

CSC 510 Project 1b1

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Group 5

UC1: Analyze Customer Ordering Patterns

1.1 Preconditions The WolfCafe user is authenticated as Staff (Manager/Admin), customer data exists in the system, and sufficient order history is available for analysis

1.2 Main Flow

1. Staff selects "Customer Analytics" from management dashboard
2. Staff chooses analysis criteria (time period, customer demographics, order types)
3. System processes customer ordering data and behavioral patterns
4. System generates insights on usage patterns (frequency, preferences, risk indicators)
5. System displays analytics dashboard with key metrics and trends
6. Staff reviews patterns for potential health/lifestyle correlations
7. System provides recommendations for targeted interventions or menu adjustments
8. Staff exports analysis results for further review

1.3 Subflows [S1] Staff filters analysis by specific customer segments (students, workers, age groups) [S2] System identifies customers with potentially concerning ordering patterns (high frequency, unhealthy choices) [S3] Staff sets up automated alerts for unusual ordering behaviors [S4] System compares current patterns with historical baselines

1.4 Alternative Flows [E1] System displays error message if insufficient data exists for meaningful analysis [E2] An error message is displayed if selected time period contains no customer activity [E3] System warns if analysis indicates potential privacy concerns with data usage [E4] System prompts for additional permissions if trying to access sensitive customer information.

UC2: Implement Nutritional Guidelines

2.1 Preconditions The WolfCafe user is authenticated as Staff (Manager/Nutritionist), menu items exist in the system, and nutritional information is available or can be added

2.2 Main Flow

1. Staff selects "Nutritional Management" from admin dashboard
2. Staff reviews current menu items and their nutritional profiles

3. Staff applies recommended nutritional guidelines to menu items
4. Staff categorizes items based on nutritional criteria (healthy, balanced, indulgent)
5. System updates menu display to highlight nutritional information
6. Staff configures nutritional warnings or recommendations for certain combinations
7. System implements portion size recommendations based on guidelines
8. Staff saves updated nutritional policies and menu configurations

2.3 Subflows [S1] Staff sets up automated nutritional scoring for all menu items [S2] System generates suggested healthy meal combinations for customers [S3] Staff creates special nutritional categories (low-sodium, high-protein, etc.) [S4] System sends nutritional alerts to customers with dietary restrictions

2.4 Alternative Flows [E1] System displays error if nutritional data is incomplete for certain menu items [E2] An error message is displayed if nutritional guidelines conflict with existing menu structure [E3] System warns if implementing guidelines would remove too many popular items [E4] System prompts for confirmation when applying strict nutritional filters that may impact sales

UC3: Manage Employee Benefits

3.1 Preconditions The WolfCafe user is authenticated as Staff (HR Manager/Admin), employee records exist in the system, and benefit programs have been defined

3.2 Main Flow

1. Staff selects "Employee Benefits Management" from HR dashboard
2. Staff chooses employee or benefit category to manage
3. Staff selects the type of benefit to administer (meal benefits, transportation, discounts, etc.)
4. Staff enters benefit details and eligibility criteria
5. System calculates tax implications and exclusions based on IRS guidelines
6. Staff reviews benefit valuation and tax treatment classification
7. System applies appropriate withholding rules and reporting requirements
8. Staff saves benefit configuration and assigns to eligible employees

3.3 Subflows [S1] Staff sets up cafeteria plan options for employee benefit elections [S2] System automatically calculates de minimis benefit thresholds for meal allowances [S3] Staff configures employee discount programs with proper valuation limits [S4] System generates required tax reporting forms (W-2 codes, 1099s) for benefit recipients

3.4 Alternative Flows [E1] System displays error if benefit value exceeds IRS exclusion limits and requires tax inclusion [E2] An error message is displayed if benefit program doesn't meet non-discrimination requirements [E3] System warns if benefit classification affects payroll tax obligations [E4] System prompts for additional documentation if benefit requires substantiation for tax purposes

UC4: Calculate Standard Food Allowances

4.1 Preconditions The WolfCafe user is authenticated as Staff (Finance/Accounting Manager), employee expense policies exist, and family size information is available for employees

