Simplilearn CBAP Certification - Project 1

Canteen Ordering System for Unilever

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Description

Overview and Summary

Unilever is a British-Dutch MNC FMCG company, headquartered in London, England. Unilever is one of the oldest FMCG companies, and its products are available in around 190 countries. In its UK offices, Unilever had around 1500 employees which were spread across 12 floors. They had 2 canteens to cater to these 1500 employees. Each canteen could seat around 150 employees at a time.

Most employees would prefer to take their lunch between 12 noon to 1 pm. This led to a huge rush in the canteen during lunch hours resulting in employees wasting a lot of time waiting for tables to be vacant.

Management calculated that it took around 60 minutes for employees to go and come back from lunch. Almost 30-35 minutes were wasted waiting in a queue to collect their food and get a table to sit and eat. However, the time spent eating was barely 10-15 minutes. The remaining 10 minutes were spent reaching and coming back from the canteen using the elevators.

Employees don't always get the choice of food they want because the canteen runs out of certain items. The canteen wastes a significant quantity of food by throwing away what is not purchased.

Many employees have requested a system that would permit a canteen user to order meals online, to be delivered to their work location at a specified time and date.

Business Analysis Core Concept Model (BACCM)

Need:

- Space to be increased or implement a new system that helps 1500 employees to have their lunch at their preferred timings.
- To eliminate the waiting time for wasting it in a queue for getting their food, waiting time for tables to be vacant to sit and eat and wasting time reaching and coming back from the canteen by using elevators.
- Employees should always get their choices of food.
- To remove wastage of unordered food.

Change:

To move canteen ordering from the current offline system to the online system.

Solution:

- Develop a web application where the employee is allowed to order preferred food from the food list before 11:00 AM on the same day from the office on working days.
- Ordered food online to be prepared and delivered to the selected work location in the office premises as mentioned by the employee.

Value:

- A system would save considerable time for those employees who use the service.
- It would increase the chance of them getting the food items they prefer.
- This would improve both their quality of work life and their productivity.
- Food wastage will be reduced.
- This will reduce the cost.
- The canteen will be operated with less manpower.

Context:

Request by employees to develop a system that allows them to order food online, to be delivered at their work location at a specified time and date due to the limitation of only 2 canteens with a maximum sitting capacity of 150 each which makes it hard to cater 1500 employees where most employees prefer lunch break around 12 noon to 1 pm.

Stakeholders – Internal

Project Manager
Operational Support Team
Domain SME
Implementation SME
Testers
Business Analyst

Stakeholders – External

Customer
End User
Canteen Manager
Chefs
Delivery Agent
Payroll

Task 1 - Identifying the Stakeholders

Customer – Unilever improves productivity and quality work from the online ordering system.

End User – Employees can order food online on their preferred choice and preferred delivery time slot

Project Manager - He is accountable for the competition of the ordering system with the help of other stakeholders while making sure they are working accordingly

Domain SME – Technical experts from the development team have to recommend the application that ensures there is no issue while accessing the ordering system.

ISME – To implement a new online system for ordering food and provide login access to employees.

Tester – Testers ensure the functionality of the created system before released to the end users and ensure there are no issues.

Operational Support team – To support employees in ordering in a new system and solve the issues during login and attend to solve any issues related to accessing the new application within the requested time for hassle-free online food ordering. To ensure the license for all employees and ensure timely updates when required.

Payroll – The payroll department takes accountability to track employees' food expenses within the given expense limitation and to deduct from salary.

Canteen Manager – The canteen manager ensures the food menu is to be prepared by the canteen based on employee demand. To make reasonable food price by considering delivering food to employee locations. To give prior notice if in case of non-working days of the canteen through the online system.

Chefs – He ensures all the orders placed in the system are prepared to the specified standards

Delivery Agent – Post enrolment to the system and calculates the total number of orders and the amount gets deducted as per the system processes the payroll after the said amount is deducted from the salary

Business Analyst – Ensuring proper collaboration between external and internal stakeholders to implement successful solutions effectively.

