# CANTEEN ORDERING SYSTEM FOR UNILEVER

## SIMPLILEARN PROJECT FOR CBAP

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# 1. INTRODUCTION OF THE PROJECT

**CLIENT DETAILS:**

**Name:** Unilever – British-Dutch MNC FMCG company, headquartered in London, England.

**Location:** United Kingdom

**Number of employees:** 1500

**PROJECT DETAILS:**

**Aim:** Develop a canteen ordering system.

**Number of users:** 1500 (approx.)

**Description of the problem:**

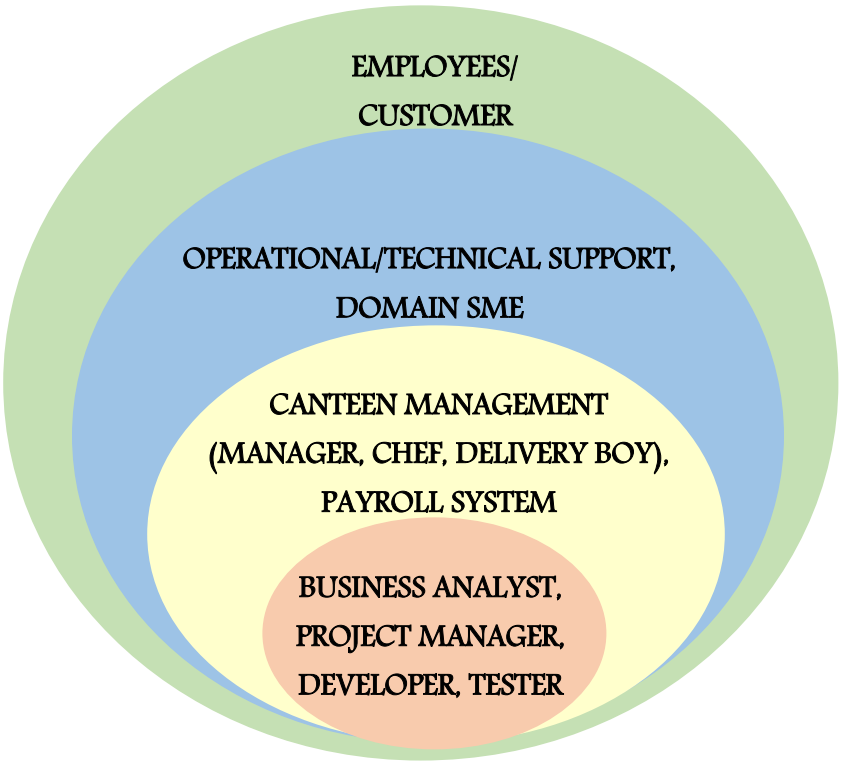
Unilever, UK has around 1500 employees spread across 12 floors. The company provides lunch to the employees between 12.00 and 1.00 PM in two canteens each having a seating capacity of 150 at a time. However, lack of time and shortage of sufficient seating capacity has led to increased waiting time, overcrowding at the canteen, shortage/ unavailability of adequate food on time, improper management of the canteen system, wastage of food and poor customer satisfaction. The project focusses on developing an ***automated ordering system*** that enables the users (employees) to order meals online, to be delivered to their work location at a specified time and date.

