



# 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:

so that?	✓ US-C-1	As a customer, I want to rate my favourite dishes <del>so that</del> <sup>by</sup> giving feedback	✓
so that?	✓ US-C-2	As a customer, I want notification from my favourite restaurants about new deals	✓
so that?	✓ US-C-3	As a customer, I want to keep in touch with delivery person.	✓
so that?	✓ US-C-4	As a customer, I want different method of payment	✓
so that?	✓ US-C-5	As a customer, I want to filter my menu according to price and dishes	✓

⇒ not proper format  
so that?



4.75

5/5  
follow

5/5

22

Additional Restaurant Manager/Staff User Stories:

US-S-1	As a restaurant manager, I want to receive inventory notification so that I can retake items on time.	✓
US-S-2	As a restaurant manager, I want to view dashboard of customer's feedback.	missing so that
US-S-3	As a manager, I want to assign orders based on worker's workload so that they can work efficiently.	✓
US-S-4	As a manager, I want to update menu availability so that customers see the store items.	✓

Additional Deliver Personnel User Stories:

4

12

US-D-1	As a delivery person, I want to receive real-time navigation, so that I can find best route.	✓
US-D-2	As a delivery person, I want to view traffic conditions so that there is no delay in delivery.	✓
US-D-3	As a delivery person, I want to replace track my daily earnings so I can monitor my performance.	✓

atomicity

3.5/5

3.25

1.25

## Customer Functional Requirements (FRs)

125

R\_C\_1 - R\_C\_3  
not prop  
format  
-0.5.

R_C_1	✓	Allow <u>customers</u> to browse categorized menu
RC-2	✓	Allow <u>customers</u> to select multiple item at a time
RC-3	✓	Allow <u>customers</u> to track delivery status in real time
RC-4	✗	The system shall allow <u>customers</u> to their favourite restaurants
RC-5	✗	The system shall allow recommendation of popular <u>sites</u> ?
RC-6	✓	The system shall allow <u>customers</u> to make payment through different means
RC-7	✓	The system shall allow <u>customer</u> to give feedback
RC-8	✓	The system shall allow <u>customer</u> to receive notification on discounts
RC-9	✓	The system shall allow <u>customers</u> to apply promo-code during check out
RC-10		The system shall implement real-time delivery status tracking
R_C_20		

RC3-RC10  
Redundant  
-0.5incorrect RC 4, RC 5  
-0.5 each



4.25

1.75  
1.5

4.5/5

Restaurant Staff Functional Requirements (FRs)

R_S_1	✓ System shall allow managers to update menu-items and pricings
RS_2	✓ System shall notify manager of inventory shortage
RS_3	✓ System shall provide managers sales record and performance analytics
RS_4	✓ System shall allow managers to communicate with delivery person and customer
RS_5	✓ System shall allow managers the access of dashboard
RS_6	✓ System shall allow manager to track kitchen performance
RS_7	✓ System shall allow manager to create update
RS_8	✓ System shall allow manager to prioritize specific order to ensure timely preparation
RS_9	✓ System shall allow manager to aggregate customer feedback report
R_S_20	

vague?

RS\_5, RS\_7, vague

unclear scope  
Ambiguous subject -0.5

3.5

## Delivery Personnel Functional Requirements (FRs)

R_D_1	System shall provide delivery personnel to optimize delivery routes
R_D_2	System shall provide delivery personnel to enable making orders.
R_D_3	System shall allow delivery personnel to see customer contact details
R_D_4	The system shall allow delivery personnel to integrate with navigation tool
R_D_5	The system shall allow delivery personnel to see his daily earnings
R_D_6	System shall allow delivery personnel to chat with customer
R_D_7	System shall allow delivery personnel to see order notes
R_D_8	System shall allow delivery personnel to update their availability status to efficient order
R_D_20	

unclear  
scope  
-0.5vague  
unclear  
scope  
-0.5ambiguity  
-0.75



4.25

1.75  
1.75

4.5/5

# Non-Functional Requirements (NFRs)

NFR1	System should process customer order in 2 sec
NFR2	Delivery status update should refresh after 5 sec
NFR3	System must support 10,000 concurrent user during real times
NFR4	System interface should be easy to use
NFR5	The system shall allow user to complete task within 3 min
NFR6	System should ensure secure payment method
NFR7	System should maintain 99.9% up-time
NFR8	Order data must be backup in real time to prevent data loss
NFR9	System must be accessible on mobile and PC and tablet

format  
-0.25

ambiguity  
-0.5

use standard term  
portability/ accessibility