

Unilever Catering Industry

Stakeholders

ACTOR	Wants/Needs
Employee/Customer	<ul style="list-style-type: none">• I would like to eat food from a variety of cuisines. The food should be nutritious and freshly cooked. I like when the food is hot and is served at the right time. I don't like to be kept waiting.• I am so swamped with work it is difficult for me to go to the canteen and eat. I want options which I can eat at my workstation while working• I hate to wait for food to be served and don't want to eat at my work station. I like to take my meals in the canteen• As Pollution is increasing day by day due to Plastic Straw and Containers, I want environment friendly food container which can be recycled or disposed easily.
Canteen Manager	<ul style="list-style-type: none">• I can take out a combined list of all the orders, which are sorted out with sub totals of same dishes people have ordered. For eg Fish and chips – 10, Rice with kidney beans -10 etc.• The system should also give a floor wise list of order to plan deliveries.• Data and reports on most ordered items, least ordered items with quantities for planning the inventory
Delivery Boy	<ul style="list-style-type: none">• He should have a list with floor wise open orders. After food is delivered, he will checkbox the items on his list. After delivering all the orders he will close the orders on the website• A tablet can also be used for closing orders as and when they get delivered
Payroll system	<ul style="list-style-type: none">• A list of employees with total Price of food items ordered for the specified period.• Employee wise list of items ordered and price (datewise) which gets appended with salary statement for employees to check deduction• Provide Food card of certain amount through which employee can pay their bills• A list of employees with dates enrolling and leaving the canteen ordering system
Management	<ul style="list-style-type: none">• Most ordered and least ordered items with various drill downs such as floor wise, department wise which can be used for forecasting• List of employees enrolled/ left and no of orders placed• Overview and drill down of the feedback submitted• Monthly Financial reports

Stakeholder	Major Value	Attitudes	Major Interests	Constraints
Management	improved employee productivity; cost savings and reduced wastage, Reduced Canteen manpower	Strong Commitment	cost savings must exceed development and usage costs	none
Canteen Staff	more efficient use of staff time throughout the day; higher customer satisfaction	concern about downsizing; receptive	job preservation	training for staff in Internet usage needed; delivery staff needed
Employees	better food selection; time savings; convenience	strong enthusiasm,	simplicity of use; reliability of delivery; availability of food choices	Social value of eating lunches together may hamper
Payroll Department	no benefit; needs to set up payroll deduction registration scheme	Recognizes the value to the company and employees	minimal changes in current payroll applications	Will it require payroll software changes
Canteen/Menu Manager	increased sales; reduction in food wastage; efficiencies	receptive	Simple to operate; concern about resources for delivering meals	might not have staff and capacity to handle order levels; Computer literacy required

Problem Definition and Solution

- **Canteen:** Monthly Food wastage. Overcrowded Canteen. Inability to offer wide variety of menu choices. Shortage of dishes on any given day
- **CUSTOMER:** Wastage of time. Unavailability of dishes, choices of food is limited, shortage of dishes if you are late for lunch, Time flexibility

Solution: A canteen ordering system with an option to eat meals at work station at the specified time

The ordering system will have following features

- Order meals from the canteen menu to be delivered or in canteen at specified time
- Create, view, modify, and delete meal menus
- Register/deregister for payroll deduction – this is the pre-requisite for using the system. Only employees registered for payroll deduction can order meals
- Produce summarized order list for the day for canteen staff
- Produce floor wise delivery details for planning deliveries by delivery boy
- Booking for table space in canteen for 20-minute slots between 12 noon to 1pm for employees who want to eat in canteen. To be implemented for 50% capacity initially. 50% space to be left for employees bringing their own lunch
- Produce ingredient lists for meals ordered
- Provide system access through Intranet or Internet access for authorized employees/canteen staff

