Project 1c1 (Group 2)

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Use Cases:

UC1 Customer Registration

1.1 Preconditions
The user has launched the WolfCafe application.

1.2 Main Flow

1. Customer selects "Register."
2. System displays form for email, password, name, and phone.
3. Customer submits details.
4. System validates information.
5. System creates account with unique ID.
6. System sends confirmation email.
7. System logs customer in.

1.3 Subflows / Extensions

- Validate Data: Ensure email unique and password secure.

1.4 Alternative / Error Flows

- Duplicate Email: Prompt user to log in.
- Invalid Data: Highlight field and show error.

UC2 Process Payment

2.1 Preconditions
Pickup slot chosen (UC7), cart total > 0.

2.2 Main Flow

1. System shows order summary + payment options.
2. Customer selects saved or new method.
3. Redirect to payment gateway.
4. Customer authorizes payment.
5. Gateway confirms success.
6. System stores transaction ID.
7. Continue to UC9.

2.3 Subflows / Extensions

- Add new card → tokenized storage.

2.4 Alternative / Error Flows

- Payment declined → prompt retry.
- Processing error → retry.

UC3 Confirm Order Placement

3.1 Preconditions
 Payment processed (UC8).

3.2 Main Flow

1. System creates order record.
2. Assigns confirmation number.
3. Clears cart.
4. Shows confirmation screen + estimated pickup.
5. Sends email + push notification.

3.3 Subflows / Extensions

- None.

3.4 Alternative / Error Flows

- Database error → trigger refund.

UC4 Browse & Search Menu

4.1 Preconditions

- Customer is logged in.

- Restaurant menu is available.

4.2 Main Flow

1. Customer selects a restaurant.

2. System displays menu categories and items.

3. Customer browses items or enters a keyword in search.

4. System filters and displays matching results.

4.3 Subflows / Extensions

- Sorting (by price, rating, popularity).

- Filtering (vegetarian, spicy, etc.).

4.4 Alternative / Error Flows

- Menu unavailable (restaurant closed) → system shows message.

- No results for search → system shows "No items found."

UC5 Customer Login

5.1 Preconditions

- Customer has a registered account
- Customer account is active/verified
- System login functionality is operational

5.2 Main Flow

1. Customer navigates to login page
2. System displays login form with email and password fields
3. Customer enters registered email address and password
4. Customer clicks login button
5. System validates credentials against customer database
6. System creates authenticated session for customer
7. System redirects customer to main menu browsing page
8. System displays welcome message with customer name

5.3 Subflows / Extensions

- 5.3a Remember Me: Customer can select option to stay logged in on device
- 5.3b Auto-redirect: System redirects to previously accessed page if customer was redirected to login

5.4 Alternative / Error Flows

- 5.4a Invalid Credentials: System displays "Invalid email or password" message, clears password field
- 5.4b Account Not Found: System displays same message as invalid credentials for security
- 5.4c Account Inactive: System displays message indicating account needs verification
- 5.4d Multiple Failed Attempts: System temporarily locks account, displays lockout message
- 5.4e System Error: System displays generic error message, customer advised to try again

UC6 Add Item to Cart

6.1 Preconditions

- Customer is logged in and browsing menu
- Customer has selected a menu item to purchase
- Selected item is available for ordering

6.2 Main Flow

1. Customer clicks "Add to Cart" button on menu item
2. System displays item customization options if available (size, modifications, special instructions)
3. Customer selects desired options and quantity
4. Customer confirms selections and clicks "Add to Cart"
5. System validates item availability and options
6. System adds configured item to customer's cart
7. System updates cart icon/counter to reflect new item count
8. System displays confirmation message "Item added to cart"
9. Customer can continue browsing menu or proceed to view cart

6.3 Subflows / Extensions

- 6.3a Item Modifications: Customer can select add-ons, remove ingredients, specify cooking preferences
- 6.3b Quantity Selection: Customer can specify multiple quantities of same item
- 6.3c Special Instructions: Customer can add notes for kitchen staff

- 6.3d Quick Add: For simple items, system adds to cart immediately without customization screen

6.4 Alternative / Error Flows

- 6.4a Item Unavailable: System displays "Item currently unavailable" message, disables add button
- 6.4b Invalid Quantity: System displays error message, resets to minimum quantity (1)
- 6.4c Customization Required: System prevents adding item until required selections are made
- 6.4d System Error: System displays error message, item not added to cart, customer can retry

UC7 View Cart

7.1 Preconditions

- Customer is logged in
- Customer has at least one item in their cart (or cart can be empty for viewing)

