UC1 — Customer Places an Order

Preconditions:

- Customer is logged in or using guest checkout.
- Menu items exist and at least one is available.

Main Flow:

1. Customer browses menu.
2. Selects one or more items and adds them to cart.
3. Reviews cart and proceeds to checkout.

Subflows:

- [Modify Cart] Add, change, or remove items.

Alternative Flows:

- [Item Out of Stock] Item cannot be added, suggest alternatives.

UC2 — Customer Pays for Order

Preconditions:

- Customer has items in cart and proceeds to checkout.
- System is connected to payment provider.

Main Flow:

1. Customer enters payment details.
2. System validates payment.
3. Payment provider confirms transaction.
4. System marks order as “Paid.”

Subflows:

- [Add Tip] Customer selects percentage or custom tip.

Alternative Flows:

- [Payment Failure] Show error and allow retry or cancel.

UC3 — Customer Receives Notification & Picks Up Order

Preconditions:

- Paid order exists.
- Staff marks order as ready.

Main Flow:

1. System sends notification (in-app/SMS/email).
2. Customer arrives at pickup counter.
3. Staff verifies order ID or name.
4. Staff hands order and closes it as “Picked Up.”

Subflows:

- [Notify Ready] Show banner or send message when ready.

Alternative Flows:

- [Wrong Customer] Verification fails, order withheld.
- [Stale Pickup] Order not collected in time, follow discard/refund policy.

UC4 — Customer Cancels an Order

Preconditions:

- Customer has an active order not yet fulfilled.
- Within cancellation window.

Main Flow:

1. Customer opens order details.
2. Selects “Cancel Order.”
3. System checks policy.
4. If eligible, order is canceled and refund issued.

Subflows:

- [Refund] Payment provider reverses charge.

Alternative Flows:

- [Too Late] Order already fulfilled, cancel denied.

UC5 — Guest Checkout

Preconditions:

- Guest checkout enabled in system.
- Menu items available.

Main Flow:

1. Guest browses menu.
2. Adds items to cart.
3. Enters minimal info (email, payment).
4. Confirms and pays.

Subflows:

- [Prompt Account Creation] After order, system invites guest to register.

Alternative Flows:

- [Invalid Guest Info] System rejects bad email/payment.

UC6 — Staff Fulfills an Order

Preconditions:

- Staff logged in with fulfillment permissions.
- Paid orders exist in pending queue.

Main Flow:

1. Staff opens order queue.
2. Selects an order.
3. Prepares items.
4. Marks order “Ready.”

Subflows:

- [Queue Sorting] Staff can filter orders by time or priority.

Alternative Flows:

- [Out of Ingredients] Mark unavailable, system offers substitution/refund.
- [Mistaken Fulfillment] Allow revert to pending with log.

UC7 — Staff Manages Inventory

Preconditions:

- Staff logged in with inventory permissions.

Main Flow:

1. Staff opens inventory dashboard.
2. Searches or selects an item.
3. Updates stock quantity.
4. System saves changes and logs action.

Subflows:

- [Restock] Increment stock after delivery.
- [Adjustment] Decrement stock for spoilage or shrinkage.

Alternative Flows:

- [Invalid Quantity] Reject negative/non-numeric values.
- [Item Missing] Prompt to create new item or escalate to admin.

UC8 — Staff Creates or Edits Menu Items

Preconditions:

- Staff logged in with menu-management permissions.

Main Flow:

1. Staff opens menu manager.
2. Creates new item or edits existing one.
3. Sets name, price, description, availability.
4. Saves changes, updates menu.

Subflows:

- [Add Image] Upload optional image.

Alternative Flows:

- [Duplicate Name] Reject, request unique name.
- [Missing Fields] Highlight errors, block save.

UC9 — Admin Updates Sales Tax Rate

Preconditions:

- Admin logged in with tax permissions.

Main Flow:

1. Admin opens tax settings.
2. Enters new tax percentage.
3. System validates and applies change to future orders.

Subflows:

- [Validate Input] Check numeric and within range.