# 2. BUSINESS ANALYSIS CORE CONCEPT MODEL (BACCM)

| CONCEPT | DESCRIPTION |
|---|---|
| NEED | • To develop an automated canteen ordering system for 1500 Unilever employees in UK.<br>• To decrease the waiting time and overcrowding at the canteen, shortage/ unavailability of adequate food on time, improper management of the canteen system, wastage of food and poor customer satisfaction |
| CHANGE | • To change the canteen operations from conventional offline system to online delivery based system. |
| SOLUTION | • The new system enables the users to easily access the current menu, pre-order the meals, receive delivery of ordered items to their desk quickly, have the option for deduction of the amount from their salary through payroll and provide the customer satisfaction feedback. |
| CONTEXT | • The company provides lunch to the 1500 employees between 12.00 and 1.00 PM in two canteens each having a seating capacity of 150 at a time.<br>• However, lack of time and shortage of sufficient seating capacity has led to increased waiting time, overcrowding at the canteen, shortage/ unavailability of adequate food on time, improper management of the canteen system, wastage of food due to lack of time and poor customer satisfaction. |
| VALUE | • Provide proper satisfaction to the canteen customers (employees).<br>• Increase the productivity and quality of their work life through proper time management.<br>• Reduce canteen operation cost and food wastage and enhance the overall working system of the canteen at a lesser manpower. |
| STAKEHOLDERS | • Business Analyst<br>• Internal Stakeholder:<br>➢ Project Manager<br>➢ Developer<br>➢ Tester<br>➢ Operational/Technical Support<br>➢ Implementation SME<br>➢ Domain SME<br>• External Stakeholder:<br>➢ Employee<br>➢ Canteen Manager & Menu Manager<br>➢ Delivery Boy<br>➢ Payroll system<br>➢ Management |

# 3. TASK 1: IDENTIFICATION OF STAKEHOLDERS

| STAKEHOLDER | What they can do on the software created |
|---|---|
| **Employee/ Customer** | ➢ The employee need to create an account in the app developed for the new canteen ordering system.<br>➢ He can login to the webpage and view the menu available in the canteen for the day along with the price of each item.<br>➢ The order can be placed where the payment can be done online prior to the delivery or the same may be deducted from the salary at the month end.<br>➢ He can cancel/modify the order within 5min of placing order. He can also provide the feedback/rating upon delivery of the food. |
| **Canteen Manager/ Menu Manager/ Chef** | ➢ Menu manager creates and updates the daily menu in the webpage.<br>➢ Canteen Manager will be able to view all the orders placed by the employees and can take an inventory of all the dishes ordered by different users and get them cooked by the chef. |
| **Delivery Boy** | ➢ Delivery boy receives notification to collect the prepared food from the canteen as per the order placed by the employee and delivers it to the employee's desk. He shall close the online customer order after the delivery. |
| **Payroll system** | ➢ The payroll system will handle payroll deductions and updating invoices<br>➢ The payroll system shall calculate the total number of dishes ordered by each employee. |
| **Management** | ➢ The Management can get a report on numbers of employees using the app.<br>➢ Feedback/ Customer satisfaction report.<br>➢ Profit/ turnover per month.<br>➢ Most popular dishes/ Best sellers. |




