

Architecture Design

Swiggy Project Data Analysis

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Project issue date- 17/01/2024

Document Version Control

Date of issue	Version	Description	Author
17 th Jan 2024	1	First Version of Swiggy Project	Abhishek Sharma

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1. Introduction

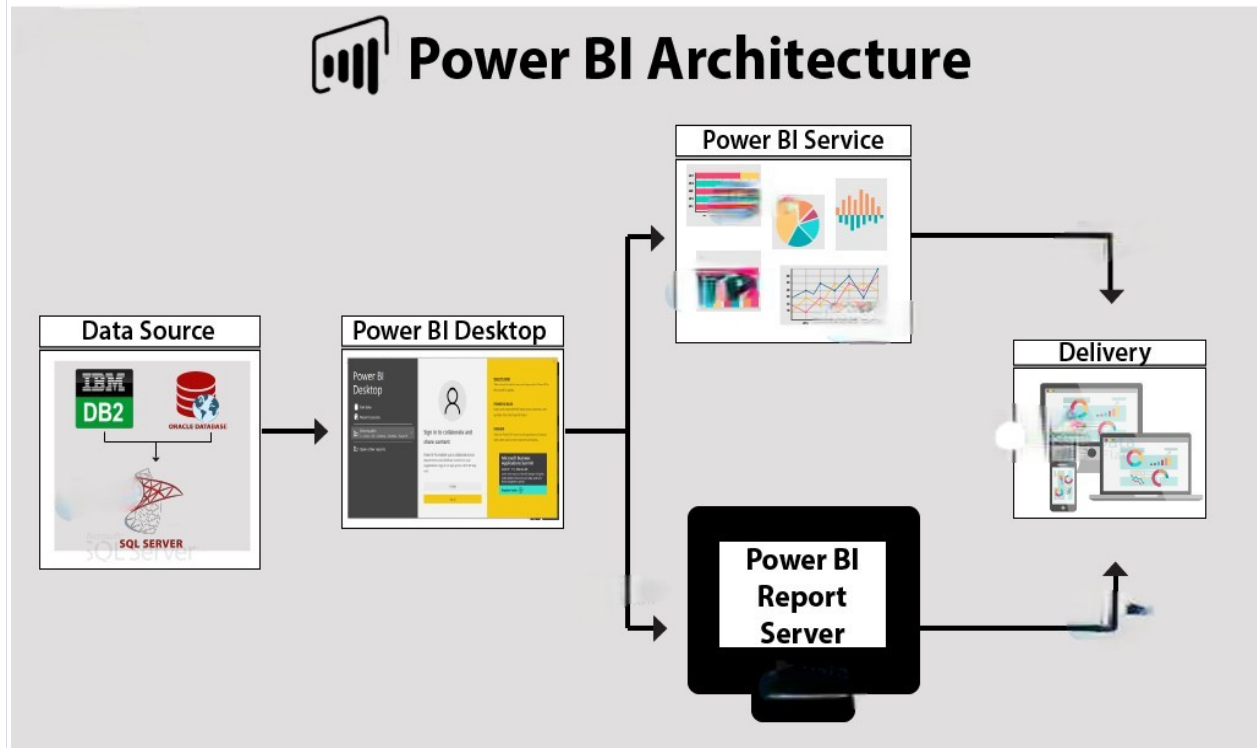
1.1 What is Architecture design document?

Any software needs the architectural design to represents the design of software. IEEE defines architectural design as “the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.” The software that is built for computer-based systems can exhibit one of these many architectures.

