Project 1a1 - Food Delivery System: The Hungry Wolf

List of Stakeholders

Core Stakeholders

- Customers – individuals placing food orders.
- Restaurants/Food Vendors – businesses that provide meals.
- Delivery Partners / Riders / Drivers – people delivering food.
- Platform Admins – manage the system, monitor activity.
- Investors / Shareholders – interested in financial performance.

Extended Stakeholders

- Restaurant Staff – chefs, kitchen workers, and order packers.
- Restaurant Managers / Owners – oversee restaurant performance on the platform.
- Payment Service Providers – banks, wallets, credit card companies, UPI, PayPal.
- Marketing & Sales Teams – design promotions, campaigns, discounts.
- Technology Teams – developers, designers, QA testers, data scientists.
- Customer Support Staff – handle complaints, refunds, and order issues.

Indirect / Overlooked Stakeholders

- Food Packaging Suppliers – provide containers, cutlery, and eco-friendly options.
- Insurance Providers – cover drivers, accidents, and business liability.
- Regulators / Government Agencies – driver safety, food safety, road laws, taxation.

Stakeholder biases

1. Customer vs. Delivery Partner

- Customers need fast delivery at the lowest possible fee.
- Delivery partners need fair compensation, safe working conditions, and manageable delivery times.
- Clash: Customers may expect 30-minute delivery guarantees, while drivers want enough time to deliver safely without penalties.

2. Restaurant vs. Platform Admin

- Restaurant needs: Higher margins, freedom to set prices, and visibility.
- Platform needs: Competitive pricing, commissions on sales, and control over promotions.

- Clash: Restaurants often feel platforms take excessive commissions, while platforms push discounts that reduce restaurant profits.

3. Customer vs. Restaurant Staff

- Customer need: Wide customization options (extra toppings, no onions, special diets).
- Restaurant staff need: Streamlined kitchen operations with minimal complexity.
- Clash: Excessive customization slows down the kitchen, increases errors, and frustrates staff.

4. Investors vs. Environmental Groups

- Investor needs: Rapid growth, market share, cost efficiency.
- Environmental need: Sustainable packaging, reduced carbon footprint.
- Clash: Cheap single-use plastics help cut costs and scale fast, but harm sustainability goals.

5. Regulators vs. Customers

- Regulator needs: Compliance with food safety, labor rights, and taxation laws.
- Customer needs: Convenience, lowest prices, quick delivery.
- Clash: Stricter labor regulations or food standards may increase costs, which ultimately raise customer prices or slow delivery.

Zero-Shot Prompting vs. Careful Prompting

Aspect	**Zero-Shot Prompting**	**Careful Prompting**
Definition	Giving the model a task without examples or detailed instructions relies on pretraining knowledge.	Providing detailed instructions, constraints, or examples to guide the model's response.
Example	"Translate this sentence into French: I love learning."	"Summarize the article in 3 bullet points, each under 15 words, focusing only on main arguments."
Strengths	Simple and fast to use- Flexible across many tasks- Useful for brainstorming, prototyping, and creative exploration	Reduces ambiguity- Produces consistent and structured outputs- Ensures accuracy, clarity, and control
Limitations	May produce inconsistent or ambiguous results- Outputs can vary	Requires more time and effort- Needs iteration and prompting skill- Overly rigid prompts may limit creativity

	in tone, detail, or structure- Less reliable for precise tasks	
Best Used For	Brainstorming ideas, Quick exploration, Early-stage prototyping	Technical writing- Legal/academic drafting- Coding or structured outputs
Overall Approach	Efficiency and exploration	Precision and control
Complementary Use	Start with zero-shot prompting to generate ideas, then refine using careful prompting for consistent results.	Works best when combined with zero-shot prompting as an initial stage.

Use Cases

Use Case 1: Customer Registration

Preconditions: Customer has internet access and opens the Hungry Wolf app/website.

Main Flow:

1. Customer selects "Sign Up."
2. Enter name, email, phone, and password.
3. System validates input.
4. An account is created, and confirmation is sent.