7.2 Main Flow

1. Customer clicks on cart icon or "View Cart" button
2. System displays cart page with all added items
3. System shows item details for each cart item (name, quantity, customizations, individual price)
4. System calculates and displays subtotal for all items
5. System calculates and displays applicable taxes
6. System displays total amount due
7. Customer reviews cart contents and pricing
8. Customer can proceed to checkout or continue shopping

7.3 Subflows / Extensions

- 7.3a Edit Quantities: Customer can modify quantity of items in cart
- 7.3b Remove Items: Customer can remove individual items from cart (links to UC18)
- 7.3c View Item Details: Customer can expand to see full customization details
- 7.3d Save for Later: Customer can save cart contents for future ordering

7.4 Alternative / Error Flows

- 7.4a Empty Cart: System displays "Your cart is empty" message with link to menu
- 7.4b Price Calculation Error: System displays error message, shows items but notes pricing unavailable

- 7.4c Item No Longer Available: System highlights unavailable items, requires removal before checkout
- 7.4d Session Timeout: System may lose cart contents, displays message about session expiration

UC8 Track Order Status (Customer)

8.1 Preconditions

- Customer has placed an order and received order confirmation
- Customer is logged in or has order tracking information
- Order tracking system is operational

8.2 Main Flow

1. Customer accesses order tracking page through order confirmation email link or account dashboard
2. System displays order tracking interface with order number and current status
3. System shows order progress with status indicators (Order Placed, In Preparation, Ready for Pickup)
4. System displays estimated completion time and pickup instructions
5. Customer views current status and any status change timestamps
6. System shows order details including items, quantities, and total amount
7. Customer can view pickup location and restaurant contact information
8. System provides real-time status updates as order progresses

8.3 Subflows / Extensions

- 8.3a Status Notifications: Customer receives automatic notifications when status changes
- 8.3b Estimated Time Updates: System shows updated estimated completion times
- 8.3c Order Details View: Customer can expand to see full order itemization
- 8.3d Contact Restaurant: Customer can access restaurant contact information for questions

8.4 Alternative / Error Flows

- 8.4a Order Not Found: System displays "Order not found" message, requests valid order number
- 8.4b Status Update Failed: System displays last known status with timestamp, offers refresh option
- 8.4c System Unavailable: System displays cached status information with warning about real-time updates

- 8.4d Invalid Order Number: System displays error message and option to re-enter order number

UC9 View New Orders (Staff)

9.1 Preconditions

- Staff member is logged in to system
- Staff member has permissions to view orders
- Restaurant has received customer orders

9.2 Main Flow

1. System displays staff dashboard with order management interface
2. System loads and displays all new/pending orders in chronological order
3. Staff member views order list with order numbers, customer names, and order times
4. Staff member can select individual order to view details
5. System displays detailed order information including items, quantities, customizations
6. System shows customer contact information and any special instructions
7. Staff member can view estimated preparation time for each order
8. Staff member proceeds to fulfill orders or update order status

9.3 Subflows / Extensions

- 9.3a Order Filtering: Staff can filter orders by status, time period, or order type
- 9.3b Order Sorting: Staff can sort orders by time, customer name, or order value
- 9.3c Order Search: Staff can search for specific orders by order number or customer name
- 9.3d Auto-refresh: System automatically updates order list with new orders

9.4 Alternative / Error Flows

- 9.4a No New Orders: System displays "No new orders" message with last refresh time
- 9.4b Order Load Failure: System displays error message, provides manual refresh option
- 9.4c Order Details Unavailable: System shows basic order info, notes details loading failed
- 9.4d Connection Issues: System displays offline warning, shows last cached order information

UC10 Mark Menu Item as Out of Stock

10.1 Preconditions

- Staff member is logged in with menu management permissions
- Menu items exist in the system
- Staff member has identified item(s) that are unavailable

10.2 Main Flow

1. Staff member accesses menu management interface from staff dashboard
2. System displays current menu with all items and their availability status
3. Staff member identifies item that is out of stock
4. Staff member clicks "Mark Out of Stock" button for specific item
5. System displays confirmation dialog with item name
6. Staff member confirms the action
7. System updates item status to "Out of Stock" in database
8. System immediately prevents new orders from including this item
9. System displays visual indicator (grayed out, "Out of Stock" label) on customer menu
10. System logs the stock change with timestamp and staff member ID

10.3 Subflows / Extensions

- 10.3a Bulk Stock Management: Staff can mark multiple items as out of stock simultaneously
- 10.3b Restore Stock: Staff can mark items as available again when stock is replenished
- 10.3c Stock Notes: Staff can add notes about why item is unavailable or expected return time
- 10.3d Automatic Notifications: System can notify customers who have item in cart about availability

10.4 Alternative / Error Flows

- 10.4a Update Failed: System displays error message, item status unchanged, staff can retry
- 10.4b Item Not Found: System displays error message, refreshes menu list
- 10.4c Insufficient Permissions: System displays authorization error message
- 10.4d Item Already Out of Stock: System displays message that item is already marked unavailable
- 10.4e Active Orders with Item: System warns staff about existing orders containing this item before marking unavailable

Reflection:

How did you decide what NOT to do?

