

Restaurant Digitalization

Rupal Raturi¹, Shristy Maheshwary², Soumya Gupta³, and Vishal Singh⁴

ABSTRACT

With the modernization, the restaurant culture is increasing day by day. Everyone prefers to go to an outlet and eat there especially on weekends. This has led to long queues and waiting time. There is also limited number of waiters to take the order in a restaurant so the time is wasted there also. As there has been a significant increase mobile user over the past few years and internet connection is available almost in all regions so we proposed a project called Restaurant digitalization.

It (first app) provides the client to access the program and order whatever he wants and the order directly goes to the chef of the kitchen who has another app to store all the order and keep a tab on everything. Meanwhile the bill is generated in the program and client has to pay the amount. After preparation the order from kitchen is taken to the client. This is a time saving process and is a step towards digitization of our normal life.

With the help of this project we are trying to avoid the use of paper menus and also eliminate the mistakes made while receiving the orders from customer which leads to delivering the wrong food item. This system increases quality and speed of service. This system also increases attraction of place for large range of customers. Implementing this system gives a cost-efficient opportunity to give your customers a personalized service experience where they are in control choosing what they want, when they want it – from dining to ordering to payment and feedback.

INDEX TERMS: 1. app: Application, 2. QR: Quick Response

1. INTRODUCTION

Restaurant Digitalization is a project which basically aims at creating a flexible environment at the restaurants, for people who work there and also for the customers who go for dining there. The project facilitates the ease of placing orders at the restaurant and also dispense them according to their priorities or their waiting time. The project basically eliminates the system of paper menu, hence saving paper and also it helps in reducing human error while taking down orders from the customer and delivering the wrong order to the customer [1]. It is a very cost effective project if implemented properly, because it will reduce the number of waiters required in restaurants for taking orders, the only work for waiters will be to deliver food.

Restaurants attract a large amount of crowd towards itself so it is important for restaurants to maintain its reputation by giving a positive impact on its customers always. If the customer is dissatisfied with the restaurant then it brings a negative impact on the restaurant's image. This negative impact generally comes from an inappropriate service from the restaurant which is usually if the food is not good or their service is not good like wrong order given to a customer or a wrong bill generated for any table, etc. In order to avoid these mistakes, restaurant digitalization was proposed. In this a digital system(app) is made which helps in maintaining a digitalized menu and also provides various other features like a user profile page, today's special, wish list, shopping cart and my orders. All these features are provided to the customer via an app. For the chefs another app is made which is the order dispensing app which basically keeps a track of all the orders received from different customers and also categorizes the orders that which chef will prepare which order, the chefs also assign an approximate waiting time to the customer i.e. this much time will be needed to prepare your order. The main advantage of the customer app is that when the customer installs this application on his phone, a QR scanner opens up and the customer needs to scan the QR present on his table in order to order food [2], for a new customer who is coming for the first time to the restaurant the customer needs to enter his profile details first and then he is redirected to the menu page.

A. Flow within the applications:

1.1 Customer App :

- Customer enters the restaurant on a particular table, where a QR code is present. If the customer is a new customer then he installs the app on his phone.
- After opening the app, the first page opens up where a QR Scanner is there, the customer scans the QR present on his table and if the QR is valid then the customer is redirected to the signup page[2]

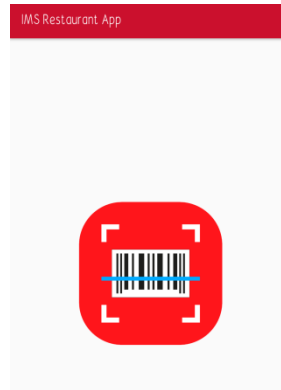


Figure 1. Login Page: This is the main page of this application. After this page the QR code is scanned and further processing takes place like number verification and profile creation.

- Once the customer clicks on the signup button a page opens up where the customer enters his mobile number on which an otp is sent. After the verification of otp , if the customer is new i.e. if the mobile no. is not registered on the database then the profile page opens up where the user enters his basic details like name , email id, birthday ; otherwise if the number is of an existing user then the user is directly redirected to the menu page.

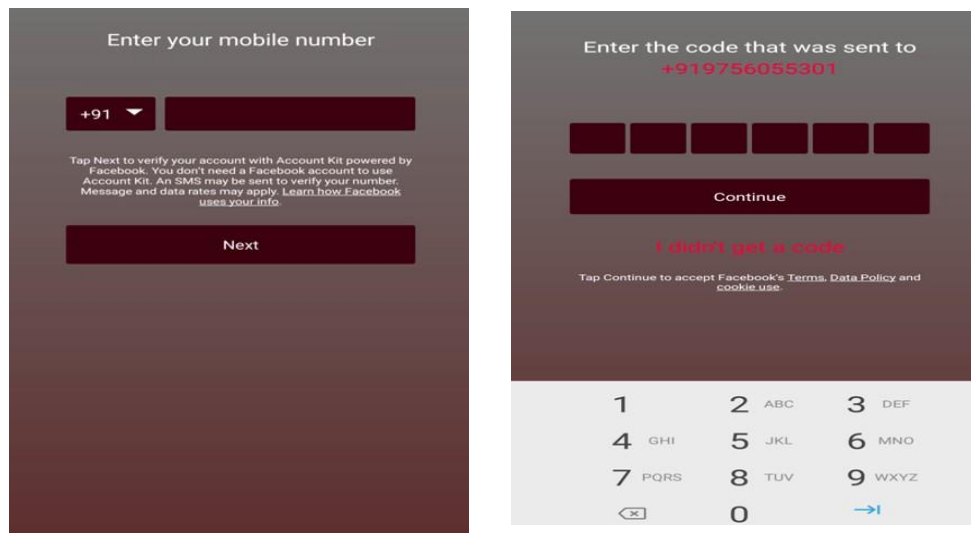


Figure 2. Once the QR code has been scanned successfully, the customer has to enter his/her number so that the device can be saved for future use. After the customer has entered the number, it is verified by entering the code that is sent to the number.

