

Business Analyst

Documentation Project

UNILEVER CANTEEN PROBLEM STATEMENT :

The problem of spending an inordinate amount of time commuting to and waiting in line for food at the canteen by the company employees. The impact of this is employee dissatisfaction, low productivity and food wastage which leads to a high operational cost of canteen. A successful solution will reduce or eliminate commute time, queues and reduce wastage and costs while improving on employee morale and satisfaction.

OBJECTIVES OF THE NEW CANTEEN ORDERING SYSTEM:

1. Eliminate rush during lunch hours
2. Reduce/Eliminate time spent in commuting to the canteen
3. Reduce/Eliminate time spent on queues
4. Eliminate food wastage in the canteen thereby saving operation costs
5. Provide employees with choice meal

Business Requirement Document (BRD)

Project: Unilever - Canteen Ordering & Management System

Version: 1.0

Date: 2025-10-02

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Approver(s): [.....]

1. Document Control

Version history

Version	Date	Author	Summary of changes
1.0	2025-10-02	Lakshya Doomra	Initial draft

Approvals

Name	Role	Signature	Date
[]	Sponsor		
[]	Head - IT		
[]	Head - Canteen Ops		

2. Purpose of this Document

This BRD captures the business requirements for designing, developing, and implementing a Canteen Ordering & Management System for Unilever employees. It describes the business problem, objectives, the “As-Is” and proposed “To-Be” business processes, the high-level business requirements and the functional and non-functional requirements that must be satisfied for the solution to be accepted by the business.

This document is intended for business stakeholders, product owners, the IT delivery team, canteen operations, and integrator teams (HR/payroll).

3. Executive Summary

Employees currently spend excessive time commuting to and waiting in line for canteen food. This leads to lost productive time, employee dissatisfaction and food wastage which increases operational costs. The proposed solution is a digital canteen ordering and management platform that enables pre-ordering, time-slot allocation, payroll-linked cashless payments, delivery/pickup options, and demand-driven kitchen operations to reduce queues and wastage and improve employee experience.

4. Business Objectives

1. **Reduce average employee lunch wait time** - Reduce average time employees spend in commute + queue during lunch from baseline to **$\leq 50\%$ of current baseline** within **3 months** post go-live.
 2. **Reduce food wastage** - Reduce daily food wastage at the canteen by **30%** within **3 months** of full adoption, by moving to order-based cooking and forecasting.
 3. **Cashless adoption** - Achieve **$\geq 80\%$** of transactions executed through payroll/payment integration within **2 months** post go-live.
 4. **Increase employee satisfaction** - Improve employee satisfaction (canteen service) survey rating by **$\geq 20\%$** in the first employee satisfaction survey after 4 months of go-live.
 5. **Operational efficiency** - Provide canteen management actionable forecasts and dashboards so kitchen prep accuracy improves (measured as % of orders fulfilled on time) to **$\geq 95\%$** within 3 months.
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5. Problem Statement

Employees are spending an inordinate amount of time commuting to and queuing at the canteen. Impacts include:

- Employee dissatisfaction and reduced morale.
- Direct productivity loss (time taken to queue/commute).
- Significant food wastage resulting from batch/guess cooking and mismatch between supply and demand.
- Higher operational costs for canteen.

A successful solution will reduce commute/queue time, reduce food wastage and costs, and improve employee morale and satisfaction.

6. Project Scope

In-Scope

- Employee-facing mobile/web app for menu browsing, pre-order, time-slot selection, cart & checkout, order history, and feedback.
- Admin portal for canteen management (menu upload, pricing, discounts, segmented/seasonal menus, special chef items).
- Payroll/payment integration for cashless settlement.
- Delivery/pickup flow: delivery location selection, pickup scheduling, and delivery staff workflow.
- Real-time notifications (order confirmation, preparation start, ready-for-pickup, delivery ETA).
- Order-driven kitchen forecasting and daily prep reports.
- Basic analytics / expense dashboard for canteen management and administrative reporting.
- Support features: chat/call-in, feedback/rating, order support (decline/return flows).

