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# Cafe Management and Online Food Ordering System

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**Abstract**

*The main purpose of the Cafe Management and Online Food Ordering System is to use it in the food-service industry. This feature helps restaurants to increase their online food ordering systems. Customers can choose a wide range of food menu items within just a minutes. In today's modern food business, it's also helps to deliver fast and easily to a customer's place. The work presented as Cafe Management and Online Food Order System simplifies the ordering process. The proposed solution presents a user interface and changes the menu to include all available options, creating customer work easier. Allows customers to order any item that they like and adjust the quantity of the food item. The order confirmation is displayed to the customer on the Profile page of the website. The order is put to the queue, updated across the database and the admin panel, and provided in real-time updates. This system aids the staff with checking over orders in real-time and executing them effectively and easily with minimum errors.*

*Keywords: Food, Online, Management, DBMS (Database Management System), Use Case Diagram, Entity Relationship Diagram, Flowchart*

## I. INTRODUCTION

The food industry is highly labor demanding and the biggest expense in the food industry is the cost of employing the right people to do the work. Labor rates are constantly rising year in and year out, making it difficult to hire labor. One of the ways to reduce this expense is to use modern technology to replace some of the jobs done by human beings and make machines with technology do the work. Here we propose a "Cafe Management and Online Food Ordering System" that has been designed for Fast Food restaurants, Cafes or College Cafeterias. The system may be well implemented in any organization that distributes foodstuff. Because the whole process of accepting orders is automatic, the meal ordering experience for both the customer and the restaurant is optimized. Café management and online food ordering system's objective is to give customers a way to order food and drinks over the internet. The primary reason for all of this is because it is beneficial to both the customer and vendor.

## II. LITERATURE SURVEY/ BACKGROUND

Various studies have identified the difficulties they faced when setting up a new restaurant. During the assessment of the current system, the following concernment were discovered:

A. Placing orders for customers who come to the restaurant or cafe, check for the menu items available, picking the appropriate things which they want, placing the order, and paying. This method requires manual labor and time for the customer.
B. When a customer wants to order by using a phone, the customer is not able to see a visual copy of the menu available at the restaurant or cafe, then also has no guarantee that the order has been placed on the

appropriate menu items. Every restaurant or cafe needs someone or someone to take the order by phone, to give the customer a rich feel and even consider for payment.

C. The main difference between the online ordering of food is if one person eats at home or does not feel the change in nature and relaxes. But comfort is the highest level of the online food ordering.

## III. PROPOSED WORK/ SYSTEM

The simulation first starts with the admin entering his/her credentials (Email and password). Once that has been verified, the admin can access the admin panel from where he/she can edit the offers, the food items as well as can view the orders placed and edit the offers. Now we get a window that displays the order, customer name, food name, price, payment method, address, and quantity. Once you enter the admin panel, you have the options of adding menu, deleting menu, or updating menu. Any option of choice leads you to the food menu. Once the selected operation is carried out, that results, i.e., the added food or the updated food list is displayed to customers and if you have deleted a menu, that particular menu disappears from the main menu on the website which will be visible to the customer.

## IV. DESIGN AND IMPLEMENTATION

The implementation of the website is done in Angular 16, Dotnet and the datasets are stored in the SQL Server Management Studio. Database and Admin Panel which can only be accessed by the registered Admin. We develop the code in dotnet that connects the database with the API with the angular application.

For the initial implementation of the website, we have considered a few restaurants in our area. Implementation of our system consists of a real time feedback system where once the customer places an order, the admin will be able to see the order that the customer has made on the website and can manage them easily. The entire programming of the website is done on VS Code and Microsoft Visual Studio, and for that we have used Google Chrome as the browser of choice. For creating the database, we have used SSMS, which was possible only because of the SSMS installed on our systems.

First, we created the front-end of the website in angular where we have given our own logo which was designed on lattice. Then we created the database in SSMS to get started with the backend of our website which was very much necessary as it would help us store all the details from the front-end into the backend of our website and help with the responsiveness of our project. And last we created the Admin Panel of our management system which was the most important part as it would store all the details that were being entered into the website by the customer and help the admin to manage the food items, offers, categories, orders.

