SE Proj1c1 - Group 19

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Finalized Use Cases

- ## UC-M1 — User Registration (Email/OTP)
    - **Preconditions:** App/website accessible; user has valid email or phone.
    - **Main Flow:**
        - User taps **Sign Up**.
        - Enters email/phone.
        - System sends a one-time password (OTP).
        - User enters OTP.
        - System verifies and creates account; session starts.
    - **Subflows:**
        - [Profile init] Create minimal profile (name optional).
        - [Rate limiting] Limit OTP requests per minute; short expiry window.
    - **Alternative Flows:**
        - Wrong/expired OTP → retry up to 3 times, then wait.
        - Existing account → suggest **Log In** instead.
    - **Postconditions:** User account created; session active; redirected to home screen.
- ## UC-M2 — User Login
    - **Preconditions:** Account exists.
    - **Main Flow:**
        - User taps **Log In**.
        - Enters email/phone + OTP (or password if enabled).
        - System verifies and starts session.
    - **Subflows:**
        - [Remember device] Option to skip OTP on trusted device.
    - **Alternative Flows:**
        - Invalid credentials → error + retry.
        - Forgot password → password reset email.
    - **Postconditions:** User authenticated; lands on home/dashboard.
- ## UC-M3 — Save & Validate Delivery Address
    - **Preconditions:** User signed in.
    - **Main Flow:**
        - User enters address or pins location on map.

- System standardizes address (geocoding = converting to structured format).
- System checks if address is within delivery zone.
- Address saved as default.
- **Subflows:**
  - [Autocomplete] Suggest addresses while typing.
  - [Zone set] Store zone for restaurant lookup.
- **Alternative Flows:**
  - Out of zone → show "not serviceable" message.
  - Ambiguous address → prompt user to choose suggested match.
- **Postconditions:** Address saved and linked to account; zone cached for future orders.

- ## UC-M4 — Vendor Portal Login
  - **Preconditions:** Vendor onboarded; has credentials.
  - **Main Flow:**
    - Vendor navigates to portal.
    - Enters username/password.
    - System verifies credentials.
    - Dashboard shows menus, orders, and status.
  - **Alternative Flows:**
    - Wrong credentials → error message.
    - Too many failed attempts → account temporarily locked.
  - **Postconditions:** Vendor authenticated; session active; dashboard accessible.

- ## UC-M5 — Vendor Adds/Edits Menu Item (with WIC Flag)
  - **Preconditions:** Vendor logged in.
  - **Main Flow:**
    - Vendor goes to **Menu** section → Add Item (or select existing to Edit).
    - Enters name, description, price; optional photo.
    - Optionally adds calories info.
    - Toggles "WIC-Eligible" if applicable.
    - Saves item.
  - **Subflows:**
    - [Validation] Ensure required fields entered; price is numeric.
    - [Draft/Publish] Vendor can save as draft or publish live.
  - **Alternative Flows:**
    - Missing required field → error; block save.
    - Item out of stock → vendor unpublishes item temporarily.
  - **Postconditions:** Item visible in menu with correct flags (WIC if chosen).

- ## UC-M6 — Browse & Search Menus
  - **Preconditions:** At least one vendor active in user's zone.
  - **Main Flow:**
    - User opens **Browse** to view vendors.
    - User selects vendor → sees menu.
    - User searches by keyword across items.
  - **Subflows:**
    - [Filters] Cuisine, veg/non-veg, price range.

- ■ [Sort] Popularity, relevance.
  - ○ **Alternative Flows:**
    - ■ No results → show trending items.
    - ■ Vendor closed → mark unavailable.
  - ○ **Postconditions:** User sees relevant vendor/item options.

- UC-M7 — WIC-Eligible Filter
  - ○ **Preconditions:** User logged in; WIC eligibility optional (see UC-M8).
  - ○ **Main Flow:**
    - ■ On menu or results, user toggles **WIC-Eligible** filter.
    - ■ System updates list to show only flagged items.
  - ○ **Alternative Flows:**
    - ■ No WIC items available → show "No WIC-eligible items found."
  - ○ **Postconditions:** User sees only items flagged WIC-eligible.