Stakeholder Interactions with new system

ACTOR	What they can do on the software created
Employee/Customer	<ul style="list-style-type: none">● Employee/Customer can order specific meal(s) online before 11 a.m.● Before Submitting they are able to amend the order but once submitted there will be no option to cancel● They have an option to view previous orders and the costs and total costs● They can book a table space in Canteen for the available time slots● They can download the list of previous orders in pdf/xls● There will be option to provide feedback regarding the meal● They will have to register with the salary payment deduction tab before being able to place an order● They will get food online with Eco-friendly Containers
Canteen/Menu Manager	<ul style="list-style-type: none">● The canteen manager can view the summarized list of meals ordered by Employees/Customer● An option to download the list of meals in a format to be easy to understand for the cook● Floor wise list of orders with delivery details (This information in a similar or same format will be available to the Delivery Boy for closing orders after delivery)● Administer Menus
Delivery Boy	<ul style="list-style-type: none">● The Delivery Boy will be able to view the delivery details in a form so to save time on delivery. (Organized by floor)● The Delivery Boy will deliver the meal to the Employee/Customer and will close the order online once delivered
Payroll system	<ul style="list-style-type: none">● Obtain the list Employee/Customer registered/deregistered with date.● Provide a summary of the meals ordered and cost per employee● Deduct total cost of meal from Employee/Customer payroll● Manual intervention in case of Issues
Management	<ul style="list-style-type: none">● Produce the following Reports:● Which dishes are the most popular?● How many employees are using the system?● Satisfaction of the employees on using the system. This should be tracked on the basis of feedback submitted by the employees.● Sales for each day● Total monthly earnings● Order forecasting i.e. a prediction of which items will be ordered and when they will be ordered.
Admin	<ul style="list-style-type: none">● Control Permissions for Employee, Canteen Manager, Delivery Boy, Menu Manager

Advantages and Objectives

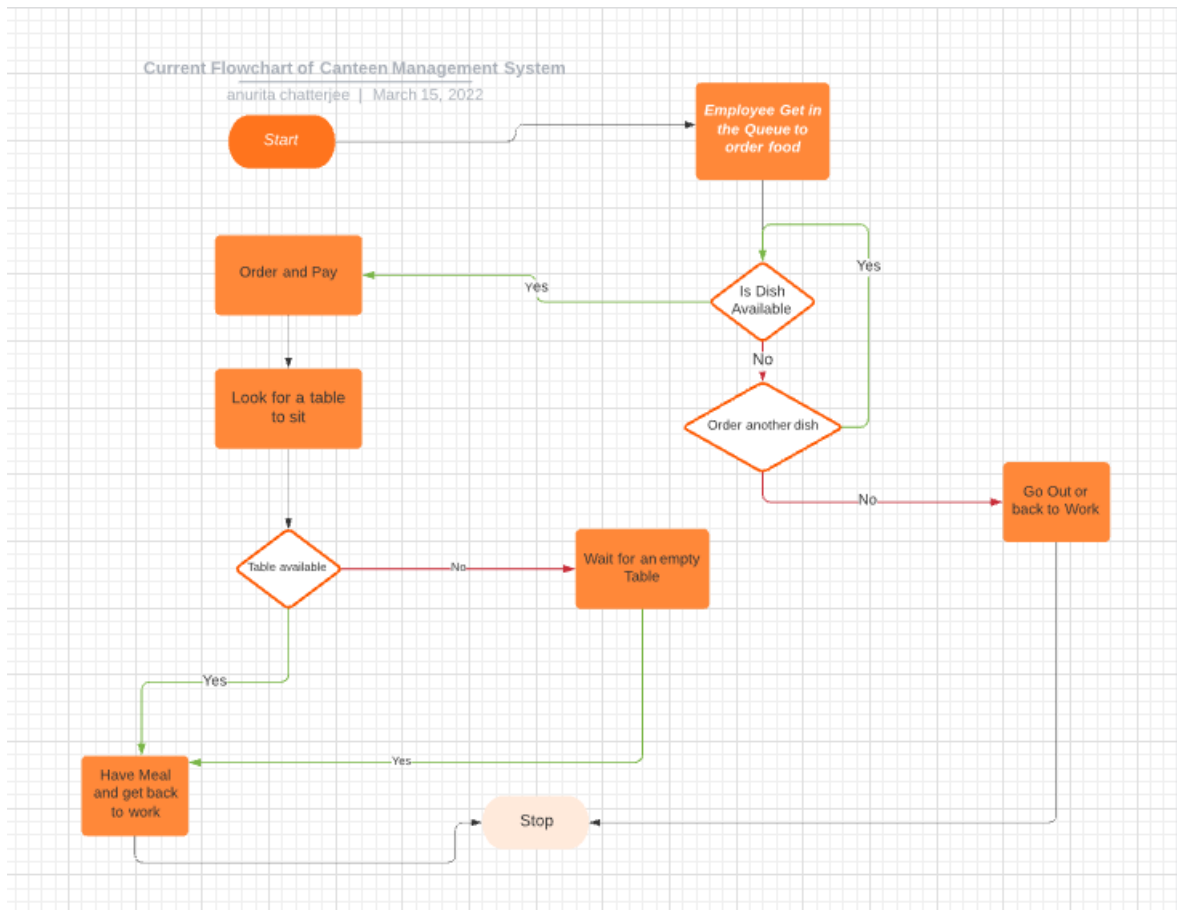
Advantages of the Canteen Ordering System:

- **Canteen:** Helps in predicting the monthly inventory and reduce wastage of food. De-clogging of the Canteen space. Faster better customer service, hassle free collection of payments.
- **Customer:** Saves Time, ease of ordering no ques, option of eating at workstation or Canteen, Variety of Cuisines availability, Time flexibility, ease of payment.

Objectives:

- Reducing the time taken by employees for having lunch by 50%
- Increasing the cost efficiency of Canteen, the operating costs should get reduced by at least 15% in first year
- Enhancing operating efficiency of Canteen resulting in reduced manpower
- Making canteen a food efficient system with minimal wastage. At least 30% reduction in food wastage in the first 6 months of going live

Existing System

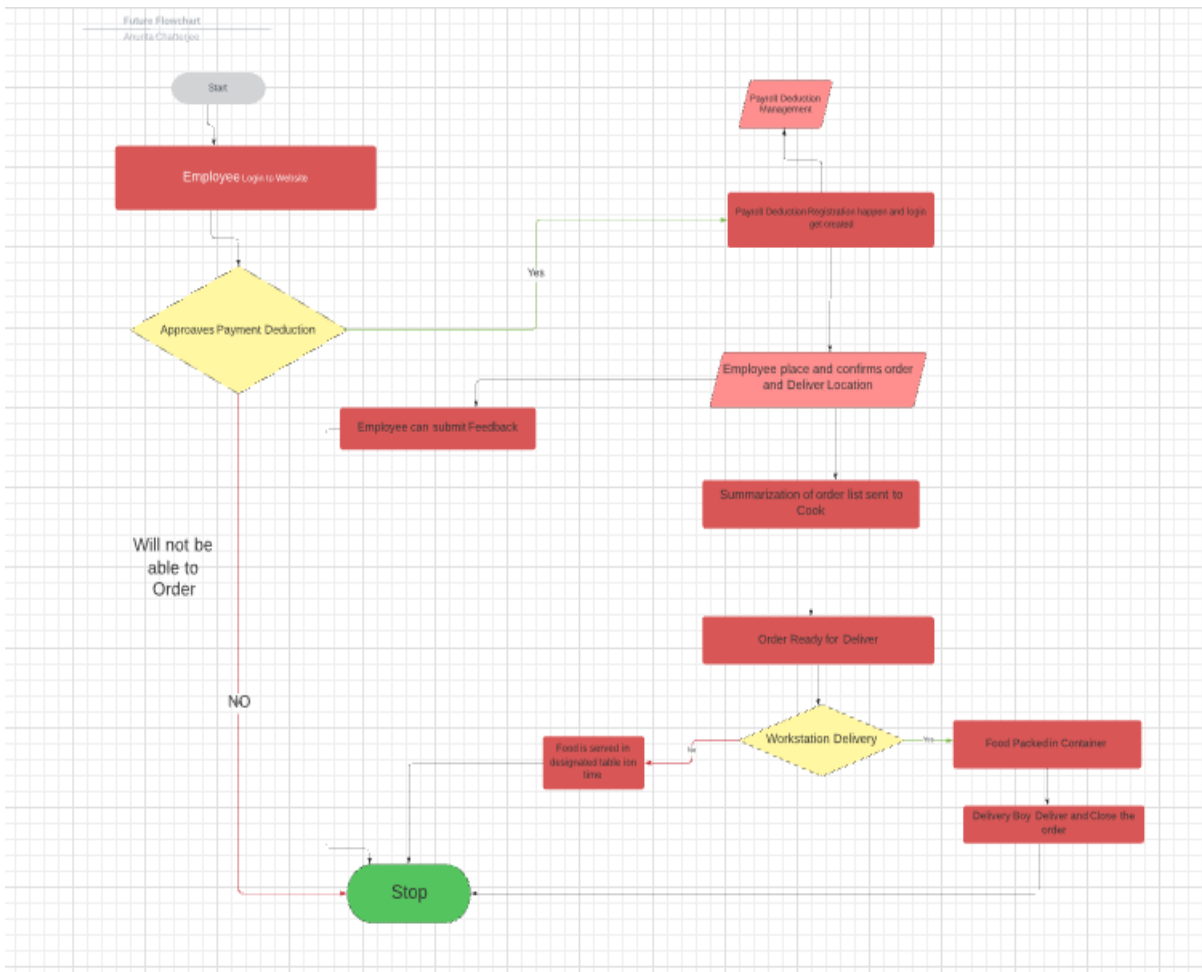


Proposed System

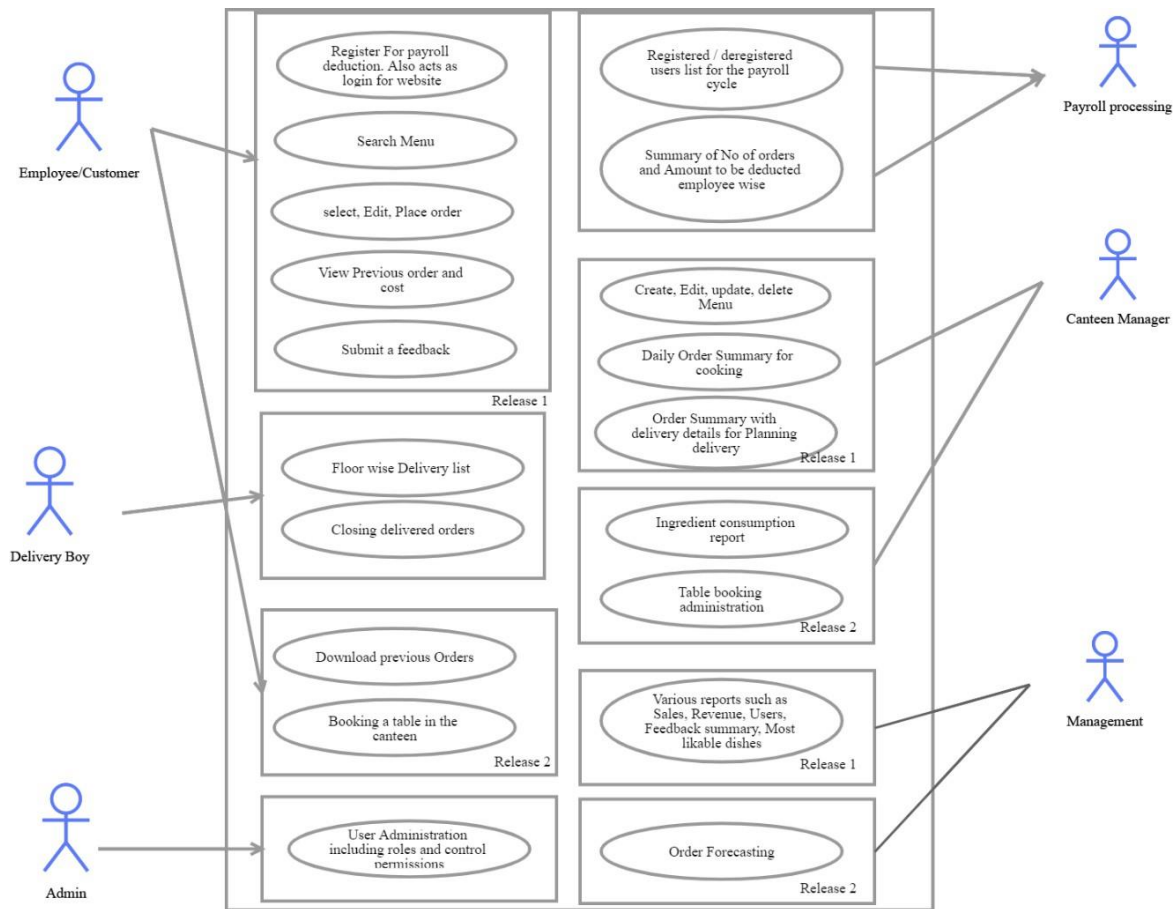
What is the proposed solution or system? Mention in points how the system itself will be for the user.

