

Infosys Springboard Virtual Internship 6.0 Completion Report

Team Details

Batch Number - 2

Start date – 04-SEP-2025

Names

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Internship Duration: 8 Weeks

1. Project Title

FoodTrends Understanding Customer Preferences in Food & Beverages (F&B).

2. Project Objective

The primary objective of the FoodTrends: Understanding Customer Preferences in Food & Beverages (F&B) project is to explore, analyse, and visualize the changing patterns of consumer behaviour within the F&B industry through the use of modern data analytics tools. The project focuses on transforming raw and unorganized data into meaningful insights that can help businesses, restaurants, and food delivery platforms understand customer choices, spending habits, satisfaction levels, and sustainability awareness.

In recent years, the F&B sector has witnessed a rapid digital transformation. Online ordering platforms, changing lifestyle patterns, and growing health awareness have significantly influenced how consumers make food-related decisions. This project aims to bridge the gap between data collection and strategic decision-making by creating an interactive Power BI dashboard that provides an all-in-one view of customer preferences and emerging food trends.

The main goals of this project are:

1. **To analyse customer demographics** such as age, gender, income, and occupation, and understand how these factors impact food choices and spending behavior.

2. **To identify popular cuisines and meal categories**, highlighting how preferences differ among various customer groups.
3. **To study customer satisfaction and feedback patterns** through ratings and reviews to evaluate service performance and loyalty indicators.
4. **To assess the level of awareness about sustainability and healthy food choices**, including the growing interest in organic and eco-friendly products.
5. **To utilize Power BI for interactive data visualization**, enabling users to filter, compare, and explore datasets dynamically for deeper insights.
6. **To support data-driven decision-making**, empowering F&B organizations to optimize marketing strategies, improve product offerings, and enhance overall customer experience.

By meeting these objectives, the project demonstrates how Business Intelligence (BI) can revolutionize traditional market analysis in the F&B sector. The dashboard acts as a decision-support system, helping stakeholders identify high-value customer groups, monitor food consumption trends, and design targeted promotional campaigns.

Ultimately, the project seeks to create a sustainable, insight-driven ecosystem within the food industry, where decisions are based not on assumptions but on evidence. It reflects the growing importance of analytics in shaping the future of the food business, ensuring that companies remain responsive to customer needs, competitive in the market, and aligned with global sustainability trends.

3. Project description in detail

The **FoodTrends: Understanding Customer Preferences in Food & Beverages (F&B)** project was conceptualized and developed to analyse modern food consumption behaviour using **data analytics and visualization**.

The project aimed to design a dynamic **Customer Analysis Dashboard** that captures key insights about how people interact with food and what they eat, how often they order, how much they spend, and how sustainability awareness shapes their decisions.

This project integrates **data preprocessing, data visualization, and business intelligence** using tools like **Microsoft Excel, Power Query, Power BI, and DAX (Data Analysis Expressions)**. It converts raw datasets into actionable insights that are easy to interpret through interactive visuals

Overview and Purpose

In today's data-driven world, understanding customer behavior has become essential for every business, especially in the food and beverage industry.

With the increasing competition among restaurants, online food delivery platforms, and emerging food-tech startups, it is crucial for companies to know their customers at a deeper level — not just what they buy, but why they buy it.

The **FoodTrends Dashboard** addresses this need by creating a single digital interface where businesses can observe customer patterns in real time.

It connects various dimensions such as **demographics**, **spending**, **preferences**, and **feedback**, to help organizations make better data-backed decisions.

The ultimate purpose of the project is to demonstrate how data visualization can support business growth and sustainability by identifying trends, preferences, and improvement areas.

Dataset Description

A self-curated dataset was designed to simulate real-world consumer transactions from food ordering and restaurant platforms.

The dataset contained **787 customers** and **2,000 orders**, covering essential parameters such as:

Field Name	Description
Customer ID	Unique identification number for each customer
Gender	Male / Female
Age Group	Segmented as 18–25, 26–35, 36–45, 46–55, 56–60
Occupation	Student, Employee, Business Owner, Homemaker
Monthly Income	Categorized in ranges
Cuisine Category	Asian, Beverage, Dessert, Fast Food, Indian
Platform	Zomato, Swiggy, KFC, Domino's, Pizza Hut
Monthly Spending	Total spending in ₹
Payment Method	UPI, Wallet, Cash, Card

Discount	Percentage discount applied
Rating	Feedback rating (1–5)
Sustainability Awareness	Yes/No based on eco-conscious food choice

This structured data provided the foundation for our analysis, enabling segmentation, correlation, and performance evaluation.