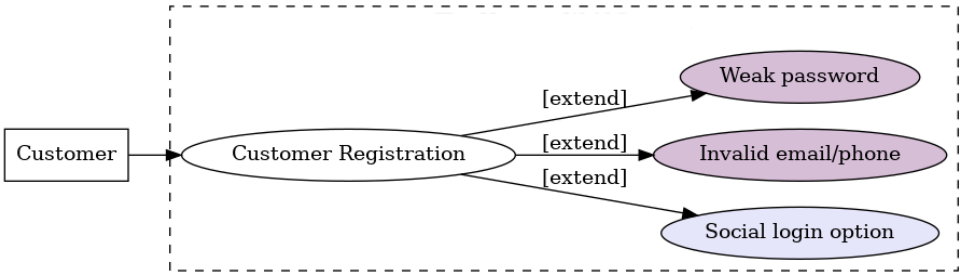
Subflows:

1a: Social login option (Google, NCSU email).

Alternative Flows:

3a: Invalid email/phone → system shows error.

3b: Password too weak → system prompts for a stronger password.



Use Case 2: Restaurant Registration

Preconditions: The Restaurant owner wants to join the platform.

Main Flow:

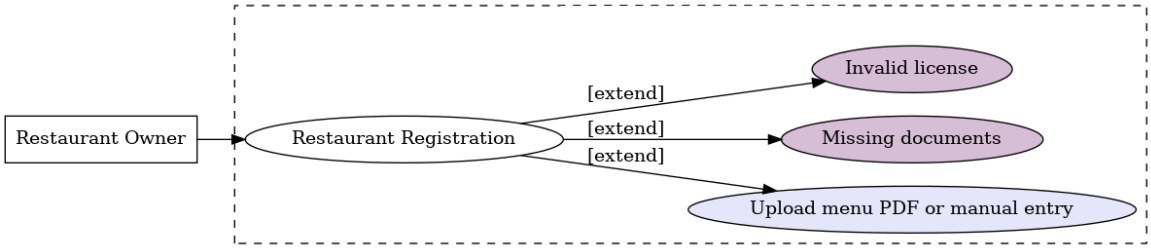
1. The restaurant selects "Register Restaurant."
2. Fills business details, menu, tax ID, and license info.
3. The system verifies documents.
4. Admin approves restaurant accounts.

Subflows:

2a: Upload menu as PDF or manual entry.

Alternative Flows:

3a: Missing documents → registration kept pending.



3b: Invalid license → rejection notice sent.

Use Case 3: Browse Menu

Preconditions: Customer logged in.

Main Flow:

1. The customer searches for a restaurant or food item.
2. The menu displayed items, prices, and offers.
3. The customer selects the desired items.

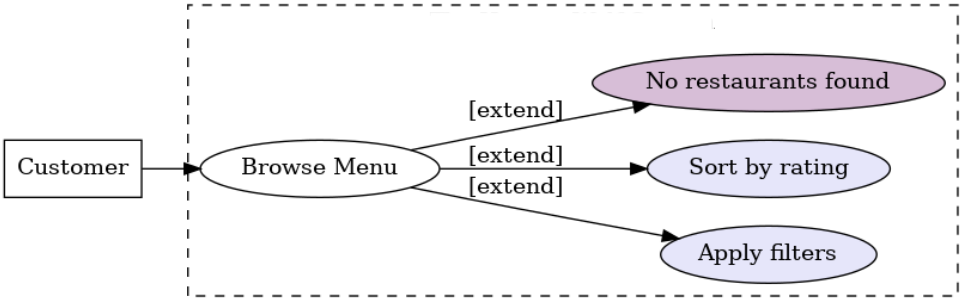
Subflows:

1a: Apply filters (veg/non-veg, cuisine, price range).

1b: Sort by popularity or rating.

Alternative Flows:

1a: No results → show “No restaurants found” message.



Use Case 4: Place Order

Preconditions: The customer has items in their cart.

Main Flow:

1. Customer reviews cart.
2. Selects the delivery address and time.
3. Choose a payment method.
4. Confirms order.
5. The system sends orders to restaurants.