RACI Matrix – Responsible, Accounted, Consulted, Informed

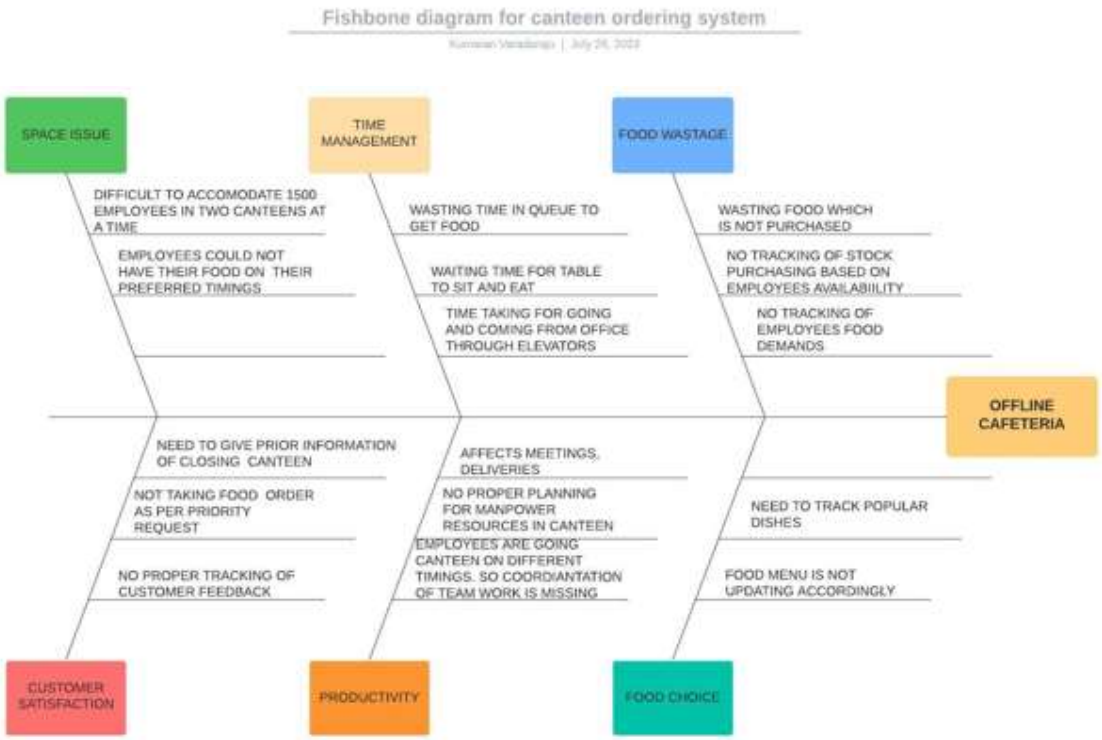
Identification of stakeholders that are responsible, accounted for, consulted, and Informed for the implementation of the canteen ordering system.

	Responsible	Accounted	Consulted	Informed
Customer				I
End-user	R			
Project Manager		A		
Domain SME	R			
ISME	R			
Tester	R			
Operations Team			C	
Payroll				I
Canteen Manager	R			
Chefs	R			
Delivery Agent	R			
Business Analyst	R			

Task 2 - Problem Statement

- Two canteens are only available for a total of 1500 employees and are difficult to accommodate at employee's preferred timings due to the huge rush in two canteens during lunchtime. Currently, 150 employees can sit at a time in two canteens.
- Taking around 60 minutes for employees to go and come back from lunch due to waiting in a queue to collect their food and wastes time around 30-35 minutes. Taking 10-15 minutes in waiting for tables to be vacant to sit and eat.
- Employees don't always get their choice of food because the canteen runs out of certain food items.
- Canteen wastes a significant quantity of food by throwing what is not purchased.