- User friendly interface
- Enrolment through Salary deduction acceptance
- Ease of choice of Menu
- Can order more than one or a variety
- Can submit one or multiple order
- Can view previous order details including total costs
- Choice of eating at workstation or Canteen
- Management can control offers can be made easily over the Portal offering employees an improved experience.
- Enable cut off at selected time 11:00

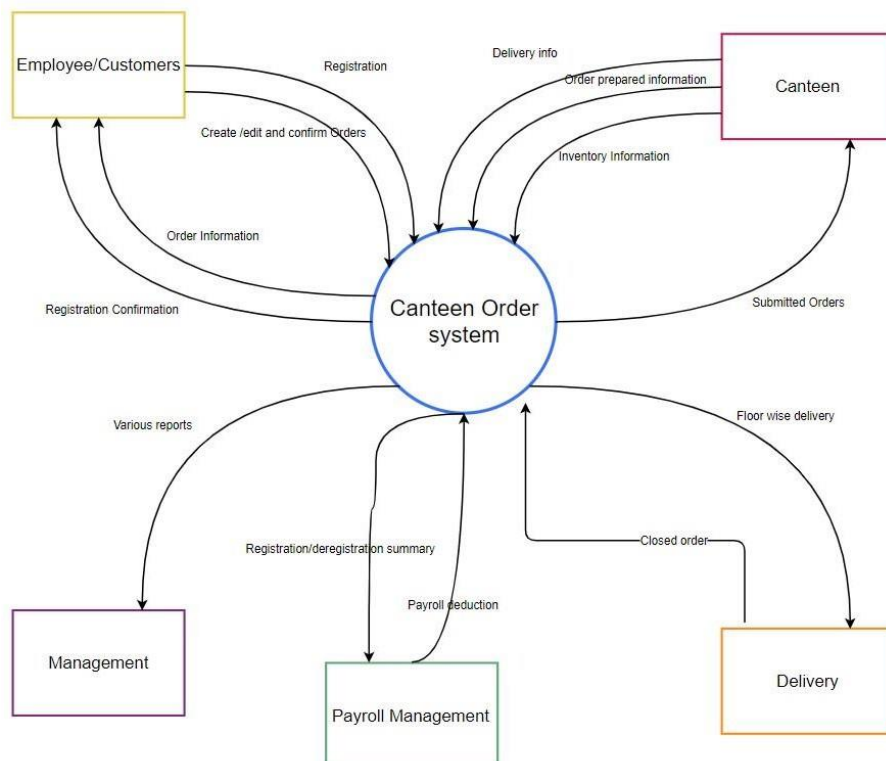
Future Flowchart:



Scope using use case diagram (UML)