Subflows:

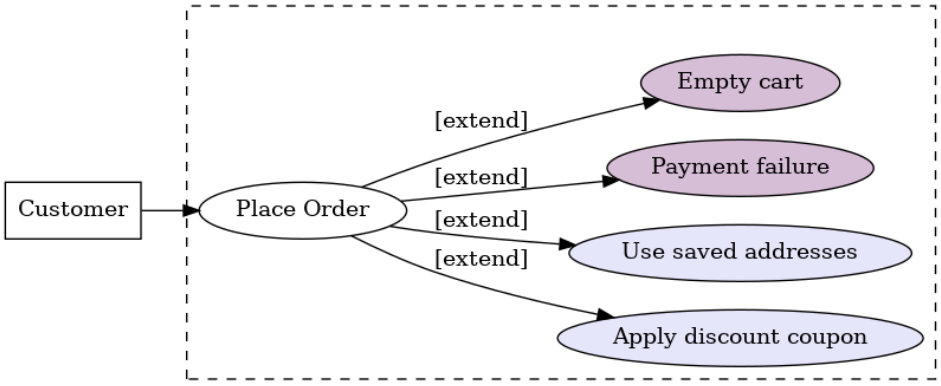
3a: Apply discount coupon.

3b: Use saved addresses.

Alternative Flows:

3a: Payment failure → retry option

4a: Cart empty → system prevents checkout.



Use Case 5: Restaurant Accepts/Rejects Order

Preconditions: Order placed by customer.

Main Flow:

1. The restaurant receives an order notification.
2. Accepts the order.
3. Starts food preparation.

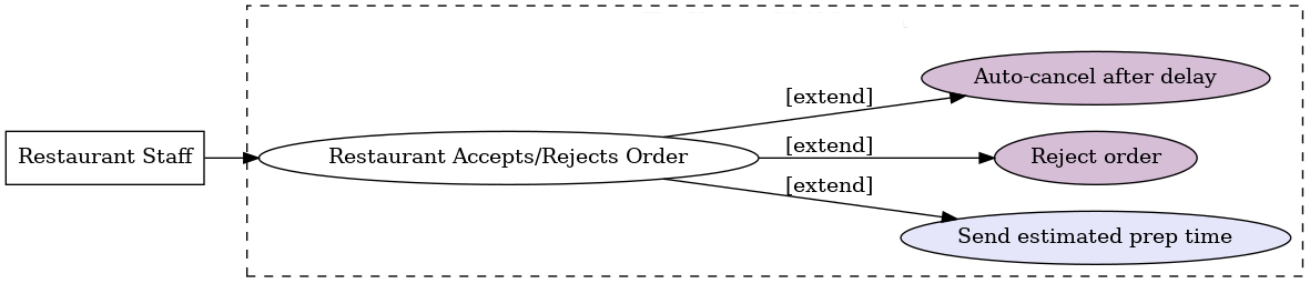
Subflows:

2a: Estimated preparation time sent to the customer.

Alternative Flows:

2b: Rejects order (due to unavailability).

2c: Restaurant delays confirmation → system auto-cancels after set time.



Use Case 6: Assign Delivery Partner

Preconditions: The Restaurant accepts orders.

Main Flow:

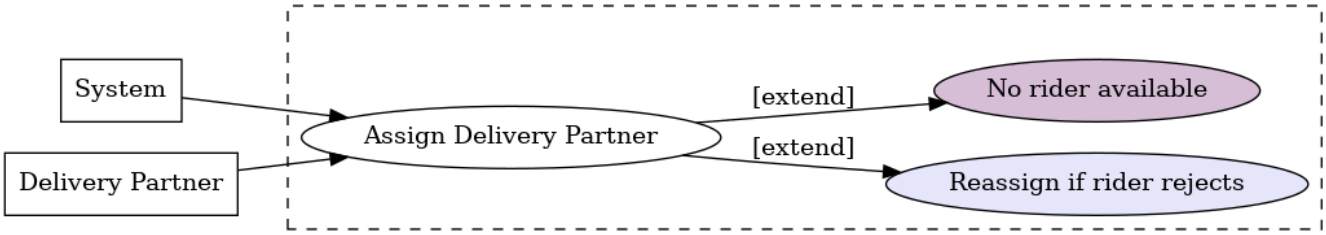
1. The system finds nearby delivery partners.
2. Sends requests to the closest rider.
3. Rider accepts.
4. Customer notified with ETA and tracking link.

Subflows:

2a: Rider rejects → system reassigns to next rider.

Alternative Flows:

2b: No rider available → system cancels order and refunds.