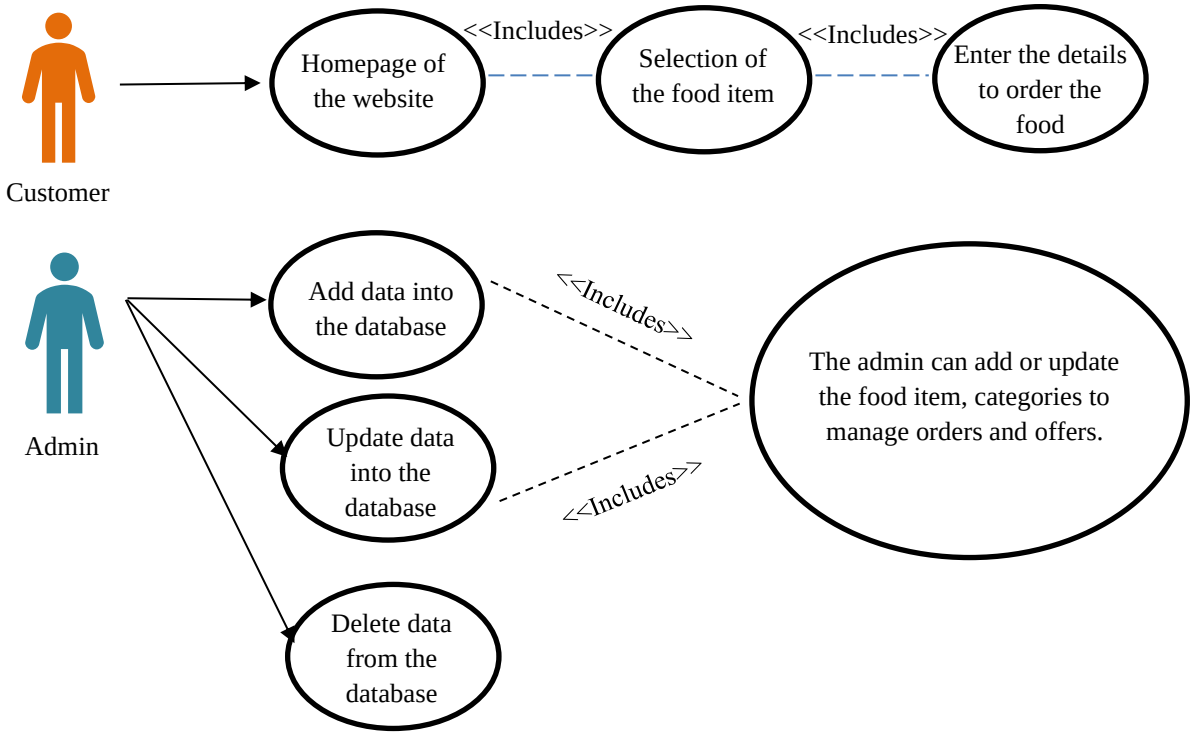


Fig. 4.1: Use Case Diagram

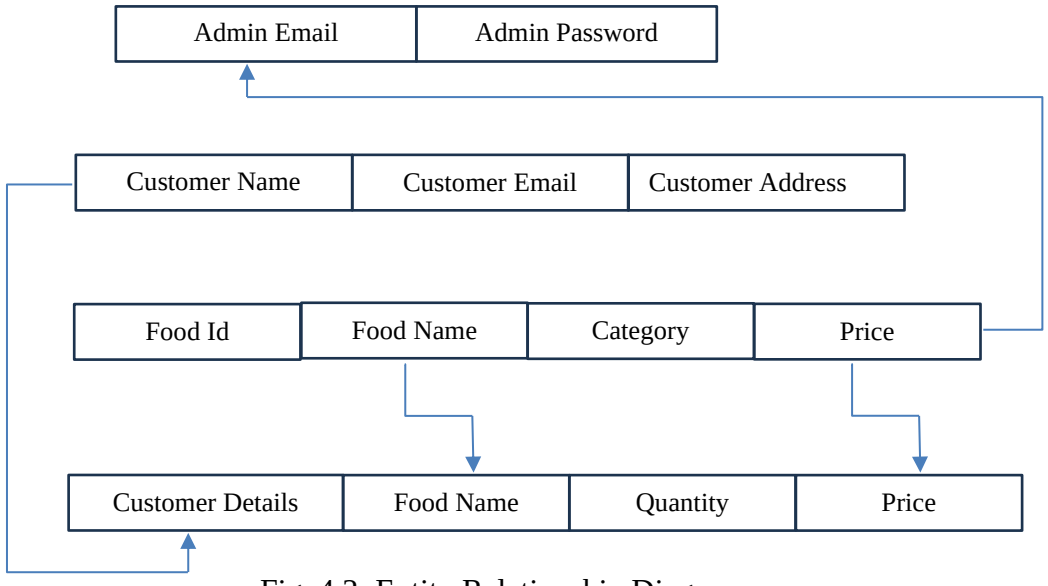


Fig. 4.2: Entity Relationship Diagram

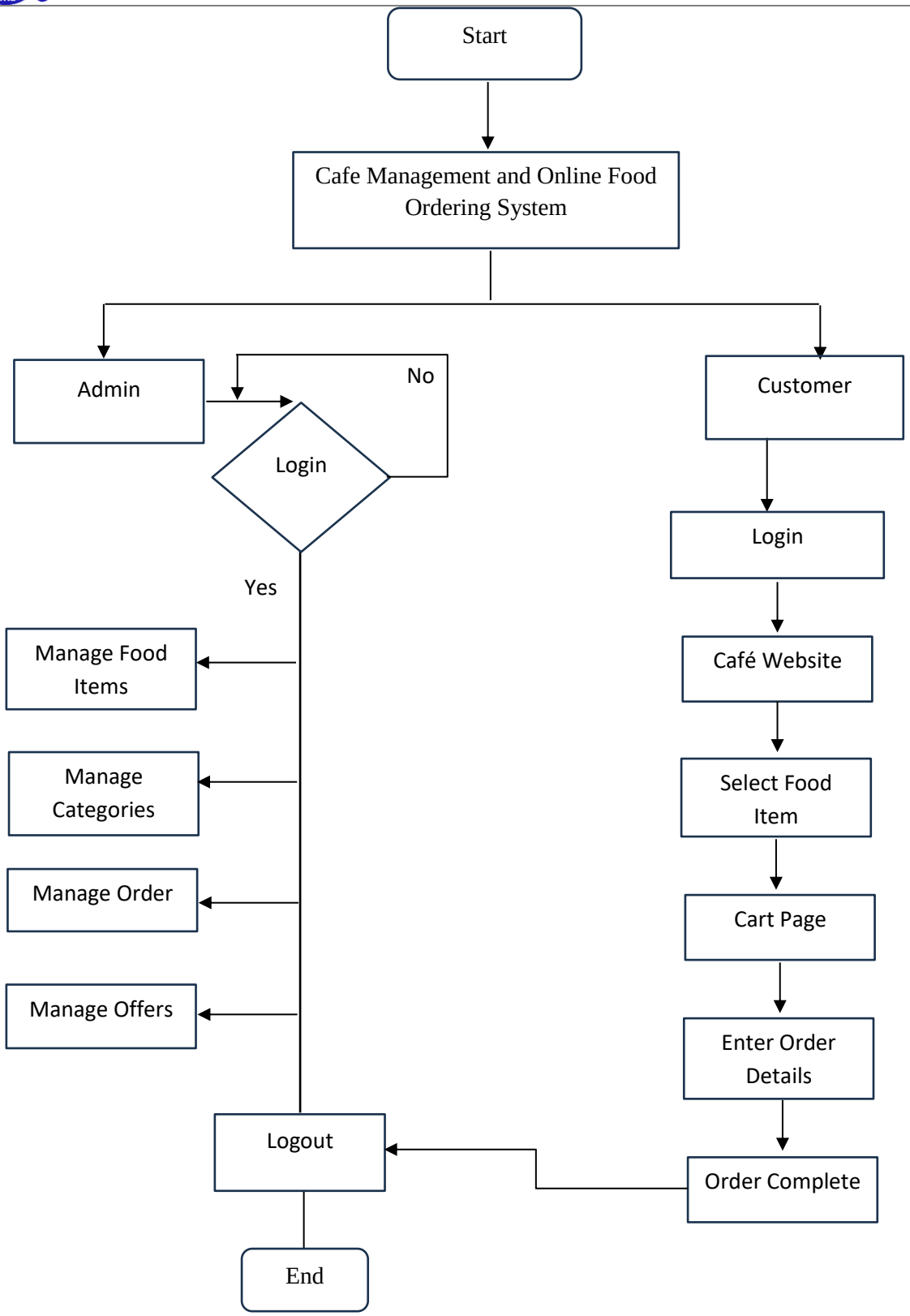


Fig. 4.3: Flowchart

## V. SCOPE AND FEATURES

A. The suggested method allows people to properly order their meals or snacks.
B. There will be minimum number of employees needed at the rear desk.
C. The method will aim to the reduction of labor costs as well as the space necessary to set up cafeterias in the restricted areas.
D. Probability of mistakes to occur are less since it is an admin-controlled system.
E. Customers can prevent long lines at the counter and time by executing tasks at an acceptable speed and throughput.

