



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 give feedback so that I could rate my favourite dishes.
US-C-2	As a customer, I want to get notified about latest deals from my favourite restaurants.
US-C-3	As a customer, I want to be able to contact delivery / Service person regarding delivery updates.
US-C-4	As a customer, I want to filter menu according to prices in order to get dishes according to my budget.
US-C-5	As a customer, I want to be able to pay through different payment methods.

US-C-6 As a customer, I want to be able to customize my order with special instructions (such as ingredients or adding extra toppings)

4/5

4.5

2/2

formal -0.5

Additional Restaurant Manager/Staff User Stories:

US-S-1	As a restaurant manager, I want to track my inventory levels and receive alerts ^{so that I can} when I need to restock items.
US-S-2	As a restaurant manager, I want to assign duties to different kitchen staff.
US-S-3	As a restaurant manager, I want to be able to communicate with customers about their orders.
US-S-4	As a restaurant manager, I want to create and manage employee schedules, assign roles, permissions.
US-S-5	As a restaurant manager, I want to launch promotional deals to attract customers.

4.5/5

4.75

2/2

2/2

Additional Deliver Personnel User Stories:

US-D-1	As a delivery Personnel, I want to see my task list for assigned deliveries. ^{so that}
US-D-2	As a delivery Personnel, I want to get updates from customers so that I could deliver conveniently and efficiently.
US-D-3	As a delivery Personnel, I want to see my earnings for each delivery. So that I can track my income
US-D-4	As a delivery Personnel, I want to report issue to restaurant Manager so that I can avoid inconvenience.
US-D-5	As a delivery Personnel, I want to see my working hours so that I could track and manage my earnings accordingly.

Customer Functional Requirements (FRs)

R-C-1	System shall allow users to track their orders in real time.
R-C-2	The system shall display description of menu items including ingredients prices and photos.
R-C-3	The system shall allow user to customize their orders such as removing ingredients or adding extra toppings
R-C-4	The system shall allow user to add items to cart.
R-C-5	The system shall allow user to make changes in cart before placing orders.
R-C-6	The system shall provide real time tracking of orders from preparation to delivery.
R-C-7	The system shall support variety of payment methods
R-C-8	The system shall provide users with confirmation of their payment.
R-C-9	The system shall send notification to user when their order is confirmed, prepared and is on its way.
R-C-10	The system shall allow user to provide feedback and ratings for restaurants.
R-C-11	The system shall allow user to provide feedback and ratings for delivery services.
R-C-12	The system shall display feedback and ratings to other users.
R-C-13	The system shall allow user to save their favourite restaurants for future use.
R-C-14	The system shall recommend restaurants & dishes based on user's preferences.
R-C-15	The system shall allow user to browse menus, restaurants.
R_C_20	

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about
dup

atomic

redundant

redundant

Restaurant Staff Functional Requirements (FRs)

✓ R-S-1	The system shall display incoming orders in real time.
✓ R-S-2	The system shall allow staff to prioritize orders based on urgency
✓ R-S-3	The system shall allow staff to track the progress of order from preparation to completion.
✓ R-S-4	The system shall allow staff to track inventory levels.
✓ R-S-5	The system shall allow managers to assign roles & permissions to staff.
✓ R-S-6	The system shall allow staff to add, edit & read menu items.
✓ R-S-7	The system shall allow staff to communicate with customers about their orders.
✓ R-S-8	The system shall allow staff to create marketing deals & promotions.
✓ R-S-9	The system shall allow staff to offer discounts & coupons to customers.
✓ R-S-10	The system shall allow staff to communicate with staff.
✓ R-S-11	The system shall allow staff members to track their progress or tasks.
✓ R-S-12	The system shall allow staff members to view their payments.
✓ R-S-13	The system shall allow managers to manage payments.
✓ R-S-14	The system shall send notification to staff members, when tasks are due.
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R-S-20	

4.5

2.5

Delivery Personnel Functional Requirements (FRs)

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-05

✓ R-D-1	The System shall allow delivery person to mark deliveries as completed.
✓ R-D-2	The system display all assigned deliveries in real-time.
✓ R-D-3	The system shall allow delivery personnel to communicate with customers about deliveries.
✓ R-D-4	The system shall allow delivery personnel to track their earnings and performance.
✓ R-D-5	The system shall allow delivery personnel to calculate delivery time depending on factors like traffic condition, road closure.
✓ R-D-6	The system shall allow delivery personnel to see updates from customers about delivery location.
✓ R-D-7	The system shall allow delivery personnel to send notification to customers when delivery on the way.
✓ R-D-8	The system shall track delivery personnel earnings for each day and week.
✓ R-D-9	The system shall track delivery personnel performance such as delivery time and customer satisfaction ratings.
✓ R-D-10	The system shall provide delivery personnel with a feature of help and support.
✓ R-D-11	The system shall response delivery personnel queries promptly.
✓ R-D-12	The shall provide delivery person with the insight how he can improve his efficiency.
R_D_20	

Non-Functional Requirements (NFRs)

NFR1	The system shall respond to user within 2 seconds.
NFR2	The system shall be available 24/7.
NFR3	The system shall protect user's data from unauthorized access.
NFR4	The system shall provide tools for managers to monitor system performance.
NFR5	The system shall be optimized for mobile devices & desktops etc.
NFR6	The system shall be available on both IOS & Android platforms.
NFR7	The system shall comply with data privacy regulations such as GDPR.
NFR8	The system shall be available in multiple language.
NFR9	The system must be coded in java. <i>confirm</i>
NFR10	The system shall use secure payment gateway, API's etc.
NFR11	The system shall offer multiple ways for customer support such SMS & email.
NFR12	The system shall provide reports on sales, revenue & marketing deals.
NFR13	The system shall recommend different menu on users preference.
NFR14	