Root Cause Analysis

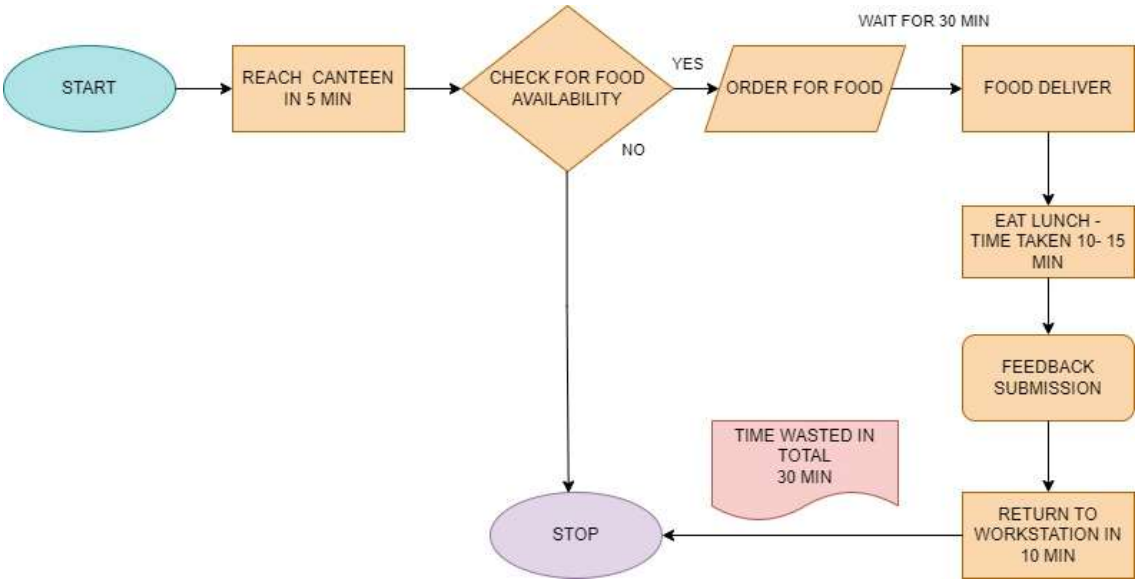


Task 3

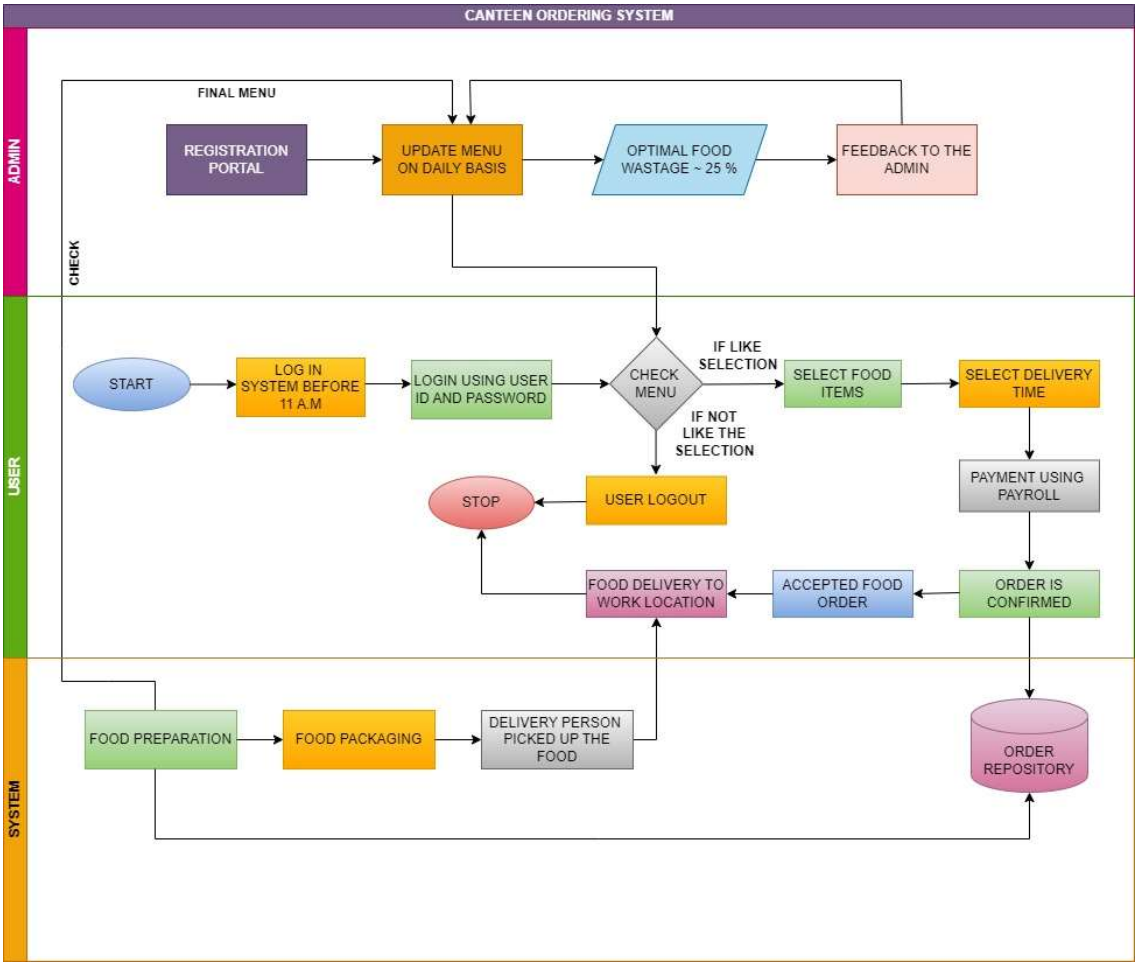
Business Objectives

1. Reduce canteen food wastage by a minimum of 30% within 6 months following the first release.
   Scale: Value of food thrown away each month by examining the canteen inventory
   Previous –25% wasted
   Must plan for Less than 15%
2. Reduce canteen operating costs by 15% within 12 months, following the initial release.
3. Increase average effective work time by 30 minutes per employee per day, within 3 months.