## VI. RESULTS

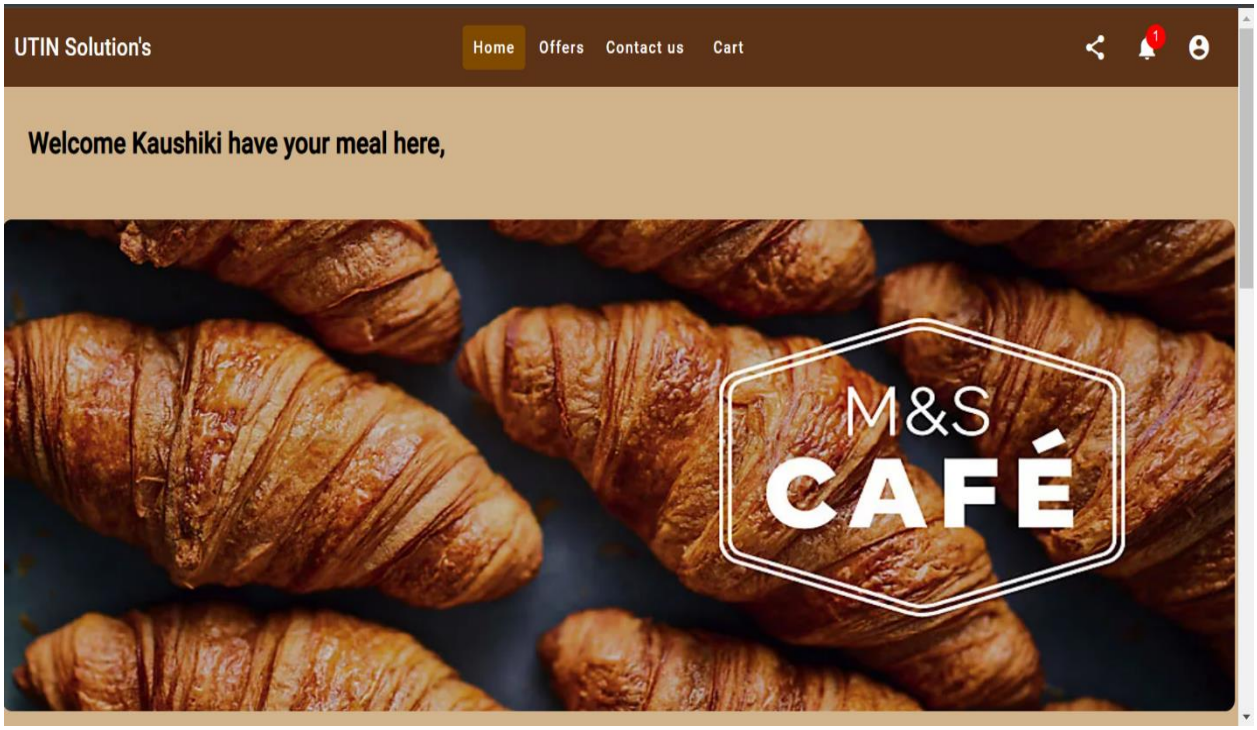


Fig 6.1: Homepage

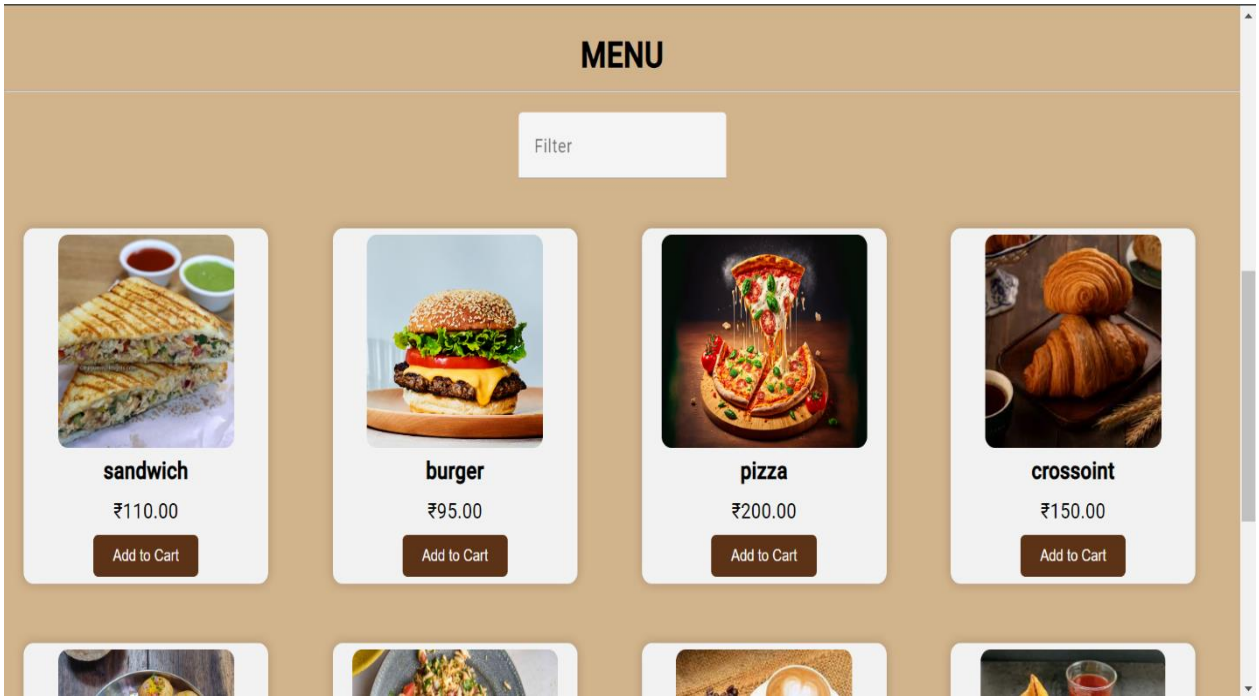


Fig 6.2: Menu for user

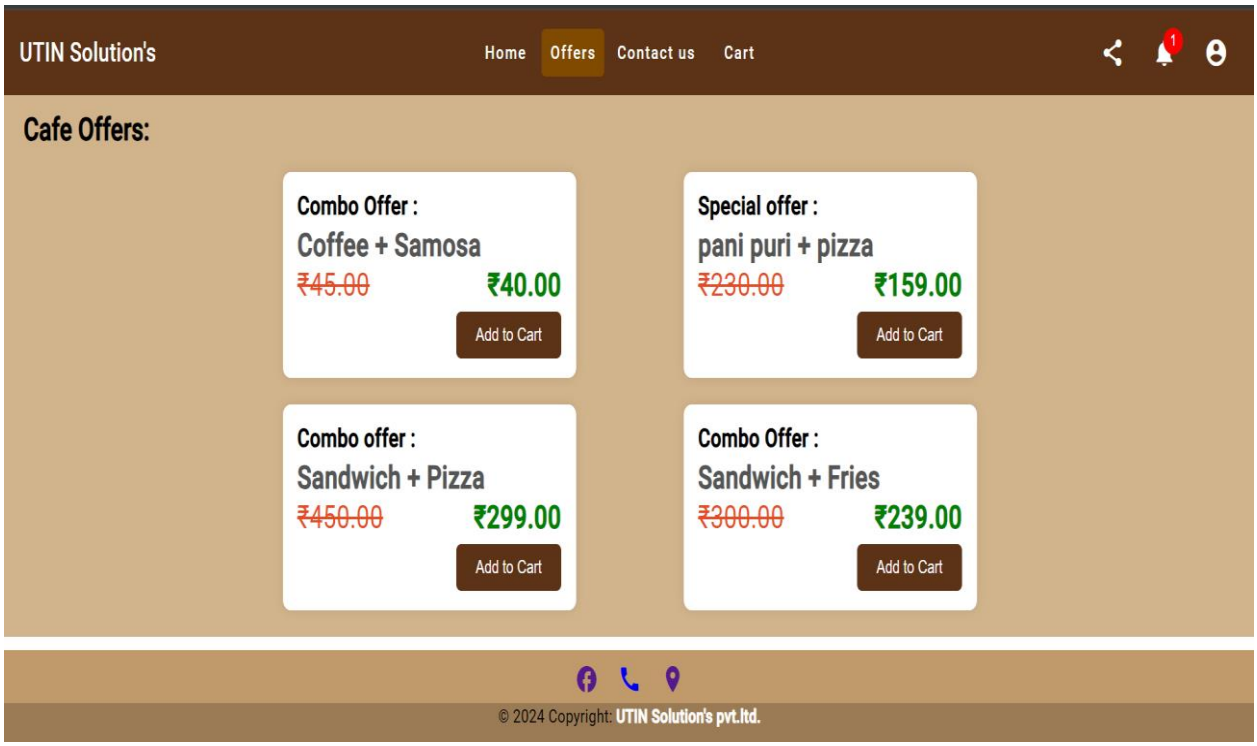


Fig 6.3: Offers for user

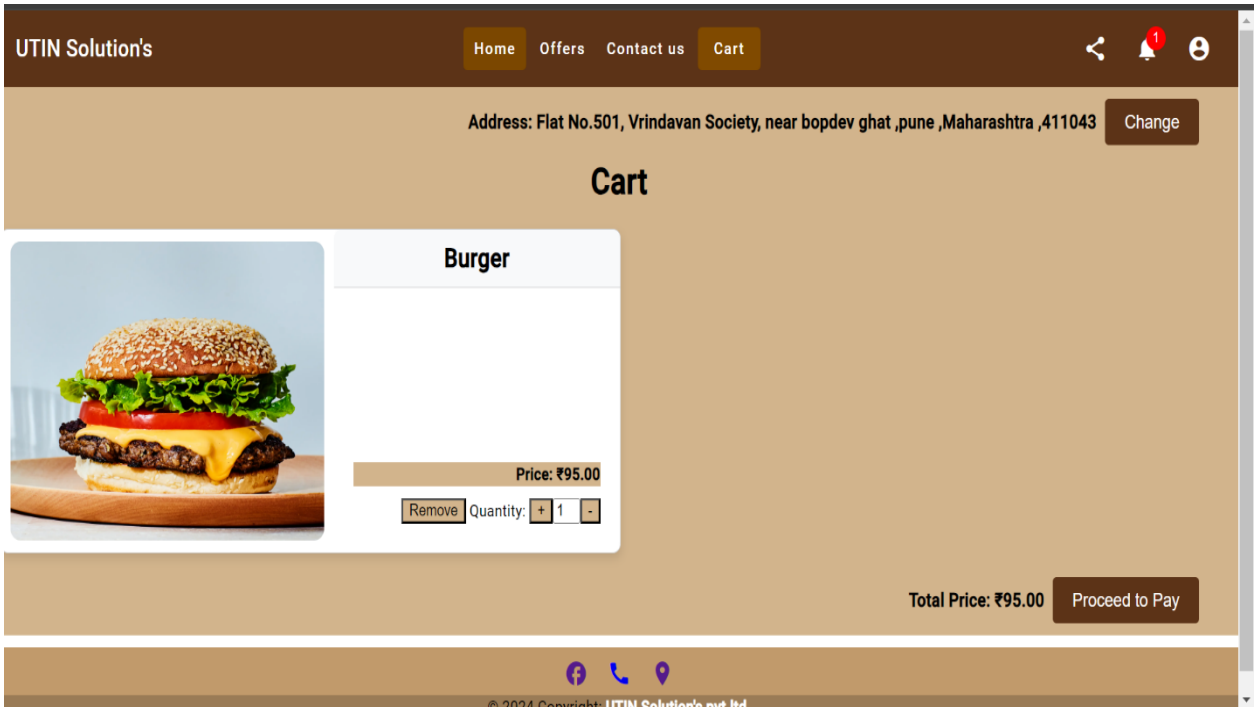


Fig 6.4: Cart for user

