# **30 use cases** (Preconditions, Main Flow, Subflows, Alternative Flows):

#### **Use Case 1: A Customer Purchases an Item (anonymously)**

#### UC 1.1 Preconditions

The customer has accessed the ordering portal (website, app, or a touchscreen on the restaurant counter).

#### UC1.2 Main Flow

- The customer begins their order. [S1]
- The customer scrolls through all of the menu items to the bottom, to make sure they've seen everything (scrolling past each section such as "drinks", "mains", "sides".) [A1]
- The customer scrolls back up and adds a "main" item to their cart. [S2] [A2]
- The customer completes their order. [S3]

#### UC1.3 Subflows

- The customer hits a "begin" button (or something of that nature).
- The customer clicks the "Add to Cart" button under the image of a plate of chicken and waffles.
- The customer clicks "Checkout" which takes them to the checkout screen where they fill in their information and hit "Finish".

#### **UC1.4 Alternative Flows**

- The customer clicks on the section header "Desserts" which takes them directly to the desserts section.
- The customer walks away. The next customer will see a prominent button "Start Over" that will take them back to the beginning.

#### Use Case 2: A Customer Applies this Purchase to the Rewards Program

#### **UC 2.1 Preconditions**

• The customer has added several items to their cart and is now at the checkout screen. They wish to have this purchase count towards their rewards membership.

#### UC2.2 Main Flow

• While at the checkout screen, the user gives the system their phone number so this meal can count towards the rewards program.

#### UC2.3 Subflows

- The user clicks "Use My Rewards" which prompts them to enter their phone number.
- The screen is returned to the checkout screen, with their discount applied for this being their 10th purchase.

#### **UC2.4 Alternative Flows**

• An animation appears showing the customer that they only have four more purchases to go before their 10th purchase discount.

#### Use Case 3: An admin adds a user with the staff role

#### UC 3.1 Preconditions

The user is successfully logged in with an admin account.

#### UC3.2 Main Flow

- The admin enters the edit users section.
- The admin adds a user with the staff role.

#### UC3.3 Subflows

- The admin clicks on the "Add, Edit, and Delete Users" button.
- The admin clicks "Add User." They select the user type ("staff") and enter in their employee ID number, and assign them a username and password.

#### **UC3.4 Alternative Flows**

• The admin enters an incorrect format for the new user's employee ID number and the system prompts them "Numbers only."

#### Use Case 4: An admin sets the sales tax rate for the system

#### UC 4.1 Preconditions

The user is successfully logged in as an admin.

#### UC4.2 Main Flow

- The admin enters the "Set Sales Tax Rate" section. [S1]
- The admin sets a new sales tax rate of 3.0%. [S2] [A1]

#### UC4.3 Subflows

- The admin clicks on the "Set Sales Tax Rate" button.[S1]
- The admin clicks into the "Set Sales Tax Rate" section and enters 3.0 for the new percentage rate. They then click "Set New Rate" and are returned to the admin home screen.[S2]

#### **UC4.4 Alternative Flows**

• The admin enters "three" into the field and an error message appears: "Please enter a number in decimal format."[A1]

## Use Case 5: A staff member sees the list of orders and selects an order to fulfill, then fulfills the order.

#### UC 5.1 Preconditions

An admin has created a staff user and that user is successfully logged in as a staff member.

#### UC5.2 Main Flow

- 1. The staff member views the list of unfulfilled orders. [S1]
- 2. They select an unfulfilled order from the list. [S2]
- 3. They prepare the items and mark the order as done. [S3] [S4] [A1]

#### UC5.3 Subflows

- The staff member clicks onto the "Orders" tab and then selects "Unfulfilled Orders."
- The staff member selects Order 23 which calls for Chicken & Waffles and a Water Bottle.
- They cook the Chicken & Waffles and place them and the water bottle on a tray under the "Pickup" sign.
- They click "Mark Order as Done" on the interface, which takes them back to the "Unfulfilled Orders" screen.

#### **UC5.4 Alternative Flows**

• The staff member presses "Release Order" and the order is released back into the queue for other staff members.

#### Use Case 6: A staff member creates a new item

#### UC 6.1 Preconditions

• The staff member is logged in with the appropriate permissions.