4. By making the ordering process automated and by delivering the food to the user's workstation, the canteen will be able to operate with lesser manpower.

Task 4 As-Is process map



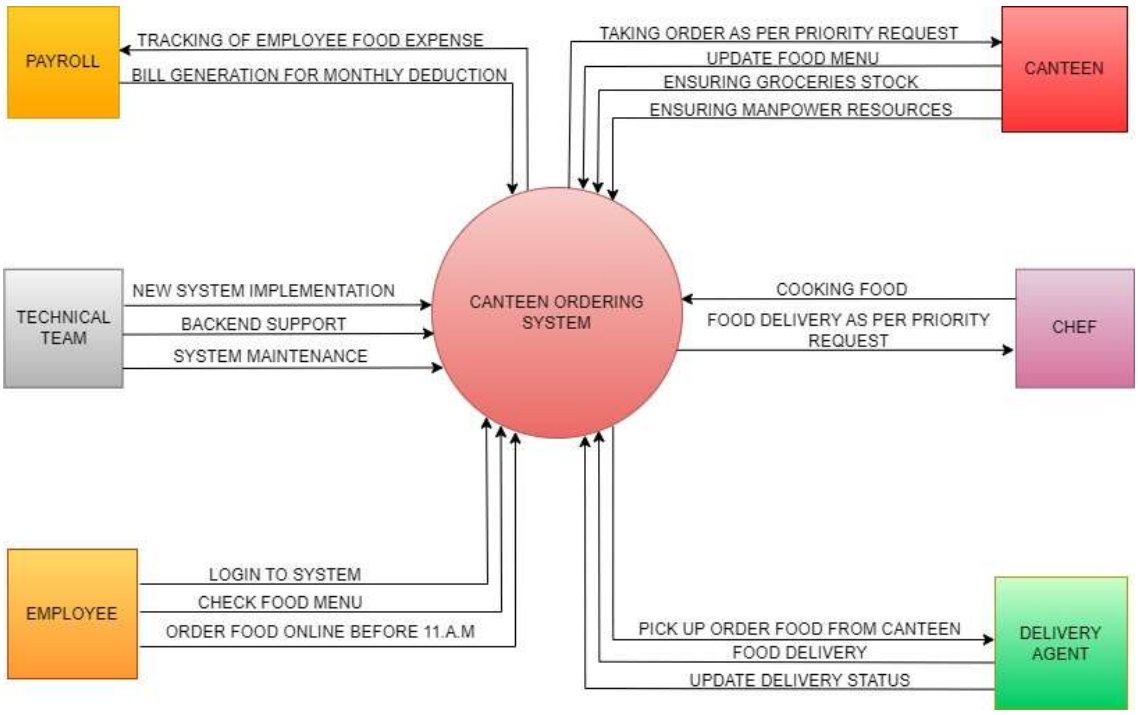
Future process map by using Swim lane Diagram



Task 5

Scope Context Diagram

Illustrated below is the context diagram across various actors that play important roles in maintaining, using, and improvising various functionalities of the canteen ordering system proposed to Unilever employees.



