



# National University of Computer & Emerging Sciences

Department of Software Engineering

Software Requirements Engineering

## In-Class Group Assignment - Fall 2024

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Time allowed: 1 hour

Total Marks: 15

Marks Obtained:

### Scenario: Online Food Delivery System

You have been approached by PopularDesiFood chain to help transition to an online food delivery system. Your requirements engineering team agrees to design an **Online Food Delivery System (OFDS)** that serves three primary user groups: **Customers, Restaurant Managers, and Delivery Personnel.** The system aims to make the process of ordering, preparing, and delivering food seamless and efficient.



### Description of the System:

Customers can browse menus, place orders, and track delivery status in real time. Restaurant managers receive order notifications, update menu availability, and manage operational reports. Delivery personnel can access optimized delivery routes, update order statuses, and receive push notifications about order assignments. The system integrates with third-party services like payment gateways, map APIs, and SMS notification systems.

### User Stories

#### Customer User Stories:

1. As a customer, I want to browse restaurant menus categorized by cuisine and price so I can decide what to order.
2. As a customer, I want to place an order with multiple items so that I can buy a complete meal in one go.



## Instructions for the Activity

**Duration: 1 hour**

Read the scenario and user stories provided. Can you think from the perspective of customer, restaurant manager/staff, and delivery personnel and add more user stories?

First, add more user stories.

Identify **Functional Requirements (FRs)** for the system against user stories for each user group.

Identify **Non-Functional Requirements (NFRs)** such as performance, security, and usability etc.

**BE CREATIVE! BRAINSTORM!**

Use of AI is strictly not allowed. There is a second part to this activity. To ensure that the second part of the activity is successful all requirements must be manually generated.

### Additional Customer User Stories:

US_C_1	As a customer, I want to schedule an order for a specific time so I can receive it when it's most convenient for me.
	As a customer, I want to leave ratings and reviews for both restaurant and delivery personnel so I can provide feedback on my experience.
	As a customer, I want to reorder my past orders with a single click so I can save time.
	As a customer, I want to be notified of new promotions and discounts via push notifications so I don't miss special deals.

5/8

1.5

Additional Restaurant Manager/Staff User Stories:

✓ US_S_1	As a restaurant manager, I want to assign specific staff to handle peak hours so that operations run smoothly.
✓	As a restaurant manager, I want to track order preparation time so I can identify bottlenecks.
✓	As a restaurant manager, I want to get customer feedback reports for quality improvements.
✓	As a restaurant manager, I want to promote special dishes to increase sales of underperforming items.

7/8

1.5

Additional Deliver Personnel User Stories:

✓ US_D_1	As a delivery person, I want to view order priority so I can manage my workload effectively.
✓	As a delivery person, I want to receive reminders for pending deliveries to ensure I don't miss any.
✓	As a delivery person, I want to update my availability status so I don't get assigned orders when I'm unavailable.
✓	As a delivery person, I want to view delivery history so I can track my completed assignment.



4.9/5

# Customer Functional Requirements (FRs)

0.75

R_C_1	
1)	Allow customers to search for restaurants by cuisine, price or ratings.
2)	Provide a feature to add multiple items to the cart.
3)	Enable real-time order tracking with map integration.
4)	Include a "Save as Favorite" feature for restaurants.
5)	Offer promo code application and validation at checkout.
6)	Enable scheduling of orders for specific times.
7)	Allow customers to rate and review orders.
8)	Support special instructions for orders.
R_C_20	

4.5/5

0.75

## Restaurant Staff Functional Requirements (FRs)

R_S_1	
✓ 1)	Provide an interface to add, edit, or remove menu items and prices.
✓ 2)	Notify managers of new orders immediately.
✓ 3)	Allow marketing menu items as "Out of Stock".
✓ 4)	Generate sales reports for different time periods.
✓ 5)	Enable communication between managers and delivery personnel.
✓ 6)	Provide analytics on order preparation times and customer feedback.
✓ 7)	Allow configuration of working hours and promotional banners.
R_S_20	



# Delivery Personnel Functional Requirements (FRs)

0.75

R\_D\_1

1)	Provide optimized route suggestions using map APIs.
2)	Enable making orders as "Delivered".
3)	Notify delivery personnel of new order assignments.
4)	Display customer contact details for resolving issues.
5)	Allow reporting of delivery delays with reasons.
6)	Include a status toggle for availability.
7)	Show delivery history and pending assignments.
R_D_20	

4.5/5

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# Non-Functional Requirements (NFRs)

NFR1	
✓ 1)	The system should handle at least 500 concurrent users with minimal latency. ✓
✓ 2)	Real time updates for order tracking should occur within 2 seconds of status changes. ✓
✓ 3)	The system should scale to accommodate new restaurants and regions without significant redesign.
✓ 4)	Ensure data encryption for sensitive information like payment details and customer address.
✓ 5)	Provide multi-language support for diverse user demographics.