Out-of-Scope

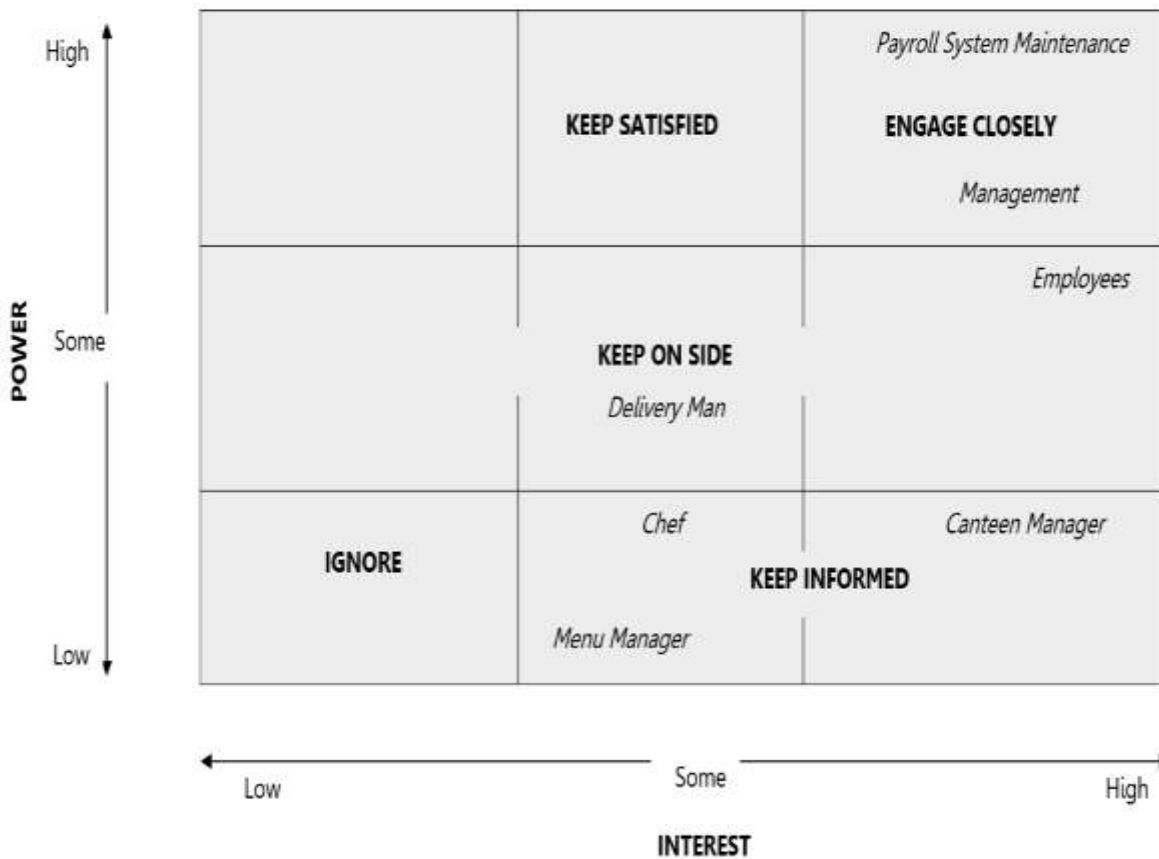
- Physical kitchen equipment changes or kitchen staff hiring.
 - Third-party external food vendors or external marketplace integration (unless later decided).
 - Major HR/payroll core system rearchitecting - only API-level integration for transactions.
 - Hardware procurement (kiosks) unless separately approved.
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7. Stakeholders

- **Employees (end users)** - all office employees (lunch users).
- **Canteen Manager & Staff** - daily operations, menu & production.
- **Delivery Staff / Runners** - internal delivery personnel.