When finalizing our MVP use cases, we focused on building a complete end-to-end ordering loop with the **10 most essential use cases (UC1–UC10)**. These covered the absolute minimum needed for a customer to browse a menu (UC4), register and log in (UC1, UC5), add items to a cart (UC6, UC7), pay and confirm an order (UC2, UC3), track status (UC8), and for staff to view and manage new orders (UC9, UC10).

We deliberately **did not include** advanced or secondary features outside this loop. For example, delivery coordination with drivers was excluded because UC8 already validates the core pickup flow, while delivery adds complex logistics. Similarly, we left out loyalty programs, reviews, reordering history, refunds, or advanced analytics since they do not directly affect the success of UC1–UC10. For staff, we skipped full inventory management beyond UC10 (Mark Item Out of Stock), as that single control was enough to keep customer trust without adding system complexity.

By restricting ourselves to these 10 use cases, we avoided feature creep, kept the stakeholder scope manageable (customers, staff, and basic admin needs), and ensured the MVP stayed achievable while still delivering a fully usable ordering experience.

What negative impacts or disappointments this MVP could have for your stakeholders.

We recognized that by limiting ourselves to UC1–UC10, some stakeholders would feel underserved.

- **Customers** may be disappointed by the absence of features outside the basics—such as loyalty rewards, favorites, advanced search beyond UC4, or delivery support. While they can browse, order, pay, and track (UC1–UC8), the overall experience may feel "bare-bones" compared to platforms like DoorDash.

- **Restaurant staff** benefit from UC9 (View New Orders) and UC10 (Mark Item Out of Stock), but they still lack richer tools like detailed analytics, automated printing, or menu promotions. This could make operations more manual and less scalable.

- **Administrators** currently rely on UC2 (Process Payment) and UC3 (Confirm Order Placement) to ensure transactions are logged, but they don't yet have compliance dashboards, advanced reporting, or system monitoring. That gap could disappoint university/campus management who expect more oversight.

- **Drivers** were intentionally excluded from this MVP since UC8 covers only pickup tracking. This may make them feel underutilized if delivery is in scope later.

Overall, while UC1–UC10 cover the fundamental transaction loop, we acknowledged that early adopters may notice missing conveniences or governance features. These gaps could cause friction or reliance on manual workarounds until later iterations expand beyond the MVP.

What changes you made (and why) to the MVP to appease at least some of the stakeholders.

During refinement, we made targeted changes within UC1–UC10 to soften stakeholder frustrations while keeping scope lean.

- For **customers**, UC7 (View Cart) was expanded to include editing/removing items, and UC8 (Track Order Status) was prioritized to reduce uncertainty and support transparency. Together, these addressed common pain points like order anxiety and cart abandonment.

- For **staff**, UC10 (Mark Menu Item as Out of Stock) was added to prevent customers from ordering unavailable items—protecting trust and reducing operational headaches. UC9 (View New Orders) was also designed with filtering and sorting options, giving staff at least minimal control over workflows.

- For **administrators and managers**, UC2 (Process Payment) includes proper transaction handling, while UC3 (Confirm Order Placement) ensures confirmation and logging. These were strengthened to provide a baseline of compliance and oversight without adding a full admin dashboard.

These changes meant that even though the MVP didn't expand into advanced analytics, loyalty systems, or delivery logistics, each stakeholder group still had at least one feature (UC1–UC10) directly addressing their critical needs. This transformed the MVP from a simple prototype into a system that stakeholders can actually trust and use reliably, while still keeping the scope minimal.

Prompt history:

Zero-shot prompting (ChatGPT):
https://chatgpt.com/share/68c6e7e1-8170-800e-811e-4359bad6bc39

Zero-shot prompting (Claude): https://claude.ai/share/c7c2ec37-1463-455e-9d91-94e8f74784d8

Chain-of-thought prompting (ChatGPT):
https://chatgpt.com/share/68c6fb01-2a68-800b-893d-b2e71709d635

Chain-of-thought prompting (Claude):
https://claude.ai/public/artifacts/740ea279-ebc2-4bf9-9b2c-b5ef332e926c

Few-shot prompting (ChatGPT):
https://chatgpt.com/share/68c6f462-d374-8013-bc2b-11d3b4328082

Few-shot prompting (Claude): https://claude.ai/share/fedb988b-f647-4153-b87a-70b243a349af