#### UC6.2 Main Flow

- The staff member opens the "Menu Management" section. [S1]
- They click "Add New Item." [S2]
- They enter the new item details (name, description, price, category). [S3] [A1]
- The staff member clicks "Save," and the new item appears on the menu. [S4]

#### UC6.3 Subflows

#### Example:

- The staff member clicks on the "Menu" tab in the admin dashboard.[S1]
- The staff member selects the "Add New Item" button.[S2]
- The staff member enters: "Iced Caramel Latte, \$4.50, Beverage Category." [S3]
- The system adds the item to the menu and confirms with a success message.[S4]

#### **UC6.4 Alternative Flows**

• If the staff member enters invalid data (e.g., "four fifty" instead of 4.50), the system shows: "Please enter a valid price in decimal format."

#### **Use Case 7: A staff member adds inventory**

#### UC 7.1 Preconditions

• The customer has accessed the ordering portal (website, app, touchscreen on restaurant counter) / The staff member is logged in with inventory management privileges.

#### UC7.2 Main Flow

- The staff member opens the "Inventory Management" section. [S1]
- They select an item from the list. [S2]
- They enter the updated stock quantity. [S3] [A1]
- The system saves the new inventory levels. [S4]

#### UC7.3 Subflows

- The staff member clicks "Inventory" in the admin dashboard.
- The staff member selects "Coffee Beans Espresso Roast."
- They enter "+20 units" to restock.
- The system updates the inventory database and confirms changes.

#### **UC7.4 Alternative Flows**

• If the staff member enters a negative or invalid number (e.g., "twenty"), the system shows: "Please enter a valid numeric quantity."

#### **Use Case 8 : Assign Delivery Personnel**

#### UC8.1. Preconditions:

• The restaurant accepts the order.

#### UC8.2. Main Flow:

- System searches for nearby delivery personnel.
- Assigns available riders.
- Rider accepts the job and navigates to the restaurant.

#### UC8.3 Subflows:

[Optimize Route] System suggests fastest route.

#### UC8.4. Alternative Flows:

• [No Rider Available] System delays assignment and notifies customer.

#### **Use Case 9 : User Making Payment**

#### UC 9.1 Preconditions

• The customer has items in the cart, ready to checkout.

#### UC 9.2 Main Flow

- The customer selects the payment method (card, wallet, COD).
- The system processes transactions via payment gateway.
- Confirms successful payment.

#### UC 9.3. Subflows

[Save Card] Customer chooses to save card details for future.

#### UC 9.4. Alternative Flows:

[Insufficient Funds] Payment fails → retry or change method.

[Network Failure] Transaction timed out.

#### **Use Case 10: Marketing Team Creates a Promotional Campaign**

#### UC 10.1 Preconditions

- The user is logged in as a Marketing Team member
- The restaurant has an active account on the platform

#### UC10.2 Main Flow

- User navigates to the promotions and campaign section
- Clicks on "Create New Campaign"
- Selects campaign type (e.g., percentage discount, BOGO, free delivery)
- User enters campaign details (e.g., 20% off Cappuccino, valid from 5PM 8PM)
- User sets the target audience (can be regionwise as well) (e.g., students users in Zone A)
- User reviews and confirms the campaign
- System activates the promotion and displays confirmation message

#### UC10.3 Subflows

- Marketing team clicks the "Promotions & Campaign" tab in the dashboard
- User clicks "+ New Campaign" button
- System displays campaign types, user selects one
- System prompts for details (Title, Discount %, start/end date, terms). The user enters
  values
- User filters for target customers (demographics, geography, past purchase behavior)
- User reviews summary of the campaign and clicks "Confirm"
- System stores campaign details, schedules it, and shows "Campaign Successfully Created" message

#### UC10.4 Alternative Flows

#### Unauthorized User:

- User without Marketing Team privileges tries to access the "Create New Campaign" section
- System block access to the section with message: "No permission. Please contact administrator"

#### UC 11.1 Preconditions

The customer has successfully placed an order.

#### UC11.2 Main Flow

The customer opens the active order screen. [S1] The customer sees the current status of their order. [S2] The customer is notified as the status changes. [S3] [A1]

#### UC11.3 Subflows

- [S1] The customer navigates to the "My Orders" section and selects their current order.
- [S2] The screen displays a status like "Accepted," "In preparation," or "Ready." Once a rider picks up the order, a map appears showing the rider's real-time location.
- [S3] The user receives push notifications in the app and via email when the status changes (e.g., "The runner has picked up your food and is on the way!").

#### UC11.4 Alternative Flows

[A1] If the rider's device loses its connection, the map displays the last known location with a timestamp and a "Connection Lost" message.

#### Use Case 12: Restaurant Manager Updates Order Status

UC 12.1 Preconditions

The Restaurant Manager is logged into the app, and a new customer order has been received.