- **HR / Payroll** — payroll integration and employee data.
- **IT / Infrastructure** — build and maintain system, integrations.
- **Finance** — cost accounting / transaction reconciliation.
- **Project Sponsor / Senior Management** — approve scope & go-live.
- **Support Desk / Helpdesk** — handle user issues.

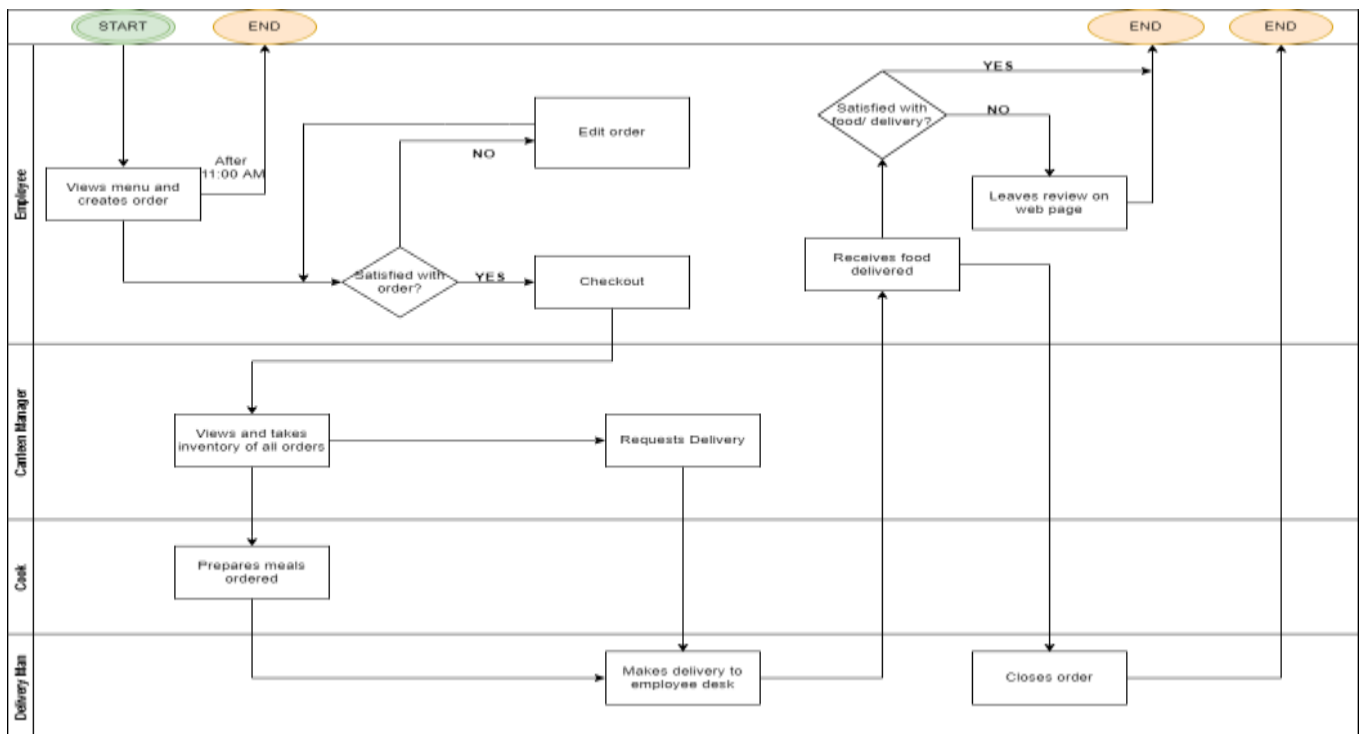
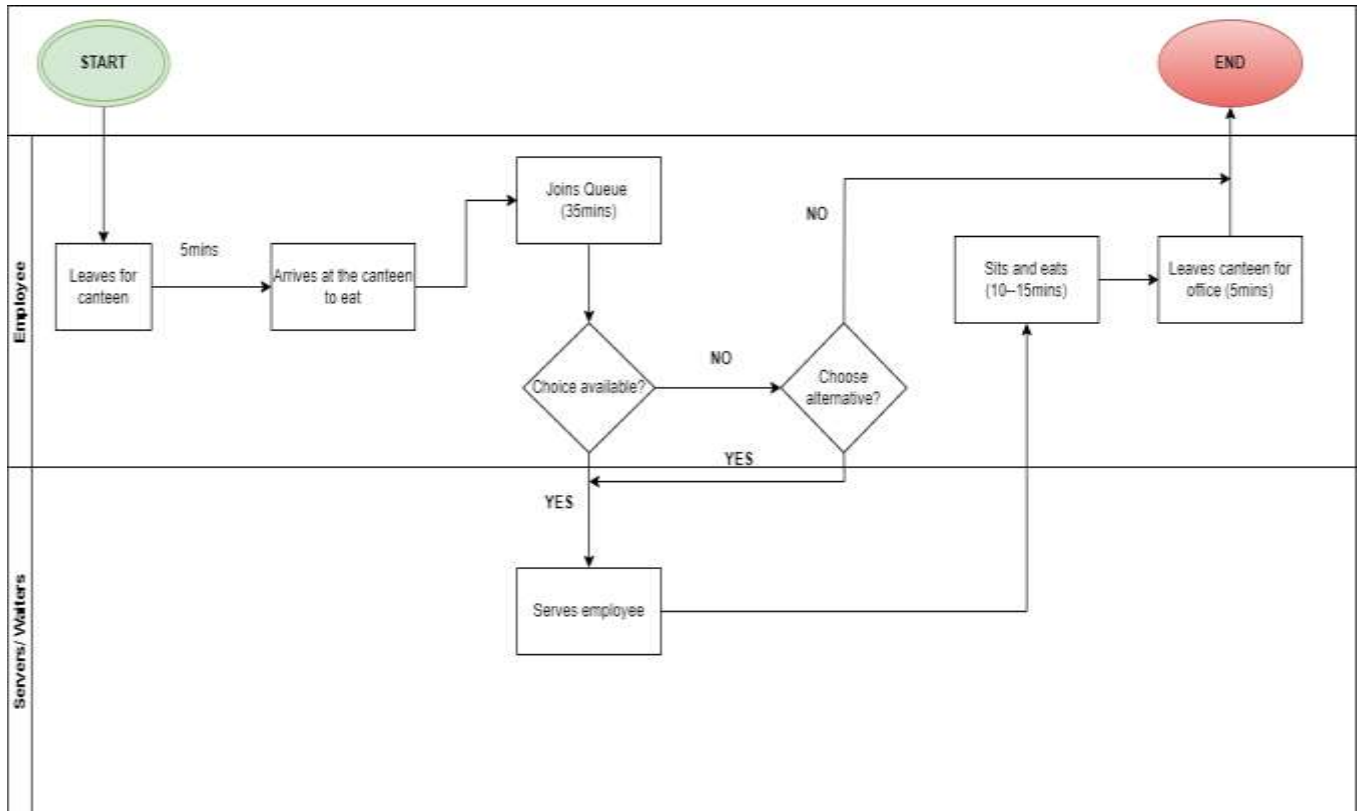
STAKEHOLDER MATRIX