Tools and Technologies Used

1. **Microsoft Excel** – for initial data creation, preprocessing, and cleaning.
2. **Power BI Desktop** – for building visual dashboards and performing DAX calculations.
3. **Power Query Editor** – for transforming, merging, and filtering datasets.
4. **DAX (Data Analysis Expressions)** – for creating calculated columns and KPIs such as total revenue, average rating, and discount percentage.
5. **Canva & PowerPoint** – for presentation design and visual enhancement.

The integration of these tools allowed for a smooth flow from **data preparation to visualization**, ensuring accuracy and professional-quality reporting.

Analytical Process

The analysis followed these steps:

1. **Data Cleaning:** Removed duplicates and standardized entries.
2. **Data Modeling:** Established relationships among customer, platform, and category tables.
3. **KPI Development:** Created DAX measures for revenue, average spend, and discount.
4. **Visualization:** Used charts (bar, pie, line, donut) with interactive filters and slicers for easy comparison.

Key Findings

- Younger age groups (18–35) placed the most orders, while middle-aged groups (46–55) spent more per order.

- Fast Food and Beverages were the most preferred cuisines.
- UPI and Wallet payments dominated transactions, reflecting digital adoption.
- Seasonal sales spikes occurred during March, August, and October.

Business Value and Practical Application

The **FoodTrends Dashboard** offers direct value to multiple industry stakeholders:

- **Restaurants and Cafes:** Identify best-selling cuisines and plan menus accordingly.
- **Food Delivery Platforms:** Track which segments and cuisines are driving most orders.
- **Retail & FMCG:** Monitor consumer inclination toward organic and sustainable food products.
- **Startups:** Use insights for product positioning, marketing, and partnerships.
- **Academia:** Serve as a case study for data analytics and consumer behavior analysis.

By bringing all essential metrics into one dashboard, this project eliminates guesswork and supports evidence-based decision-making.

4. Timeline Overview

Week	Planned Activities	Completed Activities
Week 1	Orientation on project goals, understanding Power BI basics, dataset planning, and team role assignment.	Successfully set up project workspace, established communication channels, and finalized the dataset structure and scope.
Week 2	Data collection and preprocessing in Excel. Cleaning, formatting, and preparing attributes for visualization.	Removed duplicates, handled missing values, standardized column formats, and created calculated fields such as spending category and age group.
Week 3	Import dataset into Power BI and design the initial dashboard structure.	Imported Excel data into Power BI, created data model relationships, and designed a preliminary dashboard layout with KPIs for total revenue and order count.
Week 4	Develop key visuals for customer demographics, spending behaviour, and	Added bar charts, pie charts, and donut charts to represent age, gender, cuisine type, and

	preferences.	spending patterns effectively.
Week 5	Implement interactivity using DAX measures, filters, and slicers.	Created DAX formulas for total revenue, average rating, and discount rate. Added slicers for age, gender, and platform to make the dashboard dynamic.
Week 6	Testing and debugging of visuals, data relationships, and dashboard responsiveness.	Conducted performance checks, corrected mismatched relationships, aligned visuals, and optimized page navigation buttons.
Week 7	Mentor review and feedback integration. Refinement of visuals and insights section.	Incorporated mentor feedback, enhanced visual themes and formatting, and added key insights summaries for better presentation flow.
Week 8	Final presentation and documentation preparation.	Delivered the final Power BI dashboard presentation, compiled the internship completion report, and submitted all deliverables on time.

5a. Key Milestones

Milestone	Description	Date Achieved
Project Kick-off	The project began with a detailed understanding of the Food Trends Analysis theme under the F&B domain. The team defined the problem statement, outlined objectives, distributed individual responsibilities, and finalized the scope of work. Initial dataset planning and tool setup in Microsoft Excel and Power BI were also completed during this stage.	15 th September , 2025
Prototype Development	The first version of the Power BI dashboard was created using the cleaned dataset. Key performance indicators (KPIs) such as Total Revenue, Average Discount, and Total Orders were visualized. The basic structure of the dashboard was established, including charts for demographics, platform distribution, and customer preferences.	22 nd September ,2025
Mid-Term Review and Refinement	An internal review and mentor discussion were conducted to evaluate the dashboard's accuracy, usability, and visual consistency. Based on feedback, the team enhanced interactivity	6 th October , 2025

