# Business requirements document

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| Project name: | Food Delivery Analytics |
| Project manager: | Diptanshu Sir |
| Date submitted: | April 11,2025 |

Document status: ☑ Draft ☐ Proposed ☐ Validated ☐ Approved

## 1. Executive summary

The Food Delivery Analytics project is designed to develop a comprehensive food delivery and restaurant management system that leverages advanced data analytics to optimize inventory management, enhance customer behavior insights, and improve restaurant performance. This initiative addresses the operational and strategic needs of a growing food delivery ecosystem, utilizing a robust dataset comprising inventory, consumption, order, delivery, user, and restaurant information.
Key objectives include reducing food wastage by 10% within six months, boosting customer retention by 15%, and maintaining a 4.0+ delivery rating. The system supports role-based access—Project Managers for task assignment, Team Members for updates, and Viewers for read-only access—ensuring streamlined workflows. With dashboards loading in under 5 seconds and scalability for 500 restaurants and 10,000 daily orders, "FoodFlow Analytics" promises data-driven growth and operational excellence.

## 2. Project objectives

The primary objectives of the "FoodFlow Analytics" project are to optimize inventory management by reducing food wastage by 10% within six months through detailed tracking and analysis of stock levels and waste metrics (e.g., WasteQuantity, EstimatedWasteCost). It aims to enhance customer retention by 15% by leveraging insights into order trends and payment preferences and to improve restaurant performance by maintaining an average DeliveryRating of 4.0 or higher while identifying top-performing cuisines. Additionally, the project seeks to empower decision-making with real-time dashboards, supporting up to 500 restaurants and 10,000 daily orders with a load time under 5 seconds.

## 3. Project scope

The "FoodFlow Analytics" project scope covers a food delivery and restaurant management system, integrating datasets (inventory_data.csv, consumption_data.csv, delivery.csv, orders.csv, users.csv, restaurants.csv, and Oberoi_Inventory_and_Consumption_Data.xlsx) as of April 9, 2025. It includes inventory management (tracking 175 units, 22% wastage), customer behavior analysis (order trends, 63% UPI usage, regional distribution), and restaurant performance tracking (₹1.17K AverageOrderValue, 4.00 DeliveryRating). The system features real-time dashboards, scalable to 500 restaurants and 10,000 daily orders (loading under 5 seconds), and task management with roles (Project Manager, Team Member, Viewer). Exclusions include external marketing platforms and third-party delivery integrations beyond the dataset.

| 4.Business reqirements | | |
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| Priority level | Critical level | Requirement description |
| Inventory & Wastage Control | Critical | Track stock, reduce wastage 10% in six months |
| Customer Retention Insights | Critical | Analyze trends, boost retention 15% with data. |
| Delivery Performance | Critical | Maintain 4.0+ DeliveryRating for satisfaction, reliability. |
| System Scalability | Critical | Process 500 restaurants, 10K orders, fast dashboards. |
| Revenue Optimization | Critical | Display KPIs, optimize profitability with data insights. |

| 5.Key stakeholders | | |
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| Name | Job role | Duties |
| Priya Sharma | Oversees project,assigns tasks | monitors progress. |
| Rajesh Kumar | Analyzes data,provides insights | generates reports |
| Aisha Patel | Manages operations, ensures 4.0+ ratings | trains staff |
| Vikram Singh | Maintains system, ensures scalability | secures data |
| Neha Gupta | Targets marketing, boosts retention 15% | collaborates |

| 6.Project constraints | |
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| Constraint | Description |
| Data Integration Limitation | Limited to provided datasets, no external data integration |
| Performance Scalability Cap | Supports 500 restaurants, 10K orders, 5-second dashboards. |
| Real-Time Data Dependency | Relies on daily updates, delays affect accuracy. |
| Role-Based Access Restrictions | Data Integration Limitation |
| Budget and Resource Constraints | Data Integration Limitation |

| 7.Cost-benefit analysis | |
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| Cost | Benefit |
| $50,000 initial + $30,000 maintenance | Reduce food waste by 50%, optimize 175 stock units. |
| $50,000 initial + $30,000 maintenance | Boost revenue 10% with optimized order value. |
| $50,000 initial + $30,000 maintenance | Enhance retention, optimize payment modes for savings. |
| $50,000 initial + $30,000 maintenance | Reduce delivery costs, improve rating to 4.5. |
| Total cost: 80,000 | Expected ROI: 91.35% |