Alternative Flows:

- [Invalid Entry] Reject and show error.

UC10 — Admin/User Management

Preconditions:

- Admin logged in with user-management permissions.

Main Flow:

1. Admin opens user management.
2. Creates, edits, or deletes accounts.
3. System validates and applies changes.

Subflows:

- [Assign Roles] Define staff/customer/admin permissions.

Alternative Flows:

- [Unauthorized Role Change] Prevent privilege escalation.
- [Delete Constraint] Block deletion of last admin.

UC11 — System Sends Order Confirmation/Receipt

Preconditions:

- Order successfully placed and paid.

Main Flow:

1. System generates confirmation message.
2. Sends receipt via email/app notification.
3. Stores receipt in customer order history.

Subflows:

- [Digital Receipt] Includes items, tax, total, and order ID.

Alternative Flows:

- [Email Failure] Retry sending or prompt user to view in app.

UC12 — Customer Provides 1-Tap Rating After Pickup

Preconditions:

- Customer has completed a pickup.

Main Flow:

1. After pickup, system displays a rating prompt.
2. Customer taps 1–5 stars.
3. System saves rating in order history.

Subflows:

- [Optional Feedback] Customer adds a short comment.

Alternative Flows:

- [No Response] Order marked as “Not Rated.”

UC13 — Customer Logs In via University SSO

Preconditions:

- University SSO service is available.

Main Flow:

1. Customer clicks “Login with University ID.”
2. System redirects to university login portal.
3. Customer enters credentials.
4. System confirms authentication and grants access.

Subflows:

- [Reuse Session] If already authenticated with university services, auto-login.

Alternative Flows:

- [SSO Down] Offer guest checkout as fallback.

UC14 — Customer Views Menu by Time of Day

Preconditions:

- Menu items are tagged with time-of-day availability.

Main Flow:

1. Customer opens the menu.
2. System detects current time (e.g., breakfast hours).
3. Displays relevant items at the top.

Subflows:

- [Unavailable Items] Items outside time slot shown greyed out.

Alternative Flows:

- [No Tags] System shows full menu with note: “All-day availability.”

UC15 — Customer Applies Dietary Filter

Preconditions:

- Menu items are tagged with dietary attributes (vegan, halal, gluten-free).

Main Flow:

1. Customer selects filter (e.g., Vegan).
2. System filters and shows only matching items.

Subflows:

- [Multiple Filters] Customer selects more than one filter.

Alternative Flows:

- [No Items Match] System suggests closest alternatives.

UC16 — Customer Reorders from Favorites

Preconditions:

- Customer has placed at least one order.

Main Flow:

1. Customer taps “Reorder Favorite.”
2. System pre-fills cart with saved items.
3. Customer reviews and confirms checkout.

Subflows:

- [Rename Favorites] Customer labels favorite (e.g., “Morning Coffee”).

Alternative Flows:

- [Unavailable Item] Suggest substitute or remove from order.

UC17 — System Shows Estimated Wait Time

Preconditions:

- Staff queue and prep times are tracked.

Main Flow:

1. Customer adds items to cart.
2. System calculates estimated preparation time.
3. Displays wait time on checkout page.

Subflows:

- [Dynamic Update] Time recalculates if order volume changes.

Alternative Flows:

- [Calculation Not Possible] Display default range (e.g., 5–10 mins).

UC18 — Customer Receives QR Code for Pickup

Preconditions:

- Customer places and pays for order.

Main Flow:

1. System generates unique QR code with order ID.
2. Sends QR code via app/email.
3. Customer shows QR at pickup counter.
4. Staff scans code to confirm and close order.

Subflows:

- [Fallback Verification] Staff checks order manually if scanner fails.

Alternative Flows:

- [QR Delivery Failure] Customer retrieves QR from app profile/order history.

UC19 — Staff Marks Items Out-of-Stock in Real Time

Preconditions:

- Staff logged in with inventory permissions.

Main Flow:

1. Staff selects menu item.
2. Clicks “Mark Out of Stock.”
3. Item disappears from customer menu instantly.

Subflows:

- [Suggest Substitution] System recommends similar item.