- UC-M8 — Link & Verify WIC Eligibility
  - ○ **Preconditions:** User logged in; state supports WIC lookup API.
  - ○ **Main Flow:**
    - ■ User navigates to Profile → WIC.
    - ■ Enters WIC identifier (case number).
    - ■ System queries WIC registry.
    - ■ If match found, system tags account as **WIC-Eligible**.
  - ○ **Subflows:**
    - ■ [Household selection] If multiple family members, user picks.
    - ■ [Cache] Store eligibility status (not sensitive details).
  - ○ **Alternative Flows:**
    - ■ No match/lapsed benefits → show "Check details / expired" message.
  - ○ **Postconditions:** User account marked WIC-Eligible; filters and WIC payments unlocked.

- UC-M9 — Item Details (with Nutrition Notes)
  - ○ **Preconditions:** User browsing menu or search results.
  - ○ **Main Flow:**
    - ■ User selects an item.
    - ■ System shows name, price, photo, description.
    - ■ If provided: shows calories, allergens.
    - ■ If WIC-flagged: displays badge.
  - ○ **Alternative Flows:**
    - ■ Missing data → show "Nutrition info pending."
  - ○ **Postconditions:** User informed about product details and can add to cart.

- UC-M10 — Add to Cart
  - ○ **Preconditions:** Item visible.
  - ○ **Main Flow:**
    - ■ User selects item, chooses quantity, adds modifiers if any.
    - ■ User taps **Add to Cart**.
    - ■ System updates cart and total.
  - ○ **Alternative Flows:**
    - ■ Item unavailable → error.

- ■ Incompatible modifier → disabled automatically.
  - ○ **Postconditions:** Cart updated with selected item and price.
- UC-M11 — Review Cart & Checkout
  - ○ **Preconditions:** Cart not empty.
  - ○ **Main Flow:**
    - ■ User opens Cart.
    - ■ Reviews items, quantities, notes; edits if needed.
    - ■ Confirms delivery address, subtotal, fees, and tax.
    - ■ Proceeds to Checkout.
  - ○ **Alternative Flows:**
    - ■ Cart empty → disable checkout.
    - ■ Address incomplete → prompt correction.
  - ○ **Postconditions:** Order ready for payment stage.
- UC-M12 — Payment (WIC Split + Card)
  - ○ **Preconditions:** Checkout started; cart may have mix of WIC/non-WIC items.
  - ○ **Main Flow:**
    - ■ System splits basket into WIC-eligible vs non-WIC.
    - ■ Applies WIC benefits to eligible items (deduct from balance).
    - ■ Shows remaining balance (non-WIC + shortfall).
    - ■ User enters card details (via PSP = payment service provider).
    - ■ System authorizes payment; creates Pending order.
  - ○ **Alternative Flows:**
    - ■ WIC insufficient → shortfall paid by card.
    - ■ Card payment fails → user retries with another method.
  - ○ **Postconditions:** Payment successful; order confirmed; user sees confirmation screen.
- UC-M13 — Restaurant Acknowledge & Prep
  - ○ **Preconditions:** Pending order exists; vendor online.
  - ○ **Main Flow:**
    - ■ System sends order to vendor console.
    - ■ Vendor accepts; status = Preparing.
    - ■ Vendor marks Ready for Pickup.
  - ○ **Subflows:**
    - ■ [Auto-cancel] If vendor silent for T minutes → auto-cancel + notify.
    - ■ [Partial stock-out] Vendor removes item → system recalculates → user confirms/refund.
  - ○ **Alternative Flows:**
    - ■ Vendor rejects → order canceled; refund issued.
  - ○ **Postconditions:** Order status updated; customer notified.
- UC-M14 — Dispatch & Delivery Tracking
  - ○ **Preconditions:** Order ready.
  - ○ **Main Flow:**
    - ■ System assigns courier (or manual ops dispatch).
    - ■ Status updates: Assigned → Picked → On the Way → Delivered.
    - ■ User notified via push/SMS at each milestone; basic live map.

