Stakeholders:

1. Customers (adults, college students) - place food orders
2. Restaurant Kitchen Staff (Chefs) - receive incoming orders and prepare meals
3. Restaurant Owners / Managers - Menu updates / pricing
4. IT Helpdesk - customer support
5. Marketing Teams
6. Payment Gateways / Banks
7. Food and Drug Administration
8. Delivery Drivers

Stakeholder Biases (List 5 ways needs of one stakeholder might clash/be irrelevant to another):

1. **Customers vs. Restaurant Owners** - customers want cheap prices, owners want to maximize profits, limit order customization for simple preparation. Customer satisfaction vs restaurant efficiency.
2. **Marketing Team vs Customers**: Marketing wants a lot of ads, customers may get annoyed with advertisements (in the food delivery app). And outside of app due to spam marketing
3. **Customer vs Delivery Personnel**: Customers want fast and cheap delivery, delivery personnel want fair compensation and manageable workloads.
4. **Restaurant Owners vs Delivery Drivers**: Restaurant owners want food quality to be preserved, Delivery drivers may want to deliver multiple orders for efficiency which can mean delays or spilled drinks. (Quality control vs delivery efficiency)
5. **Customers vs Payment Gateways/Banks vs Restaurant**:
    - Customers want fast, fee-free payment process
    - Payment Gateways: credit card fees/extra fees and security
    - Restaurant dislikes transactions fees which reduces the profit margin

Prompt Crafting (Compare zero-shot prompting to careful prompting):

Zero-Shot Prompting	Careful Prompting
Dropping a piece of code without clear instructions on what needs to be corrected or the functionality expected	Giving a comprehensive background on what the requirement is before uploading the code
Very easy and quick	Requires more time and skill to craft (prompt engineering)
Good for general questions regarding facts	Good for professional or multi step tasks involving thinking
No examples are provided, so the model must rely only on its general knowledge.	Gives multiple examples to give the LLM a better idea of what you are looking for
Does not show reasoning steps, so answers may skip logic or be less accurate.	Can involve chain of thought reasoning, showing the LLM how to think about the problem, which can help improve the answers it returns

Lacks context, so responses can feel generic or misaligned with user needs.	Can give more specific and more applicable context to the LLM to help it give you a better answer (“given these letters that I’ve written to my grandma in the past, what’s a good letter I can write to her now?”)

10 use cases (≈5 pages total, 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”