	by adding slicers, DAX measures, and tooltips. Color schemes, layouts, and fonts were refined for better clarity and alignment with Infosys design standards.	
Final Submission	All three dashboard pages — Sales Overview, Customer Insights, and Product Analysis — were completed and reviewed for data integrity and performance. The team finalized the Power BI report and ensured all visuals were dynamic and fully functional. The project report and supporting documentation were prepared for submission.	20 th October ,2025
Final Presentation	The completed project was presented to mentors and peers, highlighting the analytical approach, visualization process, and key insights derived from the data. The presentation demonstrated how data analytics can help businesses in the F&B sector understand customer behavior, enhance engagement, and optimize performance.	29 th October, 2025

5b. Project execution details

The **Food Trends Analysis: Understanding Customer Preferences in Food & Beverages (F&B)** project was executed over an eight-week period as part of the **Infosys Springboard Virtual Internship 6.0**. The execution process was systematic, starting from requirement analysis and data preparation to dashboard design, testing, and presentation. The project was designed to demonstrate how data analytics and visualization can help the food industry understand consumer behaviour, sales performance, and sustainability trends.

1. Requirement Understanding and Planning

The project began with a brainstorming session to understand the objectives of the Food Trends domain and define the key problem areas. The team identified the need to study customer demographics, sales performance, and menu preferences in the F&B sector using real or simulated data.

Roles were distributed among the seven members for effective collaboration — data collection, cleaning, visualization, report documentation, and presentation. Tools such as **Microsoft Excel** and **Power BI** were chosen for their versatility and user-friendly analytics capabilities.

The team also created a **project roadmap**, defining weekly goals such as data preparation, dashboard creation, and review cycles. This ensured consistent progress and balanced workload among members.

2. Data Collection and Preparation

Data collection was one of the most critical phases. The team curated a dataset representing around **787 customers and 2,000 transactions**, including attributes like gender, age, occupation, income level, cuisine preference, monthly spending, platform used, payment method, discount percentage, and customer rating.

The dataset was created and refined using **Microsoft Excel**, following these steps:

- Removal of **duplicates** and **null values** to maintain data accuracy.
- **Standardization of text entries** (e.g., converting “f” and “female” to “Female”).
- Addition of **calculated columns** such as *Age Group*, *Spending Category*, and *Sustainability Awareness* for deeper segmentation.
- Conversion of raw figures into clean numerical and categorical data types.

Once verified, the cleaned dataset was saved in .xlsx format and imported into Power BI for visualization.

3. Dashboard Development in Power BI

After the data was imported, the team focused on designing a visually consistent and interactive **Power BI dashboard** divided into three main analytical sections:

a) Sales Overview

This section highlighted the financial performance of the F&B dataset.

Key indicators such as **Total Revenue (₹4M)**, **Total Orders (2,000)**, **Average Discount (15.56%)**, and **Average Order Value (₹1.7K)** were calculated using **DAX (Data Analysis Expressions)**.

Visuals included:

- Bar and donut charts for **revenue by platform and cuisine**.
- Line charts showing **monthly sales trends**, revealing peak order periods in March, August, and October.
- Payment preference charts indicating UPI and Wallet dominance over cash transactions.

This provided a clear snapshot of sales distribution, pricing strategy, and digital payment adoption.

b) Customer Insights

The second section explored **demographic and behavioral analytics**.

It analysed **787 customers**, focusing on how age, gender, and satisfaction ratings influenced spending.

Major findings:

- Male and female customers had nearly equal engagement, with 50.15% of total orders placed by males.
- Middle-aged customers (46–55 years) had the highest spending value, while younger customers (18–35 years) showed higher order frequency.
- The average customer rating was **3.74**, showing moderate satisfaction.
- Heatmaps indicated that Fast Food and Beverage categories received the most positive feedback.

Interactive slicers for **gender**, **age group**, and **cuisine** allowed users to dynamically explore data patterns.

c) Product and Menu Insights

The final dashboard section focused on **menu performance and product profitability**.

Key visuals showcased:

- Top-selling items such as **Brownie, Burger, and Biryani**.
- Average pricing per category, which remained between ₹400–₹450, reflecting consistent market pricing.
- Correlation between **discount percentage and sales volume**, showing that moderate discounts (~15%) led to maximum order conversions.
- Monthly item-level demand patterns, highlighting mid-year spikes during April–August.