Alternative Flows:

- [Missed Update] System auto-flags item after repeated failed orders.

UC20 — Customer Checks In at Pickup Station

Preconditions:

- Order status = “Ready.”

Main Flow:

1. Customer taps “I’m Here” in app.
2. System notifies staff of arrival.
3. Staff prepares order for handoff.

Subflows:

- [Queue Priority] Multiple arrivals ordered by check-in time.

Alternative Flows:

- [Customer Skips Check-In] Staff calls out order name manually.

UC21 — Admin Resets Daily Menu Automatically at Closing

Preconditions:

- Cafe closing time configured in system.

Main Flow:

1. At scheduled closing time, system runs reset job.
2. Archives pending/expired orders.
3. Resets inventory counts.
4. Publishes fresh menu for next day.

Subflows:

- [Manual Override] Admin can trigger reset early.

Alternative Flows:

- [Missed Reset] Admin performs manual reset if system job fails.

Reflection on MVP Design Decisions

How We Decided What Not to Do

Our approach to the MVP was guided by the principle of *validated learning with minimum effort*. We began with the long list of use cases from 1b1 (UC1–UC30). To trim it down, we asked a key question for each case:
Does this feature directly help us test whether customers will order food online, and whether staff/admin can successfully fulfill and manage those orders?

If the answer was “no,” or if the feature required significant extra infrastructure (e.g., QR scanning hardware, regulatory reporting, predictive AI), we dropped it. In particular:

- **Compliance-heavy features** (e.g., detailed accessibility audits, regulator dashboards, security audits) were excluded because they don't affect the core customer journey.
- **Advanced analytics and marketing** (e.g., loyalty programs, demand forecasting, campaign management) were excluded because they delay learning without improving MVP adoption.
- **Operational automation** (e.g., auto resets, predictive wait times) were deferred since manual processes suffice for MVP validation.

This pruning ensured the MVP focused only on essential flows: customers placing, paying for, canceling, and picking up orders, while staff and admins manage menu, inventory, and accounts.

Potential Negative Impacts on Stakeholders

By cutting down to essentials, the MVP risks disappointing certain stakeholders:

- **Customers** may feel friction due to missing "modern" conveniences like dietary filters, favorites, or quick reordering. Accessibility gaps (screen reader optimization, ARIA labeling) may also exclude some users in early testing.
- **Staff** may face extra workload without features like real-time stock updates or predictive demand. Errors (e.g., overselling items) are more likely until automation is added.
- **Admins** may struggle without audit logs, compliance dashboards, or automated reporting. While these are not MVP-critical, their absence reduces oversight and confidence.
- **Regulators/University IT** may view the MVP as non-compliant or underprepared for institutional deployment since accessibility and privacy features are postponed.

These trade-offs highlight the tension between *speed of delivery* and *breadth of satisfaction*.

Changes Made to Appease Stakeholders

To balance stakeholder needs with MVP constraints, we introduced a **second tier of 10 "extended MVP" use cases** (UC12–UC21). These features are carefully chosen because they:

- **Directly improve customer experience** without major technical overhead (e.g., 1-tap ratings, time-of-day menus, dietary filters, favorites, QR code pickup).
- **Ease staff operations** modestly (e.g., real-time out-of-stock updates, customer check-in at pickup).
- **Support admins** through lightweight automation (e.g., daily menu reset).

We prioritized these because they add polish and differentiation while still being feasible within MVP scope. For example:

- **Dietary filters and time-of-day menus** were included to reduce customer frustration and promote inclusivity.
- **1-tap feedback and quick reorders** encourage repeat usage and provide staff/admins with early insights.
- **Real-time stock updates and pickup check-in** reduce operational errors and smooth customer-staff interactions.

This way, while the MVP is still lean, it shows stakeholders that their needs were considered and provides a roadmap for future iterations.

Chat Link for ChatGPT:
https://chatgpt.com/share/68c7404b-384c-8005-bf93-883c7cab1e08