Task 6

Main features that need to be developed

- Need to track the frequently moving dishes
- Need to track how many employees are using the online system
- Satisfaction of the employees on using the system. This should be tracked on the basis of feedback submitted by the employees.
- Need to track sales for each day
- Need to calculate total monthly earnings
- Order forecasting i.e. a prediction of which items will be ordered and when they will be ordered.

Task 7

Write the In-scope and out-of-scope items for this software.

In-Scope

Unilever employees can register and get access.

Login to be created for users and provide access to order food online and to whom they report in case of any issues.

Employees can choose from the food menu which is updated by the canteen management.

Canteen management should update the food list according to the item's availability.

The canteen manager also known as the order processor should be able to view the orders placed by the employees. He shall take an inventory of all the dishes ordered by different users and get them cooked by the chef.

Food will be delivered to the employee's location as mentioned by the employees.

There shall be a meal deliverer (delivery boy) who shall deliver the lunch to the employee's desk. After delivering the lunch, this delivery boy shall close the online customer order.

Employees can submit feedback in the online system for process improvements, Quality food, taste, and delivery on time.

Employees do not need to pay through online payment. At the end of the month, the payroll system shall calculate the total number of dishes ordered by each employee and shall deduct money from the employee's salary

The technical team should ensure to solve any raised concerns at any time.

Out of Scope

Employees cannot request their food beyond 11 A.M

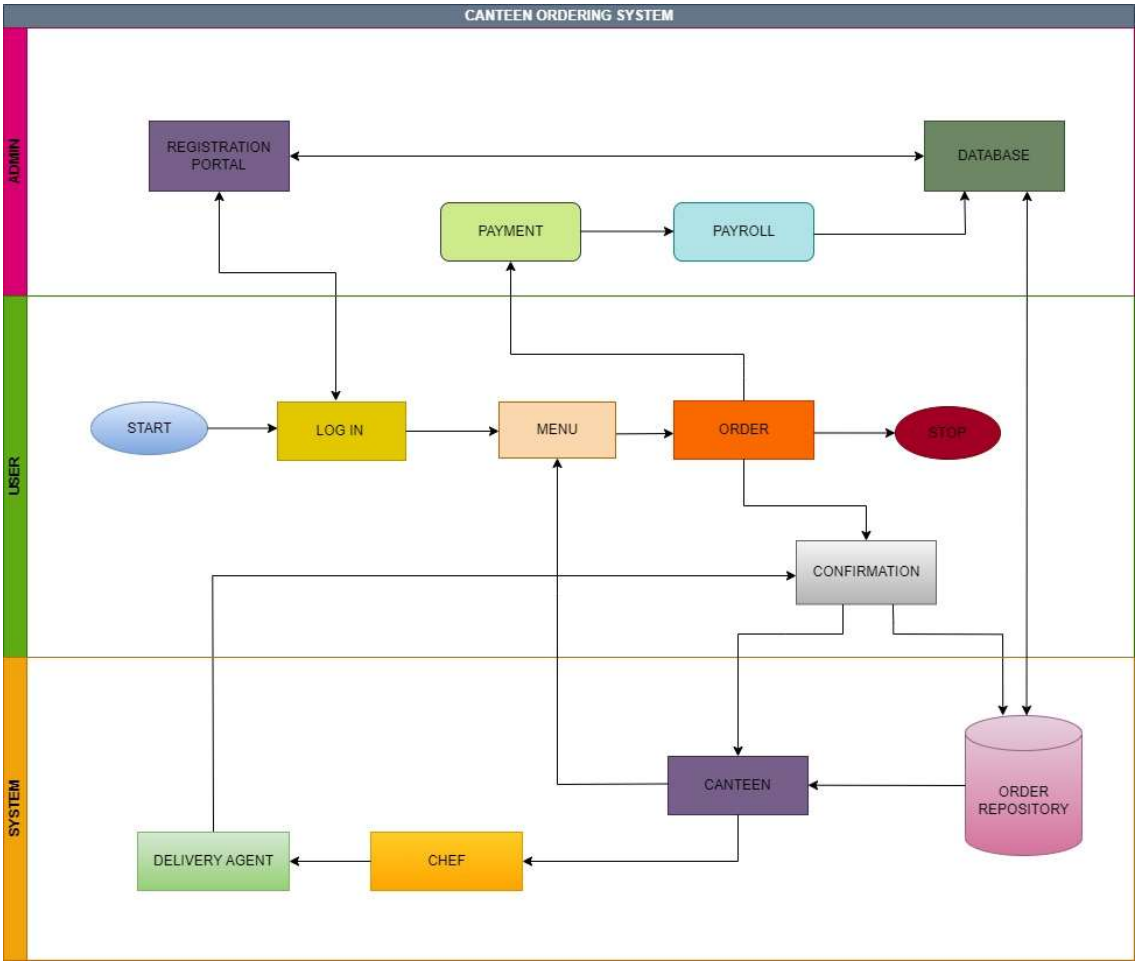
Payments can be in any form while receiving the order