This section helped identify profitable food items, pricing strategies, and sales trends that could support better business planning.

4. Interactivity and Analytics

To enhance dashboard functionality, several **DAX measures** and **Power Query transformations** were implemented:

- **DAX Measures:** Used for Total Revenue, Average Discount, Average Rating, and Customer Count.
- **Power Query Editor:** Applied for data transformation, merging tables, changing data types, and renaming columns.
- **Slicers and Filters:** Added for gender, age, cuisine, and platform, enabling interactive analysis.
- **Tooltips and KPIs:** Incorporated to improve data readability and user engagement.

These features made the dashboard intuitive, interactive, and suitable for real-time business decision-making.

5. Testing and Validation

Before finalizing the project, the dashboard underwent multiple testing phases:

- **Data Validation:** Cross-checking Power BI results with Excel calculations to ensure accuracy.
- **Functional Testing:** Ensuring slicers, filters, and drill-downs worked seamlessly.
- **Visual Optimization:** Adjusting chart sizes, color consistency, and label visibility for a professional look.
- **Performance Check:** Ensuring smooth responsiveness even with multiple visuals on a page.

After successful validation, the dashboard was reviewed by the mentor for accuracy and presentation quality.

6. Review, Refinement, and Final Presentation

Based on mentor feedback, the team made several refinements:

- Simplified certain visuals for easier interpretation.
- Enhanced chart titles, legends, and overall layout alignment.
- Added **summary cards** for KPIs to highlight critical figures at a glance.
- Improved color consistency — using blue and green tones to represent freshness, sustainability, and trust.

Finally, the completed dashboard was presented to the evaluators along with a detailed explanation of key insights, design logic, and the project's impact on data-driven decision-making in the food industry.