8. Business Process Overview

This section gives a clear “As-Is” and the proposed “To-Be” process for the canteen operation.

Process Flow Diagrams:



8.2 As-Is Business Process (current)

1. Employee decides to have lunch at break time.
2. Employee commutes to canteen location.
3. Employee queues at the counter; places an order from the available items prepared that day.
4. Payment is made (cash/card) at point of service.
5. Kitchen cooks a predetermined quantity (estimation) for general demand.
6. Excess cooked food becomes wastage; shortages cause dissatisfaction.
7. Canteen manager captures limited daily total sales manually; forecasting is ad-hoc.

Pain points: wait times, unpredictable demand, cash handling, limited menu choice visibility, high wastage.

8.3 To-Be Business Process (proposed)

1. **Order & slot selection:** Employee logs into the app/portal → searches menu → selects meal(s) and chooses time slot or delivery/pickup location.
2. **Payment reservation:** Employee selects payroll / wallet / corporate payment; order is authorized or scheduled.
3. **Order confirmation & kitchen queue:** Order created (Order ID, expected delivery/pickup time). Kitchen receives prioritized ticket with exact counts for production planning.
4. **Preparation & tracking:** Kitchen updates status (preparing → ready). Real-time notifications (push/email/SMS) sent to employee. GPS tracking for delivery if required.
5. **Pickup/delivery:** Employee picks up at scheduled time or delivery staff delivers to chosen location; delivery staff confirms via app (photo or signature optional).
6. **Post-event:** Employee provides feedback/rating; canteen manager sees analytics and daily forecast vs actual; kitchen uses forecast for next day prep to reduce wastage.

Benefits: reduced queue times, predictable demand, lower wastage, improved employee experience, cashless transactions and audit trail.

9. Business Requirements

Below are the business-level (non-technical) requirements. Each is immediately followed by functional (FR) and non-functional (NFR) requirements that translate the business need into testable system behavior.

- FR/NFR statements are actionable requirements for the delivery team.
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BR-01: Employee self-service ordering and time-slot selection

Employees must be able to review the menu, place pre-orders, select preferred pickup/delivery time slots or delivery locations, and view order history.

Functional Requirements

- **FR-001:** The system shall provide a searchable menu with categories, dietary tags (veg/vegan/egg/non-veg), and item descriptions.
- **FR-002:** The system shall allow employees to add items to a cart and schedule a pickup/delivery time slot up to X hours/days in advance (configurable).
- **FR-003:** The system shall generate a unique Order ID upon checkout and display estimated time of delivery/pickup.
- **FR-004:** The system shall maintain order history and allow employees to reorder from past purchases.
- **FR-005:** The system shall allow cart modification until cutoff time (configurable per item/slot).

Non-Functional Requirements

- **NFR-001:** Menu search results shall return results within **2 seconds** for the given catalog size (up to 500 items).
 - **NFR-002:** The system shall maintain data consistency so order history reflects final paid/cancelled status within 30 seconds.
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BR-02: Cashless payment and payroll integration

Payments should be cashless and integrated with payroll or corporate wallet to avoid cash handling and reconcile easily.

Functional Requirements

- **FR-006:** The system shall integrate with payroll API to authorize and settle transactions for employees.
- **FR-007:** The system shall support alternative payment modes (corporate wallet, UPI, card) if payroll integration is unavailable.
- **FR-008:** The system shall show the final payable amount before confirmation and create a transaction record.
- **FR-009:** The system shall provide transaction status (authorized, captured, failed) visible to employee and finance.

Non-Functional Requirements

- **NFR-003:** Payment authorization time shall be ≤ 5 seconds for successful transactions.
 - **NFR-004:** All financial transactions shall be logged and auditable for at least 7 years (or per company policy).
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BR-03: Delivery & pickup management (logistics)

Support both pickup and internal delivery to employee locations (floors / meeting rooms / desks).

Functional Requirements

- **FR-010:** The system shall allow the employee to select delivery location (desk/floor/kiosk) from predefined options.
- **FR-011:** The system shall provide delivery staff with an app view of assigned deliveries, route, and order details (Order ID, items, special notes).
- **FR-012:** Delivery staff shall be able to mark order status (Out for delivery, Delivered, Returned/Rejected) and add delivery notes.
- **FR-013:** The system shall support scheduling of pickup times and show available pickup windows.

Non-Functional Requirements

- **NFR-005:** Delivery assignment updates shall propagate to delivery staff in near real-time (≤ 10 seconds).
 - **NFR-006:** GPS location updates for delivery staff (when enabled) shall update on dashboard with ≤ 15 second frequency.
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BR-04: Canteen management (menu, pricing, discounts, segmentation)

Canteen staff must manage menus, pricing, discounts, special items and seasonal menus.

