Catering Industry

Stakeholders

ACTOR	What they can do on the software created
Employee/ Customer	- Can view menu of the day - Create an order - Provide feedback about the order and the delivery system - Enrol in payroll deduction for orders
Canteen Manager	- View and manage the orders placed - Coordinate deliveries to employee workstation
Delivery staff	- View the employees workstation and order details - Close the online order after delivery
Payroll system	- Calculate and record total number of dishes ordered by each employee - Deduct bill amount from the employee's salary - Add or remove employees when they join or leave the organisation
Management	- View popular dishes - No. of employees using the system - Feedback from the users - View time based sales and monthly earnings - Predict and forecast future items in the order along with time it will be ordered

Problem Definition and Solution

- Here you can mention why we need this canteen system for both: the canteen and the customer. Can write more than 1 point.

- Crowded canteen during the lunch hour resulting in loss of employees time

- Employees don't always get their choice of food they want as the canteen runs out of them

- There is significant amount of food that goes to waste as they are not purchased

- Creating a canteen ordering system will allow employees to order their choice of food and get it delivered to their workstation, canteen to get required order item and reduce food wastage as well as management to generate reports

Advantages and Objectives

Advantages of the Canteen Ordering System:

- The system allows employees to get the food they want

- It will significantly reduce food wastage which result in saving cost for the canteen

- It will save time of the employees as they don't have to wait in line for a crowded canteen

- Management can get reports which will help them to make more informed decision making in these aspects

Objectives:

- Develop an automated system that will allow employees to order food they want

- Reduce the food wastage by at least 30% within 6 months following first release

- Reduce canteen operating cost by 15% within 12 months following its implementation

- Streamline lunch ordering and delivery to increase average effective work time by 30 minutes per employee per day, within 3 months

- Allow the canteen to operate with less manpower by automating the ordering and delivering process

