

BUSINESS ANALYSIS CAPSTONE PROJECT AT 10ALYTICS DATA AND STRATEGY

UNILEVER CANTEEN ORDERING SYSTEM

PROJECT OVERVIEW: BACKGROUND

Unilever is a British-Dutch 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 has around 1500 employees which are spread across 12 floors. They have 2 canteens to cater to these 1500 employees. Each canteen can seat around 150 employees at a time.

CURRENT STATE

Most employees would prefer to take their lunch between 12 noon to 1 pm. This has 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 in 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.

FUTURE STATE

You have been given the following requirements by the Client on the proposed Future State of the System.

1. The employee shall open the web page of the Canteen Ordering System. He/she shall be presented with an up-to-date menu for the day. It will have a list of all the dishes available in the canteen for the day along with its prices.
2. The lunch order can be placed by employees latest by 11 am. After 11 am the system shall not allow the users to place orders for lunch items so that the chefs have sufficient time to cook the ordered dishes. There should be a Menu Manager (a canteen employee) who shall create the menu and update the menu.
3. The users can select the lunch dishes they would like to eat and create an order. They should be able to edit the items they want to order any time before checking out.
4. Once the order is confirmed and the user has checked out, they should NOT be able to cancel or edit the order.
5. The canteen manager also known as 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.
6. This canteen manager should be able to request a delivery to the employees' workstation.

7. 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.
8. If a customer does not like any food item or is not happy with the delivery system by the canteen, they should be able to submit feedback.
9. There is no payment gateway for the system, so the payment for dishes ordered shall be deducted from employee's salary. Hence, the employees need to enroll for salary payment deduction. The payroll system will handle payroll deductions.
10. At the end of the month the payroll system shall calculate the total number of dishes ordered by each employee. The payroll system shall deduct money from the employee's salary.

YOUR TASK...

AS A BUSINESS ANALYST ASSIGNED TO THIS PROJECT, YOU ARE REQUIRED TO:

1. Identify all the impacted stakeholders.
2. Build a Stakeholder Analysis Matrix for the Identified Stakeholders with Justifications.
3. Identify the problem statement(s) within the Current Process.
4. Identify the objectives of the new Canteen Ordering System.
5. Develop a Business Case to convince Senior Management of the need for this new System.
6. Develop a RACI Matrix for the implementation of this Project.
7. Write down the main features that needs to be developed in this new System.
8. Create the AS-IS and the TO-BE Process maps (using simple flowcharts or a Swimlane Diagram).
9. Translate the To-Be Requirements into User Stories.
10. Create a Jira Project for the new system, upload the user stories on the Jira Product Backlog and proceed to create a minimum of 3 Sprints with screenshots.

HOW YOU WILL SUBMIT

Please, feel free to include any other analysis/techniques that will add more value to your project.

- You will submit a pdf report of all your solutions
- Take a snapshot of the Jira Stages (Project Creation, Product Backlog, Sprint Backlog and Jira Board) and include in the report.
- **Link to draw.io for the process Maps - <https://app.diagrams.net/>
- ** Use the Jira link originally sent to you to create your Jira Project. All the best!!

UNILEVER CANTEEN ORDERING SYSTEM CAPSTONE PROJECT SOLUTIONS

1. STAKEHOLDERS IMPACTED BY THE IMPLEMENTATION OF THE NEW CANTEEN ORDERING SYSTEM:

1. Employees:

- Employees will directly benefit from the new canteen ordering system, which will reduce their waiting time for vacant tables and food at the canteen.
- They will benefit from the online meal ordering system with the option of meal delivery to their workstations.
- Employees will also benefit from the new solution as it will eliminate the inconvenience experienced during lunchtime, where employees spend about 60 minutes for a 10-minute activity.
- The new solution will provide employees the opportunity to give feedback on food quality and the delivery system.

2. Canteen Staff:

- The Canteen Manager/Order Processor, Chefs, and Delivery Boy will be directly impacted and involved in collating and managing the online orders, preparing menus, and delivering orders, respectively.
- The team will also be involved in closing the various online menu orders, managing stock inventory, and analyzing feedback for optimal performance.