Scope using context diagram



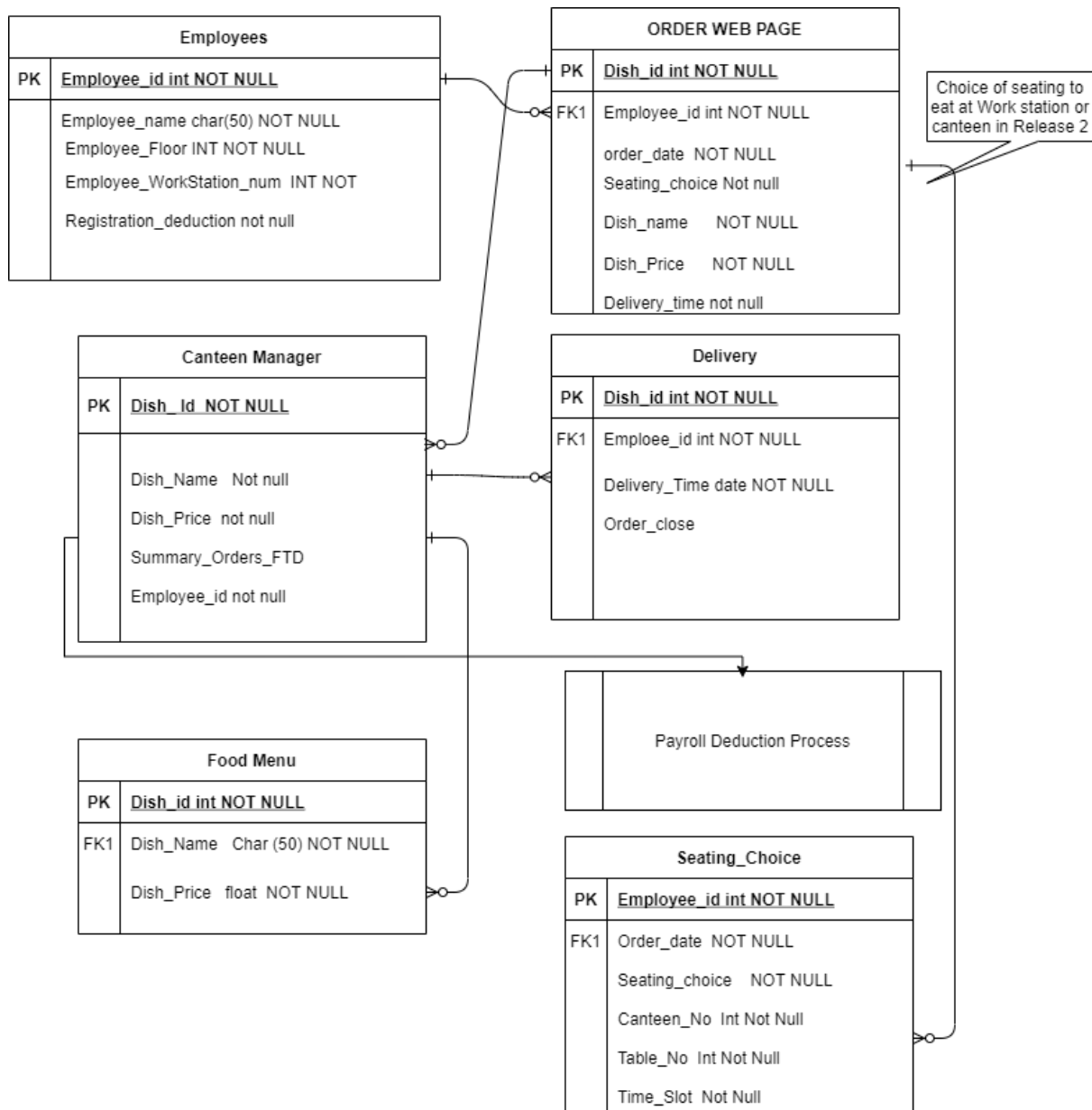
In Scope

- Mention the name of features and what they are used for.
- Online ordering system is only applicable to Unilever UK office.
- Webpage shall capture food payroll registration, menu, order and feedback details.
- System shall support registered employee's information done via payroll system.
- System shall allow registered employees to login via company credentials.
- System shall allow entry and maintenance of menus.
- System shall allow consolidation and delivery of orders
- System shall support inventory and wastage management.
- System shall have Reporting module for required reports mentioned as part of detailed requirement.
- System shall have Payroll deduction information generation and maintenance.
- System shall capture Manpower utilization details.
- Application shall mark delivery post order delivery.