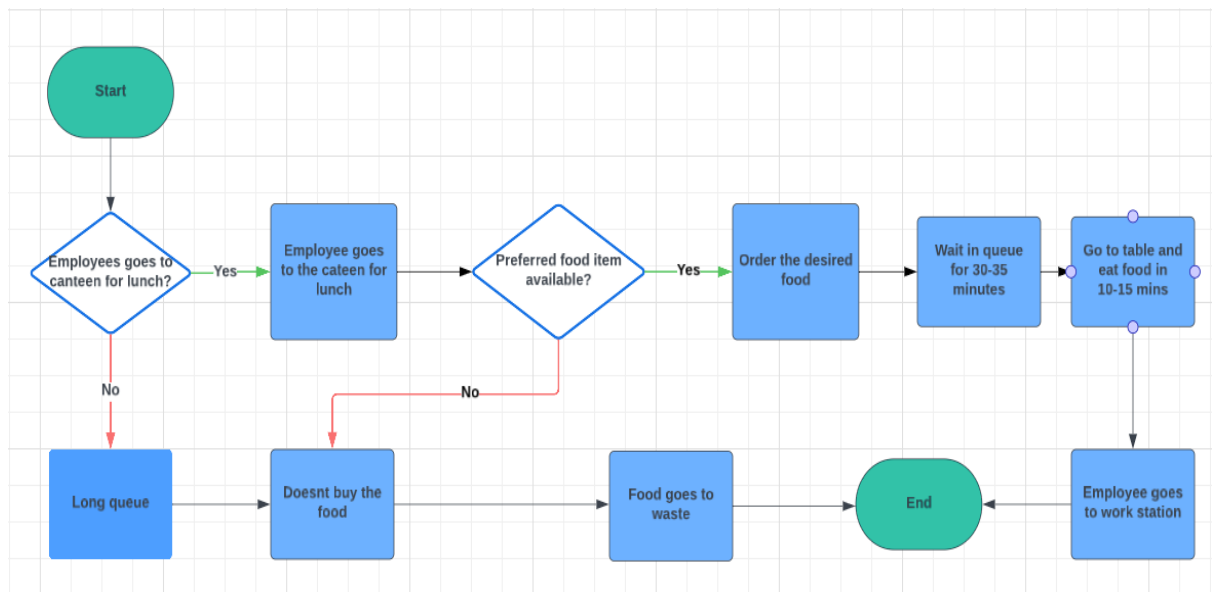## Existing System

- As-is process map :
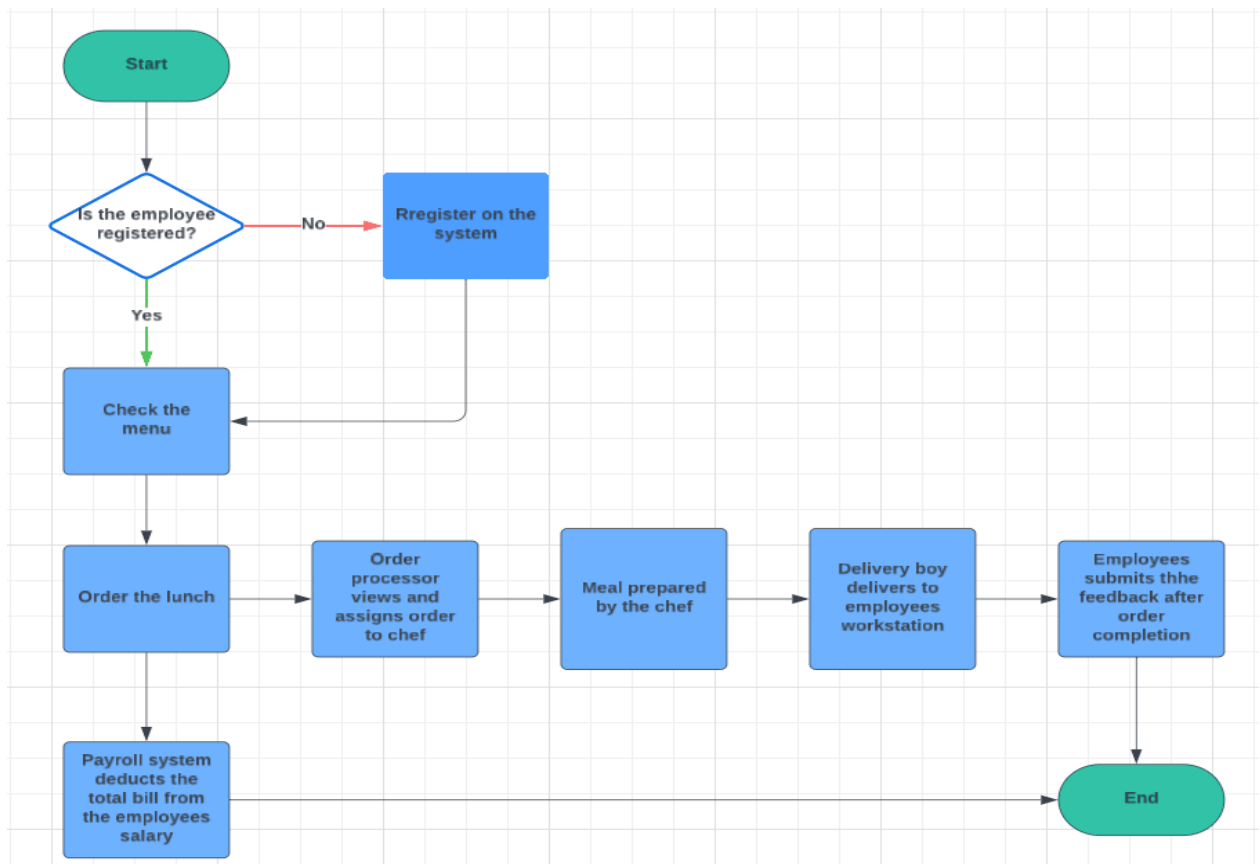

Figure 1 As-is Process map

Future State:

Figure 2 Future Process Map
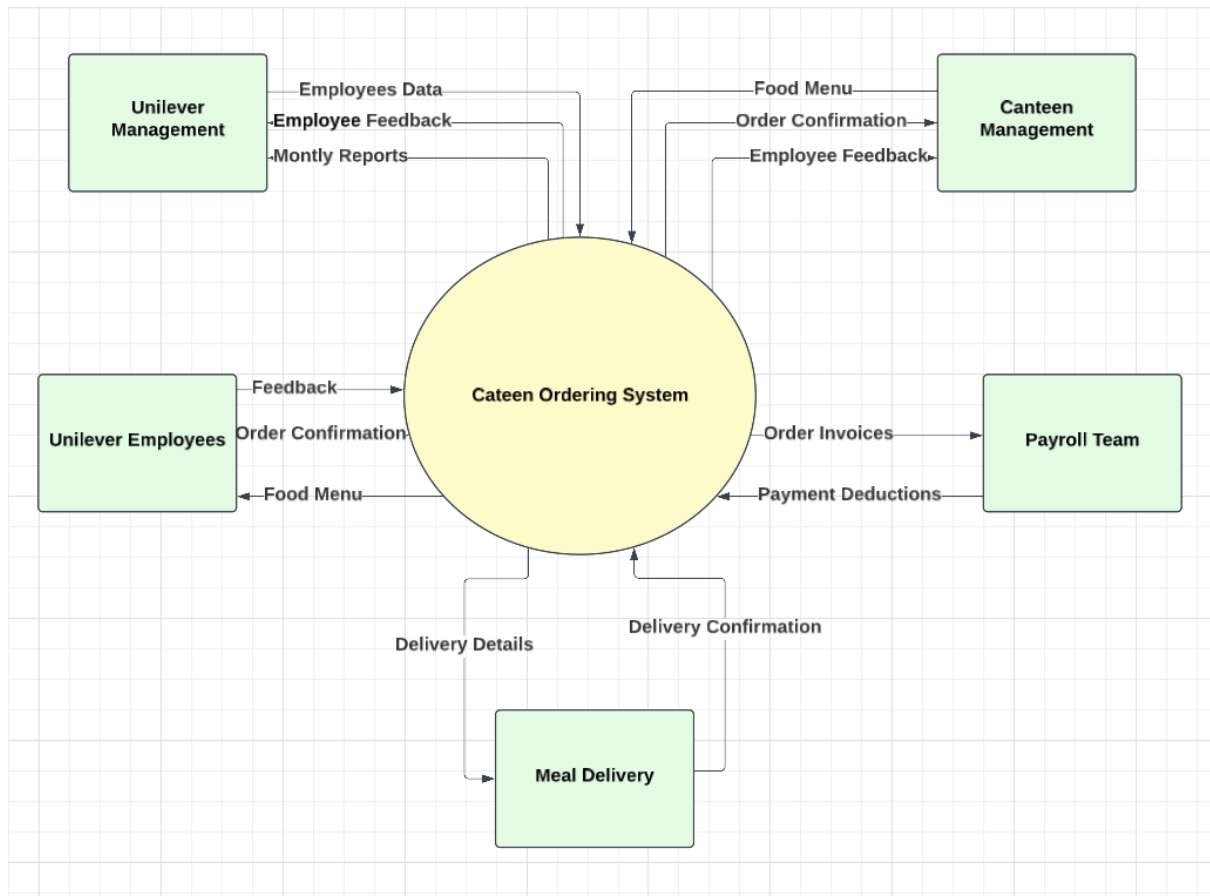
Scope using *context diagram*

Figure 3: Scope using Context Diagram

In Scope

- Employee registration or Login screen via web

- Menu page with up-to-date menu for the day

- Ordering screen with option to place and confirm order for the day to be available only till 11 am for the day.

- Order confirmation screen and payment summary

- Order status page

- Meal delivery details (Employee, workstation, order)

- Order completion confirmation option after delivery

- Feedback about the ordering system and food order

- Sales report for the canteen management

- Payroll deduction information

- Generate food order, usage ,satisfaction level, sales and earnings report to the management