4.2 Main Flow

1. Staff selects "Employee Expense Standards" from finance management dashboard
2. Staff chooses employee or department to calculate allowances for
3. Staff enters employee family size and dependency information
4. System applies current IRS National Standards for food expenses
5. System calculates allowable food expense amounts based on family size
6. Staff reviews calculated standard allowances vs actual expenses submitted
7. System flags expenses that exceed standard allowances for documentation requirements
8. Staff approves or requests additional substantiation for non-standard expenses

4.3 Subflows [S1] Staff updates National Standards rates when IRS publishes new amounts [S2] System separates food expenses into "at home" vs "away from home" categories [S3] Staff configures deviation approval process for expenses exceeding standards [S4] System generates expense compliance reports based on standard allowances

4.4 Alternative Flows [E1] System displays error if family size information is incomplete for allowance calculation [E2] An error message is displayed if expense exceeds standards without proper documentation [E3] System warns if claimed expenses significantly deviate from National Standards [E4] System prompts for substantiation if employee requests expenses above standard amounts

UC5: Ensure Regulatory Compliance

5.1 Preconditions The WolfCafe user is authenticated as Staff (Quality/Compliance Manager), menu items exist in the system, and applicable FDA regulations have been identified

5.2 Main Flow

1. Staff selects "Regulatory Compliance Dashboard" from management interface
2. Staff chooses compliance area to review (food safety, allergens, labeling, nutritional claims)
3. Staff selects specific menu items or ingredients to evaluate for compliance
4. System applies current FDA guidance standards and regulations to selected items
5. System identifies potential compliance gaps or required disclosures
6. Staff reviews flagged items requiring allergen warnings, nutritional labeling, or safety protocols
7. System generates compliance checklist and required documentation
8. Staff updates menu items with proper labeling, warnings, and safety measures

5.3 Subflows [S1] Staff configures automated allergen detection and warning systems for menu items [S2] System tracks FDA guidance document updates and alerts staff to regulatory changes [S3] Staff

maintains HACCP (Hazard Analysis Critical Control Points) records for food safety [S4] System generates required reports for health department inspections

5.4 Alternative Flows [E1] System displays error if required allergen information is missing from menu items [E2] An error message is displayed if nutritional claims don't meet FDA substantiation requirements [E3] System warns if food safety protocols haven't been updated per latest FDA guidance [E4] System prompts for additional documentation if new ingredients require regulatory review

UC6: Manage Laboratory Testing Requirements

6.1 Preconditions The WolfCafe user is authenticated as Staff (Quality Assurance Manager), food products requiring testing have been identified, and FDA LAAF program requirements are established

6.2 Main Flow

1. Staff selects "Food Safety Testing Management" from quality assurance dashboard
2. Staff identifies food items requiring mandatory laboratory testing per FDA regulations
3. Staff searches for FDA-recognized LAAF-accredited laboratories in the system
4. Staff selects appropriate accredited laboratory based on testing category and location
5. System generates testing request with required specifications and FDA compliance requirements
6. Staff schedules sample collection and laboratory submission timeline
7. System tracks testing status and ensures results are sent directly to FDA as required
8. Staff reviews test results and updates product compliance records

6.3 Subflows [S1] Staff maintains registry of FDA-recognized accreditation bodies and participating laboratories [S2] System automatically alerts when testing is required based on product category and regulations [S3] Staff coordinates with suppliers to ensure proper sample collection protocols [S4] System generates compliance documentation for regulatory inspections

6.4 Alternative Flows [E1] System displays error if selected laboratory is not LAAF-accredited for required testing category [E2] An error message is displayed if testing timeline doesn't meet FDA notification requirements [E3] System warns if test results indicate non-compliance with food safety standards [E4] System prompts for alternative laboratory selection if primary lab lacks capacity or accreditation

UC7: Manage Multistate Tax Obligations for Delivery Platforms

7.1 Preconditions The WolfCafe user is authenticated as Staff (Tax Compliance Manager), operates across multiple states/jurisdictions, and state-specific tax regulations are configured in the system

7.2 Main Flow

1. Staff selects "Multistate Tax Compliance" from tax management dashboard
2. Staff reviews delivery orders by state to determine marketplace facilitator obligations
3. Staff verifies contractual requirements between platform and restaurants by jurisdiction