Functional Requirements

- **FR-014:** Admin portal shall allow upload/update of menu items (name, description, category, ingredients, price, images).
- **FR-015:** Admin shall be able to configure discounts (promo codes, time-bound promotions) and segmented menus (e.g., vegetarian only slot).
- **FR-016:** Admin shall be able to mark items as “special chef” or “seasonal” and set availability windows for items.
- **FR-017:** Admin shall be able to generate and export daily production reports (orders-by-item, total quantities).

Non-Functional Requirements

- **NFR-007:** Admin UI operations (upload, update) shall complete within 5 seconds for single item changes.
- **NFR-008:** Exported reports shall be generated in CSV/PDF formats and downloadable within 30 seconds for daily data volumes (up to 10k orders)

BR-05: Forecasting, reporting & expense dashboard

Provide actionable analytics for demand forecasting and expense monitoring.

Functional Requirements

- **FR-018:** System shall generate daily and weekly order summaries (orders per item, peak slots, cancellations).
- **FR-019:** System shall provide forecast suggestions for next-day item quantities based on last n-days/seasonality (configurable algorithm).
- **FR-020:** System shall provide a management expense dashboard showing daily revenue, refunds, discounts and reconciliation with payroll deductions.

Non-Functional Requirements

- **NFR-009:** Dashboard data shall reflect last 15 minutes' data and be refreshable on demand.
- **NFR-010:** Forecast generation job shall complete within acceptable SLA (e.g., overnight calculation < 2 hours for dataset).

BR-06: Notifications, confirmations & support

Robust notification flows and support mechanisms for users.

Functional Requirements

- **FR-021:** System shall send order confirmation, preparation start, ready for pickup, and delivery complete notifications (push/email/SMS as configured).
- **FR-022:** System shall provide in-app chat/support option and/or call-in support routing for failed orders.
- **FR-023:** System shall send confirmation mails upon registration and for order receipts.

Non-Functional Requirements

- **NFR-011:** Push notifications shall be delivered within 30 seconds for users online; email within 2 minutes.
- **NFR-012:** Support chat must be able to handle concurrent sessions (scale to expected user base).

BR-07: Feedback, ratings & quality control

Capture user ratings and feedback for continuous improvement.

Functional Requirements

- **FR-024:** System shall prompt users for ratings and optional comments after delivery/pickup.
- **FR-025:** Admin shall be able to view aggregated ratings and item-level feedback and export comments.
- **FR-026:** System shall flag items with average rating below a configured threshold for review.

Non-Functional Requirements

- **NFR-013:** Feedback submissions shall be captured and visible to admin within 5 minutes.

BR-08: Multi-device synchronization & accessibility

Users may access via mobile, desktop or kiosks.

Functional Requirements

- **FR-027:** System shall allow login and sync of cart/order data across devices (mobile & web).
- **FR-028:** System shall provide an accessible interface conforming to accessibility standards (WCAG 2.1 AA recommended).

Non-Functional Requirements

- **NFR-014:** Session synchronization shall be eventual consistent within 30 seconds of changes.
- **NFR-015:** UI shall be responsive and usable on common mobile screen sizes and modern browsers.

BR-09: Security, privacy & auditability

Protect employee data, transaction data and provide role-based access.

Functional Requirements

- **FR-029:** System shall require secure authentication (SSO / employee ID + corporate authentication) and account activation via corporate email confirmation.
- **FR-030:** System shall implement role-based access control for admin, canteen staff, delivery staff and auditors.
- **FR-031:** System shall log all system-level and transaction-level events (create/modify/cancel orders, payments, refunds) for audit.

Non-Functional Requirements

- **NFR-016:** All sensitive data in transit shall be encrypted using TLS 1.2+; sensitive data at rest shall be encrypted per corporate policy.
- **NFR-017:** System shall comply with applicable data retention and privacy policies (e.g., PII handling) and support data deletion requests per policy.

BR-10: Integration & APIs

APIs for payroll, HR (employee master), and internal reporting.