#### UC12.2 Main Flow

The manager views the new order on their device. [S1] The manager accepts the order, changing its status. [S2] The manager updates the status as the meal is prepared. [S3] [A1]

#### UC12.3 Subflows

- [S1] The order arrives on the restaurateur's Alfonsino tablet or similar device.
- [S2] The manager taps "Accept," which changes the order status to "Accepted" and notifies the system to find a rider.
- [S3] The manager then taps "In preparation," and finally "Ready" once the meal is cooked.

#### UC12.4 Alternative Flows

[A1] If the restaurant is too busy, the manager can tap "Reject Order." The system notifies the customer that the order could not be processed and issues a refund.

#### Use Case 13: Customer Provides Feedback on an Order

UC 13.1 Preconditions

The order status is marked as "Delivered."

#### UC13.2 Main Flow

The user receives a prompt to rate their recent order. [S1] The user evaluates the delivery service and the food quality. [S2] The user submits their feedback. [S3] [A1]

#### UC13.3 Subflows

[S1] A push notification appears: "How was your order from [Restaurant Name]?"

- [S2] The user taps the notification and is taken to a screen where they can provide separate star ratings for "Food Quality" and "Delivery Service."
- [S3] The user clicks "Submit," and their ratings are saved to the system.

#### UC13.4 Alternative Flows

[A1] The user dismisses the notification or closes the rating screen without submitting feedback. The system will not prompt them again for this specific order.

#### Use Case 14: Customer Cancels an Order

#### UC 14.1 Preconditions

The customer has placed an order, but the order has not yet been delivered.

#### UC14.2 Main Flow

The customer navigates to their active order. [S1] The customer selects the option to cancel the order. [S2] The system confirms the cancellation. [S3] [A1]

#### UC14.3 Subflows

- [S1] The user goes to the "Track Order" screen for their current order.
- [S2] The user clicks the "Cancel Order" button.
- [S3] A confirmation message appears: "Your order has been successfully canceled." The system processes a refund.

#### UC14.4 Alternative Flows

[A1] If the order status is "In preparation" or has already been picked up by a rider, the "Cancel Order" button is disabled. A message states: "It's too late to cancel this order."

#### Use Case 15: Rider Accepts a Delivery Task

#### UC 15.1 Preconditions

The Rider is logged into the app and marked as "Available." A restaurant has accepted an order.

#### UC15.2 Main Flow

The system sends an available order notification to the rider. [S1] The rider reviews the order details. [S2] The rider books the delivery. [S3] [A1]

#### UC15.3 Subflows

- [S1] The order appears on the rider's device as a "Wandering order."
- [S2] The rider taps the notification to see the restaurant location, customer destination, and estimated earnings.
- [S3] The rider clicks "Book Delivery." The task is now assigned to them, and the restaurant is notified to begin preparation.

#### UC15.4 Alternative Flows

[A1] The rider ignores or rejects the order. The system removes the task from their screen and offers it to the next available rider.

#### Use Case 16: Customer Registers for a Subscription Plan

#### UC 16.1 Preconditions

The user has a registered account or is in the process of creating one.

#### UC16.2 Main Flow

The user navigates to the membership section. [S1] The user selects a subscription plan. [S2] The user completes the payment to activate the membership. [S3] [A1]

#### UC16.3 Subflows

- [S1] The user clicks on their profile and selects "Takeaway Subscription."
- [S2] The user chooses a plan (e.g., "Monthly Free Delivery") and clicks "Subscribe."
- [S3] The user is taken to a payment screen, enters their details, and confirms. A "Membership Active" message is displayed.

#### UC16.4 Alternative Flows

[A1] The payment is declined. The system displays an "Insufficient Funds" or "Payment Failed" error and prompts the user to try again or use a different payment method.

#### Use Case 17: Customer Filters Restaurants by Cuisine

#### UC 17.1 Preconditions

The customer is on the main screen for browsing restaurants.

#### UC17.2 Main Flow

The customer accesses the search or filter function. [S1] The customer selects one or more cuisine types. [S2] The system displays a list of restaurants matching the selected criteria. [S3] [A1]

#### UC17.3 Subflows

- [S1] The customer taps the "Filter" icon on the restaurant list screen.
- [S2] The customer checks boxes for "Italian" and "Chinese" from a list of cuisines.
- [S3] The customer clicks "Apply Filters," and the main screen refreshes to show only Italian and Chinese restaurants.

