An Ubiquitous Home Based Food ordering Application

Narendra U P[1], Ashtral Lorien Goveas[2], Kathija Shahila Ahmed[3], Sahana C H[4], Mohamad Ismail Saheb[5], Raghavendra Ganiga [6]

[1,2,3,4,5]Dept of Information Sc & Engg, Mangalore Institute of Technology & Engineering, Mangalore, India
[6]Mobiezy, Bengaluru

ABSTRACT: Food ordering apps generally work as mediators between restaurants and customers. It has become easy for the customers to get any food they want from a restaurant to be delivered directly to the home. But there is no option of home cooked food in those food ordering apps. There are times when people staying far from their home feel like having home cooked meals daily and not preferring restaurants. Home chef app works as a bridge between the home chef and the customers hence serving the customers the authentic meals which gives them the feel of home. The app provides them with variety of meal plans from different home cooks from the locality. They can subscribe the meal plan according to their wish. The trial pack makes it easy for one to choose the chef according to his/her need. This way of subscribing the food makes the customer to eat the local homemade food along with the health taken care of. The online mode of payment makes the subscription of meal plan easy. After the successful payment the food will be delivered to the given address according the subscribed plan. Customer feedback will help in good customer chef relationship.

KEYWORDS: Restaurants, Online, App, Home Chef, Plan, Subscription, Feedback

I. INTRODUCTION

Eating out can be a very pleasurable experience but it is healthier to eat at home and usually much more comfortable. These days' people prefer home cooked meals than the restaurant food for their full day schedule to keep themselves healthy and fit. The Home Meals app is nothing but a meal subscription app which allows the users to subscribe for a meal pack based on his or her preferences[1]. This app is a whole new way to order meals that delivers fresh homemade food by the home cooks, straight to the customer's door everyday based on customer's subscription plan. The home cook can add the menu of the meals specifying the categories. The menu consists of the food served for breakfast, lunch and dinner. The customer can look into the menu and subscribe for the meal pack based on the home cook's interest[2]. The cooks can even alter the menu if required. With an option to choose from diet or regular meal plans, the app brings an ability to have authentic homemade food from homemakers around the area. The customer who orders the food can discover local home-based cooks in the nearby locality by specifying the location; he can also view the unique menu and let the chef handle cooking exclusively based on the customer's subscription. Price of the food items or the subscription will also be mentioned in the menu. The customer can select the duration, specify the type of the meal either veg or non-veg and choose the payment options and confirm the order. The users have an option to select duration of one day, or one week or can even subscribe for a month[3]. Rating for the food delivered and the feedback to the chef will also be included in the app to ensure the best user experience. Functionality for users includes preferences for meals, specify veg or non-veg and select the chef based on location preferences. The user can search and browse meals by category. The user also has an option to choose a chef and can try his special meals. A basic communication capability between users and cooks is achieved by a review and feedback page. The new cooks or chef can register to the app as a Chef. He can manage his account, specify the menu, accept or decline the subscription[4]. The chef also has a review page where he gets feedback of his previous orders and helps him improve. The Chef can also add individual items if he wishes to sell the food in the Quick Order option and user can order them if needed. The quick order option also helps the customer to just have a trial of any home cook dishes before he subscribes to the plan.

An Ubiquitous Home Based Food ordering Application

II. OBJECTIVE

The major goal of this application is to allow users to have authentic home cooked food. It has an option to choose the chef from whom the user wants to have the meal. It also helps to reduce the dependency on restaurants. This app provides different subscription plans so that the user can choose based on his choice, option to choose the type of meal and try meals from different chef. It provides a platform for the cooks to sell their meals. Cooks need not have to work with the restaurant to sell their meals and provide employment opportunities to home cooks[5].

III. LITERATURE SURVEY

Home Chef allows customers to subscribe their meals from the chef who are nowhere related to any restaurants. They can have homemade food for the period of their subscription. The customers just have to order from the chefs they want and the food will be available for them for the days that they have ordered for. Since our app is similar to apps like Masala Box, Oota Box, Scriberr, etc., we have done a quick check on how it works and what are the features that it provides. It provides with the meal plan based on location and the chef[6]. The users can choose the chef and meal plan based on their wish and order it. It gives us the option to view and order food for either a week or a month. It also has the feature of describing the calories that the food has.