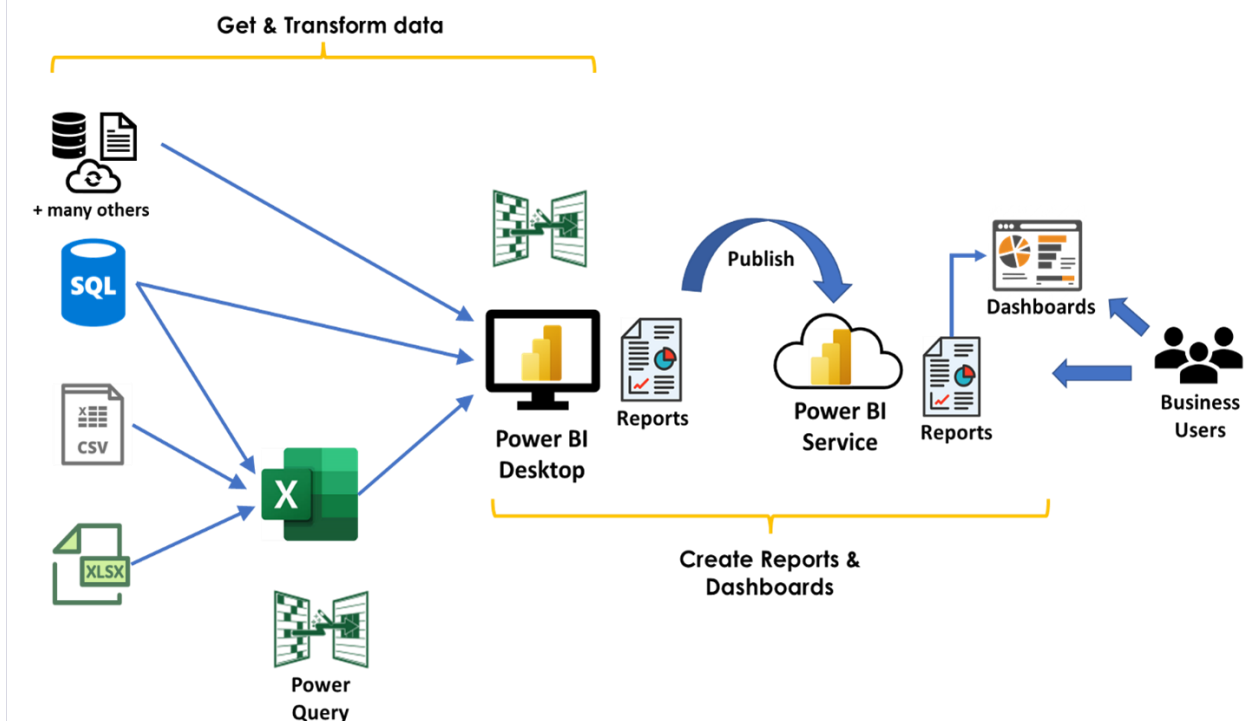
Each style will describe a system category that consists of :

- A set of components (eg. a database, computational modules) that will perform a function required by the system.
- The set of connectors will help in coordination, communication, and cooperation between the components.
- Conditions that how components can be integrated to form the system.
- Semantic models that help the designer to understand the overall properties of the system.

2. Architecture



3. Power BI Communication Flow



4. Data Sources:

Primary Data Source: Swiggy's database or data warehouse containing information on Shop Name, Cuisine, Location, Rating, and Cost_for_Two.

5. Data Transformation:

Power Query Editor: Use Power Query Editor in Power BI Desktop for data cleaning and transformation.

Filter out irrelevant data.

Handle null values and inconsistencies.

Combine data from multiple tables if needed.

6. Data Modeling:

Measures and Calculated Columns:

Create measures for calculations like average Rating.

Calculate additional metrics if necessary.

7. Data Storage:

In-Memory Storage: Import data into Power BI for in-memory storage if data volume is manageable.

Configure data refresh schedules for keeping data up-to-date.

8. Visualization and Reporting:

Reports and Dashboards: Design reports and dashboards with visuals representing Shop Name, Cuisine, Location, Rating, and Cost_for_Two.

Utilize various Power BI visuals for a rich and interactive user experience.

Interactive Features: Implement drill-down options, slicers, and filters for users to interact with the data.

9. Deployment:

Power BI Service: Deploy reports and dashboards to the Power BI Service for cloud-based access.

Schedule data refreshes to keep the data current.

10. Governance and Maintenance:

Governance Policies: Establish governance policies for Power BI usage within the organization.

Define roles and responsibilities for maintaining the Power BI solution.

10. API Integration:

Explore Power BI APIs for potential integration with other tools or services.

Consider automation for data updates or notifications.

This architecture design provides a foundation for developing a Power BI solution for the Swiggy project, allowing for efficient data analysis and visualization.

Adjustments and refinements can be made based on specific project requirements and organizational needs.