3. Company Management:

- Management initiates the project to improve employees' satisfaction during lunchtime, minimize the cost of food wastage, and reduce the loss of productive hours due to the current canteen system inefficiencies.
- They would like to see an improved and performing workforce free from negative lunchtime concerns.
- They are interested in the successful deployment and benefits of the new canteen ordering system.

4. I.T. Department:

- Responsible for the development and maintenance of the new canteen ordering solution from start to finish.
- Involved in the regular enhancement of the application using the feedback mechanism.

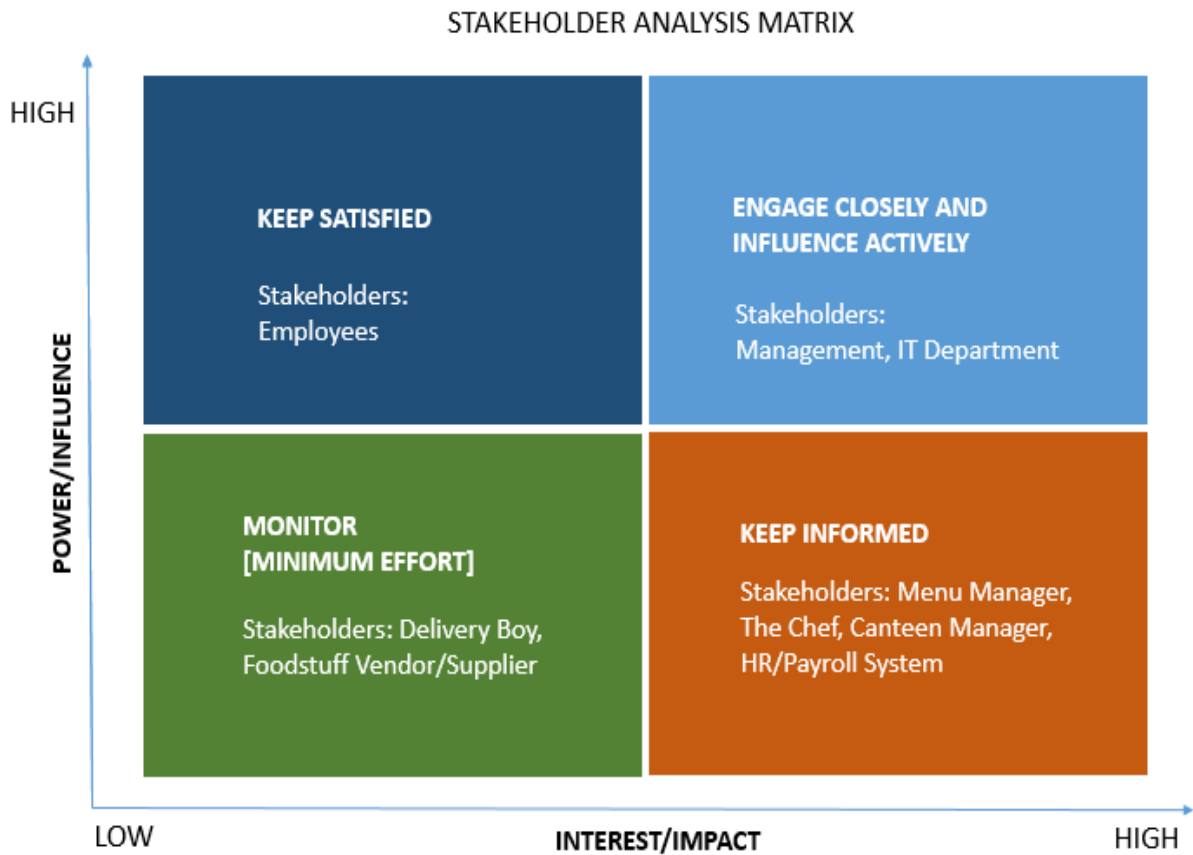
5. HR/Payroll Department:

- Directly in charge of onboarding employees into the new app.
- Liaises with the IT department for seamless salary deductions on a monthly basis.
- Ensures that the IT department integrates the application with the existing Human Resources System.
- Ensures that accurate deductions are made per employee based on their orders each month.

6. Foodstuff Vendors/Suppliers:

- Responsible for supplying food items to the canteen and affected by food wastage issues.