4. System determines applicable tax collection responsibilities (platform vs. restaurant)
5. Staff configures fee taxability rules for each state (service fees, delivery fees, processing fees)
6. System calculates appropriate sales tax, meals tax, and local tax obligations
7. Staff reviews special transaction tax requirements (meals & rooms tax, local meal taxes)
8. System generates state-by-state tax filing and remittance schedules

7.3 Subflows [S1] Staff maintains registry of marketplace facilitator laws and economic nexus thresholds by state [S2] System tracks contractual relationships with restaurants to determine facilitator status [S3] Staff configures food taxability rules (prepared food vs. grocery items, hot vs. cold) [S4] System monitors local tax jurisdictions and their specific meal tax requirements

7.4 Alternative Flows [E1] System displays error if marketplace facilitator status is unclear for a given state [E2] An error message is displayed if platform fee taxability rules conflict across jurisdictions [E3] System warns if local tax obligations exceed constitutional "undue burden" thresholds [E4] System prompts for legal review if new state tax law interpretations affect platform obligations

UC8: Implement Public Health Policy Compliance

8.1 Preconditions The WolfCafe user is authenticated as Staff (Policy/Public Health Manager), operates on or through digital food delivery platforms, and applicable health policies have been identified

8.2 Main Flow

1. Staff selects "Public Health Policy Compliance" from regulatory management dashboard
2. Staff reviews applicable Food-EPI policy domains (composition, labeling, promotion, retail, pricing)
3. Staff assesses current platform compliance with nutrition-related policies by jurisdiction
4. System identifies policy gaps and required regulatory adaptations for digital food environment
5. Staff configures platform responsibilities vs. restaurant obligations for policy compliance
6. System implements digital nudging strategies to promote healthier food choices
7. Staff monitors compliance with existing food labeling, promotion, and composition regulations
8. System generates public health impact reports and policy effectiveness metrics

8.3 Subflows [S1] Staff implements choice architecture improvements (healthier options prominence, calorie ordering) [S2] System tracks marketing strategy compliance (image use, price promotions, targeted advertising) [S3] Staff configures nutritional quality standards and menu item classifications [S4] System monitors accessibility and equity impacts across different socioeconomic areas

8.4 Alternative Flows [E1] System displays error if digital platform regulations are unclear or conflicting across jurisdictions [E2] An error message is displayed if menu labeling compliance requirements aren't met [E3] System warns if marketing practices violate existing food promotion policies [E4] System prompts for policy updates when new public health regulations are implemented

UC9-Protected Health Information (PHI) Management

9.1 Preconditions

- WolfCafe has integrated health-related services (e.g., nutrition tracking, health assessments).
- Users have provided explicit consent for data collection and processing.
- The system supports encryption and secure data storage protocols.

9.2 Main Flow

1. User Registration: Users opt into health-related features and provide consent for data collection.
2. Data Collection: Health-related data (e.g., dietary habits, physical activity) is securely collected.
3. Data Storage: All collected data is encrypted and stored in compliance with HIPAA standards.
4. Access Control: Only authorized personnel can access PHI, based on defined roles and permissions.
5. Audit Logging: All access to PHI is logged, and logs are regularly reviewed for compliance.
6. User Rights: Users can request access to their data, corrections, or deletion as per HIPAA guidelines.

9.3 Subflows

- [S1] Consent Management: Users can review and update their consent preferences at any time.
- [S2] Data Access Requests: Users can submit requests to access or correct their health data.

9.4 Alternative Flows

- [E1] Unauthorized Access Attempt: If an unauthorized attempt to access PHI occurs, the system alerts administrators and logs the incident.
- [E2] Consent Withdrawal: If a user withdraws consent, their health data is securely deleted, and they are informed of the implications.
- [E3] Data Breach: In the event of a data breach, users are notified promptly, and corrective actions are taken as per HIPAA breach notification requirements.