#### UC17.4 Alternative Flows

[A1] If no restaurants in the delivery area match the selected cuisine, the system displays a message: "No results found for your selection."

Use Case 18: Restaurant Manager Marks an Item "Out of Stock"

#### UC 18.1 Preconditions

The Restaurant Manager is logged into their account.

#### UC18.2 Main Flow

The manager enters the menu management section. [S1] The manager selects a menu item.

[S2] The manager updates the item's availability status. [S3] [A1]

#### UC18.3 Subflows

- [S1] The manager navigates to "Manage Menu."
- [S2] The manager locates "Chicken and Waffles" in their item list.
- [S3] The manager toggles a switch next to the item from "Available" to "Out of Stock." The item is now greyed out or hidden from customers browsing the menu.

#### UC18.4 Alternative Flows

[A1] The manager accidentally marks the wrong item out of stock. They can immediately toggle the switch back to "Available."

Use Case 19: Customer Requests a Refund

UC 19.1 Preconditions

The customer has received their order and has an issue with it (e.g., missing items, incorrect food).

#### UC19.2 Main Flow

The customer navigates to the help section. [S1] The customer selects the relevant order and describes the problem. [S2] The system processes the refund request. [S3] [A1]

#### UC19.3 Subflows

- [S1] The user goes to "My Orders," selects the completed order, and clicks the "Help" button.
- [S2] The user chooses a reason like "Missing Items" from a list and provides details in a text box.
- [S3] The user clicks "Submit Request." The system confirms the request has been received and will be reviewed.

#### UC19.4 Alternative Flows

[A1] The user's request requires manual review by a support agent. The system displays a message: "Your request has been sent to our support team. We will get back to you within 24 hours."

Use Case 20: Rider Updates Status at Restaurant

UC 20.1 Preconditions

The rider has accepted a delivery and is en route to or has arrived at the restaurant.

#### UC20.2 Main Flow

The rider arrives at the restaurant. [S1] The rider picks up the meal. [S2] The rider departs from the eatery, triggering a customer notification. [S3] [A1]

#### UC20.3 Subflows

- [S1] The rider taps "Arrived at Restaurant" in their app.
- [S2] Once the food is ready and handed over, the rider taps "Pick up the meal."
- [S3] The rider then taps "Depart from Eatery." The system automatically notifies the user that their order is on the way.

#### UC20.4 Alternative Flows

[A1] If the rider arrives but the meal is not ready, they tap "Pick-up pending." The system records the wait time, and the status remains unchanged for the customer until the rider picks up the meal.

#### Use Case 21: Restaurant Submits Health Inspection Certificate

#### UC 21.1 Preconditions

The Restaurant Manager is logged into their account. The restaurant's registration is pending or its current health certificate has expired.

#### UC21.2 Main Flow

The system alerts the manager that a valid health certificate is required. [S1] The manager navigates to the compliance section. [S2] The manager uploads a new, valid health inspection certificate. [S3] The system confirms the submission and updates the restaurant's status. [A1]

#### UC21.3 Subflows

[S1] Upon login, the manager sees a persistent banner notification: "Action Required: Health Certificate Expired."

[S2] The manager clicks the banner, which directs them to the "Compliance & Documents" page.

[S3] The manager clicks "Upload Document," selects the PDF file of the certificate, and clicks "Submit."

#### UC21.4 Alternative Flows

[A1] The uploaded document is unclear or invalid. The system flags the submission for manual review by an admin and notifies the manager: "Your document is under review. You will be notified within 48 hours."

Use Case 22: System Automatically Calculates and Remits Sales Tax UC 22.1 Preconditions

A customer has successfully placed a paid order.

#### UC22.2 Main Flow

The system finalizes the order total. [S1] The system calculates the applicable sales tax based on the delivery address. [S2] The system records the tax amount for reporting and automatically remits it to the designated tax authority. [S3]

#### UC22.3 Subflows

[S1] The checkout process is completed, and the order is confirmed.

[S2] The system's tax engine cross-references the customer's delivery ZIP code with the latest state and local tax rates for prepared food.

[S3] The tax amount is itemized on the receipt. The system aggregates all tax collected daily and initiates an automated electronic funds transfer (EFT) to the tax authority at the end of each reporting period.

#### UC22.4 Alternative Flows

[This is a system-level process with no direct user interaction, so alternative flows would be handled by system alerts to administrators.]

Use Case 23: Customer Views Caloric and Allergen Information UC 23.1 Preconditions

The customer is browsing the restaurant's menu within the application.