Stakeholder onion diagram

## RACI MATRIX

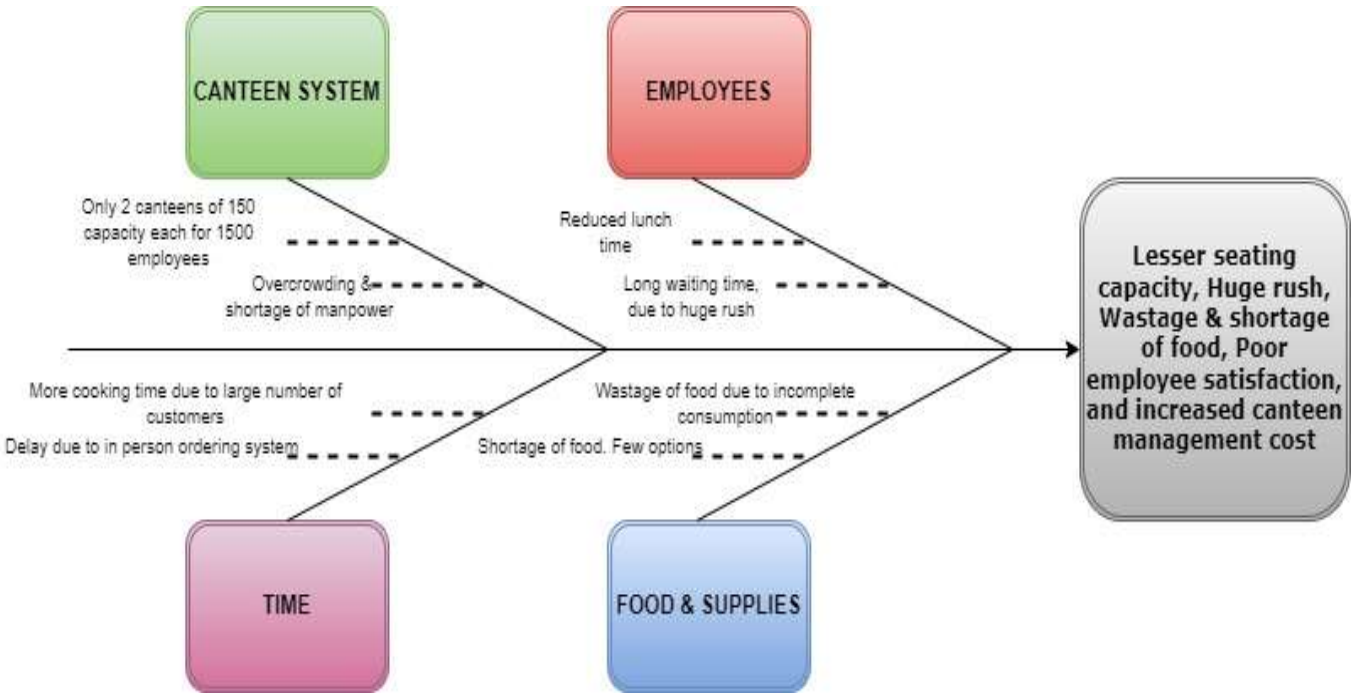
- **RESPONSIBLE:** The person who will be performing the work on the task.
- **ACCOUNTABLE:** The person who holds the ultimate accountability for the successful completion of the task and is the decision maker. Only one stakeholder receives this assignment.
- **CONSULTED:** The stakeholder or stakeholder group who will be asked to provide an opinion or information about the task. This assignment is often provided to the subject matter experts (SMEs).
- **INFORMED:** A stakeholder or stakeholder group that is kept up to date on the task and notified of its outcome.

| STAKEHOLDER | RESPONSIBLE | ACCOUNTABALE | CONSULTED | INFORMED |
|---|---|---|---|---|
| EMPLOYEE/ CUSTOMER | | | | I |
| OPERATIONAL/ TECHNICAL SUPPORT | | | C | |
| DOMAIN SME | | | C | |
| CANTEEN MANAGER/ MENU MANAGER | | | | I |

| | | | | |
|---|---|---|---|---|
| CHEF | R | | | I |
| DELIVERY BOY | | | | I |
| PAYROLL SYSTEM | | | | I |
| BUSINESS ANALYST | R | | | |
| PROJECT MANAGER | | A | | |
| DEVELOPER | R | | | |
| TESTER | R | | | |

# 4. TASK 2: IDENTIFY THE PROBLEM STATEMENT

- 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. 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. Almost 30-35 minutes were wasted in waiting in a queue to collect their food and get a table to sit and eat. Also, Employees don't always get their 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.