Functional Requirements

- **FR-032:** System shall expose APIs for payroll/reconciliation and support web hook callbacks for transaction status.
- **FR-033:** System shall synchronize employee master data (ID, email, department, location) from HR system (daily incremental).
- **FR-034:** System shall support export/import of order and financial reports for Finance reconciliation.

Non-Functional Requirements

- **NFR-018:** Integration APIs must have SLA (e.g., 99.5% availability during business hours).
 - **NFR-019:** API endpoints must be authenticated (OAuth2/JWT recommended).
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10. Acceptance Criteria

Acceptance criteria define the pass/fail conditions for each major business requirement and high-risk feature. Tests performed by business & QA teams will use these criteria.

AC-General (system readiness)

- **AC-001:** The application (mobile + web) must be deployable into the company's staging environment and support authentication for corporate users.
- **AC-002:** All user roles (employee, admin, delivery, finance) must be able to log in and perform their core flows without system errors in test environment.

AC-Ordering & Slotting

- **AC-003:** Employees can search menu, add to cart, select time slot and confirm order end-to-end (Order ID generated) in at least **95%** of tested sample cases (functional tests).
- **AC-004:** Orders placed up to cutoff time are delivered or marked ready for pickup in the scheduled time window in test scenarios.

AC-Payment & Payroll Integration

- **AC-005:** Payroll integration must authorize a test payroll transaction and reflect the transaction in the test payroll sandbox (or corporate test ledger).
- **AC-006:** Fallback payments (UPI/wallet) must work when payroll API returns an error.

AC-Delivery / Pickup

- **AC-007:** Delivery staff shall receive assigned orders and be able to mark orders delivered; status changes must be visible to the originating employee.
- **AC-008:** Delivery GPS tracking should show movement for active deliveries in a sample run.

AC-Canteen Management & Forecasts

- **AC-009:** Admin must upload a new menu item and it should be visible to employees within stated SLA (e.g., ≤ 5 seconds).

- **AC-010:** Daily order report generation must include accurate item counts for the test day as validated against the order database.

AC-Notifications & Support

- **AC-011:** Order confirmation and ready-for-pickup notifications are delivered to test users for at least 95% of test cases.
- **AC-012:** Support chat must be able to open and route requests; test tickets must reach a configured support inbox.

AC-Security & Audit

- **AC-013:** Role-based access enforcement is verified: admin pages are inaccessible by standard employee accounts.
- **AC-014:** Transaction logs must be auditable and show user id, timestamp, action, and transaction id for all payment events.

Each AC must be validated in test plans. Acceptance is conditional on business sign-off after UAT.

11. Functional / Non-functional Requirements Summary

- **FR (User / Ordering):** FR-001 to FR-005, FR-010-013.
- **FR (Payment):** FR-006 to FR-009.
- **FR (Admin):** FR-014 to FR-017.
- **FR (Reporting):** FR-018 to FR-020.
- **FR (Notifications & Support):** FR-021 to FR-023.
- **FR (Feedback):** FR-024 to FR-026.
- **FR (Sync/Accessibility):** FR-027 to FR-028.
- **FR (Security):** FR-029 to FR-031.
- **FR (Integration):** FR-032 to FR-034.

(Non-functional requirements NFR-001 to NFR-019 listed with each BR above.)

13. Acceptance & Sign-off

This section will be used after UAT to capture final signoffs.

Name	Role	Signature	Date

14. Appendix

A. Glossary

- **Order ID:** 2025xx04-E1xx3-001
- **Cutoff Time:** Last time before slot after which cart edits are not allowed.
- **Payroll Integration:** API link that allows meals cost to be charged/authorized against employee payroll/corporate account.
- **Slot:** A predefined time window for pickup/delivery.

B. Feature Mapping

- Menu search → FR-001
- Register / Activate account → FR-029 + FR-030
- Payroll payment → FR-006
- Real-time GPS tracking → FR-012 + NFR-006
- Feedback & ratings → FR-024