UC10: Dynamic Dietary-Preference Menu Curation

10.1 Preconditions

- User has a logged-in WolfCafe account, the user's dietary profile (e.g., vegan, keto, gluten-free) is stored in their profile, the restaurant has uploaded semantic tags for each menu item

10.2 Main Flow

1. User opens the WolfCafe home screen
2. The app automatically filters visible restaurants and menu items based on the user's dietary tags
3. User selects a filtered restaurant and browses the recommended menu

4. The system highlights “Chef’s note” if the dish can be customized to meet the dietary profile
5. User orders and confirms

10.3 Subflows

- [S1] Missing Dietary Tag: If a menu item lacks a dietary tag, the system offers a “Add Tag” prompt to the restaurant partner
- [S2] Cross-Restaurant Recommendation: If no restaurants match all tags, the app suggests nearby restaurants that match a subset and offers a discount coupon

10.4 Alternative Flows

- [E1] Incomplete User Profile: Prompt the user to complete missing dietary information
- [E2] API Failure: Show a fallback menu and notify the system administrator of the tag sync failure

UC11: Weather-Aware ETA Prediction

11.1 Preconditions

- Driver and restaurant locations are registered, the app has access to live weather data (temperature, precipitation, traffic alerts)

11.2 Main Flow

1. User places an order and selects "standard" or "express"
2. WolfCafe’s ETA engine queries traffic & weather API
3. The engine calculates a probabilistic delivery window based on current weather conditions
4. The estimated time is displayed to the user

11.3 Subflows

- [S1] Weather-Induced Delay: If the ETA exceeds the user’s time window, the system offers an “express upgrade” with real-time cost adjustment
- [S2] Driver Availability Check: If no driver is within acceptable distance, the system automatically relocates a nearby partner driver

11.4 Alternative Flows

- [E1] Weather API Timeout: Use historical traffic averages for ETA and notify the user of a “Smart ETA” approximation
- [E2] Driver Unreachable: Queue the order and notify the user of expected wait time

UC12: Eco-Packaging Confirmation & Carbon Footprint Dashboard

12.1 Preconditions

- Restaurant partners offer certified eco-packaging options, the packaging type is tagged in the order item

12.2 Main Flow

1. User selects an eco-packaging option during checkout
2. The system logs the packaging type and its associated carbon offset data
3. Post-delivery, the app displays the total CO₂ footprint saved versus a standard packaging alternative

12.3 Subflows

- [S1] Packaging Return Incentive: Offer the user a discount code for future orders in exchange for dropping the packaging at a designated pickup point
- [S2] Packaging Verification: At delivery, the rider scans a QR code on the packaging; the app confirms receipt for quality logs

12.4 Alternative Flows

- [E1] Packaging Unavailable: Prompt the user to switch to standard packaging with an apology note
- [E2] QR Scan Failure: Use manual confirmation in the rider app and retry the scan

UC13: Multi-Restaurant Consolidated Delivery

13.1 Preconditions

- The user has selected items from at least two distinct restaurants, restaurants are within the same geo-cluster

13.2 Main Flow

1. The app automatically groups the orders
2. A single rider is assigned an optimized route that picks up all selected restaurants
3. The system calculates a consolidated delivery fee

13.3 Subflows

- [S1] Restaurant Consent: Each restaurant confirms participation in the “WolfCafe Consolidated Delivery” program

- [S2] Temperature Compliance: The rider flashes a cold-chain sensor for cold items, ensuring separation between hot & cold items on the vehicle

13.4 Alternative Flows

- [E1] Route Violation: If a new restaurant location changes the route significantly, the rider is notified to renegotiate or split the order
- [E2] Rider Unavailable: Queue the order and notify the user of an additional “consolidation fee”

UC14: In-App Restaurant Partnership Onboarding

14.1 Preconditions Restaurant owner logs into the WolfCafe partner portal, the portal allows Drüet, an automated application form with KYC fields

14.2 Main Flow

1. The owner submits business documents (license, insurance)
2. The system runs an automated verification checker for license validity, anti-money-laundering status, and food-safety certifications
3. Upon successful verification, the restaurant receives a “WolfCafe Partner” badge

14.3 Subflows [S1] Manual Escalation: If any verification fails, the owner is prompted to upload additional documentation [S2] Menu Sync: The system automatically pulls menu data via API or CSV upload and tags items with WolfCafe-standard categories (e.g., “delivery-ready”)

14.4 Alternative Flows [E1] Network Interruption During Upload: Offer a resumable upload with a progress indicator [E2] Duplicate Business Entries: Alert the owner to consolidate accounts to prevent fragmentation

UC15: AI-Driven Review Sentiment & Abuse Detection

15.1 Preconditions Feedback has been submitted by a user after delivery, the review contains text, rating, and optional photos

