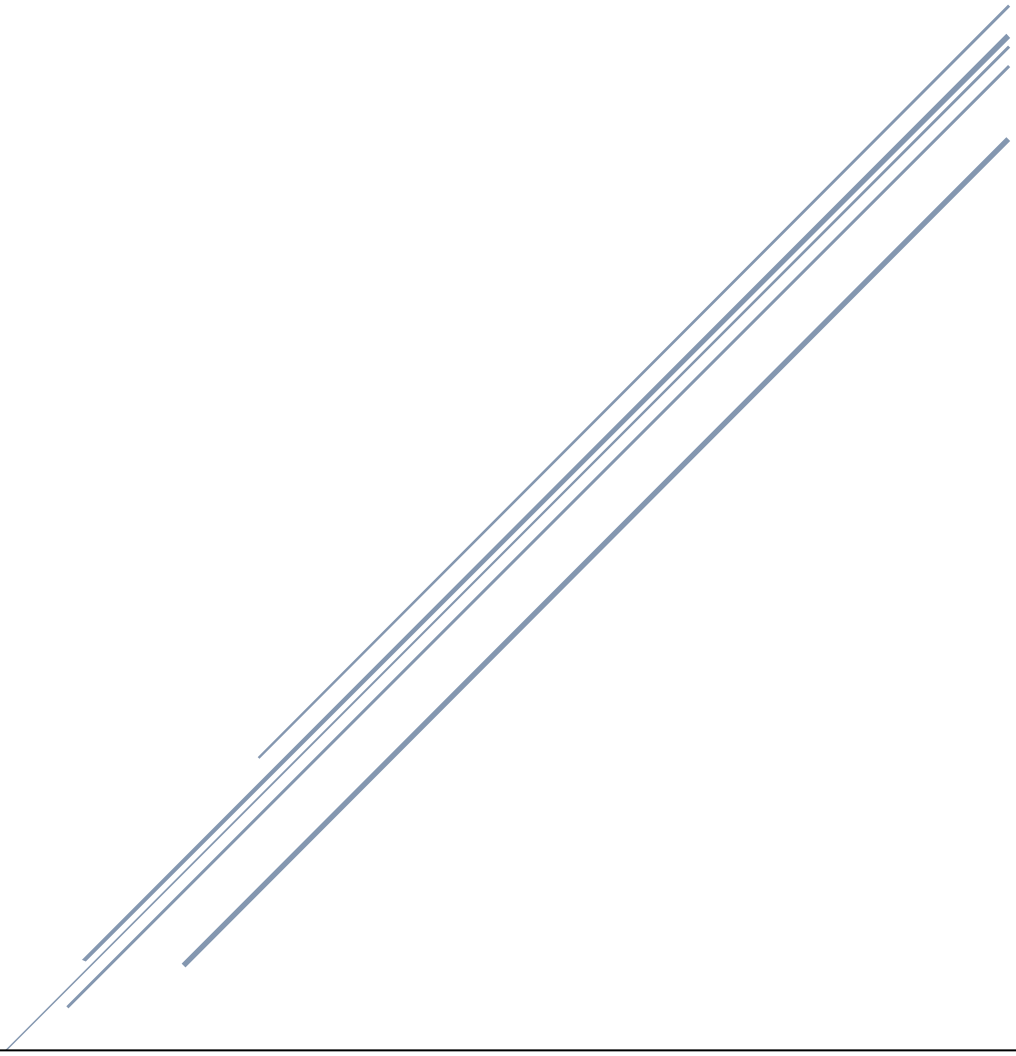
High-Level Design Document

[Document subtitle]



Edited By –Shivam Patil, Sumit Kakad, Sanket patil

High-Level Design Document

- Project Title: Analyzing Swiggy: Bangalore Delivery Outlet Data
- Technologies: Business Intelligence
- Domain: Food Industry
- Project Difficulty Level: Advanced

Abstract:

The "Analyzing Swiggy: Bangalore Delivery Outlet Data" project is a comprehensive exploration of Swiggy's food delivery data in the Bangalore region. This document outlines the project's objectives, methodologies, tools, and expected outcomes, providing a high-level overview of the entire endeavor.