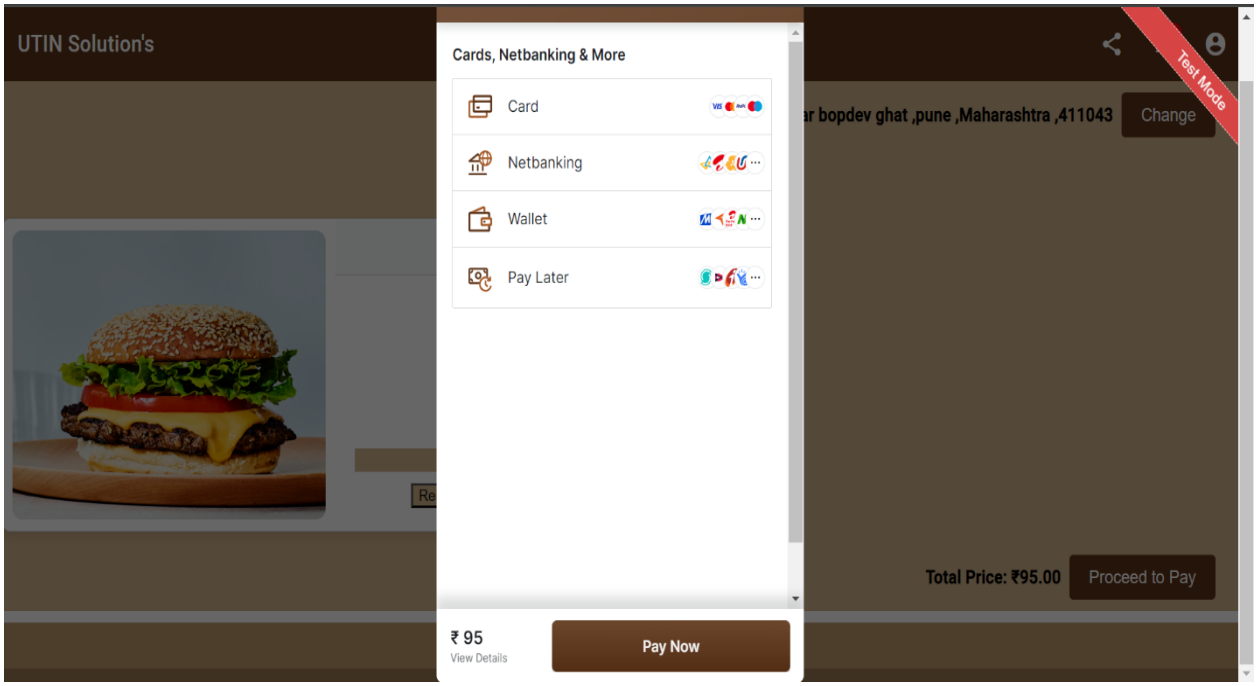


Fig 6.5: Payment gateway

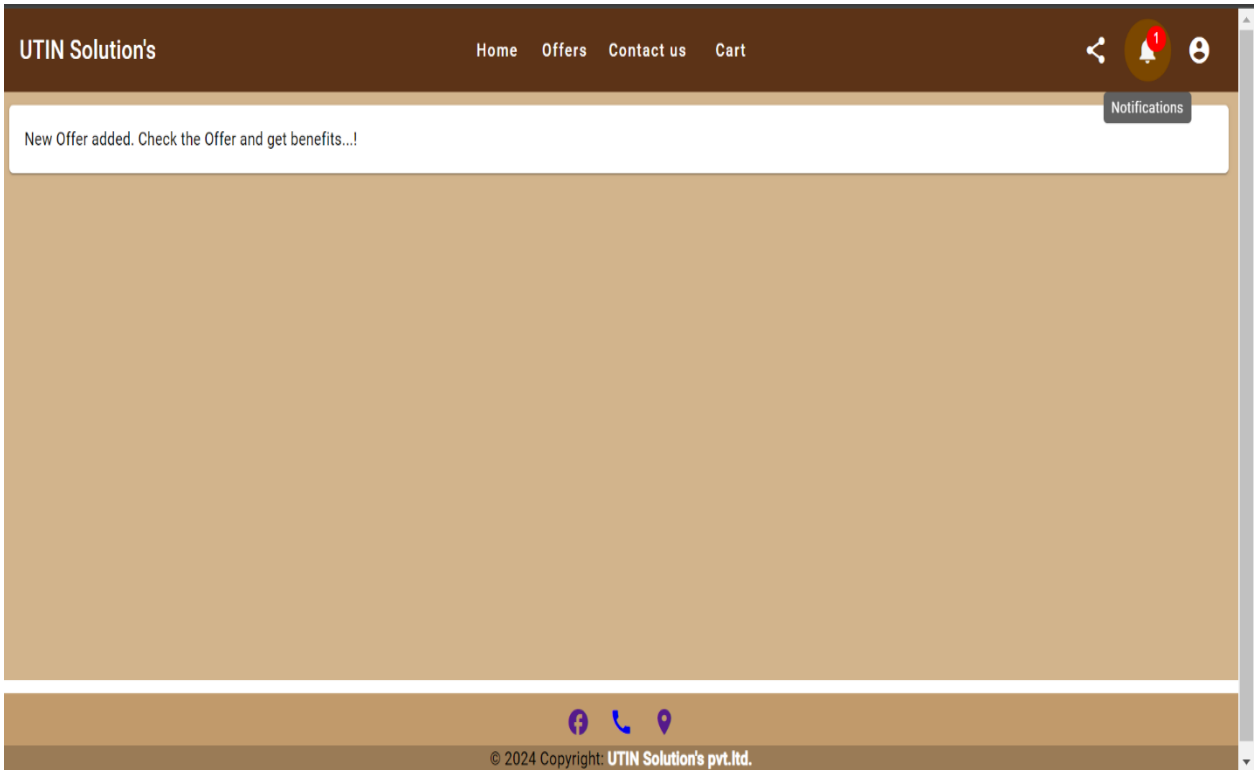


Fig 6.6: Notification for user

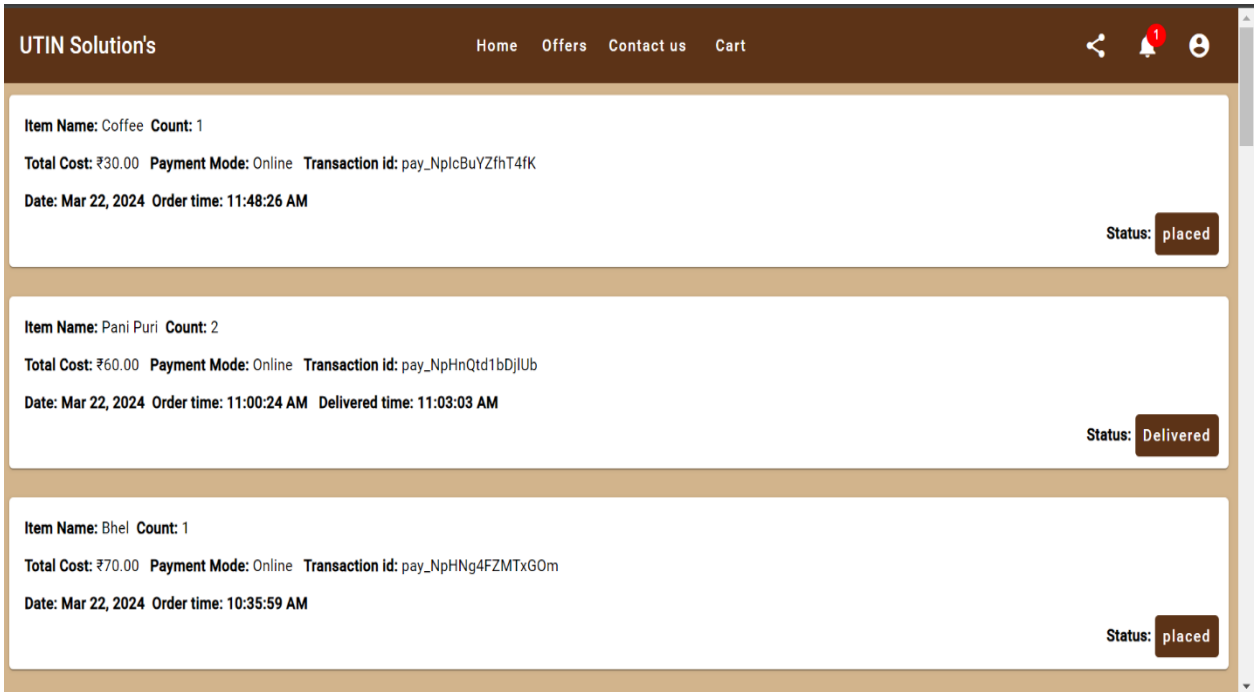


Fig 6.7: Orders by user

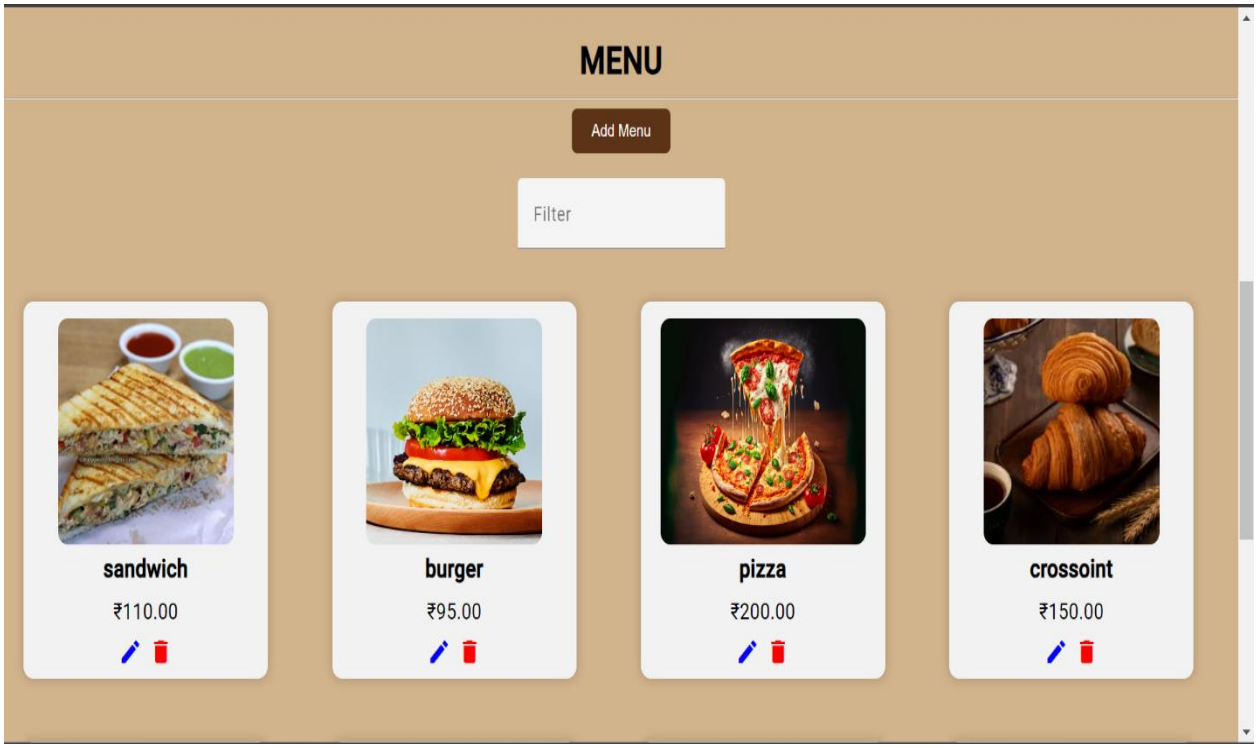


Fig 6.8: Manage menu for admin