UC23.2 Main Flow

The customer is concerned about dietary restrictions. [S1] The customer requests to see detailed nutritional information for a menu item. [S2] The system displays the allergen and caloric data. [S3]

#### UC23.3 Subflows

[S1] The customer selects a menu item, such as "Superfood Salad."

[S2] The customer clicks the "(i)" information icon next to the item name.

[S3] A modal window pops up displaying information provided by the restaurant: Calories: 420, Allergens: Contains Tree Nuts (Pecans), Gluten (Croutons).

#### UC23.4 Alternative Flows

[A1] The restaurant has not provided nutritional data. The system displays a message: "Nutritional information is not currently available for this item. Please contact the restaurant directly for allergen concerns."

Use Case 24: Manager Generates a Sales Tax Report for Accounting

UC 24.1 Preconditions

The Restaurant Manager is logged into their account. The previous fiscal quarter has ended.

#### UC24.2 Main Flow

The manager needs to perform internal accounting. [S1] The manager navigates to the financial reports section. [S2] The manager filters and generates a report for sales tax collected. [S3] The manager exports the report for their records. [A1]

#### UC24.3 Subflows

[S1] The manager goes to "Finance" > "Reports."

[S2] The manager selects "Tax Report," chooses the date range (e.g., Q1: Jan 1 - Mar 31), and clicks "Generate Report."

[S3] The system displays a table showing total sales, taxable sales, and tax collected. The manager clicks "Export to CSV" to download the file.

#### UC24.4 Alternative Flows

[A1] The date range selected has no orders. The system displays a message: "No data available for the selected period."

Use Case 25: System Flags Expiring Health Certificates

UC 25.1 Preconditions

A restaurant has a health inspection certificate on file. The system's compliance module is active.

#### UC25.2 Main Flow

The system proactively monitors certificate expiration dates. [S1] The system identifies a certificate expiring within 30 days. [S2] The system automatically notifies the restaurant manager and platform admin. [S3]

UC25.3 Subflows

- [S1] A nightly batch process runs to check the expiration\_date field for all restaurant health certificates.
- [S2] For any certificate where the expiration date is <= 30 days away, the system creates a notification task.
- [S3] The system (a) sends an email and app notification to the manager: "Your health certificate expires on [date]. Please upload a new one." and (b) flags the restaurant for the platform's compliance team.

#### UC25.4 Alternative Flows

[A1] The certificate expires without a new one being uploaded. The system automatically sets the restaurant's status to "Suspended" and hides it from customer view until compliance is met.

## Use Case 26: Customer Requests a VAT Invoice for Business Expense UC 26.1 Preconditions

The customer has a completed order. The customer is logged into a business account or used a corporate payment method.

#### UC26.2 Main Flow

The customer requires a formal VAT invoice for expense reimbursement. [S1] The customer navigates to their order history. [S2] The customer selects the option to download a VAT-compliant invoice. [S3] The system generates and delivers the invoice with all required legal details.

#### UC26.3 Subflows

- [S1] The customer goes to "My Orders" and selects a completed order.
- [S2] The customer clicks the "Download Receipt" button and selects "VAT Invoice" from a dropdown.
- [S3] The system generates a PDF invoice that includes the platform's VAT registration number, the restaurant's details, a breakdown of VAT rates, and the total VAT paid.

#### UC26.4 Alternative Flows

[A1] The order is not eligible for a VAT invoice (e.g., placed under a personal account). The system displays a message: "VAT invoices are only available for business accounts. Please contact support to convert your account."

### Use Case 27: Rider Verifies Temperature-Controlled Delivery

#### UC 27.1 Preconditions

The rider has accepted a delivery for an order containing items marked as "Temperature Sensitive" (e.g., ice cream, sushi).

#### UC27.2 Main Flow

The system ensures compliance with food safety standards during delivery. [S1] The rider is prompted to confirm they are using a thermal bag. [S2] The rider confirms pickup without issues. [S3]

#### UC27.3 Subflows

[S1] When the rider taps "Pick up the meal," a pop-up appears: "This order contains temperature-sensitive items. Confirm you are using an insulated thermal bag to ensure quality." [S2] The rider must check a box labeled "I confirm I am using a thermal bag" before they can proceed.

[S3] The rider taps "Confirm." The system records this confirmation with a timestamp alongside the pickup event.

#### UC27.4 Alternative Flows

[A1] The rider does not have a thermal bag. They may cancel the delivery, which is then reassigned to another rider. The system notes the cancellation reason for quality assurance.