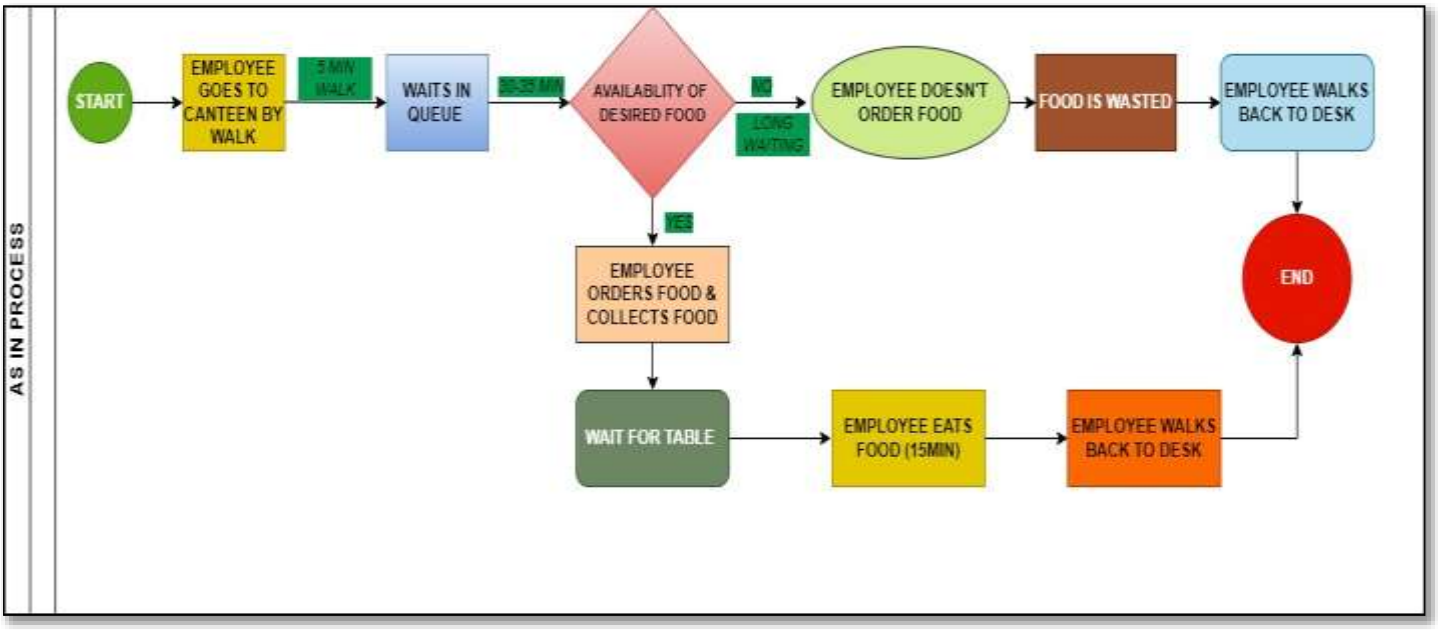

Fishbone Diagram for problem analysis

# 5. TASK 3: IDENTIFY THE OBJECTIVES OF THE NEW SYSTEM

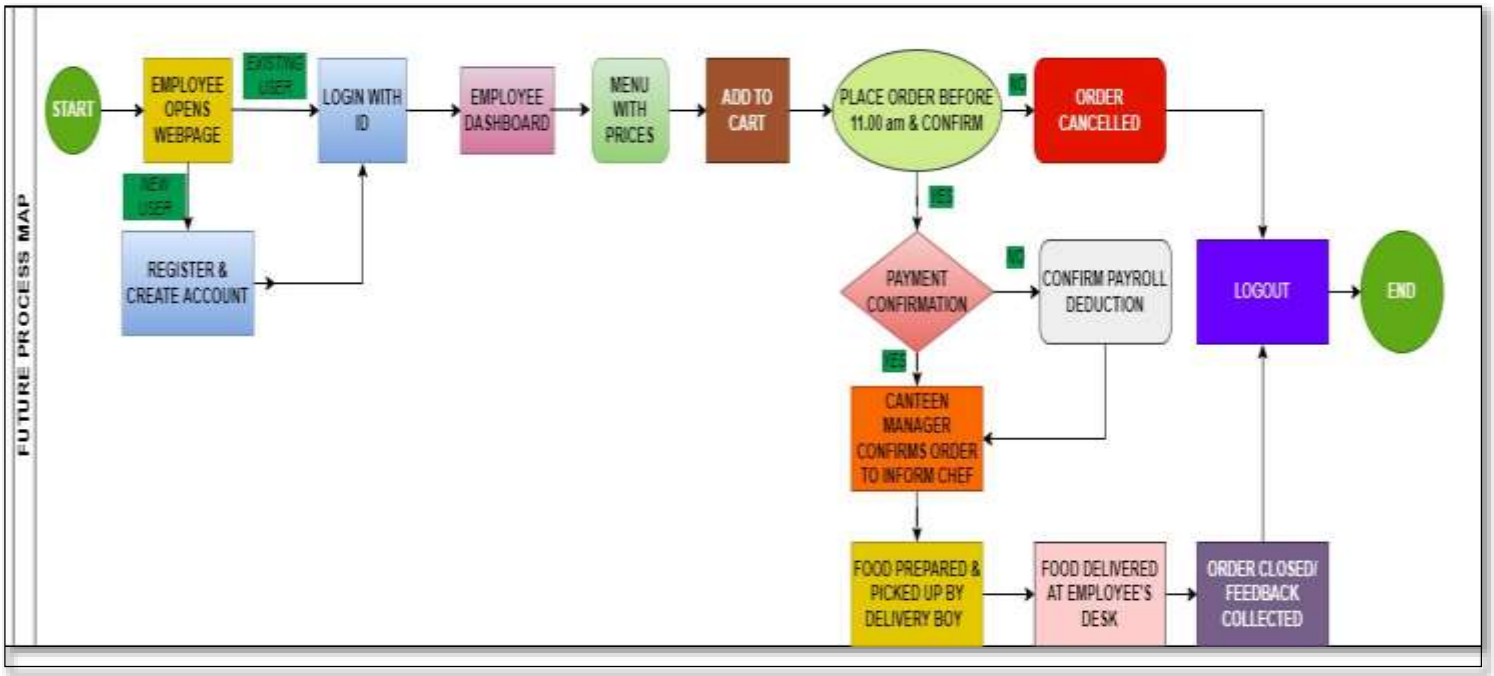
- To reduce canteen food wastage by a minimum of 30% within 6 months following first release. Scale: Value of food thrown away each month by examining the canteen inventory
    - Previous – 25% wasted
    - Must plan for: Less than 15%
- To reduce canteen operating costs by 15% within 12 months, following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