Out of Scope

- Choice of location Canteen / Work station in release 2
- Registration module in Payroll system to enrol for the online food order facility.
- Online ordering system implementation at every location of Unilever Office in first release.

ER Diagram for the System:



Preconditions and Triggers: Example

- Precondition: User/Employee has an account and registered with the Salary reduction scheme
- Precondition: Manager has an account for Canteen System.
- The User/Employee should be able to select and click order effortlessly.
- The Manager should be able to get a list of summarized orders for the kitchen at 11:00
- The Delivery Boy should be able to get a list by predefined conditions (such as locale) at 12:00

- Trigger 1 is the Employee wanting to place an order in the Canteen System.
- Trigger 2 is the Canteen Manager wanting a summarized list of meals to cook.
- Trigger 3 is the Delivery Boy needing to pick up the meals, and details of where to deliver them.

Basic Flow

Employee places Order. Canteen Manager gets summary of Orders at 11:00. Delivery Boy get meals and details of where to deliver them.

What are the data elements?

- Users, Menus, Orders, Feedback

In case of errors, what happens?

- Contact Support – Incident Management Process

Business Requirements:

Business Objective 1:

- 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%

Business Objective 2:

- Reduce canteen operating costs by 15% within 12 months, following initial release.

Business Objective 3:

- Increase average effective work time by 30 minutes per employee per day, within 3 months.

Business Objective 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.

Functional Requirements

FR 1	Users should be able to create accounts, logon and have password recovery.
FR 2	An administrator should be able to assign roles to a User, which reflects their position. e.g. Canteen Manager, Delivery Boy, Management, User (Employee/Customer) and create Incident management process
FR 3	Salary deduction acceptance to act as login and employee uses his existing company credentials to login. Employee ID and Workstation Details as login details.
FR 4	Roles should have access only to respective modules: Canteen Manager Role – Amend Menus, create a variety of lists of Orders including for Delivery Boy User Role – Select a Menu and place an order. Provide feedback on the order. View past orders, accept/deselect salary deduction option Delivery Boy Role – View a list of Orders as defined by the Canteen Manager. Update an order to indicate delivered. Management Role – Generate Reports, have the capacity to have them send in email.
FR 5	Web Interface to be able to add/change/remove menus. This includes adding the price for the menu.
FR 6 Release 2	Inventory coming in to be recorded in the system and once order gets prepared the inventory is shown as consumed. All the wastage also gets recorded and updated in the system
Fr 7 Release 2	Table management for 50% canteen tables for employees wanting to eat in the canteen

Nonfunctional Requirements

System Requirement:

NF 1	Employees should be forced to change their password every pre-determined period
NF 2	Order Transactions or feedback should be traceable
NF 3	The application should be low-maintenance requiring minimal manual intervention
NF 4	Can be used using Company Authorised Browsers.
NF 5	Orders will be archived after a predefined period.
NF 6	System should be stable to take the load of 1500 logins and ordering
NF 7	Webpage should be light so that rendering is fast for browsing and order placing

Usability:

NF 8	User friendly and self-explanatory user interface preferable with pictures
NF 9	Webpage should be available on Intranet as well as internet
NF 10	All employee can browse but only those who accept payroll deduction will be allowed to order
NF 11	All activities of current canteen system will stop on the day of Go Live of Web application

Environments

Java code to be used as low in maintenance

Wireframe

Unilever Canteen Ordering System

MENU

➤ Indian

• Roti - Rs. 3

• Rice - Rs. 20

• Paneer masala - Rs.120

• Egg Curry - Rs.120

➤ Chinese

➤ Continental

➤ Sweets

➤ Mocktails

Login as ☐ Customer ☐ Admin

User Id

Password

Submit

[Link for Payment](#)