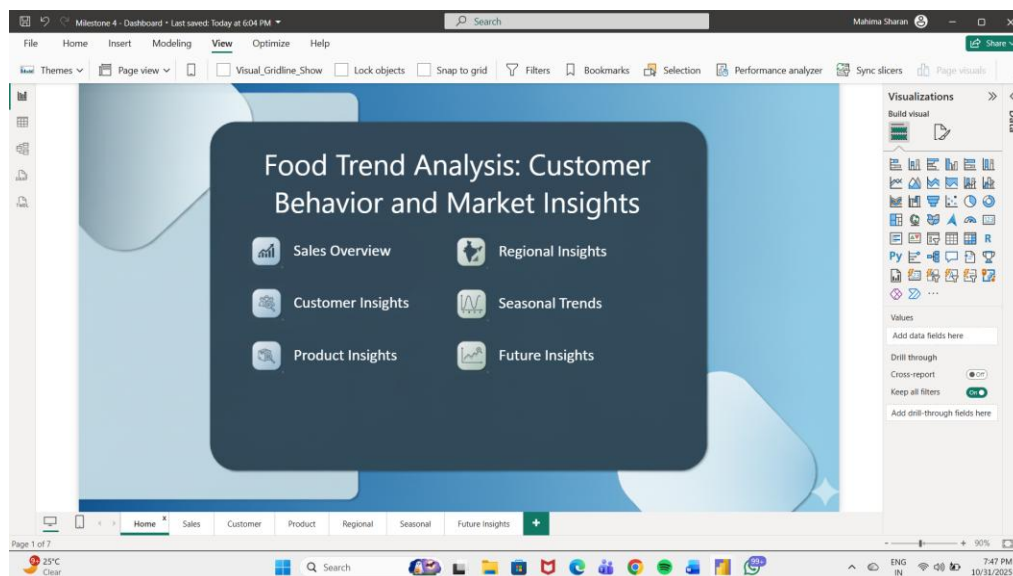
7. Outcome of Project Execution

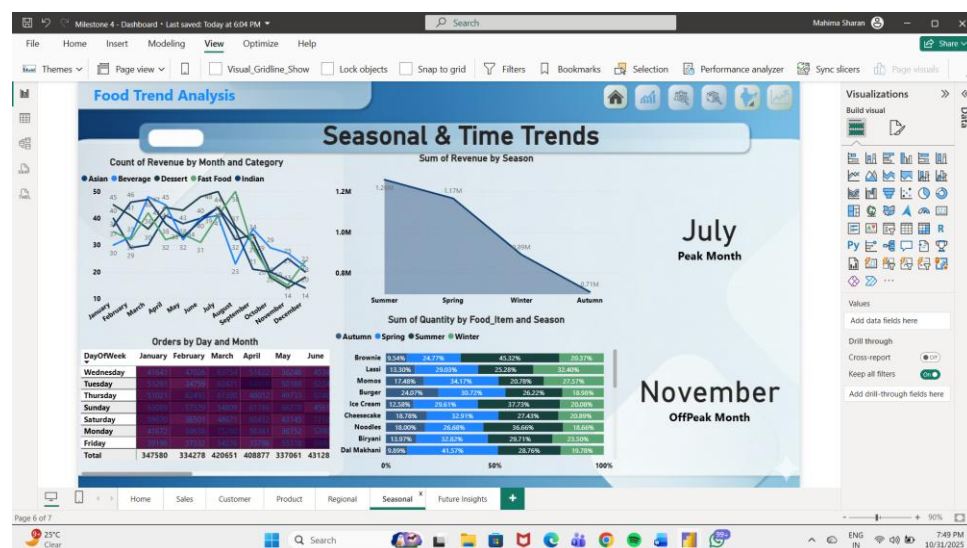
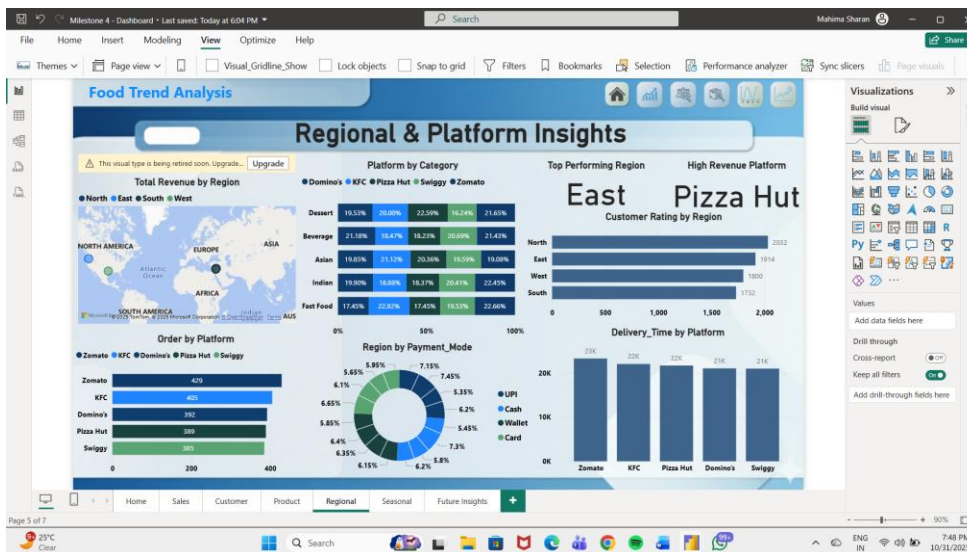
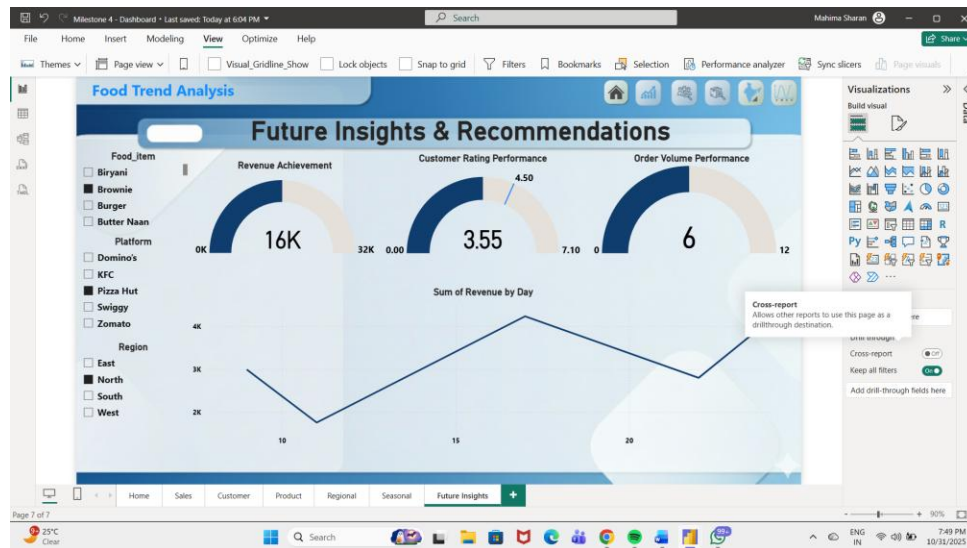
The successful completion of the **Food Trends Analysis Dashboard** resulted in:

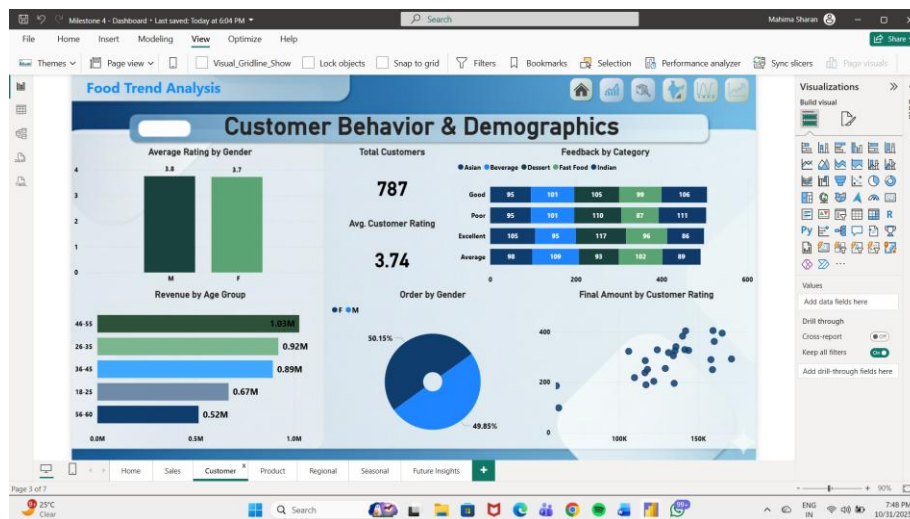
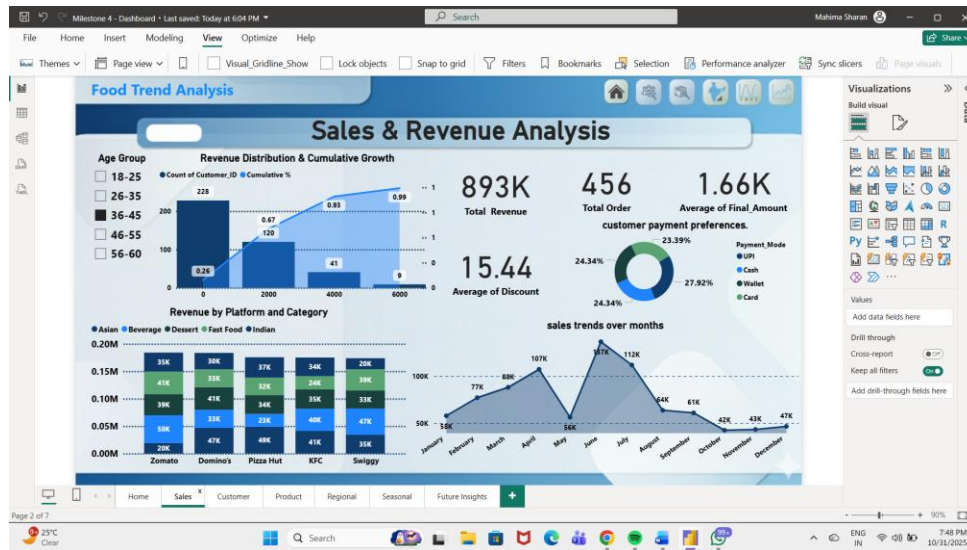
- A comprehensive understanding of **customer demographics and purchase patterns**.
- Identification of **top-performing platforms and cuisines**.
- Discovery of **seasonal sales variations** and **payment trends**.
- Improved skills in **data cleaning, visualization, and BI reporting**.
- Enhanced teamwork and communication through collaborative execution and regular review sessions.

The project demonstrated the team's ability to integrate technical tools, analytical thinking, and visual design to produce a meaningful business intelligence solution relevant to the real-world F&B sector.