## REQUIREMENT CLASSIFICATION SCHEMA

# 6. TASK 4: CREATE AS–IN AND FUTURE PROCESS MAP



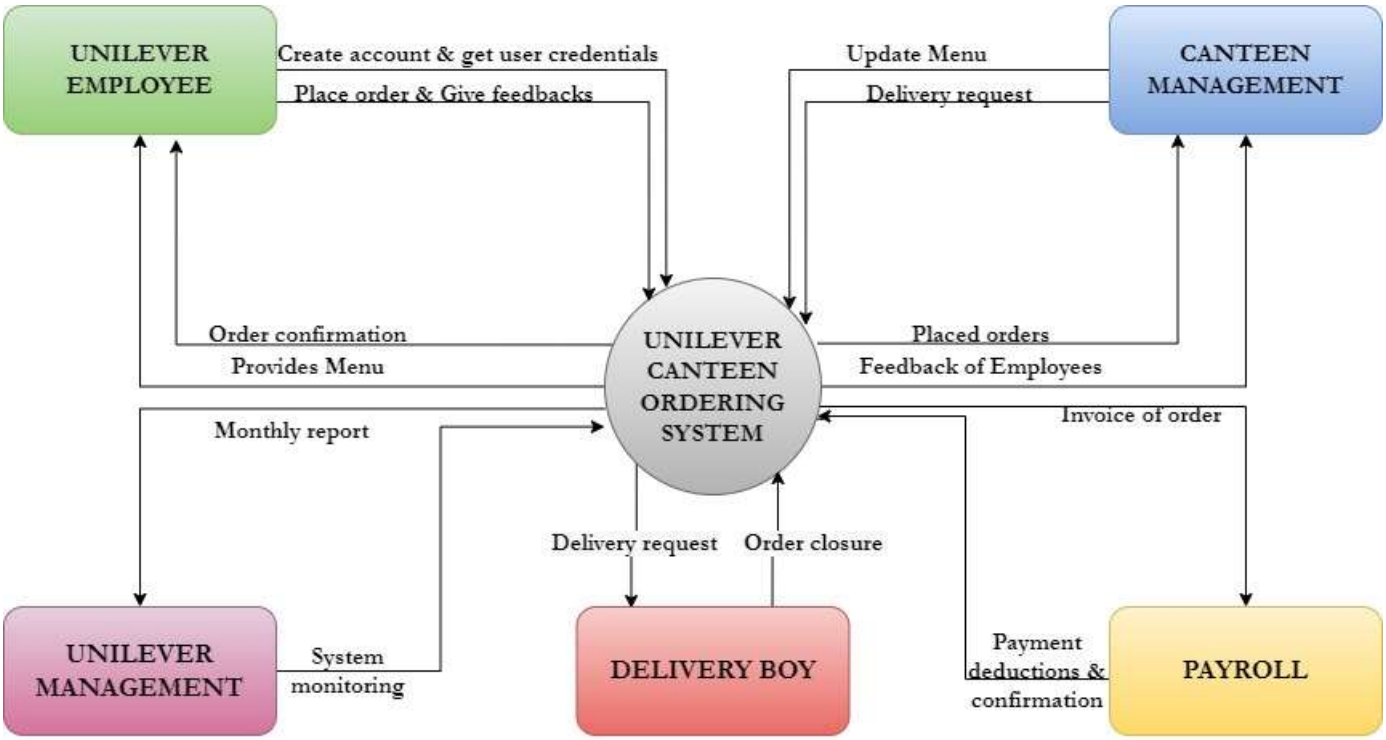

AS – IN PROCESS MAP




FUTURE PROCESS MAP

# 7. TASK 5: SCOPE OF THE CANTEEN ORDERING SYSTEM

## CONTEXT DIAGRAM




# 8. TASK 6: FEATURES TO BE DEVELOPED

- Develop Webpage
- Create account for employees and login credentials
- Menu Manager prepares daily Menu and the Canteen Manager updates the Menu in the webpage
- After the successful login, employee should be able to Order from the updated food menu
- The lunch orders cannot be made after 11 am (So that chef has sufficient time to prepare food for all the employees)
- Employees can add required dishes in to the cart and place the order
- Once the order is confirmed, the payment can be done or may be deducted from the monthly salary by payroll system

- The canteen manager (order processor) will be able to view all the orders and assign them to chef for the preparation
- The packed order will be assigned to the delivery boy for delivery at employee's workstation
- After the food is delivered, the delivery boy should be able to mark the same order as Delivered.
- Before the next order, the employees will be asked to fill the feedback for previous order.
- Payroll system should be able access the order details of employees to make the calculations and deduct the payments from salary accordingly
- MIS reports for different verticals should be generated and send to management