2. THE IDENTIFIED STAKEHOLDERS' ANALYSIS MATRIX



THE STAKEHOLDERS' MATRIX WITH JUSTIFICATIONS

S/NO	STAKEHOLDER'S NAME	POWER/INFLUENCE	INTEREST/IMPACT	JUSTIFICATION
1	Employees	High	Low	Employees are directly impacted by the inefficiencies in canteen operations. Their preferences drive demand.
2	Management	High	High	They have the authority to implement changes, optimize operations, and enhance employee satisfaction and productivity.
3	IT Department	High	High	The IT Department will be directly impacted by the future state. They will be

				responsible for building the ordering website and ensuring it is user-friendly, reliable, and secure.
4	Delivery Boy	Low	Low	Responsible for the timely delivery of orders to employees and closing out orders.
5	HR/Payroll System	Low	High	Employees' enrollment and communication. Also ensure smooth payment deductions.
6	Canteen Manager/Order Processor	Low	High	Canteen Manager plays a crucial role in orders placed by employees, views orders, takes inventory of all dishes ordered, and gets them cooked by the chef.
7	Menu Manager	Low	High	Creates and updates menu.
8	The Chef	Low	High	They are crucial for fulfilling orders.
9	Foodstuff Vendor/Supplier	Low	High	Supplies food items to the canteen and is affected by food wastage issues.

3. THE IDENTIFIED PROBLEM(S) STATEMENT WITHIN THE CURRENT PROCESS:

- **Peak Hour Rush:** The canteen experiences a huge rush during lunch hours, leading to employees wasting time waiting for tables to be vacant.
- **Time Wastage:** Employees waste a significant amount of time during their lunch break. While the actual time spent eating is only 10-15 minutes, around 30-35 minutes are wasted in queues and waiting for tables and food.
- **Inefficient Food Management:** The canteen often runs out of the employees' preferred food menus. And this results to wastage of food, as the canteen throws away food not purchased.
- **Inconvenient Access:** Employees spend around 10 minutes reaching and coming back from the canteen using elevators which adds to the inefficiency of the lunch break.
- **Absence of feedback mechanism:** There is no formal mechanism for employees to provide feedback on the food quality and delivery system which hinders continuous improvement efforts. Lack of a feedback mechanism places the company management in a 'blind-spot' concerning the canteen performance and its effectiveness.

4. THE IDENTIFIED OBJECTIVES OF THE NEW CANTEEN ORDERING SYSTEM:

- **Reduce Time Wastage:** The new canteen ordering system will minimize the time employees spend waiting for tables, queuing for food, and traveling to and from the canteen during lunch hours.
- **Improve Food Availability:** It will ensure that employees have access to the food they desire by reducing instances of food shortages or running out of certain items.
- **Enhance Food Ordering Convenience:** It will allow employees to conveniently order their desired meals online in advance, with the flexibility to edit their orders before a specified deadline.

- **Streamline Order Management:** It will enable the canteen manager to efficiently manage orders, including inventory tracking and liaising with the chef for meal preparation.
- **Facilitate Delivery:** It will implement a system for delivering ordered meals directly to employees' workstations, and eliminate the need for employees to physically collect their food.
- **Enable Feedback Mechanism:** It will provide a channel for employees to submit feedback regarding food quality and delivery service, and allow for continuous improvement.
- **Simplify Payment Process:** It will integrate with the payroll system to automate payment deductions from employees' salaries for the meals they order.
- **Ensure Accountability:** It will track and record the total number of dishes ordered by each employee for accurate payroll deductions at the end of the month.

5. BUSINESS CASE FOR THE SENIOR MANAGEMENT APPROVAL

EXECUTIVE SUMMARY:

The proposed solution entails the implementation of a new canteen ordering system at Unilever to modernize and streamline the current ordering process. The need for this system arises from inefficiencies and limitations in the existing manual ordering system, which result in long wait times, errors, and dissatisfaction among employees. By introducing a new digital ordering system, Unilever aims to enhance the dining experience for employees, improve operational efficiency, and drive cost savings.

REASONS:

- Current manual ordering process is inefficient and prone to errors.
- Long wait times lead to dissatisfaction among employees and impact productivity.
- Inability to track orders and preferences hinders operational insights and decision-making.