6. Snapshots / Screenshots







7. Challenges Faced

During the course of this internship, the team encountered several technical, operational, and communication challenges that required problem-solving and collaboration to overcome.

1. Technical Challenges

- **Data Cleaning and Formatting Issues:**
The initial dataset contained inconsistent values, missing fields, and duplicates. Ensuring uniform data types and correct formatting took considerable time and precision.
Resolution: These issues were resolved using Excel's data cleaning features and Power Query Editor in Power BI to automate transformations and maintain consistency.
- **Power BI Performance Optimization:**
As the dashboard grew more complex, performance slowed, especially during interactive filtering.
Resolution: The team optimized visuals by reducing redundant fields, aggregating large data tables, and using DAX measures efficiently for faster processing.
- **Learning Curve with DAX:**
Initially, creating calculated columns and measures using DAX syntax was challenging for several team members.
Resolution: The team referred to official Microsoft Power BI documentation, online tutorials, and peer discussions to strengthen understanding and improve formula accuracy.

2. Operational Challenges

- **Coordinating Work Across Multiple Members:**
As the project was conducted remotely, ensuring version control and aligning progress across seven members required careful planning.
Resolution: The team used collaborative tools such as Google Drive, Microsoft Teams, and shared Excel sheets to track updates, assign responsibilities, and maintain project consistency.
- **Balancing Internship with Academic Workload:**
Managing weekly deliverables while attending classes and assessments was initially difficult.
Resolution: The team created a structured weekly plan and distributed tasks evenly, ensuring timely completion without compromising quality.

3. Communication Challenges

- **Different Working Styles and Timings:**
Since members were in different locations, scheduling discussions was challenging.
Resolution: Regular evening meetings were held, and updates were shared asynchronously through group chats. This improved coordination and accountability.

Overall, overcoming these challenges strengthened the team's problem-solving skills, adaptability, and ability to collaborate effectively in a professional, virtual setting.

8. Learnings & Skills Acquired

This internship provided a valuable blend of **technical, analytical, and interpersonal skills**, helping the team understand how data analytics supports business transformation.

Technical Skills

- Proficient use of Microsoft Power BI for creating interactive dashboards and visualizations.
- Understanding of data preprocessing, modeling, and transformation using Power Query.
- Application of DAX (Data Analysis Expressions) for developing custom KPIs and calculated fields.
- Hands-on experience in Excel-based data handling and report preparation.

Analytical & Domain Knowledge

- Gained insight into customer behavior trends in the Food & Beverage (F&B) industry.
- Learned to identify correlations between demographics, spending patterns, and product preferences.
- Understood the role of analytics in decision-making, forecasting, and sustainability.

Soft Skills

- Enhanced team coordination and communication through remote collaboration.
- Improved time management, leadership, and presentation skills.
- Developed a problem-solving mindset and ability to interpret real-world data scenarios.

9. Testimonials from team

Mahima Sharan - *My experience with the Infosys Springboard Internship has been incredibly enriching and insightful. It allowed me to go beyond theory and understand how data analytics can be applied to real-world business challenges. Working on the Food Trends Analysis dashboard using Power BI helped me build technical confidence and a stronger appreciation for the power of visualization. This journey also improved my teamwork, communication, and problem-solving skills while teaching me the value of planning and collaboration in a virtual environment. I'm deeply grateful to Infosys Springboard for offering such a meaningful learning opportunity and to my mentor, Ms. Nithyasri S J, for her continuous guidance, feedback, and encouragement throughout the internship.*

Pooja Kumari - My internship under Springboard 6.0 was a valuable learning experience where I gained hands-on knowledge in data visualization using Power BI. I learned how to clean, analyse, and visualize data to uncover meaningful business insights. This project helped me strengthen my analytical thinking, problem-solving, and storytelling skills. I am sincerely grateful to my mentor, Ms. Nithyasri S. J, for her constant guidance, encouragement, and support throughout this internship.

Iti Tiwari - My internship with Infosys Springboard 6.0 as a Data Analyst was a highly valuable learning experience. Under the mentorship of Ms. Nithyasri SJ, I gained practical insights into data analysis and visualization. Her guidance and encouragement greatly contributed to my professional growth. This internship enhanced my analytical abilities and strengthened my understanding of real-world data applications.