Masala Box: This app allows the customers to get homemade meals delivered with just a click. It allows the users to personalize the profile, add the address and choose the meal plan. All this is done in a simple way with the help of the app. It also allows the customers to stay updated with the new offers and new meal plans. Oota Box: Oota Box has partnered with home makers in over 70 locations who love to cook. The food is prepared in their own houses; they put in all the effort to make the food fresh, hot, healthy and hygienic, in a neatly packed meal box. Customers can use the platform to find a chef around them, connect with them to place an order and have the food either picked up or opt-in for the delivery service if the chef provides one.

IV. DESIGN

Proposed System:

Our app also provides with the homemade food in subscription based on location. The chef can update the food plans using the tags. The customers can view and order for a particular duration. It includes diet and regular plans as well. One just need to select start date, duration and the meals that they want and confirm their subscription by payment. There is also an option of quick order for which one have to select the food items and just order.
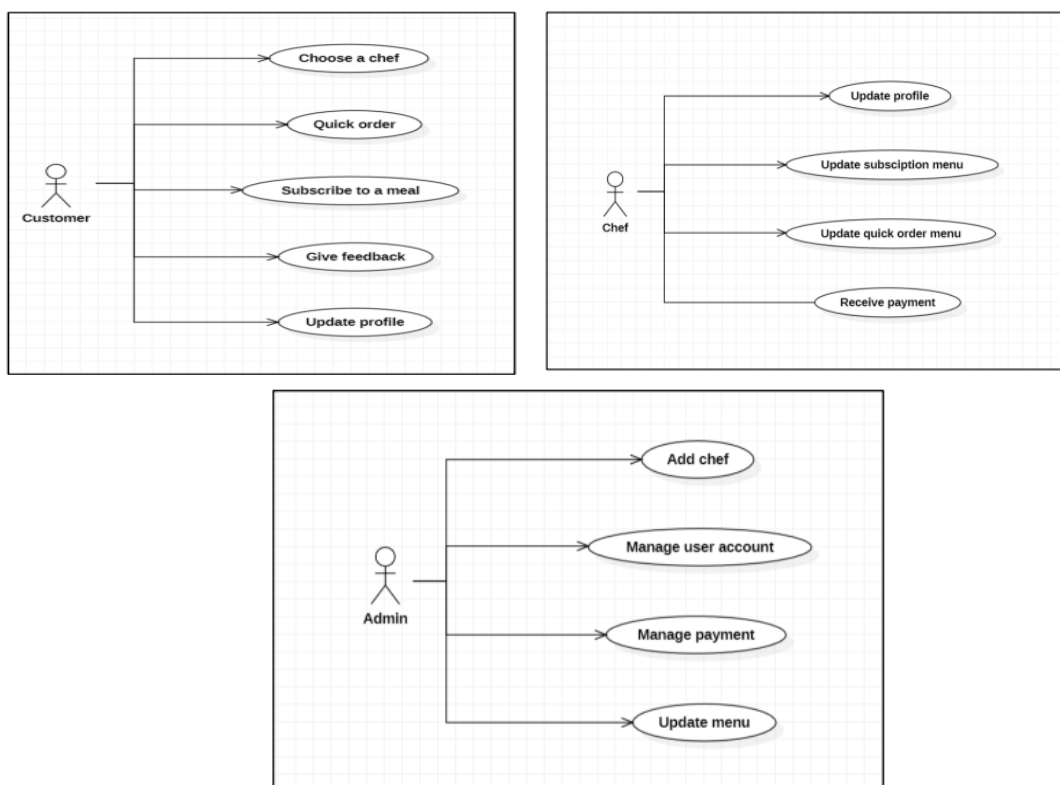
A. USE CASE DIAGRAM