BUSINESS OPTIONS:

- **Do Nothing:** This option may have no additional cost but challenges experienced with this system will remain.
- **Expand Canteen facilities to more levels:** Expanding the canteen facilities to additional floors would require repurposing office spaces, potentially necessitating restructuring. This approach will cost a total of \$42,250 which is a huge cost and result may not address all existing challenges.
- **Implement an Online Ordering System:** This approach presents a compelling business option that aligns with the organization's objectives of enhancing employee satisfaction, improving operational efficiency, and driving innovation. Unilever can transform its canteen experience, gain a competitive edge, and deliver superior value to its employees.

EXPECTED BENEFITS:

- Increased Efficiency.
- Cost Savings.
- Enhanced Employee Satisfaction.
- Manpower Savings.

TIMESCALE:

- Requirements Analysis: 4 weeks.
- Vendor Selection: 4 weeks.
- System Design and Development: 12 weeks
- Training and Change Management: 3 weeks.
- Deployment and Go-Live: 2 weeks.
- Post-Implementation Support: Ongoing Cost.
- Software Licensing: \$12,640 (One-Off).
- Yearly maintenance fee \$2,000.
- Training: \$500 (estimated cost of employee and administrator training).
- Total cost of \$15,140.

FORECASTED RISKS:

- Technical Issues.
- Vendor Reliability.

6. RACI MATRIX FOR THE IMPLEMENTATION OF THIS PROJECT

RACI MODEL						R	Responsible				A	Accountable					C	Consulted					I	Informed																
UNILEVER CANTEN ORDERING SYSTEM		Project Manager	Technical Lead	Business Analyst	Order Processing Manager	Subject Matter Expert (Employee)	Order Processors	Menu Manager		Delivery Boy	Pay Roll Manager	Menu Management Team	Order Processing Team	Customer Service Team	Technical Support Team	Training Team	Quality Assurance Team	Data Analysis Team				IT Department																		
		Project Leadership				Project Team Members						Project Sub-Teams								External Resources																				
	INITIATE PHASE ACTIVITIES																																							
	Project Planning		A		C	A	C		I		I	I	I		I	I	I		I																					
Budget Management		A		I	C					I	I	I		I	I	I		I																						
Legal Compliance		A		I	C					I	I	I		I	I	I		I																						
PLAN PHASE ACTIVITIES																																								
Requirements Gathering		A		C	A	C	C	C		I		I	C	C	I	I	I																							
System Design		A		R	C	C	I	C	C	I		I	I	C	I	I	I																							
EXECUTE PHASE ACTIVITIES																																								
Development		A		R	C		I	C	C	I		I	I	C	I	I	I		C		R																			
Testing		A		R	C		C	C	C	C	C	I	C	C	C	I	I	R			R																			
Deployment		A		R	C		I	C	C	C	C	I	I	C	I	I	I				R																			
Training		A		R	I	C	C	C	C	I	C	C	C	C	I	C	R	I																						
Communication		A		C	R		I	I	I	I		I	I	I	I	C	I	C																						
Stakeholder Management		A		I	R		I	I	I	I		I	I	I	C		I																							
CONTROL PHASE ACTIVITIES																																								
Perform Change Management (Feed backs)		A																	A		I																			
CLOSE PHASE ACTIVITIES																																								
Create Lessons Learned		A		R															C		I																			
Create Project Closure Report		A		R															C		I																			

A RACI Matrix outlines the roles and responsibilities of individuals or teams involved in a project.

Legend:

R: Responsible - The individual or team responsible for completing the task.

A: Accountable - The individual ultimately accountable for the task's success or failure.

C: Consulted - Individual or team whose input is required for the task.

I: Informed - Individual or team who needs to be informed of the task's progress or outcomes.

7. THE MAIN FEATURES TO BE DEVELOPED IN THE NEW CANTEEN ORDERING SYSTEM.

The main features that need to be developed in the new Canteen Ordering System include:

FOR EMPLOYEES:

- **User Registration & Authentication:** All users will be on boarded through the Organization's Active Directory.
- **Access Up-to-Date Menu:** View the daily menu with dishes, descriptions, and prices.
- **Order Food:** Select desired dishes and create lunch orders.
- **Edit Orders (Before Deadline):** Modify or cancel items in the order before a designated deadline.
- **Order Confirmation and Checkout:** Confirm the order and complete checkout. And orders cannot be cancelled or edited after confirmation.
- **View Order Status (Optional):** Track the status of their orders (in progress, delivered, etc.). This feature depends on the chosen system's capabilities.
- **Provide Feedback:** Submit feedback about food quality, service, or suggestions for menu improvements.