Once the food order is confirmed that cannot be canceled or edited.

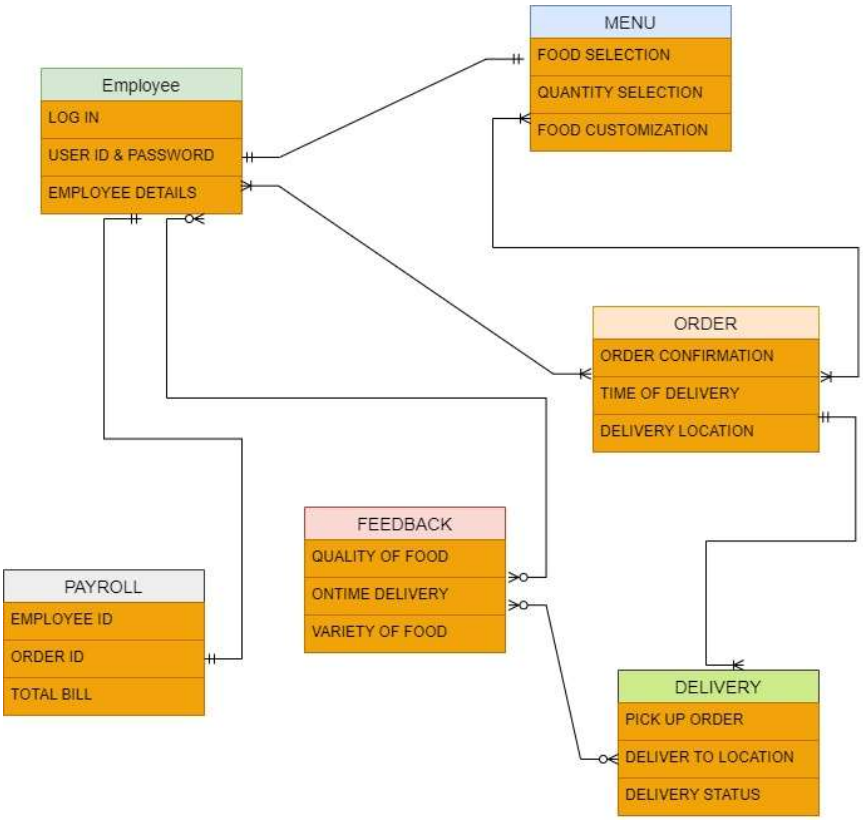
Canteen management should inform prior information for Non-working days

Chef's team management, out-of-stock food items, and supplier details.

Task 8 - Activity diagram for the system.



Task 9 - ER Diagram of system



Task 10

Business requirements

- To reduce 60 mins spent by the employee for lunch.
- Employees can order food at their preferred time.
- For employees to have more food choices for the meal.
- To reduce canteen food wastage by 30 % within 6 months from the first use of the application.
- To reduce food wastage by 15% within 12 months from the first use.
- To automate the food ordering process which in turn increases employee productivity by 30 mins.

Non-Functional Requirement

The canteen ordering system is required to support a volume of 1500 employees ordering the web pages should be light and rendering fast.

The technical team should support employees to solve any back-end issue within the requested time.

System updates will be done periodically to maintain the functionality of the system.

Functional Requirement

A new system is to be introduced for online food ordering.

