**Slide 1: Title Slide**

"Hello everyone, thank you for being here today. I am Vismaya B, Developer 1 in Software Engineering. Today, I’ll be presenting our Azure Case Study on Swiggy, showcasing how we built a comprehensive data pipeline using Azure Data Factory, Databricks, and created insightful dashboards using the Swiggy restaurants dataset."

**Slide 2: Objective / Goal**

**Objective**: "Our main objective was to build a scalable and comprehensive data pipeline using Azure services to efficiently process and analyze the Swiggy restaurants dataset."

**Goal**: "The goal was to transform raw data into actionable insights through structured data processing, following the Medallion architecture (Bronze, Silver, Gold), and to provide business-ready visualizations."

**Slide 3: Approach - Data Ingestion**

"To start with data ingestion, we used Azure Data Factory (ADF). The raw JSON data was ingested from an HTTP source and copied to Azure Data Lake Storage Gen2 using the Copy Data activity in ADF."

**Slide 4: Approach - Data Transformation**

"In the data transformation phase, we used Databricks to transform the raw data from the Bronze layer into structured Delta Tables in the Silver layer. This process included cleaning the data to handle inconsistencies and missing values. Finally, the latest records were filtered and saved into the Gold layer, which was ready for analysis and visualization."

**Slide 5: Approach - Analysis & Visualization**

"Once the data was prepared, we performed analysis and visualization using Databricks. Spark SQL was used to query the Gold Layer Delta Tables, deriving meaningful insights, which were then represented through various visualizations in Databricks."

**Slide 6: Approach - Security and Logging**

"Security was a crucial part of our pipeline. We used Azure Key Vault integrated with Databricks Secret Scope to manage credentials securely. For logging, we logged pipeline details into SQL audit tables via ADF Copy Activity, ensuring effective monitoring and traceability."

**Slide 7: Architecture**

"We followed the Medallion architecture, which progressively improves data quality and structure across Bronze, Silver, and Gold layers, ensuring a modular and scalable approach to data processing."

**Slides 8-10: Output / Visualization**

"Now, let’s look at some of the outputs and visualizations generated from our pipeline. These include detailed charts and graphs that represent the data analysis results effectively, offering clear insights into restaurant operations and customer preferences."

**Slide 11: Insights**

"Our analysis yielded several valuable insights, such as the dominance of vegetarian restaurants, the popularity of Indian comfort food, restaurant density by city, and the correlation between cost and ratings."

**Slide 12: Challenges Faced**

"During the project, we faced some challenges. These included fetching data from nested JSON structures, securely managing credentials using Azure Key Vault, and implementing effective data logging. We overcame these challenges by using appropriate tools and techniques."

**Slide 13: Learnings**

"From this project, we learned the importance of robust logging for traceability, the benefits of the Medallion architecture for modular data processing, how to leverage Azure Log Analytics for centralized monitoring, and gained experience in handling complex data schemas."

**Slide 14: Thank You**

"Thank you for your attention. I'm open to any questions you may have about this case study."