- ○ **Subflows:**
  - ■ Courier reassigned if drop-off.
  - ■ Contact via masked phone/SMS if needed.
- ○ **Alternative Flows:**
  - ■ No courier available → cancel/refund.
  - ■ Delivery failed → system flags → user notified.
- ○ **Postconditions:** Order reaches Delivered (success) or Issue state (UC-M15).
- **UC-M15 — Completion, Issues, Refunds & History**
  - ○ **Preconditions:** Order completed or problem reported.
  - ○ **Main Flow:**
    - ■ On Delivered → send receipt; add to Order History.
    - ■ If issue → user taps Get Help → selects reason (wrong/missing/late).
    - ■ System applies policy:
      1. Pre-accept cancel → full refund.
      2. Post-accept, pre-pickup → partial refund.
      3. Post-pickup → credit/refund after evidence.
    - ■ Refund issued via PSP; user notified.
  - ○ **Subflows:**
    - ■ User can upload photo proof for wrong/damaged items.
    - ■ Refund logs stored for audit.
  - ○ **Alternative Flows:**
    - ■ Payment provider error → retry queue + alert support.
    - ■ Repeat abuse → flagged for review.
  - ○ **Postconditions:** User sees resolution; history updated; refunds processed if applicable.

Reflection Document

How We Decided What Not to Do

Our prioritization was guided by a single question: "What is the absolute minimum we can build to test our core hypothesis?" We defined this hypothesis as: Customers who value health and/or use WIC benefits will use our platform to order food from participating vendors. Features that did not directly validate this user-vendor transaction loop were deferred based on the following criteria:

Contribution to Core Hypothesis: Features secondary to the core transaction were cut. This included advanced wellness tools like "Healthy-Choice Nudges" (UC-14) and "Calorie & Wellness Tracking" (UC-15), which are optimizations for an existing user base, not prerequisites for acquiring one.

Complexity vs. Learning: We aggressively cut features with high development complexity and low initial learning value. For instance, the entire Tax and IRS Compliance Suite (UC-21 to UC-30) was deferred. Testing market demand in a single jurisdiction with a simplified tax model is more efficient than building a multi-state tax engine upfront.

Optimization vs. Core Functionality: We deferred features that optimize the service at scale in favor of those that enable its core function. The Advanced Driver and Logistics Management suite (UC-26, UC-37, UC-38) and the Proactive Food Safety and Sustainability suite (UC-31 to UC-40) were removed because the MVP can function with manual dispatch and basic vendor trust, validating the business model before optimizing operations.

Potential Negative Impacts and Stakeholder Disappointments

An MVP, by design, is an incomplete product that will lead to disappointment for stakeholders invested in the broader vision.

Customers: Will miss the sophisticated wellness features from the initial vision, such as personalized dietary plans (UC-16) and sustainability selectors (UC-36), as the MVP is purely transactional.

Vendors: May be disappointed by the lack of automation. The MVP requires them to manually flag "WIC-Eligible" items (UC-M5) and lacks an automated tax remittance system (UC-21, UC-23), increasing their operational burden.

Drivers: Are largely unserved by the MVP. The original plan included value-add features like expense tracking (UC-26). The MVP offers no specialized tools, treating drivers as a commodity in the delivery chain (UC-M14).

Regulators & Compliance Teams: Will be concerned by the simplification of regulatory features. Deferring a robust, auditable tax engine (UC-27) and proactive food safety alerts (UC-32) introduces business risk that must be managed manually.

Adjustments and Compromises to Appease Stakeholders

While we cut features aggressively, we made strategic compromises to retain the essence of key value propositions, ensuring the MVP remains a viable test vehicle.

Retaining Core Health Value: To serve customers, we cut proactive coaching features (UC-15, UC-16) but kept passive, informational ones. The MVP retains WIC Eligibility Verification (UC-M8) and basic nutrition labeling (UC-M9), providing the essential data for informed choices without the complexity of a recommendation engine.

Providing Essential Vendor Tooling: To enable the WIC value proposition, the MVP includes a simple manual toggle for vendors to flag items as "WIC-Eligible" (UC-M5). This compromise makes the customer-facing WIC filter (UC-M7) possible, shifting initial complexity from software to a manageable manual process for vendors.

Acknowledging Operational Realities: While cutting advanced logistics like cold chain monitoring (UC-38), we included basic delivery tracking (UC-M14) and a workflow for handling issues and refunds (UC-M15). This provides a baseline level of customer support and operational visibility, which is critical for retaining early adopters.

Links to prompts:

- https://chatgpt.com/share/68c73e90-2984-8003-98d0-789ba16b4c02

- https://g.co/gemini/share/27d29106d8a4

- https://chatgpt.com/share/68c73ef5-4a8c-8003-a61d-fb41850bfc62

- https://chatgpt.com/share/68c73f0a-fc88-8003-91eb-88d9a1486bc5

- https://claude.ai/share/5653f8eb-58bc-43b4-a06f-ad6821dcee69