Employees can choose their food from the available food menu.

The employee can choose their food items at their preferred delivery slots.

The canteen manager will be updated the food menu prior to ordering the food.

Once the food order is confirmed that cannot be canceled or edited.

The payroll department will ensure to track the food expense as ordered by the employee and deduct it from the salary.

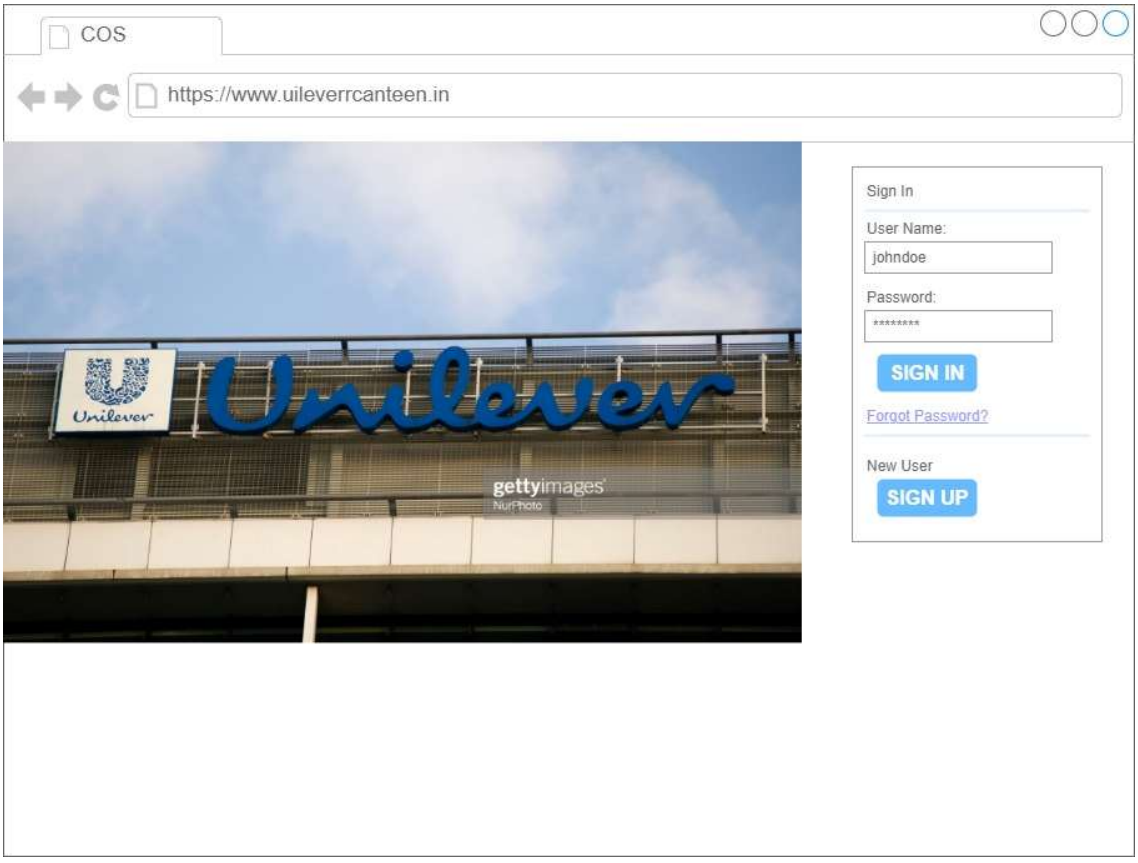
Employees can submit feedback in the online system for process improvements, Quality food, taste, and delivery on time after delivered food.

Delivery agents deliver the orders as per the required quantity to be delivered to the employee desk.

Delivery agent to help employees receive the order on time without any delays. Canteen management should update the delivery status before and after delivering the food.

Task 11

Mock screens for two of the features namely Menu Creation.



COS

https://www.uileverrcanteen.in

Rs. 120

Rs. 60

Rs. 50

Food Menu

Veg Sandwich
Desserts
Noodles
Chat

Veg Sandwich

Soft Drinks

Order Confirmation

Cancel OK

Delivery Details

Location B1

Desk No. 55

Time 1 P.M to 2 P.M