Figure (1): Use case diagram for a. customer, b. Chef, c. Admin

An Ubiquitous Home Based Food ordering Application

B. SEQUENCE DIAGRAM

A sequence diagram will be made up of a group of diagrams. Lifelines and the items they represent, as well as the signals they convey during their various interactions, they exchange over time. Subscription and quick order sequence diagrams are shown in Figures (2) and (3). In figure (2) when the customer opens the app, it displays the home page followed by that choose chef to view menu. Then a plan is selected for subscription. The order is placed followed by payment. The figure (3) depicts quick order. Here the customer opens the app and select the chef to view menu. Then a food item is selected for quick order. The order is placed followed by payment.
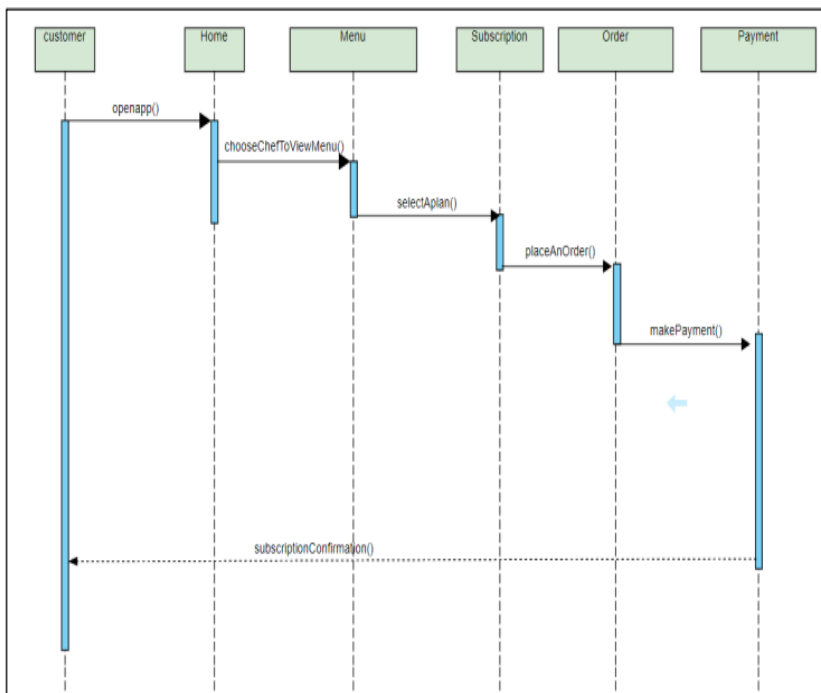
Subscribe to meal plan:

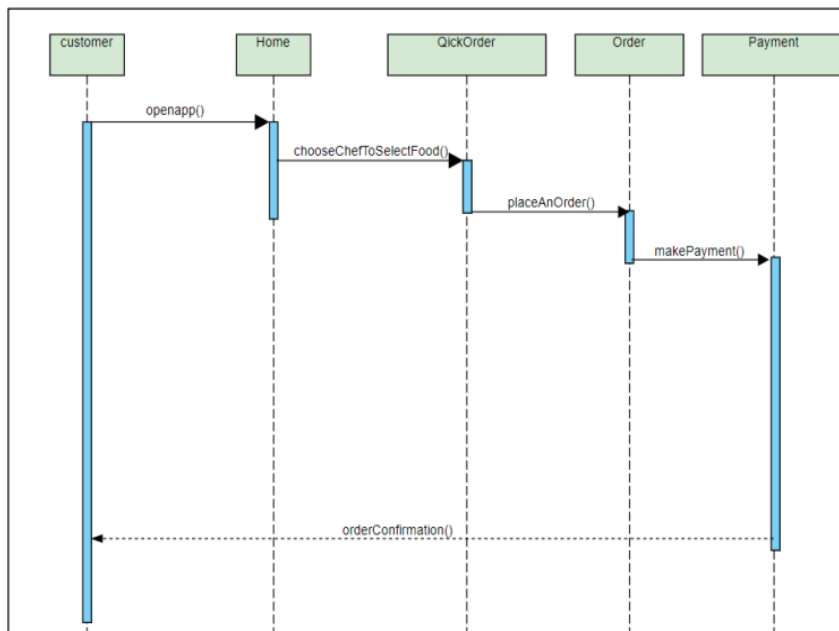**Figure (2): Sequence diagram for subscription**