# 9. TASK 7: SCOPE ITEMS FOR THIS SOFTWARE

## IN-SCOPE

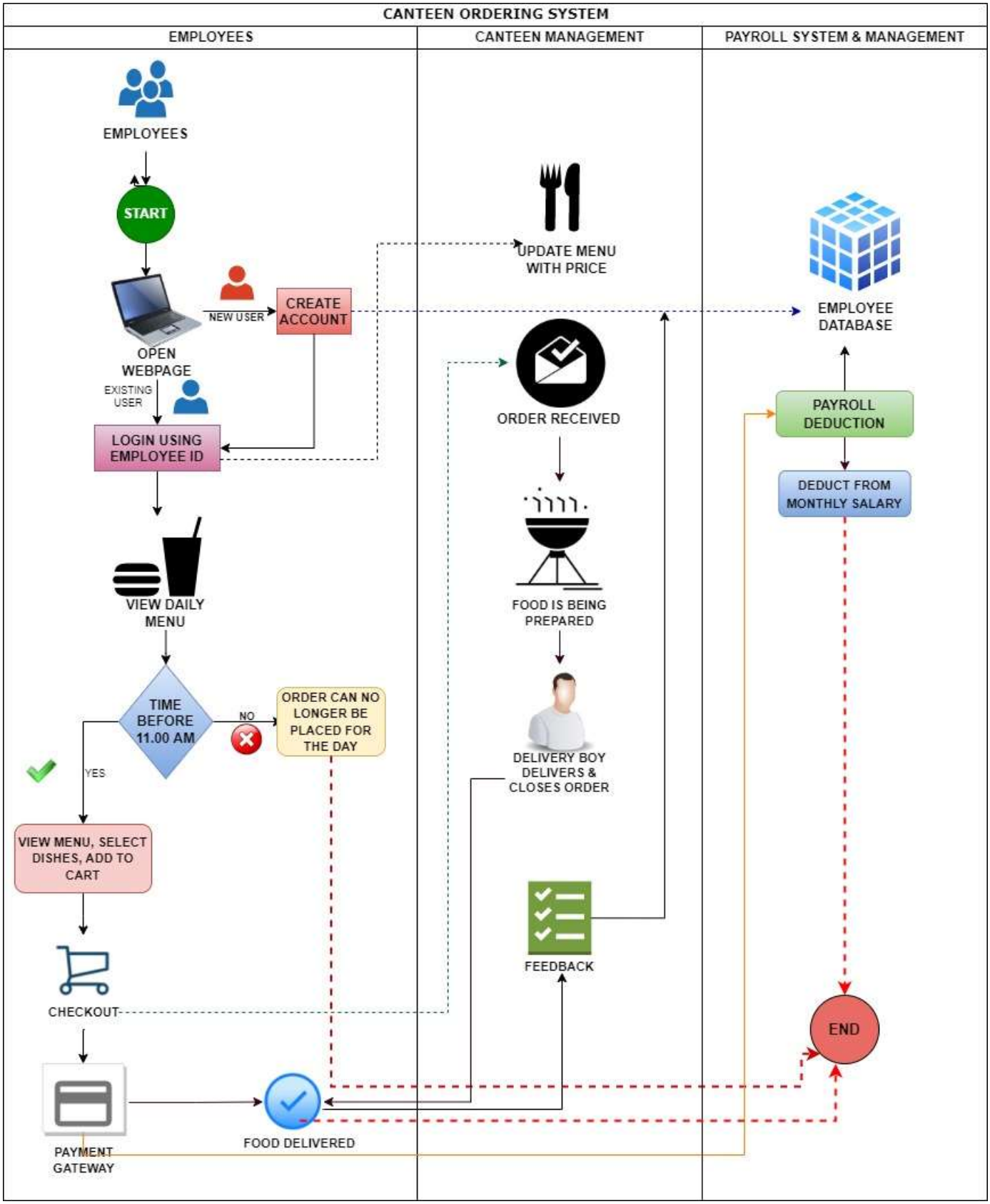
- Unilever employee can Signup/ Sign in using his/her login credentials.
- User Dashboard.
- Menu Page. View all the dishes for the day with the prices.
- Select the required dishes and add to cart.
- Place order and confirm.
- Payment online option/ Pay later (deduction from salary) option.
- Go the payment page.
- Payment details will be confirmed by employee and will be sent to payroll team for deduction from monthly salary, once order is Confirmed Customer will not be able to make changes or Cancel the order.
- Check the status of order placed. Food is being prepared.
- Employee can see the order and transaction history.
- Canteen Manager Place request for delivery of food.
- Delivery boy will close the online customer order after delivery of the food.
- Employee can provide feedback of the food and delivery.

- Management can generate detail report for monthly earnings, sell check and other analysis.

