



9.5

**National University of Computer & Emerging Sciences**  
Department of Software Engineering  
Software Requirements Engineering

**In-Class Group Assignment - Fall 2024**

Name	Roll No.
Muhammad Anas	23F-3094
Usman Bajwa	23F-3010
Umar Afzal	23F-3106

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 view combo meals offers to get better value for money
?	As a customer, I want to receive loyalty rewards for frequent purchases to save more.
?	As a customer, I want to access my order history for quick reordering
?	As a customer, I want to order from multiple restaurants in a single transaction.
?	As a customer, I want to receive live updates about the preparation stage of my food.

4.25

4.5/5

1.025

formal  
ids  
-0-25-

Additional Restaurant Manager/Staff User Stories:

so that?

US_S_1	As a manager, I want to monitor real-time kitchen workflow to track order progress.
✓	As a manager, I want to auto-sync stock levels with menu availability to avoid errors.
✓	As a manager, I want to schedule promotions for specific times.
✓	As a manager, I want to receive reminders to update outdated menu items.
✓	As a manager, I want to monitor customer feedback trends to improve service quality.

Additional Deliver Personnel User Stories:

4.25

1.075

formal  
ids  
-0-75

so that?

US_D_1	As a delivery person, I want to receive detailed drop-off instructions for secure delivery.
✓	As a delivery person, I want to rate restaurants based on pickup wait times.
✓	As a delivery person, I want to view traffic congestion zones to avoid delays.
✓	As a delivery person, I want to batch nearby orders to minimize delivery times.
✓	As a delivery person, I want to see the weight or size of packages for better preparation.



3/5

3

1.85

formal  
+1  
-0.75-1

## Customer Functional Requirements (FRs)

R.C. 1	Customer shall register and login using Email phone or social account
?	customer shall search restaurant by location and Delivery time
?	customer shall view estimated preparation time
✓	customer shall get notified about their delivery reaching nearby address
✓	customer shall request re-delivery if the order is incorrect
✓	customer shall place an order for pickup instead of delivery
✓	customer shall be able to compare restaurants
✓	customer shall be able to compare dishes
✓	customer shall be able to place multiple orders at a time
✓	customer shall enable or disable notifications for promotions and update
✓	customer shall save multiple addresses for delivery
✓	customer shall get option between pre-paid or cash on delivery
✓	customer shall be able to browse trending dishes
✓	customer shall be able to access chat support
✓	customer shall be able to receive personalized meal suggestion
✓	customer shall be able to get eco friendly delivery packages
✓	customer shall be able to pay instructions for larger order
?	customer shall be able to access virtual menu
R.C. 20	customer shall be able to add dishes to cart for bulk purchase.

Nearby delivery regps

Nearby regps

unclear



3/5-1

3/

formal  
-1

1.5

## Restaurant Staff Functional Requirements (FRs)

✓ R_S_1	Managers shall be able to define and update delivery zones.
✓	Managers shall be able to assign high-priority orders to specific staff for quick handling.
✓	Managers shall be able to customize menus for specific time slots.
✓	Manager shall be able to send notification to the customer about the sale.
✓	Managers shall be able to track peak ordering hours to optimize staff schedules.
✓	Manager shall be able to set loyalty discounts for frequent customers.
✓	Managers shall be able to manage inventory to ensure ingredients are updated in real-time.
✓	Manager shall be able to approve or reject promotional requests submitted by staff.
✓	Managers shall be able to enable pre-ordering for events or busy seasons.
✓	Managers shall be able to activate promotional activity.
✓	Managers shall be able to set threshold for orders value.
✓	Managers shall be able to assign restaurant delivery personnel during busy periods.
✓	Manager shall be able to upload promotional media like videos.
✓	Managers shall be able to deactivate specific dishes temporarily due to ingredient shortages.
✓	Managers shall be able to provide detailed instructions for handling special customer requests.
✓	Manager shall be able to identify refund trends and flag repeat refunds.
✓	Managers shall be able to conduct customer surveys directly within the app.
✓	Managers shall be able to oversee operations remotely with mobile access.
✓	Managers shall be able to track late or missed deliveries to improve process.
✓ R_S_20	Managers shall be able to deactivate specific dishes temporarily due to ingredient shortages.

redundant  
-0.5

dup

dup.

duplicate  
-0.5



4/5

Eg: how show

## Delivery Personnel Functional Requirements (FRs)

4

1.2

formal

R_D_1	Delivery personnel shall receive specific pickup instruction as
✓	Delivery personnel shall mark order as
✓	Delivery personnel shall deliver in case of any issue
✓	Delivery personnel shall assign people as delivery
✓	Delivery personnel shall request assistance for breaks during long shifts
✓	Delivery personnel shall address
✓	Delivery personnel shall receive reminders
✓	Delivery personnel shall handle high priority orders
✓	Delivery personnel can earn performance bonuses for fast delivery
✓	Delivery personnel can update their availability in real time if they are late
✓	Delivery personnel can group up
✓	Delivery personnel can update their
✓	Delivery personnel can maintain
✓	Delivery personnel shall contact
✓	Delivery personnel directly
✓	Delivery personnel can access
✓	Delivery personnel can track real
✓	Delivery personnel can reject orders
R_D_20	

3/5

2.5

0.75

## Non-Functional Requirements (NFRs)

nit clear

wrong.  
wrong  
of what?

2 months?

NFR1	The system shall handle at least 1000 concurrent users
	Real time delivery status shall update
X	The system shall process order
X	The system shall update menu
X	The system shall provide optimized delivery
✓	The system shall support multiple language option
✓	The system shall provide documentation and tutorial to user
X	The system shall had an uptime of over 12 months
✓	The system shall prevent data loss

vague  
-0.5  
-0.5

not non-functional