FOR CANTEEN MANAGER/ORDER PROCESSOR:

- **Menu Creation:** Develop or create enticing meal menu for improved employee choice
- **View All Orders:** See all placed orders by employees.
- **Inventory Management:** Take inventory of ordered dishes based on employee orders.
- **Order Processing:** Submit orders to the chef for preparation.
- **Request Delivery:** Request delivery of prepared meals to employee workstations.

FOR DELIVERY BOY:

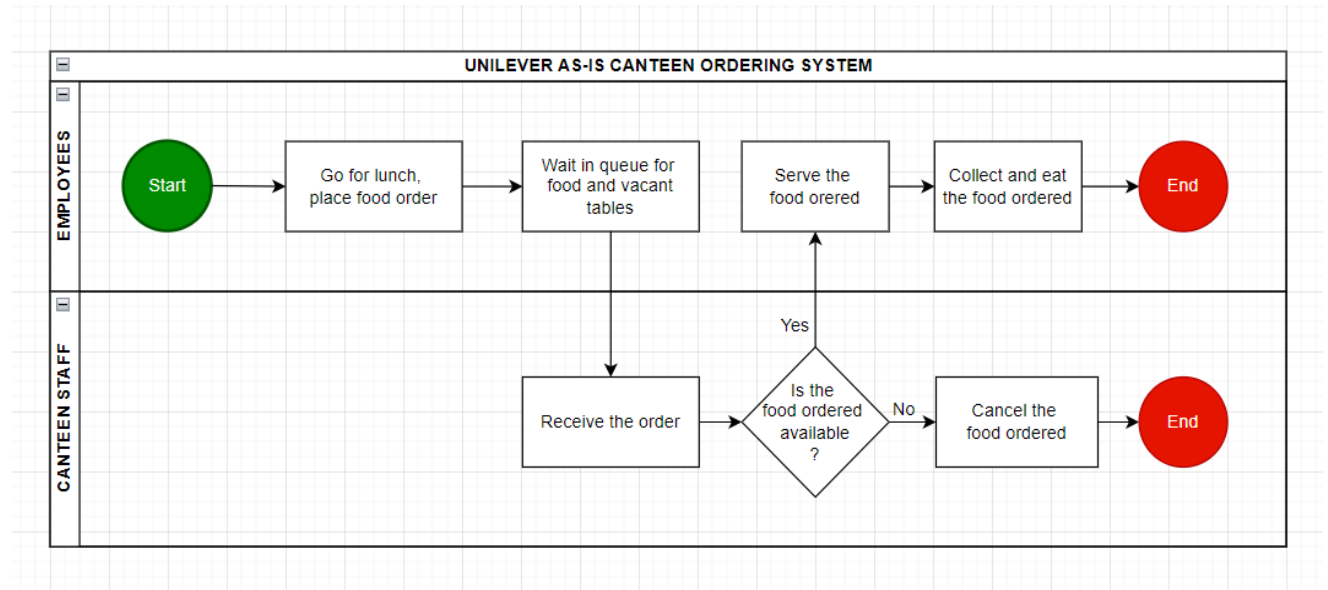
- **Delivery Management:** Receive delivery requests for employee orders.
- **Deliver Lunch:** Deliver meals to the designated employee workstations.
- **Mark Order Completion:** Confirm delivery and close the corresponding online order.

