



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 SMS of order confirmation, so to know that my order has been confirmed
US_C_2 ✓	As a customer, I want online payment system, so that if I have shortage of cash, I can pay it online.
US_C_3 ✓	As a customer, I want to give feedback on the delivery system, so the quality will be better.
US_C_4	

Additional Restaurant Manager/Staff User Stories:

US_S_1	As a restaurant manager, I want to view customer feedback, so that I can improve the quality.
2	As a staff member, I want to update the kitchen with special instructions from customers so orders are prepared correctly.
2	As a restaurant manager, I want to set promotional discounts on specific dishes so that I can attract more customers.

Additional Deliver Personnel User Stories:

US_D_1	As a delivery person, I want to access real-time traffic updates so that I can choose the fastest routes.
2	As a delivery person, I want to upload proof of delivery so that customer and the restaurant have confirmation.
2	As a delivery person, I want to receive customer rating for deliveries so I can improve my rating.

Customer Functional Requirements (FRs)

R_C_1	The system shall allow customers to browse restaurant menu categorized by cuisine.
R_C_2	The system shall allow customers to browse restaurant menu categorized by price.
R_C_3	The system shall provide real-time order tracking status for customers.
R_C_4	The system shall enable customers to add multiple items to their cart.
R_C_5	The shall system shall enable customer to add multiple items place an order.
R_C_6	The system shall allow customers to apply promo code during checkout.
R_C_7	The system shall allow customers to save their favourite restaurant.
R_C_8	The system shall allow customer to give feedback to restaurant.
R_C_9	The shall provide a search feature for dishes or restaurant.
R_C_10	The system shall send notifications to customer about discounts.
R_C_11	The system shall display the estimate delivery time before customer place order.
R_C_12	The system shall support secure payment options for customers.
R_C_13	The system shall allow customer to leave rating for restaurant.
R_C_20	

Restaurant Staff Functional Requirements (FRs)

[illegible]

Delivery Personnel Functional Requirements (FRs)

✓ R.D_1	The system shall show the best routes for deliveries.	105
✓ R.D_2	The system shall notify delivery personnel about new delivery tasks.	
✓ 3	The system shall let delivery personnel update the delivery status.	
✓ 4	The system shall allow delivery personnel to report.	
✓ 5	system also show customer contact details to solve problems.	
✓ 6	The system shall display any special delivery instructions from customers.	
✓ 7	The system shall let delivery personnel upload proof of delivery instructions from customers.	
✓ 8	The system shall let delivery personnel update estimated delivery time for each order.	
✓ 9	The system will provide live traffic updates.	
✓ 10	The system will let delivery staff contact support for help.	
✓ 11	The system will list all deliveries for the shift.	
✓ 12	The system will alert staff about urgent orders.	
✓ 13	The system will track delivery time staff earnings.	
✓ 14	The system will show past deliveries.	
✓ 15	The system will notify staff about cancellations.	
✓ 16	The system will allow a staff shall let delivery person to accept or reject delivery tasks.	
✓ 17	The system shall show a delivery schedule before the shift starts.	
✓ 18	The system shall provide directions to the restaurant for order pick-up.	
✓ 19	The system shall allow delivery personnel to report issues.	
R.D_20		

4.5/5

Non-Functional Requirements (NFRs)

1.25

1.25

✓ NFR1	The system shall process order within 5 seconds.
✓ 2	System shall be able to handle up to 10000 users.
✓ 3	The system shall be able to ensure 99.99% uptime availability to user.
✓ 4	System shall be able to use encryption to protect customer data.
✓ 5	Interface should be user-friendly and ease to navigate.
✓ 6	The system should work on web browsers and mobile apps for android and ios devices.
✓ 7	Data should be backed up daily to prevent data loss.
✓ 8	System should recover from failure within 1 minutes.
✓ 9	Pages should load within 2 seconds under normal conditions.
✓ 10	The codebase should be modular to allow easy updates and bug fixes.