Leksh R - My internship in Data Visualization at Infosys Springboard gave me a great opportunity to explore data analysis and visualization using Power BI, helping me strengthen my technical and analytical skills. I'm truly thankful to Ms. Nithyasri S J for her constant guidance and encouragement, which made the learning process smooth and motivating. Overall, the internship was a valuable experience that enhanced my confidence and practical understanding of data-driven insights.

Nithiksha N - My internship with Infosys Springboard on "Food Trend Analysis: Customer Behaviour and Market Insights" was a highly enriching and insightful experience. It helped me explore real-world data visualization techniques and understand customer behavior through analytical insights. I gained hands-on experience in interpreting data trends and presenting them effectively. I sincerely thank my mentor Nithyasri S J for her guidance. This internship truly enhanced my technical and analytical skills.

Meher Raju - My internship with Infosys Springboard on "Data Visualization: Food Trend Analysis" was a highly enriching experience that deepened my understanding of data analytics and visualization using Power BI. I explored real-world data to interpret customer behavior and market insights, which strengthened my technical and analytical abilities. I am deeply grateful to Ms. Nithyasri S J for her constant mentorship and encouragement throughout the internship. This opportunity not only enhanced my confidence but also improved my ability to transform data into meaningful insights.

Gunjan Soni - *My internship with Infosys Springboard 6.0 provided an excellent platform to strengthen my knowledge of data visualization and analytics using Power BI. Working on real-world datasets enhanced my ability to interpret trends and communicate insights effectively. This experience also helped me develop a structured approach to solving analytical problems. I'm sincerely thankful to Ms. Nithyasri S J for her mentorship, constant encouragement, and valuable feedback throughout the journey.*

10. Conclusion

The Infosys Springboard Internship 6.0 has been an enriching and transformative journey that strengthened both our technical and professional capabilities. Throughout this internship, we gained deep exposure to the world of data analytics, visualization, and business intelligence, while also learning to think critically and collaboratively to solve real-world problems.

The project, *"Food Trends: Understanding Customer Preferences in the F&B Sector,"* provided an opportunity to explore how data can influence strategic decisions in one of the most dynamic industries today. By analysing customer demographics, spending behaviour, and feedback patterns, our team was able to derive meaningful insights that reflect the evolving nature of consumer preferences.

This experience taught us how to convert raw data into actionable intelligence, identifying key patterns such as seasonal demand, popular cuisines, and sustainability awareness. The development of an interactive Power BI dashboard demonstrated how visualization can simplify complex datasets, helping businesses identify opportunities, improve engagement, and make informed decisions.

Beyond technical learning, this internship emphasized the importance of team coordination, time management, and communication. Working in a virtual environment required us to collaborate effectively, share knowledge, and take ownership of individual responsibilities while maintaining group synergy. Each phase — from data preparation to dashboard presentation — involved structured planning, problem-solving, and continuous improvement.

The internship also gave us insight into how digital technologies like AI, analytics, and data visualization are shaping the future of industries such as Food & Beverages. It aligned perfectly with our academic goals and career aspirations in technology and management, helping us bridge the gap between theoretical concepts and practical implementation.

Overall, this internship was not just a project but a journey of learning, innovation, and collaboration. It has inspired us to continue exploring data analytics as a powerful tool for driving business transformation and sustainable growth in the digital era.

11. Acknowledgements

We would like to express our heartfelt gratitude to Infosys Springboard for providing this invaluable opportunity to gain practical exposure in the field of Data Analytics and Business Intelligence. The structured learning modules, hands-on projects, and professional mentorship created a truly immersive learning environment that encouraged both technical growth and analytical thinking.

A special note of appreciation is extended to our mentor, Mrs. Nithyasri S J, for her constant guidance, encouragement, and insightful feedback throughout the internship. Her mentorship played a crucial role in helping us refine our dashboard design, ensure data accuracy, and present our findings in a professional and impactful manner.

We are also thankful to the Infosys mentors and the learning community for providing high-quality resources, tutorials, and continuous support throughout the program. These materials greatly enhanced our understanding of Power BI, DAX, and data visualization techniques, allowing us to build a meaningful and well-structured analytical solution.

Finally, we express our sincere gratitude to Infosys for fostering a culture of innovation and learning that encourages students to explore, experiment, and apply technology to real-world business challenges. The experience gained through this internship will remain a cornerstone of our academic and professional journey, motivating us to continue developing as data-driven and responsible professionals.