Use Case 28: Manager Declares Allergy-Related Ingredient Change UC 28.1 Preconditions

The Restaurant Manager is logged in. A supplier has changed an ingredient, introducing a new common allergen (e.g., changing from sunflower oil to peanut oil).

#### UC28.2 Main Flow

The manager is required to update allergen information for menu items. [S1] The manager edits the affected menu item. [S2] The manager updates the allergen information. [S3] The system logs the change and notifies customers who previously ordered the item. [A1]

#### UC28.3 Subflows

[S1] The manager navigates to "Manage Menu" and selects the item (e.g., "French Fries").

[S2] In the "Allergens" section, the manager adds "Peanuts" to the list and saves the changes.

[S3] The system automatically sends an email notification to any customer who ordered this item in the last 30 days: "Important Allergy Alert: An ingredient in 'French Fries' has changed..."

#### UC28.4 Alternative Flows

[A1] The manager attempts to remove an allergen warning without a valid reason. The system flags this change for review by a platform administrator to ensure compliance with truth-in-menu laws.

Use Case 29: System Enforces Automatic Tax-Exempt Order Processing UC 29.1 Preconditions

A customer with a verified tax-exempt status is logged into their account. The customer is placing an order from a non-profit or government entity.

#### UC29.2 Main Flow

The system applies the customer's tax-exempt status at checkout. [S1] The customer selects their tax-exempt payment profile. [S2] The system validates the status and removes sales tax. [S3] The system records the exemption for audit purposes. [A1]

#### UC29.3 Subflows

[S1] At checkout, under "Payment Method," the customer selects "Tax-Exempt Organization Account."

[S2] The system cross-references the account with a pre-verified tax-exempt certificate on file.

[S3] The sales tax line item is set to \$0.00. The order receipt includes a note: "Tax Exempt - Certificate #TAX-12345."

#### UC29.4 Alternative Flows

[A1] The customer's tax-exempt certificate has expired. The system does not remove tax and notifies the customer: "Your tax-exempt status has expired. Please upload a renewed certificate to your account settings or contact support."

Use Case 30: Customer Reports a Suspected Foodborne Illness UC 30.1 Preconditions

The customer has received an order in the last 72 hours. The customer is logged into their account.

#### UC30.2 Main Flow

The customer files a formal health incident report. [S1] The customer navigates to the help section for a past order. [S2] The customer selects the "Report a Food Safety Concern" option. [S3] The system triggers a high-priority alert to health and safety administrators. [A1]

#### UC30.3 Subflows

[S1] The customer goes to "My Orders," selects the relevant order, and clicks "Get Help." [S2] The customer chooses the reason "Food Safety Issue (e.g., illness, foreign object)" and is presented with a detailed form to describe symptoms, items consumed, and onset time. [S3] The customer clicks "Submit Report." The system creates a high-priority ticket that is instantly routed to a dedicated health and safety team and flags the restaurant for review.

#### UC30.4 Alternative Flows

[A1] The customer attempts to report an order older than 72 hours. The system displays a message: "For health concerns related to orders older than 72 hours, please contact your healthcare provider and your local health department directly."

### Differences We Saw in the LLM Reports

After prompting both LLMs (Gemini and Deepseek) with use case examples, both LLMs gave output in a similar format. However, the Deepseek model seems to give more concrete examples such as giving numerical values while the Gemini 2.5 pro model seems to give more of a description of the examples. Gemini seems to produce concise user centered use cases that are done in a story telling format while Deepseek seems to give more technically detailed use cases using numbers. It also seems like there are some differences in how fast the response time is between Gemini and Deepseek (Gemini seems to give the output faster while Deepseek seems to take a while).

In comparing zero-shot prompting and careful prompting efforts, we found that careful prompting resulted in a more desired formatting and in use cases that might be considered more fundamental or core to a minimum viable product.

For example, during zero-shot prompting, the model did not return an answer with our desired formatting. During careful prompting, the model returned use cases that matched very closely with our desired formatting.

During careful prompting, the model returned use cases that had a similar theme to the use cases that we gave as examples (e.g. customer and staff experiences during fundamental functions such as ordering and creating items for the menu). Without giving the model any examples, its use cases were more diverse, ranging from use cases about meal kits, food waste reduction, and social media.

### **Total Cost of LLM Usage**

Gemini 2.5 Pro API (via Google AI Studio) \$0 (90-day low volume trial plan)

Deepseek V3.1 (via OpenRouter) \$0