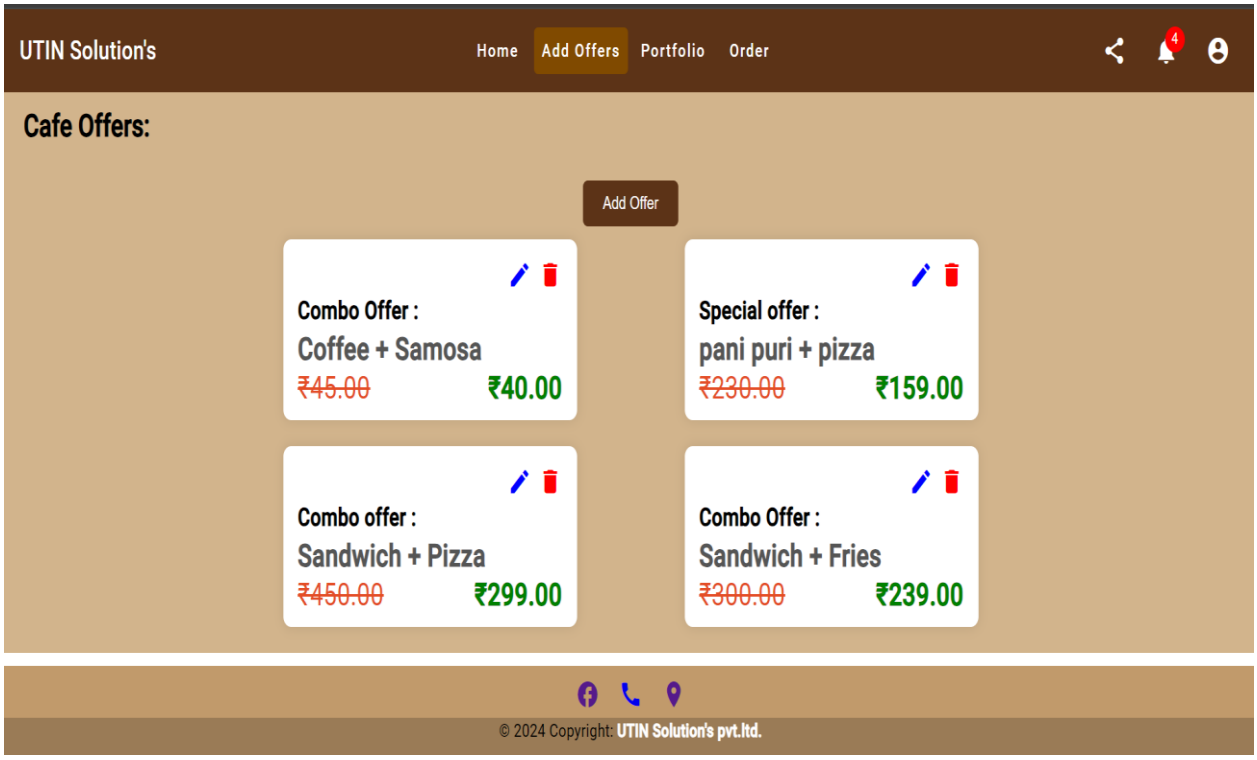


Fig 6.9: Manage offer for admin


Fig 6.10: Admin portfolio

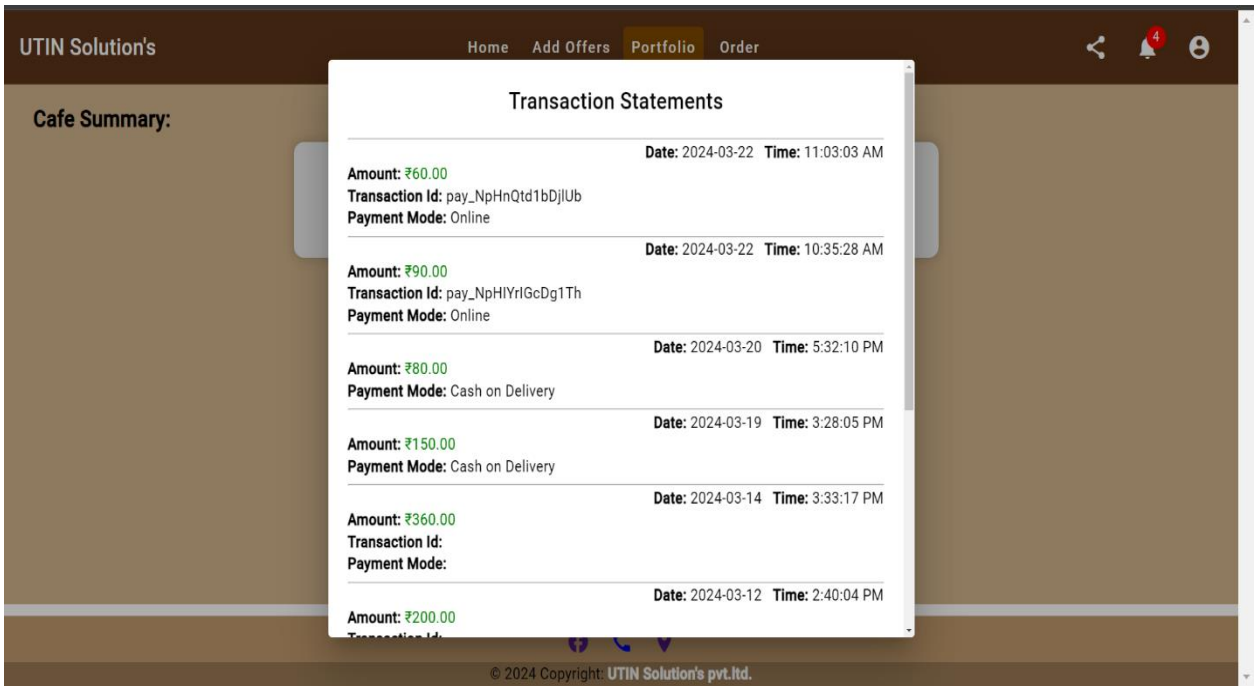


Fig 6.11: Transaction Statement

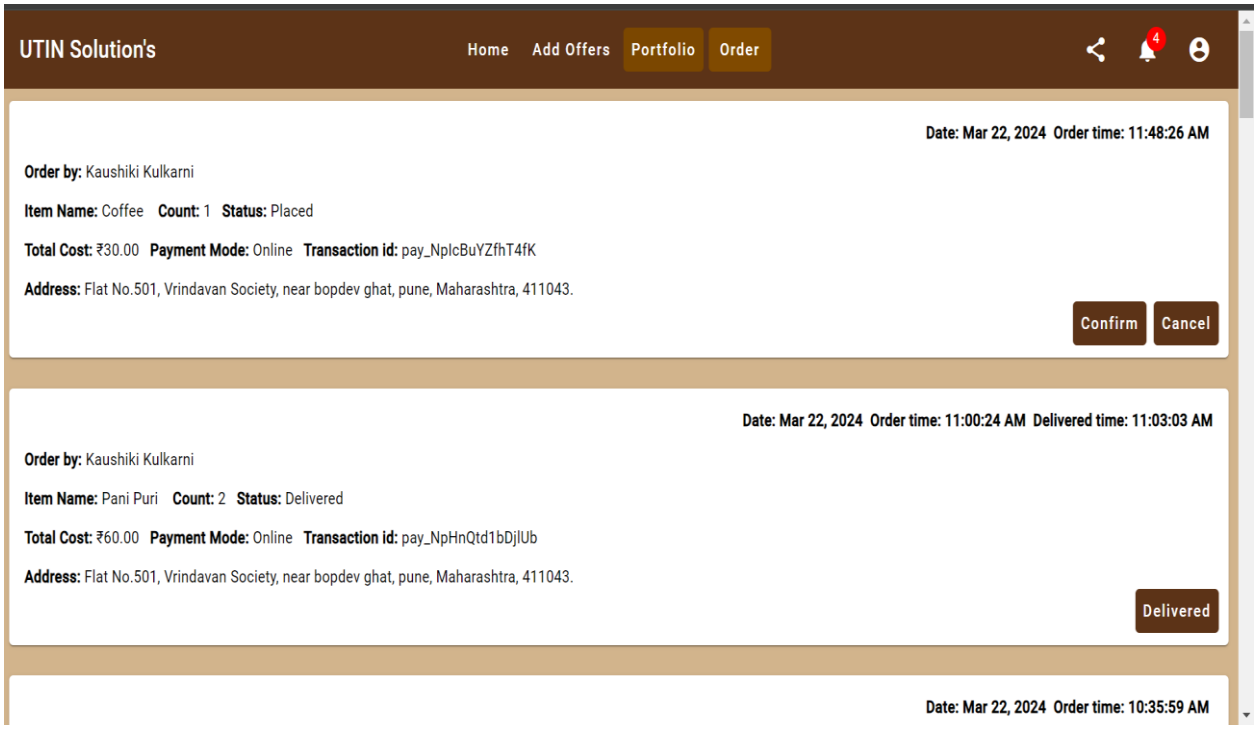


Fig 6.12: Manage Order for admin

## VII. CONCLUSION

The Finally, a cafe management and online food ordering system is presented that may be used in small family-run eateries as well as locations such as college canteens, etc. This project has the potential to be scaled up in the future at big amount. It is designed for restaurants and cafes to help them reduce their everyday management and operational tasks while also improving their customer's eating satisfaction in this busy world. By offering relatively quality services, restaurant and cafe operators may also build strong customer connections. The technology also allows the restaurant and cafe to see what foods are on sale in real-time and make modifications to their menu and beverage inventory depending on an order submitted or placed and orders processed.

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