15.2 Main Flow

1. The AI engine processes the review text for sentiment polarity and profanity
2. The sentiment is mapped onto a 5-star scale and flagged for moderation if abusive language is detected
3. An aggregated sentiment score is attached to the restaurant’s public profile

15.3 Subflows [S1] Anonymous Anomaly Detection: If a review has extreme divergence compared to prior ratings, the system requests verification of delivery details [S2] Automated Response: For negative sentiment, the system drafts a standard apology email to the user and a suggestion to contact support

15.4 Alternative Flows [E1] API Rate Limiting: Queue the analysis and process in a batch at the next interval [E2] Language Unsupported: Default to a neutral score and flag for human review

UC16: Temperature-Seal Verification at Exit

16.1 Preconditions Rider has completed the order preparation, the packaging contains a reusable temperature-seal (smart tag)

16.2 Main Flow

1. Rider uses the built-in temperature sensor to record the internal temperature of each item
2. The sensor records timestamped data and logs it into the delivery record
3. The rider confirms seal integrity via a QR scan

16.3 Subflows [S1] Out-of-Range Temperature: If a meal is outside safe temperature bounds, the rider is redirected to nearest holding unit [S2] Seal Tamper Alert: If the sensor detects seal compromise, the rider receives a message to notify the partner restaurant

16.4 Alternative Flows [E1] Sensor Failure: Rider app falls back to manual device of digital thermometer [E2] Rider Disorientation: On navigation error, an “Emergency Route” is auto-triggered via GPS

UC17: Loyalty-Tiered Subscription Service

17.1 Preconditions User has a WolfCafe account and has earned at least 500 WolfPoints, the subscription menu offers three tiers: Bronze, Silver, Gold

17.2 Main Flow

1. User views the subscription landing page and selects a tier
2. The app calculates monthly fee and benefits (free delivery, exclusive items, early-access meals)
3. User pays via stored wallet or credit card

17.3 Subflows [S1] Tier Upgrade: When a user accumulates enough points, the app auto-prompts an upgrade and offers a discount [S2] Tier Downgrade: If usage drops below threshold, the user receives a “Maintain Tier” email with a coupon to retain status

17.4 Alternative Flows [E1] Payment Declined: User is prompted to add another payment method [E2] Benefit Eligibility Problem: If a restaurant does not support the tier benefit, the system swaps to the next best available option

UC18: Place a Food Order via App

18.1 Preconditions

User has an active account with a stored payment method.

18.2 Main Flow

- User opens the app and browses restaurants.
- Uses a dynamic list or search to find a meal.
- Adds items to cart and checks out.
- App processes payment and confirms orders.

18.3 Subflows

[S1] Reorder: User selects past order from order history for quick checkout.

18.4 Alternative Flows

[E1] Payment Failure → User prompted to retry or change payment.

[E2] Restaurant Unavailable → App updates list and suggests alternatives.

UC19: Track an Ongoing Delivery

19.1 Preconditions

User has placed an order and it has been accepted by a restaurant.

19.2 Main Flow

- User navigates to the "Track Order" page.
- System shows live status updates (preparing → out for delivery).
- Courier's GPS is displayed on a map.
- Push notifications alert when the courier is nearby.

19.3 Subflows

[S1] Live ETA Adjustment: App recalculates ETA when courier reroutes.

19.4 Alternative Flows

[E1] Courier Delay → ETA updated dynamically.

[E2] Courier Canceled → App reassigns order to a new courier.

UC20: AI-Driven Meal Recommendation with Context Awareness

20.1 Preconditions The WolfCafe user has an active account with order history, system has access to contextual data (time of day, weather, location, recent promotions), and AI recommendation engine with machine learning capabilities is operational

20.2 Main Flow

1. User opens the WolfCafe app home screen
2. System analyzes current contextual factors (lunchtime, rainy weather, nearby restaurants)
3. AI recommendation engine cross-checks user's past orders and trending items
4. System displays personalized "Today's Picks" section based on analysis
5. User selects an AI-suggested item and places the order

20.3 Subflows [S1] System integrates fitness tracker or mood input data to refine meal suggestions (high-protein after workout) [S2] System detects multiple users (shared table, group order) and recommends bundled meals [S3] System tracks user feedback on recommendations to improve future suggestions [S4] System adjusts recommendations based on dietary restrictions or preferences in user profile

20.4 Alternative Flows [E1] System displays error if no order history exists and bases recommendations on popular local items [E2] An error message is displayed if context data is missing (weather API offline) and system falls back to order history only [E3] System warns if user constantly rejects suggestions and prompts for feedback to retrain model [E4] System prompts for manual preference input if AI recommendations have low confidence scores

UC21: Integrate Multiple Food Delivery Platforms

21.1 Preconditions

Users have accounts linked across multiple delivery platforms.

