**Canteen Ordering System**

Homework Assignment

DESCRIPTION

**Current State**

**Overview and Summary**

The DW company has around 1000 employees spread across 2 floors. They have 2 canteens to cater to these 1000 employees. Each canteen can seat around 50 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 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 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.

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.

**Advantages of the Canteen Ordering System:**

* A system would save considerable time to 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.
* The food wastage will be reduced.
* This will reduce the cost.

The client invited Business Analysts to capture the requirements to create the Canteen Ordering System.

**Environments**

We are going to be creating and maintaining the program in Java. We chose Java because it will not change much over time, and if we make it well, there will be very little maintenance to be done on the code.

**Business Objectives and Success Criteria**

**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.

**Future State**

**Client has given them the following requirements:**

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 anytime 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 same 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.
11. Management would like 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.

**System Requirement:**

Scalability and performance:This canteen ordering system is required to support a volume of 1000 employees ordering. the web pages should be light and render fast.

**Usability:**

The screens should be self-explanatory and very user friendly. Management would not want employees not ordering from the system as they cannot understand the screens and data fields on screen.

**Project Task:**

1. Identifying stakeholders – Create a list of stakeholders
2. Identify the problem statement in this system.
3. Identify objectives of the new Canteen Ordering System.
4. Create as-is and future process map (using flowcharts). You can use any of the popular tools in the market like Microsoft Visio, Lucid Chart,or Balsamiq or plain paper and pen.
5. As a Business Analyst working on this project, find out the scope of the Canteen Ordering System. To find the scope you can use the case diagram (UML) or context diagram for the same.
6. Write down the main features that need to be developed.
7. Write the in-scope and out-of-scope items for this software.
8. Draw an activity diagram for the system.
9. Draw an ER diagram of the system.
10. Write out the business requirements, both the functional and nonfunctional requirements.
11. Draw wireframes or mock screens for any two of the features namely Menu Creation and any other feature as deemed fit by the student. (Use the technique prototyping or wire framing that is taught in the Training). You can use any of the wireframing tools like Microsoft PowerPoint, Microsoft Word, Balsamiq, Sketch, Adobe XD, Adobe Illustrator, Figma, UXPin, InVision Studio, InVision Freehand, or Moqups.