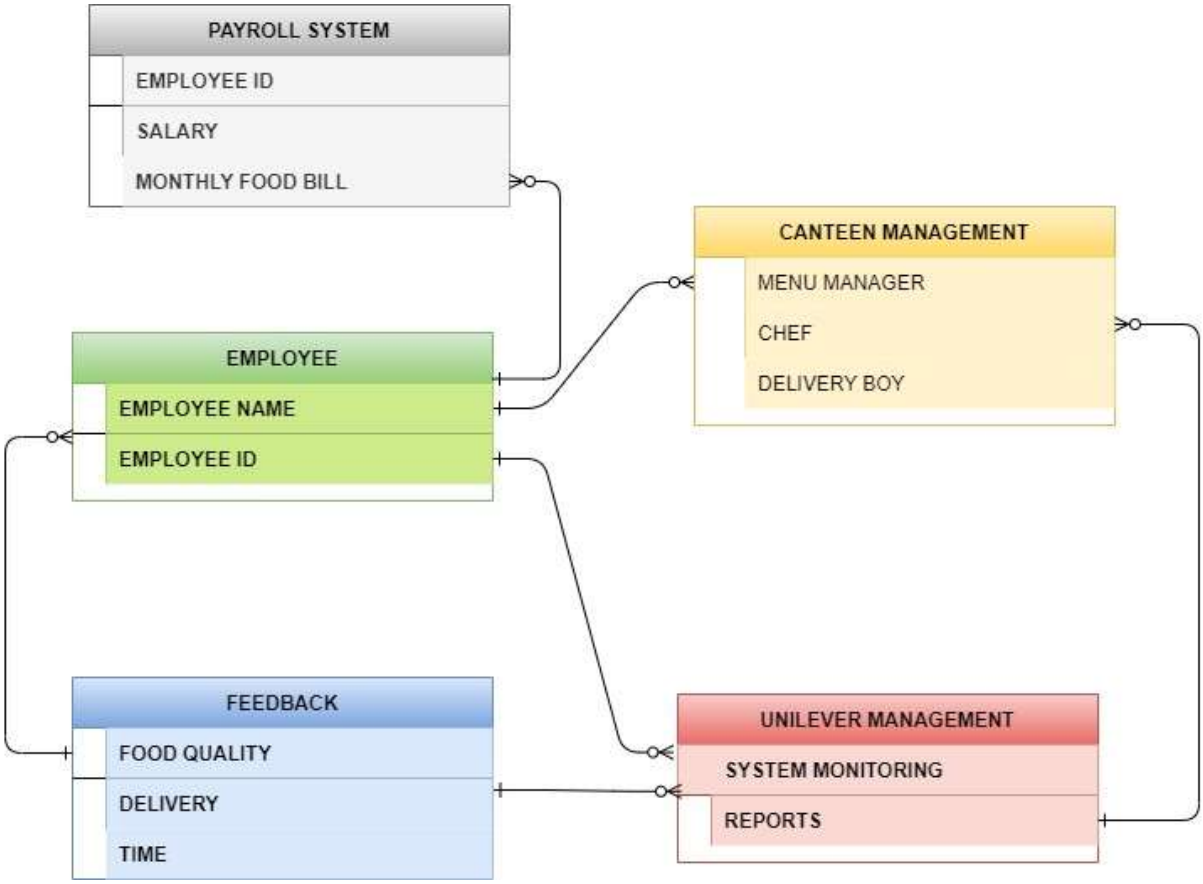
## OUT-OF SCOPE

- The system will not be able to track current supplies.
- Use of the system by ex-employees or outsiders not allowed
- Refund options
- Tips for the Canteen staff will not be tracked, managed or accepted in the system
- Automated email to customer once order is completed/ received
- Automated emails with the day's menu and suggestions (depending on dietary preferences)
- Brief description of the recipe and ingredients

# 10. TASK 8: ACTIVITY DIAGRAM OF THE SYSTEM



# 11. TASK 9: ER DIAGRAM OF THE SYSTEM




# 12. TASK 10: BUSINESS REQUIREMENTS

Functional Business Requirements:

- User Registration and Login
- Up-to-date Menu for the day
- Order to be placed by 11.00 am
- Create and edit the order before check out
- Delivery to the employee's desk
- After delivery, the delivery associate shall close the online customer order
- Customer should be able to submit the feedback
- Generation of reports for management regarding the utilization of the canteen order system, reduction in operational costs

Non Functional Business Requirements:

- Scalability & Performance: Scalable for 1500 employees at a time

- Availability: System to be light and fast
- Usability: User friendly and self-explanatory
- Maintainability: Software in Java

# 13. TASK 11: DRAW WIREFRAME FOR CANTEEN ORDERING SYSTEM