21.2 Main Flow

- User searches for a restaurant/meal.
- Aggregator queries multiple OFD platforms.
- Best offers, promos, and ETAs are displayed.
- User selects a preferred deal and checks out seamlessly.

21.3 Subflows

[S1] Cashback Offers: Aggregator applies loyalty discounts automatically.

21.4 Alternative Flows

[E1] Platform Timeout → Order proceeds with available providers.

[E2] Expired Promotion → App refreshes and recalculates price.

UC22: Compare Food Delivery Platforms

22.1 Preconditions

Users have installed multiple OFD apps (GrabFood, FoodPanda, Pick.A.Roo).

22.2 Main Flow

1. Users compare apps by criteria (delivery time, fees, offers).
2. App suggests the best platform based on preferences.
3. User clicks through and places an order.

22.3 Subflows

[S1] Auto-Recommendation: App remembers user's past preferences and adjusts ranking.

22.4 Alternative Flows

[E1] One App Offline → Comparison excludes unavailable platforms.

UC23: Place and Track Drone-Based Food Delivery

23.1 Preconditions

Drone delivery service is supported in the user's area.

23.2 Main Flow

1. User places order via drone-enabled restaurant.
2. Food packaged and loaded onto drone.
3. Drone dispatched via GPS tracking.
4. User notified on approach and receives food safely.

23.3 Subflows

[S1] Drone Sharing: Multiple nearby orders batched into one drone trip.

23.4 Alternative Flows

[E1] Weather Unsafe → Order reassigned to human courier.

[E2] Drone GPS Failure → Remote pilot takes manual control.

UC24: Restaurant Promotes Food via Click-Through Service

24.1 Preconditions

Restaurant is registered on an OFD platform and subscribes to ad services.

24.2 Main Flow

1. Restaurant purchases click-through promotion slot.
2. Platform boosts restaurant to top search results.
3. Customers see the restaurant earlier and place orders.

24.3 Subflows

[S1] Performance Dashboard: Restaurant views analytics of click-through results.

24.4 Alternative Flows

[E1] Too Many Sponsored Listings → Visibility diluted, performance report flags issue.

UC25: Customer Seeks Healthy & Sustainable Options

25.1 Preconditions

Platform supports sustainability tagging (e.g., eco-friendly packaging).

25.2 Main Flow

1. Customer applies sustainability filter.
2. System highlights eco-conscious restaurants.
3. Discounts applied to green-certified meals.

25.3 Subflows

[S1] Gamification: User earns badges for repeated healthy/eco orders.

25.4 Alternative Flows

[E1] No Certified Restaurants Nearby → System displays closest alternative with partial match.

UC26: Customer Demands Order Accuracy & Reliability

26.1 Preconditions

Customer has placed an order with customization.

26.2 Main Flow

1. App confirms order details back to user.

2. Restaurant verifies items before dispatch.
3. Courier delivers correct items.

26.3 Subflows

[S1] Smart Receipt: User receives a digital checklist with order details.

26.4 Alternative Flows

[E1] Wrong Order → Refund or credit automatically issued.

[E2] Late Delivery → User receives compensation coupon.

UC27: Delivery Rider Optimizes Routes

27.1 Preconditions

Rider has accepted multiple deliveries via the app.

27.2 Main Flow

1. System assigns stacked orders to rider.
2. Navigation provides optimized delivery route.
3. Rider completes deliveries in order of efficiency.

27.3 Subflows

[S1] Heatmap Support: App shows rider areas of high demand for positioning.

27.4 Alternative Flows

[E1] Traffic Blockage → Navigation auto-reroutes.

[E2] Customer Unavailable → Rider triggers call/message from app.