Out of Scope

- Any employee who is not part of Unilever for ordering

- The ordering system will not be available out of lunch and ordering hours
- Employees who don't have credentials
- Food stock and vendor management
- Direct payment and refund system
- Out of stock food supply notification
- Backlog order
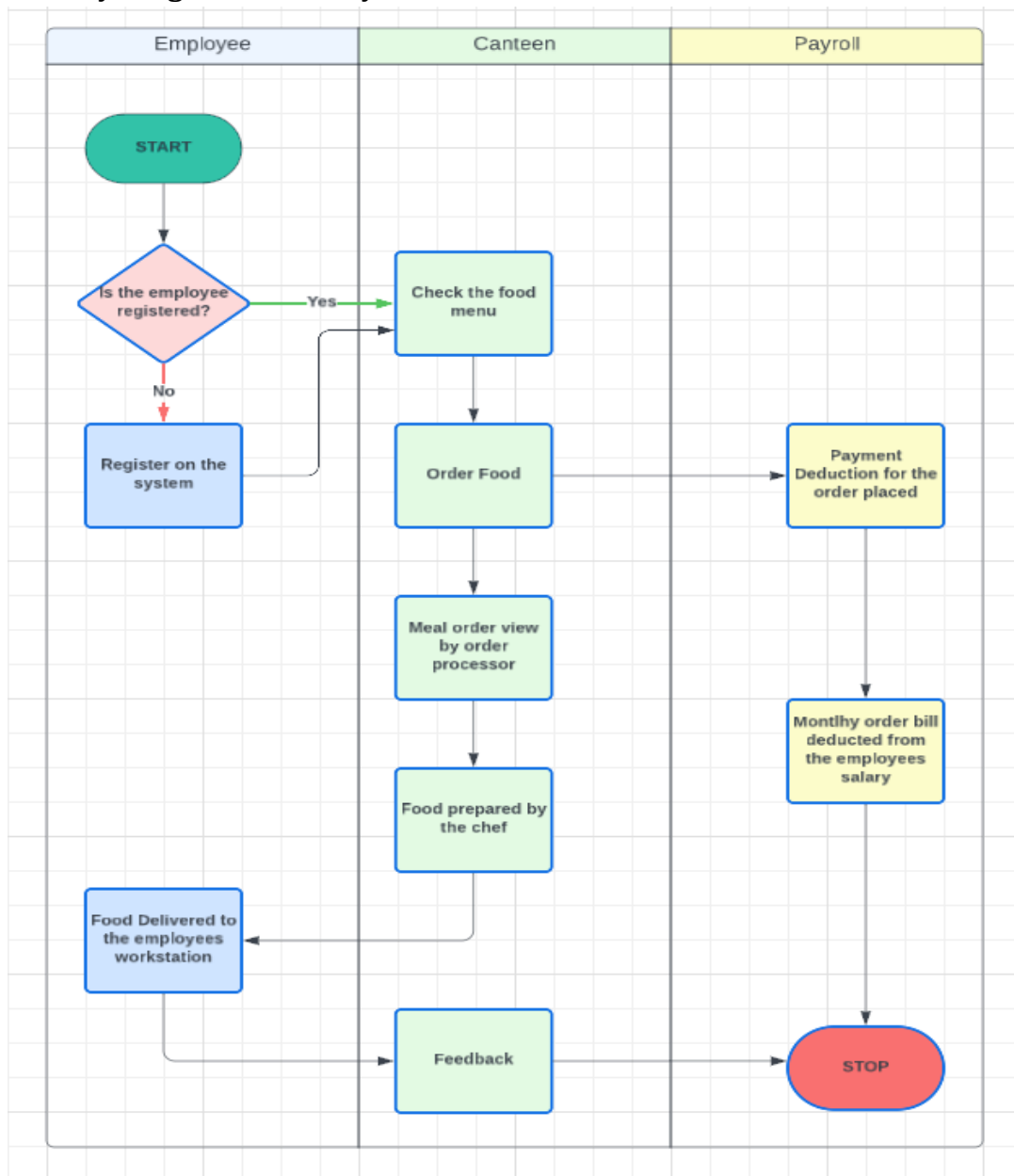
Activity Diagram for the System:

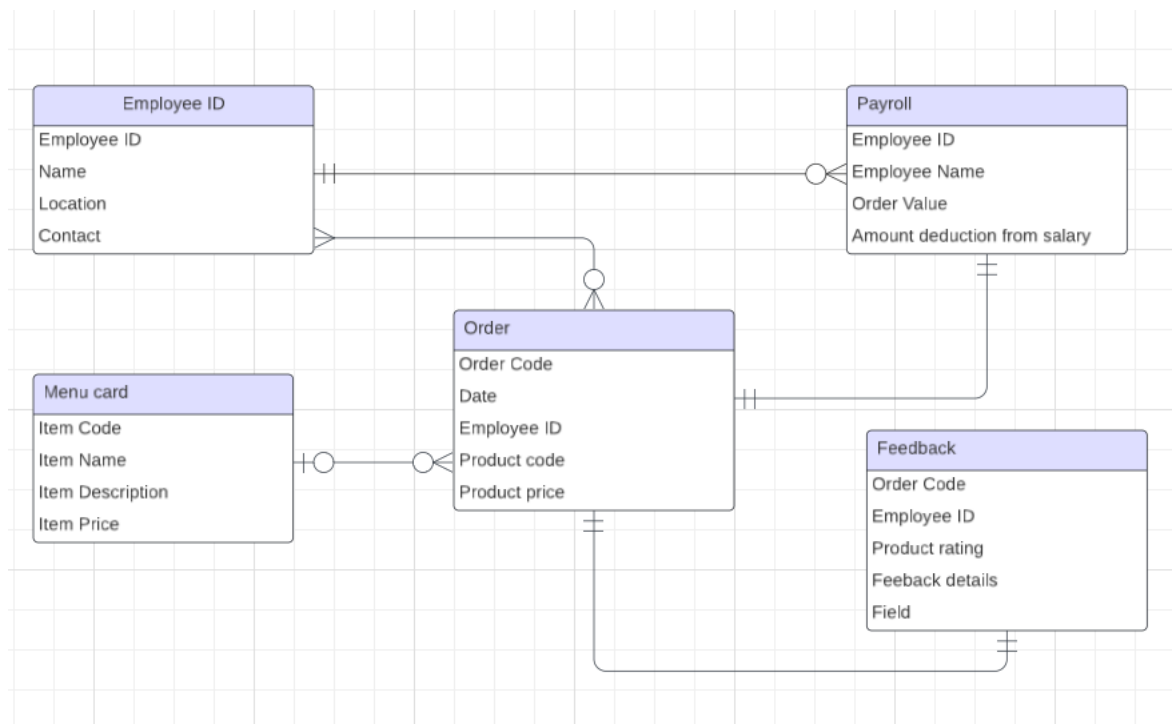*Figure 4: Activity Diagram*

ER Diagram for the System:

Figure 5: ER diagram

Business Requirements:

Business objective – 1: Reduce canteen food wastage by a minimum of 30% within 6 months following first release

Business objective – 2: Reduce canteen operating costs by 15% within 12 months, allowing initial release

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

Business objective - 4: Through order process automation and delivery to users workstation, canteen should be able to operate with lesser manpower

Functional Requirements

- The system should allow employees to log in and register using their company credentials

- Canteen staff shall be able to update the daily menu before 9 am each day

- Employees shall be able to place orders until 11 am for the same day lunch delivery

- The system shall calculate the total cost of each order and integrate with payroll system for automatic deductions

- The canteen manager should be able to view and update orders till dispatch to the workstation

- Delivery staff should be able to view order details and complete status after delivery

- Employees shall be able to submit feedback on their orders and overall experience

- Order cannot be edited or cancelled after its confirmation

- The ordering system should be able to integrate with the payroll system for deduction of the bill amount from the employee's salary

Nonfunctional Requirements

- The system should be compatible with windows, mac and other OS along with mobile phones operating system via browsers
- It should support concurrent access by up to 1500 users with page load time under 2 seconds
- The system should be user-friendly , requiring no more than 30 minutes of training for new users
- The system should be designed to accommodate a 20% increase in userbase without performance degradation
- The system should have backup mechanism to prevent data loss in case of system failures
- It should be built based on Java to ensure long-term stability and minimal maintenance requirement
- The system should comply with data protection regulation and company policies

System Requirement:

- Should be built on Java Platform
- Should be compatible with the OS in the firm like Windows, MAC etc
- Should generate monthly reports including monthly earnings, order forecasts and popular dishes

Usability:

- Should not contains jargons and the texts should be easily readable

Environments

- The system should be available during extra office hours like holidays, weekends as employees can work on those times
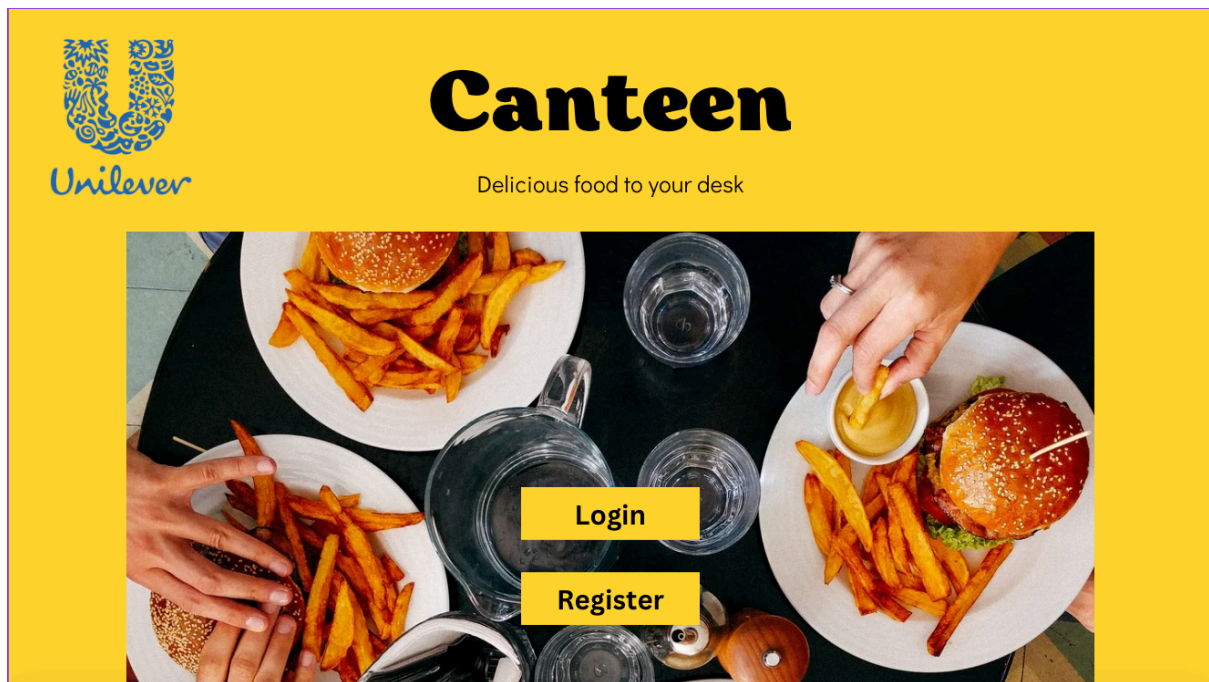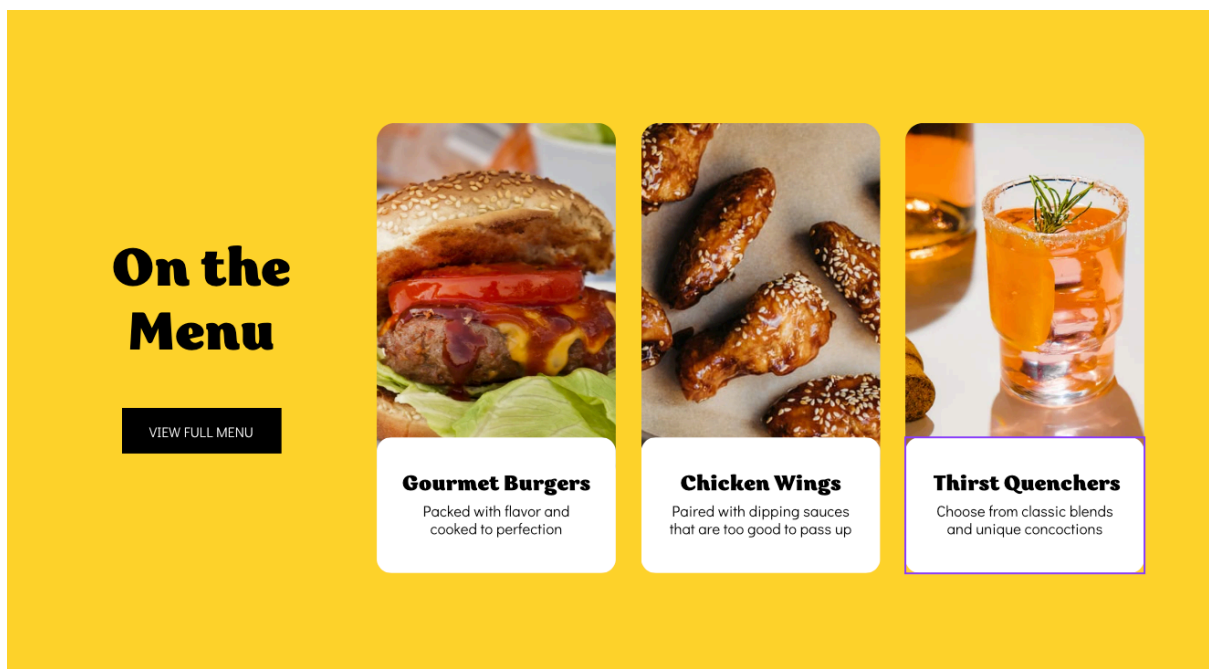
Prototyping

Figure 6 : Initial Landing Page

Figure 7: Menu Selection Page