CSC 510 Project 1 A1
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Stakeholders
- Restaurant Managers - manage menus, pricing, hours
- Restaurant Staff - fill orders and prepare food
- Customers - browse app, place orders, receive orders
- App Managers - maintain app and handle bugs
- Payment Providers - banks, paypal, etc., who process transactions
- Local Government - oversee food safety, tax regulations, worker rights
- Food Distributors - supply ingredients to restaurants
- Marketing Firms - advertise for both restaurants and food delivery service
- Company Investors - invest in companies

Stakeholder Biases
Summary of Biases

- Restaurant Managers - value profit, visibility of the restaurant, low fees
- Restaurant Staff - value manageable workload, higher pay
- Customers - value speed, convenience, low prices
- App Managers - value efficiency, scalability, low maintenance
- Payment Providers - value transaction security and business compliance.
- Local Government - value regulatory adherence and documentation.
- Food Distributors - value steady, high demand large orders
- Marketing Firms - value engagement, paid promotions
- Company Investors - value growth, scalability

Clashing Biases
- **Restaurant Staff vs. Food Distributors:** Restaurant staff needs a consistent and reliable supply of high-quality ingredients to maintain food quality and menu consistency. This can be irrelevant to food distributors, who are focused on logistics, bulk sales, and cost-effective distribution, which might not always align with the specific quality or quantity needs of an individual restaurant.
- **Restaurant Staff vs Investors:** Staff may want better wages and working conditions, while investors prioritize cost-cutting to maximize profits, leading to lower employee wages and worse working conditions.
- **Restaurant Managers vs Customers:** Customers want low prices and generous portions, but managers aim to maximize profits by controlling portion sizes and maintaining higher prices.

- **Marketing Firms vs. Restaurant Staff:** Marketing firms push for constant promotions and special deals to drive engagement. Staff may become overwhelmed managing weekly promotions and dealing with too many customers.
- **Payment Providers vs Customers:** Payment providers enforce additional security measures like multi-factor authentication, while customers prefer fast, one-click checkout, resulting in a slower ordering process that some may abandon.

Review of Prompt Crafting

Zero Shot Prompting

Zero shot prompting was successful when asked to determine stakeholders and their biases, since it did not need to adhere to specific notation. The stakeholders found when prompted for a general "food delivery service" were similar to the the stakeholders identified using more specific prompting (with the exception of delivery drivers). Specifically, when ChatGPT was prompted to create use cases for a "food-delivery system" without the inclusion of the CSC326 documentation provided, the requirements included considerations for multiple restaurants and delivery locations. Neither of these instances were discussed in the WolfCafe application, and the requirements generated would have needed heavy manual alteration or continuous prompting in order to match the requirements of the desired system.

Careful Prompting

In an effort to get more accurate answers, specific to our assignment and in the format we wanted, we crafted generative AI prompts that included the details of our assignment. We first uploaded a template for use cases and our list of stakeholders and asked ChatGPT to come up with use cases in the format given. Although the outputted use cases included most of the details we wanted, they weren't exactly in the format we wanted. So, we uploaded a worked example of a use case in the format we wanted. After uploading this example, as well as more specific details about the requirements of the CSC326 project, ChatGPT produced a much more comprehensive set of use cases for us.

Use Cases

UC1: Customer Places Order
Preconditions:
- Customer has a registered account and is logged in
- Customer has a valid payment method on file
- Restaurant is open and has menu items

Main Flow:
1. System displays menu with prices and availability
2. Customer adds/removes menu items to cart
3. Customer proceeds to checkout [Invalid Order]

4. System calculates total including taxes and fees
5. Customer has the option to add a tip
6. Customer confirms order and payment
7. System processes payment [Failed Payment]
8. System sends order to restaurant
9. System displays confirmation

Subflows:
- [Add Tip] Customer adds a tip
- [Add Menu Item] Customer adds an item to the cart
- [Remove Menu Item] Customer removes an item from the cart

Alternative Flows:
- [Failed Payment] Payment fails
- [Invalid Order] Customer tries to order zero items from menu

UC2: Create New Menu Item

Preconditions:
- Staff Member is logged in
- Staff Member selects "Add Recipe" from menu.

Main Flow:
1. System displays form for recipe details (name, ingredients, instructions).
2. User enters required recipe details [Invalid Input].
3. System validates and stores recipe.
4. Confirmation is shown.

Subflows:
- None

Alternative Flows:
- [Invalid Input] Missing or invalid details trigger an error, and user must re-enter.
- [Duplicate Item] When an item with the same name already exists an error is thrown and the staff member must choose a new name.

UC3: Edit Menu Item

Preconditions:
- Staff Member is logged in
- At least one recipe exists

● Staff Member selects "Edit Recipe" from menu.

Main Flow:
1. System displays list of recipes.
2. User selects recipe to edit.
3. System displays editable recipe details.
4. User updates fields and saves changes [Invalid Input].
5. System validates and updates recipe.
6. Confirmation is shown.
7. User returns to main menu

Subflows:
● None

Alternative Flows:
● [Invalid Input] Missing or invalid details trigger an error, and user must re-enter.
● [Duplicate Item] When an item with the same name already exists an error is thrown and the user must choose a new name.