ADDITIONAL FEATURES:

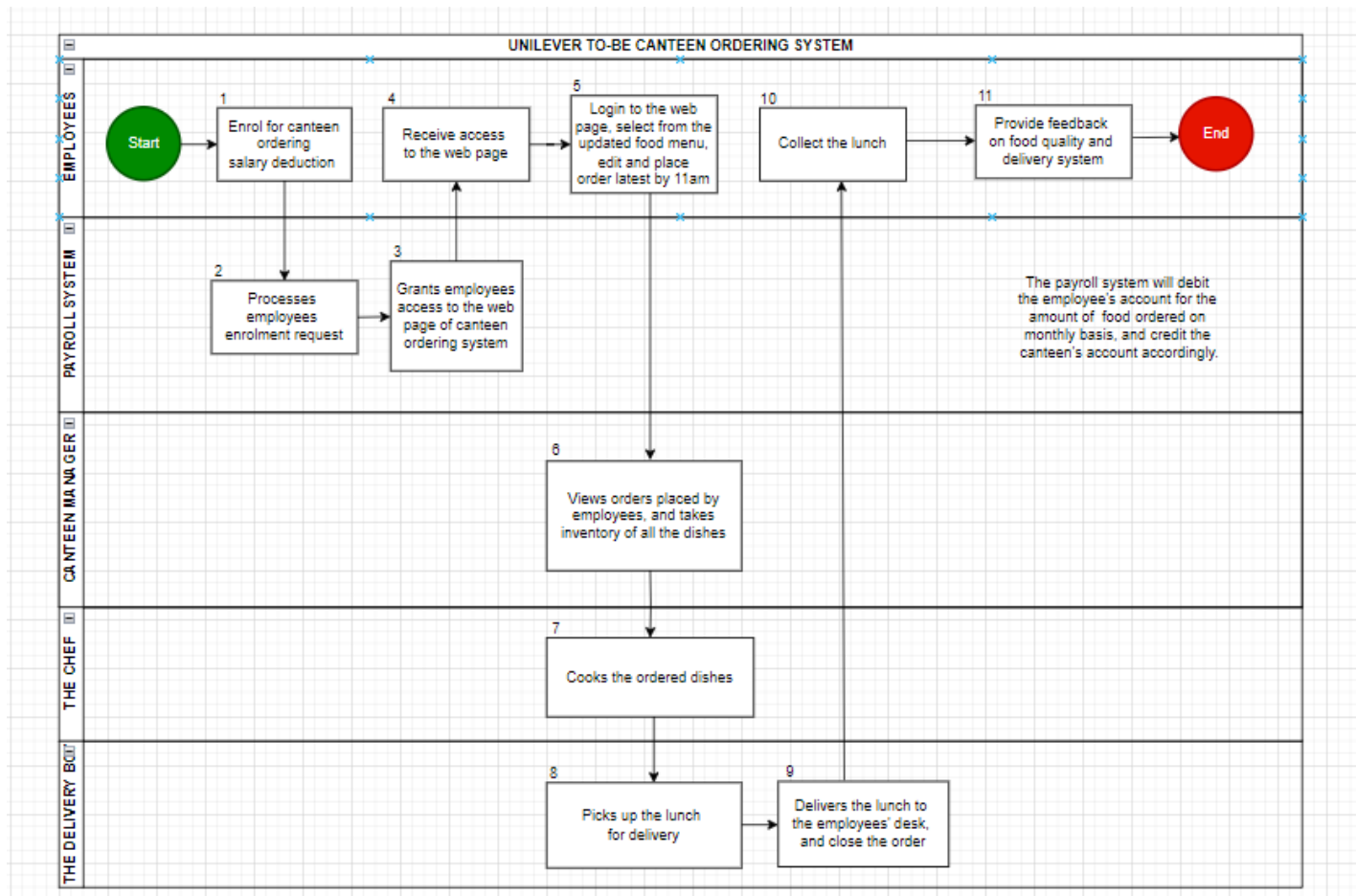
- There is no payment gateway for the system, so the payment for dishes ordered shall be deducted from employee's salary. Hence, the employees need to enroll for salary payment deduction. The payroll system will handle payroll deductions.

- At the end of the month the payroll system shall calculate the total number of dishes ordered by each employee. The payroll system shall deduct money from the employee's salary.

8. UNILEVER AS-IS CANTEEN ORDERING SYSTEM USING SWIM LANE DIAGRAM



UNILEVER TO-BE CANTEN ORDERING SYSTEM USING SWIM LANE DIAGRAM



9. TRANSLATING THE TO-BE REQUIREMENTS INTO USER STORIES.

User Stories are typically written in the format: "As a [user role], I want to [perform an action] so that [achieve a goal/benefit]." Here are some user stories based on the To-Be Requirements:

These user stories are critical items in new software development or enhancement. For the Canteen Ordering Application, the user stories are categorized as follows:

1. Employee User Stories
2. Canteen Team/Manager User Stories
3. Delivery Boy/Team User Stories
4. Payroll User Stories

The user stories are aligned with the critical or impacted stakeholder(s) based on the swim lane process mapping diagram.