- Customer can now order anything from the menu page where the menu is properly categorized with every item being described individually.

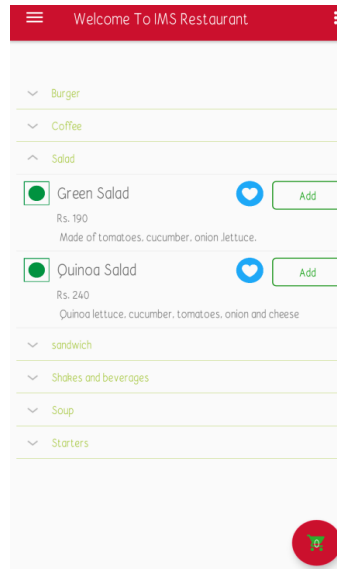


Figure 3.*The menu: This is the menu where the customer can place the order*

- There are various other features this app offers like today's special, my orders, wishlist, etc.[3]

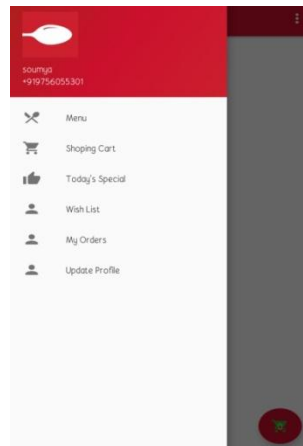


Figure 4.*IMS Restaurant Application: These are the features provided in this application. [3]*

1.2 Chef's App:

- There are multiple orders from the customer's side, which needs to be managed on the chef's side.

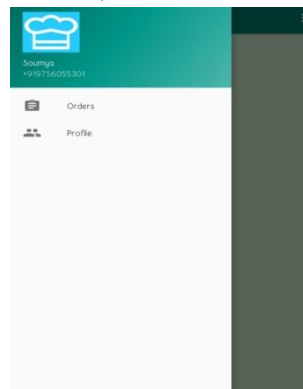


Figure 5.*Chef's Application: This is how the chef's account looks like. He/ She can update his profile here and update the status of every order placed. [3]*

- The app helps the chefs to divide the orders among themselves and also allocate a waiting time to every order i.e. the time for which the customer has to wait in order to get his food.
- Also the chef can assign a status to every order, whether the order has been delivered or not or the preparation of food has started or not.

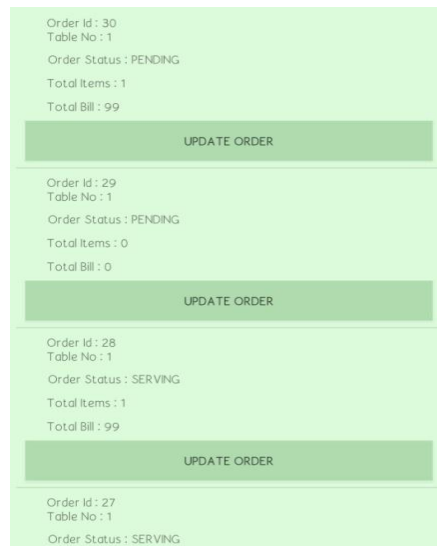


Figure 6. Chef's Account: Here the chef updates every order. Once the status is updated, the customer receives a notification regarding the order like how much time is remaining and whether the order is completed or not.

- The customer can also get to know their order status.

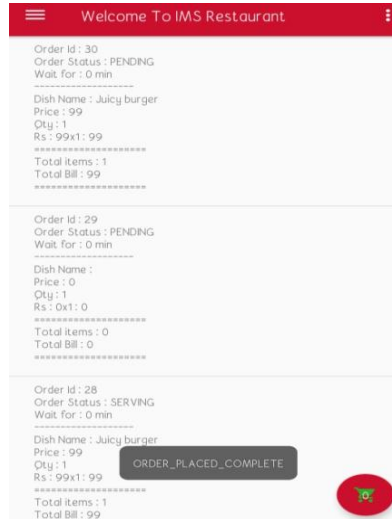


Figure 7. Here the order is placed and we can see the updated status of every item. The status is placed directly by the chef.

1. CONCLUSION

The proposed idea if implemented in restaurants can reduce the use of paper menus and also help in providing customers their actual ordered items with no human error in noting down the orders which would lead to less wastage of food as the wrong food item delivered is of no use [1]. The restaurant application is the one in which the customer places the order and this application is for the user while the dispensing application is for the chef's side. The dispensing application will show the chef the orders placed by the customers. The chef's mobile phone contains the order details. Once the order is prepared by the chef, the chef will click on the prepared button and the food will be delivered to the customer. This whole process of ordering and delivering food is a little faster, easier and better than the existing system we have.

2. REFERENCES

- [1] <https://www.outsource2india.com/DataManagement/articles/restaurant-menu-digitization-benefits.asp>
- [2] <http://beqrioustracker.com/qr-codes-can-be-used-on-restaurant-menus/>
- [3] <https://www.androidhive.info/2013/11/android-sliding-menu-using-navigation-drawer/>