UC4: Delete Menu Item

Preconditions:
● Staff Member is logged in
● At least one recipe exists
● Staff Member selects "Delete Recipe" from menu.

Main Flow:
1. System displays list of recipes.
2. User selects recipe to delete.
3. System prompts for confirmation.
4. User confirms deletion [Cancel Deletion].
5. Recipe is removed from the system.

Subflows:
● None

Alternative Flows:
● [Cancel Deletion] If the user cancels, no deletion occurs.

UC5: Add Inventory
Preconditions:

- Staff Member is logged in
- Staff Member selected "Add Inventory" from the menu.

Main Flow:
1. The user is shown current inventory of ingredients.
2. The user enters the amount of inventory to add for each ingredient [Invalid Unit].
3. System updates inventory values.
4. The user returns to the main menu.

Subflows:
- None

Alternative Flows:
- [Invalid Unit] If a value is not a positive integer, error shown and no inventory added.

UC6: Fulfill Customer Order
Preconditions:
- Staff member is logged in.
- At least one customer order exists in the system.
- Order has been paid for and is marked as "Pending."

Main Flow:
1. System displays list of pending orders.
2. Staff selects an order to fulfill.
3. System displays order details (items, quantities, special instructions, pickup/delivery status) [Order Missing Items].
4. Staff prepares the order according to details.
5. Staff marks the order as "Fulfilled".
6. System updates order status to "Fulfilled" [Network Error].
7. Customer is notified that their order is ready for pickup.

Subflows:
- [View Order Details] Staff views order details including customer notes and preparation time.
- [Update Status] Staff changes order status from "Pending" to "Fulfilled."

Alternative Flows:
- [Order Missing Items] If required items are unavailable, system notifies staff and customer of delay or cancellation.

- [Network Error] If status update fails, system displays error and prompts retry.

UC7: Customer Order Pickup

Preconditions:
- Customer has a registered account and is logged in.
- Customer has placed and paid for an order.
- Order status is marked as "Ready for Pickup."

Main Flow:
1. Customer arrives at the restaurant.
2. Customer opens the WolfCafe app and navigates to "My Orders" [Order Not Found].
3. System displays order details and status ("Ready for Pickup").
4. Customer confirms pickup via the app [Invalid Confirmation].
5. Staff verifies order and hands it to the customer.
6. System updates order status to "Completed."
7. Customer receives confirmation and receipt in the app.

Subflows:
- [View Order Status] Customer views order details and readiness status.
- [Provide Verification Code] Customer provides a verification code or QR scan to confirm pickup.

Alternative Flows:
- [Invalid Confirmation] If customer tries to confirm pickup before the order is ready, system displays error message.
- [Order Not Found] If system cannot find order, it prompts customer to contact support.

UC8: Add Staff Member

Preconditions:
- Administrator is logged in.
- Administrator has access to User Management functions.

Main Flow:
1. System displays the User Management menu.
2. Administrator selects "Add Staff Member."
3. System displays form for entering staff details (name, email, username, password, role).
4. Administrator enters required details [Invalid Input].
5. System validates information and stores the new staff account [Duplicate Account].
6. Confirmation message is displayed.

7. System sends login credentials or activation link to the staff member.

Subflows:
- [Assign Role] Administrator assigns proper role (Staff) during account creation.

Alternative Flows:
- [Invalid Input] Missing or invalid information triggers an error, and Administrator must correct input.
- [Duplicate Account] If email or username already exists, system prompts Administrator to choose a different one.

UC9: Delete Staff Member
Preconditions:
- Administrator is logged in.
- At least one staff member account exists in the system.

Main Flow:
1. System displays User Management menu.
2. Administrator selects "Delete Staff Member."
3. System displays list of staff members.
4. Administrator selects a staff member to delete [Active Orders Assigned].
5. System prompts for confirmation [Cancel Deletion].
6. Administrator confirms deletion.
7. System removes staff member account.
8. Confirmation message is displayed.

Subflows:
- None

Alternative Flows:
- [Cancel Deletion] If Administrator cancels, no deletion occurs.
- [Active Orders Assigned] If staff member is assigned to active orders, system warns Administrator and prevents deletion until reassignment.

UC10: Customer Account Registration
Preconditions:
- Customer is not logged in.
- Customer does not already have an account.

Main Flow:

1. Customer selects "Sign Up" from the app.
2. System displays registration form (name, email, password, payment details).
3. Customer enters required details [Invalid Input].
4. System validates information and creates account [Duplicate Account].
5. Confirmation message is displayed.
6. Customer is logged in automatically or prompted to log in.

Subflows:
- [Add Payment Method] Customer adds initial payment method during registration.

Alternative Flows:
- [Invalid Input] If required fields are missing/incorrect, system prompts customer to correct.
- [Duplicate Account] If email or username already exists, system displays error and prompts customer to choose different credentials.