Table of Contents:

1 Introduction:

1.1 Why this High-Level Design Document? :

This document serves as a comprehensive guide to the "Analyzing Swiggy: Bangalore Delivery Outlet Data" project. It outlines the project's goals, scope, methodologies, tools, and expected outcomes, providing stakeholders with a clear understanding of the project's direction.

1.2 Scope:

The project aims to analyze Swiggy's delivery data in Bangalore to extract insights into restaurant performance, customer preferences, delivery patterns,

and other key aspects. By doing so, the project intends to provide actionable recommendations to improve operational efficiency and enhance customer experience.

2 General Description:

2.1 Product Perspective & Problem Statement:

The online food ordering market has witnessed significant growth since the inception of the first online food ordering service, World Wide Waiter (now known as Waiter.com), in 1995. Today, the market includes a diverse range of food options, including restaurant-prepared meals, groceries, and more. Swiggy, a prominent player in the food delivery industry, aims to optimize its delivery operations and provide enhanced value to customers and partner restaurants.

The problem statement revolves around the need to harness the valuable insights

hidden within Swiggy's delivery data. By analyzing this data, we can uncover trends, patterns, and correlations that can drive informed decision-making across various aspects of the food delivery ecosystem.

2.2 Tools Used:

To achieve the project's goals, a range of tools and techniques will be employed, including:

- Python for data extraction, transformation, and analysis
- R for advanced statistical analysis and modeling
- Tableau and Power BI for interactive data visualization
- Alteryx for data preparation and cleansing

These tools will facilitate the exploration and interpretation of the dataset, enabling us to derive meaningful insights.

3 Design Details:

3.1 Functional Architecture:

The project's functional architecture encompasses the ETL (Extract-Transform-Load) process, which involves the following steps:

1. Extract: Data will be sourced from the provided Swiggy delivery dataset, capturing a wide range of attributes, including order details, restaurant information, customer ratings, and more.

2. Transform: Data preprocessing and cleansing will be performed to handle missing values, outliers, and inconsistencies. Relevant features will be selected, and

data will be transformed into a structured format suitable for analysis.

3. Load: The cleaned and transformed data will be loaded into data analysis tools, such as Tableau or Power BI, to facilitate exploration and visualization.

3.2 Optimization:

The optimization phase involves data aggregation, feature engineering, and advanced analysis techniques. Key factors that will be considered include:

- Delivery times and their impact on customer satisfaction
- Analysis of customer ratings and reviews
- Identification of popular cuisine types and restaurants

- Geographic distribution of orders and delivery routes

These insights will enable us to provide valuable recommendations to Swiggy and its partner restaurants for operational improvements.

4 Key Performance Indicators (KPIs):

4.1 KPIs (Key Performance Indicators):

The project will define and track several KPIs, including:

- Average delivery time for different restaurant categories
- Customer retention rate and factors influencing it
- Most ordered cuisine types and their popularity trends
- Top-performing restaurants based on customer ratings and order frequency

These KPIs will serve as measurable indicators of the project's success and the

value it brings to Swiggy and its stakeholders.

5 Deployment:

5.1 Deployment Strategy:

The project's insights and visualizations will be shared through a Tableau Public dashboard, accessible to relevant stakeholders. This interactive dashboard will allow users to explore and interact with the data-driven findings, gaining valuable insights at their fingertips.

5.2 Infrastructure Requirements:

To actively engage with the project's deliverables, participants will need access to the following:

- The provided Swiggy delivery dataset

- The specified data analysis tools (Tableau, Power BI)
- Python and R environments for code execution and analysis

6 Conclusion:

The "Analyzing Swiggy: Bangalore Delivery Outlet Data" project holds the potential to revolutionize Swiggy's operational efficiency and customer experience. By delving into the intricacies of the food delivery ecosystem and uncovering hidden patterns, the project aims to deliver actionable insights that drive positive change and growth.