Quick order:

Figure (3): Sequence diagram for quick order

An Ubiquitous Home Based Food ordering Application
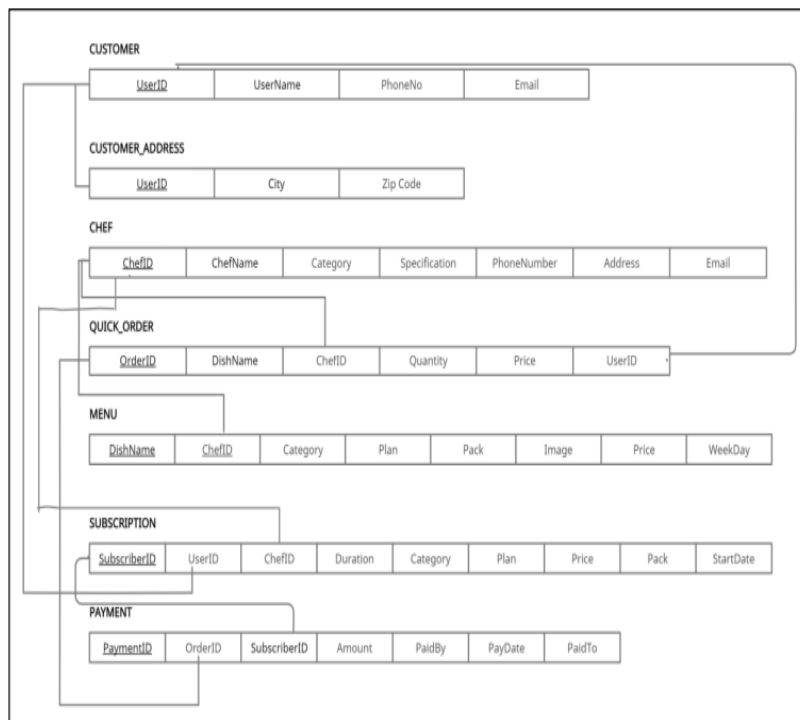
C. DATABASE SCHEMA

Figure (4): Database schema diagram

V. METHODOLOGY

The project is a mobile application which has two users, the home cooks and the customers. The home cooks add the food for the quick ordering of food to the customers. The cooks can also add a subscription plan for the customers. The menu of the subscription plan is set by the cooks and can be updated if required. The customers can choose a chef based on the location preferences and order a food or can even subscribe to a meal plan for a specified period. The app provides an option to subscribe for a day, or a week or even for a month. The customer has to confirm the order by making a payment. One can unsubscribe to the meal plan prior a day. The customers can also give feedback to the chef which will help the chef improve.
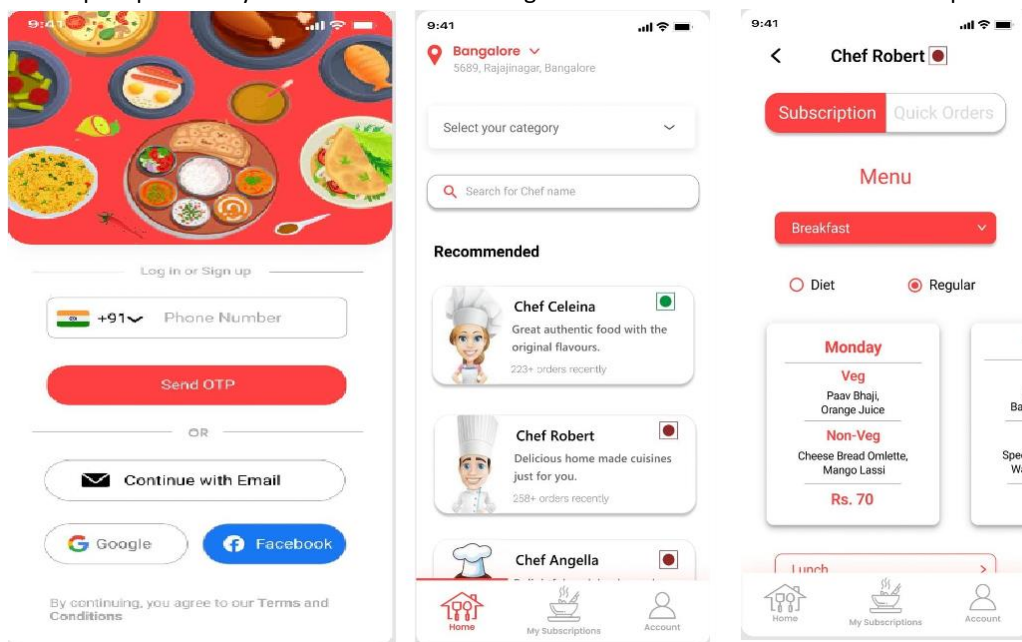