Use Case 7: Live Order Tracking

Preconditions: The Delivery partner accepted the assignment.

Main Flow:

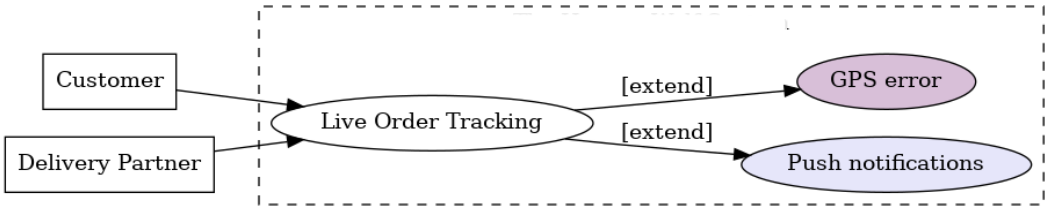
1. Customer opens app → sees real-time map.
2. System updates rider location.
3. Status changes (Picked Up → On the Way → Delivered).

Subflows:

2a: Push notifications at each stage.

Alternative Flows:

2b: GPS error → show “Unable to fetch location.”



Use Case 8: Order Delivery & Confirmation

Preconditions: Rider arrives at the customer's address.

Main Flow:

1. Rider hands food to customers.
2. Customer confirms receipt (OTP/signature).
3. System marks the order as delivered.

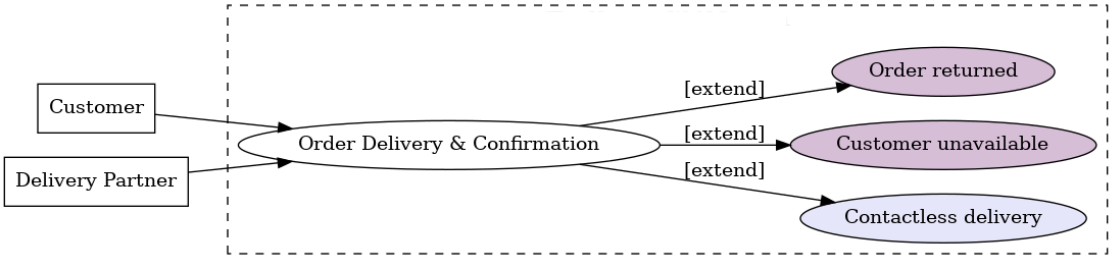
Subflows:

1a: Contactless delivery option → rider drops at doorstep and sends photo.

Alternative Flows:

2a: Customer unavailable → rider calls.

2b: No response → order returned to restaurant.



Use Case 9: Customer Feedback & Rating

Preconditions: Order delivered.

Main Flow:

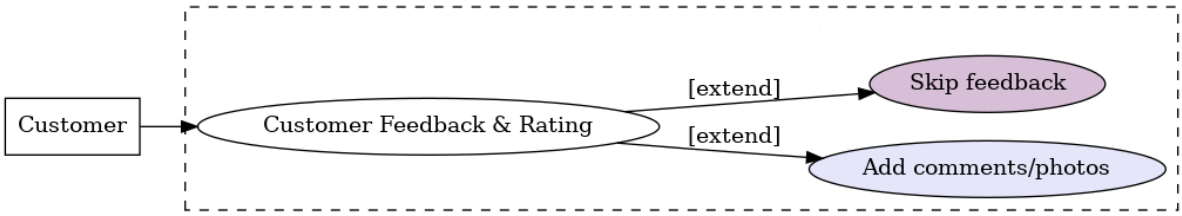
1. The system prompts customers for feedback.
2. Customer rates restaurant and delivery partner.
3. Feedback is stored for analytics.

Subflows:

2a: Option to leave comments/photos.

Alternative Flows:

1a: Customer skips feedback.



Use Case 10: Refund / Complaint Handling

Preconditions: Customer reports an issue.

Main Flow:

1. Customer selects "Help/Support Choose issue type (wrong item, late delivery, etc.).
2. The system checks order details.
3. Admin/Support review the news complaint.
4. Refund or compensation issued.

Subflows:

2a: Automated refund for common issues (late by >30 mins).

Alternative Flows:

4a: Complaint rejected → system explains reason.