UC28 Order Placed via Electronic Table Interface

28.1 Preconditions

- The Customer is seated at a table equipped with the electronic table ordering interface
- System is active and connected to restaurants network
- The embedded interface is operational and responsive

28.2 Main Flow

1. Customer selects “View Menu”
2. System retrieves and displays current electronic menu
3. Customer browses menu and adds one or more items to cart
4. Customer reviews order and confirms submission
5. System sends order wirelessly to kitchen staff’s device
6. System updates interface with “Order Received” and estimated wait time

28.3 Subflows

[S1] Customer requests modifications (e.g. “no onions”, “extra sauce”) before submitting order

[S2] Customer adds additional items after initial submission; system updates the order dynamically and relays updates to kitchen

28.4 Alternative Flows

[E1] Selected item is no longer available/sold out. System notifies customer.

UC29 Enhance Stakeholder Satisfaction via Improved Delivery Operations

29.1 Preconditions

- The WolfCafe system includes an Online Food Delivery (OFD) platform
- Customer has placed an active order
- System supports features such as real-time tracking, safety notifications, and reliable status updates

29.2 Main Flow

1. System confirms customer order and sends to courier
2. Courier accepts and begins order fulfillment
3. System provides customer with real-time order updates
4. Courier delivers order
5. System prompts customer to confirm delivery and receipt
6. System aggregates feedback data across all stakeholders
7. Platform uses feedback to refine service (e.g. improved routing, UI enhancements, additional safety features)

29.3 Subflows

[S1] Customer receives push notifications when courier is nearby (“Arriving Soon”)

[S2] Courier signals delay or hazard; system notifies customer with updated ETA or alternate plan

29.4 Alternative Flows

[E1] Tracking failure occurs; system displays last known status

[E2] Courier encounters critical delay; system offers compensatory benefit

[E3] Order is late beyond acceptable thresholds, system automatically offers compensatory benefit

UC30 Integrate Environmental Sustainability into Delivery Options

30.1 Preconditions

- The WolfCafe user is authenticated as a Customer
- System tracks environmental metrics (e.g. carbon emissions, packaging waste)
- Sustainable delivery options (e.g. eco-friendly packaging) are available

30.2 Main Flow

1. Customer places items in cart and proceeds to checkout
2. System displays standard delivery options including a “Green Delivery” option
3. Customer selects “Green Delivery”

4. System calculates and displays estimated environmental savings (e.g. reduced emissions, recyclable packaging)
5. Customer confirms order options and submits
6. System sends order to a delivery team trained or equipped for low-emission delivery (e.g. electric bike, reusable packaging)
7. Post delivery, system updates internal sustainability dashboards, aggregating data for business reporting and stakeholder feedback loops

30.3 Subflows

[S1] Customer opts to round up the order to donate to environmental programs; system adds contribution

[S2] System allows splitting orders so items from multiple orders share one eco-friendly package

30.4 Alternative Flows

[E1] Green delivery unavailable; system notifies customer

[E2] Estimated environmental savings not computed due to missing data; system proceeds with “Green Delivery” omitting the summary of benefits

[E3] Customer declines “Green Delivery” option; system falls back to standard delivery

UC31 Register as Delivery Driver and Accept Orders

31.1 Preconditions

- User has downloaded and installed mobile application
- User is not yet registered as a driver

31.2 Main Flow

1. User selects “Register as Driver” within the app
2. System prompts for credentials and enrollment verification
3. System validates and confirms enrollment
4. System enables driver profile and adds to pool of available drivers
5. User toggles “Go Online” status to indicate availability
6. System queues driver for order assignments
7. When a nearby order becomes available, system sends notification
8. Driver accepts order and proceeds to pick up order

31.3 Subflows

[S1] User updates driver profile with additional information (e.g. vehicle type, maximum distance)

[S2] User toggles “Go Offline” to stop receiving new orders

31.4 Alternative Flows

[E1] Verification system fails; system notifies user. User may retry or cancel

[E2] Driver is already registered; system alerts user to continue to login

UC32 Register New Food Delivery Service (Admin Interface)

32.1 Preconditions

- WolfCafe user is authenticated as Admin

- Integration platform supports a microservices architecture for onboarding new external services aasmr.org