Figure (5): User Interface of Application Access

Home Chef allows customers to subscribe their meals from the chef who are nowhere related to any restaurants. The home chef app allows the home cooks a platform where they can sell their home-made meals directly to the customer without any restaurant involved as a middle man. It provides the users an option to customize their meal plan according to their lifestyle

An Ubiquitous Home Based Food ordering Application

either choosing a diet plan or a normal plan. One can easily use the app and subscribe for the meal pack they wish to subscribe from the chef of their choice. The app also provides the user to have different subscription plans based on his preferences. The review and feedback option helps the chef to improvise based on customers feedback which will help them for next orders. The quick order option helps the chef to sell individual items and the customer can order it if required.

The user can login to the app using his or her phone number. The person will be logged in to the app on entering the OTP received. The other ways of logging in is through Email, Google or Facebook. On successful login the customer will receive a screen where he/she has to enter the location followed by which a list of all chefs available in that particular location will appear.
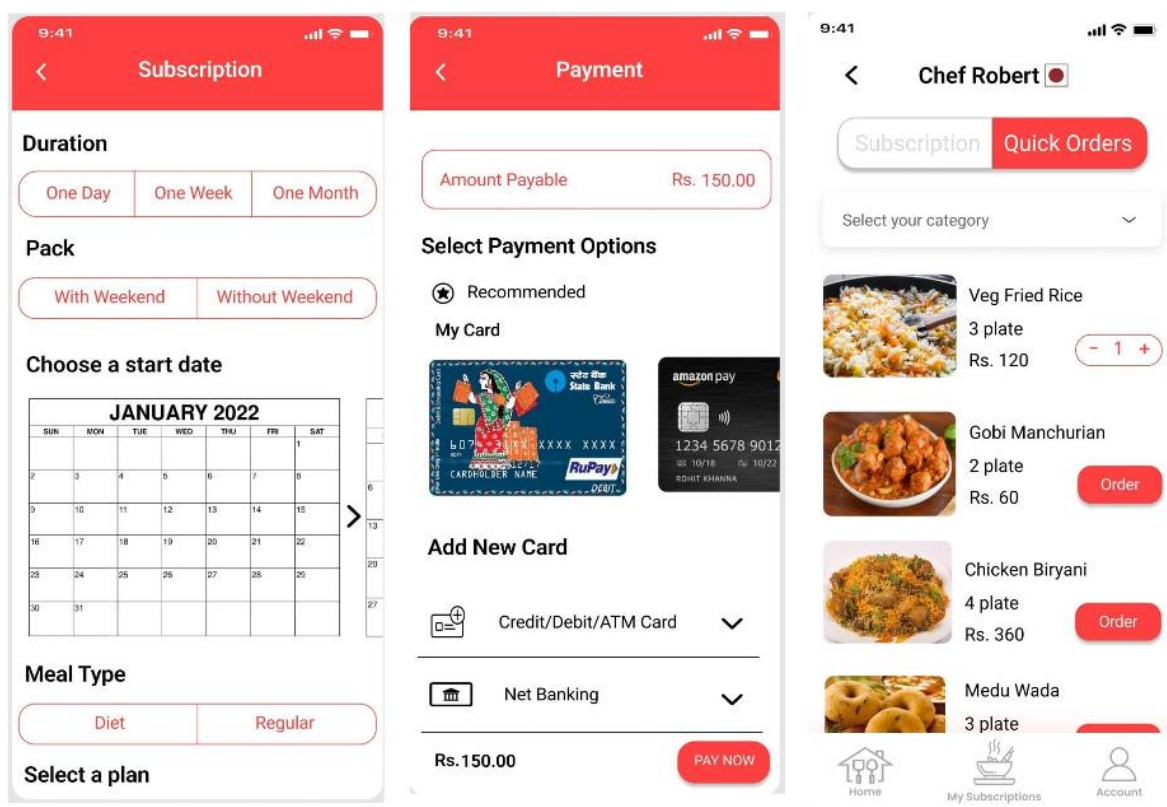