Employee User Stories:

1. As an employee, I want to be on boarded on the webpage so that the payroll system can debit my salary account for the total number of lunches ordered on a monthly basis.
2. As an employee, I want to be able to log in to the canteen ordering system (webpage) so that I can place my lunch order.
3. As an employee, I want to view the available menus so that I can make my meal choice.
4. As an employee, I want to be able to edit my ordered menu before the 11 a.m. checkout time so that I can make changes as desired.
5. As an employee, I want to have access to a feedback mechanism so that I can give feedback on the quality of food, delivery services, and the payroll system.

Canteen Manager User Stories:

1. As a canteen manager, I want to be able to create lunch menus so that employees can view the available options.
2. As a canteen manager, I want to be able to update menus with accompanying prices so that employees can make their choices.
3. As a canteen manager/order processor, I want to be able to view orders placed by employees so that I can inform the chef to prepare them.
4. As the canteen manager, I want to take inventory of all dishes ordered by different users so that I can make critical inventory decisions.
5. As a canteen staff member, I want to be able to mark all processed orders as ready so that the delivery boy can be notified for pickup and delivery.

Delivery Boy User Stories:

1. As a delivery boy, I want to view all orders marked for delivery so that I can deliver them immediately.
2. As a delivery boy, I want to be able to close all orders after each delivery.

Payroll System User Stories:

1. As a payroll staff member, I want to be able to view the cumulative order history per employee so that I can prepare the payroll for the month effectively.
2. As a payroll staff member, I want the new canteen ordering system (webpage) to have an interface with the Human Resources System for payroll (payment) effectiveness.

These user stories capture the key functionalities and interactions within the canteen ordering system (webpage) from both the employees' and canteen staff's perspectives.

10. SCREEN SHOT OF A JIRA PROJECT FOR THE NEW SYSTEM WITH USER STORIES ON JIRA PRODUCT BACKLOG AND SPRINTS

The screenshot shows the Jira interface for the 'newcanteenorderingsystem' project. The left sidebar contains navigation options: PLANNING (Timeline, Backlog, Board, List, Goals, Issues), DEVELOPMENT (Code), and a note 'You're in a team-managed project'. The main area displays the 'Backlog' for 'NCOS Sprint 1', which has 8 issues. The issues are listed in a table with columns for issue key, description, status, and assignee. The right sidebar shows the details for issue 'NCOS-8', including its description and a comment section.

Issue Key	Description	Status	Assignee
NCOS-8	As a delivery boy, I want to have access t...	TO DO	OD
NCOS-13	As a payroll system, I want to deduct m...	TO DO	
NCOS-11	As a canteen manager, I want to reques...	TO DO	
NCOS-9	As a canteen manager, I want to view or...	TO DO	
NCOS-4	As an employee, I want to view the avail...	TO DO	
NCOS-12	As a payroll system, I want to calculate t...	TO DO	
NCOS-6	As a canteen manager, I want to update ...	TO DO	
NCOS-2	As an employee, I want to login to the c...	TO DO	

The screenshot shows the Jira interface for the 'newcanteenorderingsystem' project. The left sidebar contains navigation options: PLANNING (Timeline, Backlog, Board, List, Goals, Issues), DEVELOPMENT (Code), and a note 'You're in a team-managed project'. The main area displays the 'Backlog' for the project, which has 3 issues. The issues are listed in a table with columns for issue key, description, status, and assignee. The right sidebar shows the details for issue 'NCOS-2', including its description and a comment section.

Issue Key	Description	Status	Assignee
NCOS-3	As a canteen manager, I want to create menu so that employees can view the available menus	TO DO	
NCOS-7	As an employee, I want to have access to feedback mechanism so that I can give feedback o...	TO DO	
NCOS-10	As a canteen manager, I want to take inventory of all dishes ordered by different users so th...	TO DO	