32.2 Main Flow

1. Admin opens “Manage Integrations” panel
2. Admin selects “Add New Delivery Service”
3. Admin enters service metadata(e.g. name, API endpoints, authentication credentials)
4. System validates connectivity to external service using provided API credentials
5. Once validated, system generates corresponding microservice mapping menus, orders, and protocol logic
6. System integrates new microservice into the SOA (Service-Oriented Architecture) layer and updates unified platform
7. Admin configures display preferences for newly added service (e.g. ranking, ordering logic)
8. System updates available services in UI for customer discovery

32.3 Subflows

[S1] Admin tests order flows by pacing demo requests through newly added service

[S2] Admin edits integration settings (e.g. service name, priority ranking, display icons)

32.4 Alternative Flows

[E1] Connectivity validation fails; system notifies admin to verify API details

[E2] External service requires unsupported protocols or data schemas; system notifies admin of incompatible architecture

UC33 Determine Tax Collection Responsibility for Third-Party Deliveries

33.1 Preconditions

- The WolfCafe user is authenticated as Admin or Restaurant Manager
- Restaurant partners with third-party delivery services
- Existing contract or agreement specifying tax responsibilities between restaurant and delivery provider

33.2 Main Flow

1. User navigates to “Tax Responsibilities” in the admin dashboard
2. System retrieves and displays applicable state and local sales tax laws regarding third-party meal delivery
3. System identifies whether delivery provider is required or opted-in to collect and remit sales tax on behalf of restaurant [The CPA Journal](http://TheCPAJournal.com)
4. System reviews existing contract to determine if provider has assumed tax remittance duties
5. System displays clear summary:
 - a. If provider remits: provider handles tax, and restaurant does not collect it
 - b. If provider does not remit: restaurant remains responsible and must collect and remit appropriate tax

33.3 Subflows

[S1] Admin uploads or links written certificates to document tax liability relief for restaurant

[S2] Admin activates reconciliation feature to match delivery provider deposits against restaurant POS reports to confirm if sales tax was handled correctly or risk being double-reported

33.4 Alternative Flows

[E1] State/local laws are unclear or conflicting; system flags and urges user to consult tax advisor

UC34: Manage Multi-Vendor Type Authorization System

34.1 Preconditions The WolfCafe user is authenticated as Staff (Vendor Relations Manager), operates as a marketplace platform connecting multiple vendor types, and state WIC agency authorization requirements are configured

34.2 Main Flow

1. Staff selects "Vendor Authorization Management" from marketplace administration dashboard
2. Staff categorizes incoming vendor applications by type (brick-and-mortar, internet, mobile vendors)
3. Staff initiates separate authorization processes for each vendor type per state requirements
4. System validates that each vendor meets specific criteria for their vendor type classification
5. Staff coordinates with state WIC agencies to obtain separate authorizations for each vendor type
6. System assigns unique vendor identification numbers for each authorized vendor type
7. Staff configures transaction routing to ensure sales are properly assigned to correct vendor type
8. System maintains separate compliance monitoring protocols for each vendor type

34.3 Subflows [S1] Staff manages vendors operating multiple types (same business entity with brick-and-mortar and internet presence requires separate authorizations) [S2] System tracks SNAP authorization numbers to ensure one-to-one mapping with WIC authorizations [S3] Staff coordinates preauthorization visits (on-site for physical locations, virtual for internet vendors) [S4] System maintains separate vendor agreements and monitoring schedules for each vendor type

34.4 Alternative Flows [E1] System displays error if vendor tries to operate multiple types under single authorization [E2] An error message is displayed if state agency hasn't recognized platform's vendor type classifications [E3] System warns if vendor authorization expires and affects transaction processing capabilities [E4] System prompts for re-authorization if vendor changes business model or vendor type classification

Reflection Document

We noticed that ChatGPT's responses for the use case are often generic and written in layman-friendly language while staying at a high-level conceptual overview. Claude parses through documents in a thorough contrast. It also creates useful technically detailed use cases unlike ChatGPT. Claude also comes off as more expressive and a personalized platform, while ChatGPT may seem more robotic. We also found differences in response time between these two LLMs. Claude seemed to "take its time" more often than not in order to cultivate a higher response quality.

ChatGPT generates structured and detailed use cases with clear steps, subflows, and alternatives, which makes them well-suited for formal documentation. Gemini, on the other hand, produces concise and user-centered use cases, often written in a story-like format that highlights the core interaction clearly.

Total Cost of LLM Usage:

We have opted to use the free versions of current LLMs for now, so our total cost is \$0.