Figure (5): User Interface of Food Ordering Process

After selecting the Chef, the user gets an option to select either quick order or subscription. On selecting subscription, a menu will appear for breakfast, lunch and dinner. The menu for diet or regular plan will appear according to the user's choice. Followed by which the user will have to select the period of subscription and finally subscribe by doing the payment. The quick order is an option given for the customers to order the food items by selecting the quantity. It is the food items that are excess which are added by a chef.

VI. CONCLUSIONS

Home Chef allows customers to subscribe their meals from the chef who are nowhere related to any restaurants. The home chef app allows the home cooks a platform where they can sell their home-made meals directly to the customer without any restaurant involved as a middle man. It provides the users an option to customize their meal plan according to their lifestyle either choosing a diet plan or a normal plan. One can easily use the app and subscribe for the meal pack they wish to subscribe from the chef of their choice. The app also provides the user to have different subscription plans based on his preferences. The review and feedback option helps the chef to improvise based on customers feedback which will help them for next orders. The quick order option helps the chef to sell individual items and the customer can order it if required.

REFERENCES

1) Gupta, Mitali. "A Study on Impact of Online Food delivery app on Restaurant Business special reference to zomato and swiggy." *International Journal of Research and Analytical Reviews* 6.1 (2019): 889-893.

An Ubiquitous Home Based Food ordering Application

2) Khan, Mohammad Faisal. "A unified factor analysis and distance based evaluation approach to evaluate the preferences towards online food ordering applications in saudi arabia." international journal of management (ijm) 11.12 (2020).

3) Roh, Minjung, and Kiwan Park. "Adoption of O2O food delivery services in South Korea: The moderating role of moral obligation in meal preparation." *International Journal of Information Management* 47 (2019): 262-273.

4) Bawankule, Diptal, Akanksha Sarve, and Arkaprava Ghosh. *Online Food Ordering Website*. No. 5630. Easychair, 2021.

5) Sarve, Akanksha, Diptal Bawankule, and Arkaprava Ghosh. "Online Food Ordering Website." *International Journal of Progressive Research in Science and Engineering* 2.6 (2021): 105-108.

6) Lipuma, Christina, and T. Horacek. "College Student's Meal Management and Fast Food Ordering Behaviors." *Journal of Nutrition Education and Behavior* 48.7 (2016): S95-S96.

7) Kulwade, Tushar, et al. "ONLINE FOOD ORDERING APPLICATION REPORT."

8) Lee, Yi-Chia, et al. "Cross-Channel Service Experiences of Meal Ordering Services: Evidence from the fast-food industry in Taiwan."

9) Cha, Seong-Soo, and Bo-Kyung Seo. "The effect of food delivery application on Customer Loyalty in Restaurant." *Journal of Distribution Science* 18.4 (2020): 5-12.

10) Chen, Szu-Pu. *The democratisation of meal delivery service in France*. MS thesis. University of Stavanger, Norway, 2017.

11) Keeble, Matthew, et al. "Use of online food delivery services to order food prepared away-from-home and associated sociodemographic characteristics: a cross-sectional, multi-country analysis." *International journal of environmental research and public health* 17.14 (2020): 5190.

12) The Rise of Home chefs during Lockdown by Sushmitha Jha

13) Https://www.ootabox.com/

14) Https://www.homechef.com/

15) Https://www.cnet.com/health/nutrition/home-chef-review/