

Nay-A Restaurant Pos System

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Abstract- Smartphones have become handy in our day to day life and with the ever economical smartphones and tablets, the cost of installation for display screens and desktops seems to be futile when everything can be done in our smartphone devices.

In Nay-Restaurant POS we are proposing a system which has functionalities like cross-selling, order history, item modifiers, home delivery, loyalty management, take away, etc. in addition to the standard and much expected functionalities that POS systems possess such as Inventory management, cash in-out, order history, customer management, discount, sales report, table reservations, print receipt, kitchen display, print receipt, menu management etc.

Also, as stated various features are already available in the desktop applications but is not available in the mobile version and many different POS systems have different and useful features that are available in one but are not there in others. After careful study of various available POS systems, we have tried to amalgamate all the necessary features needed for a restaurant POS system.

Also, making use of data analytics techniques we would be able to optimize sales and service on the fly, personalize guest experiences, leverage data to maximize profitability, recognize important customers and do more cross selling.

Keywords- Restaurant POS, Touch Screen, Point of Sale, Wireless

I. INTRODUCTION

Point of Sale is the time and place where a retail transaction is completed. The point of sale is often referred to as the point of service because it is not just a point of sale but also a point of return or customer order. Additionally, current POS terminal software may include additional features to cater for different functionality, such as Inventory management, Customer Relationship Management, financials, or warehousing.

Currently there are various applications available on POS based restaurant management system. Most of them have

various functionalities like Inventory management, cash in-out, order history, customer management, discount, sales report, table reservations, print receipt, kitchen display, print receipt, menu management etc.

Some of the above features are available in the software that runs on desktops or screens but in the mobile applications many of these are missing. Also, different applications provide different functionalities. The problem with this is that a single system fails to provide the necessary features that through interactions with various restaurants we got to know.

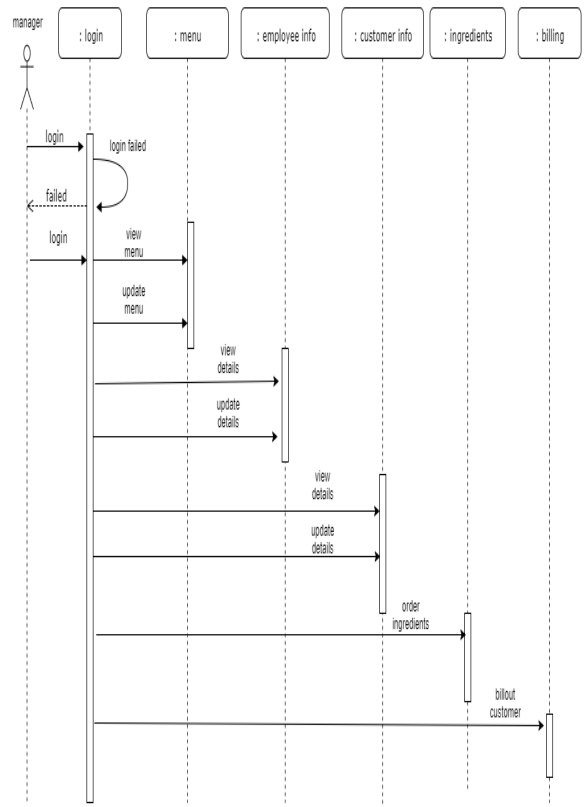
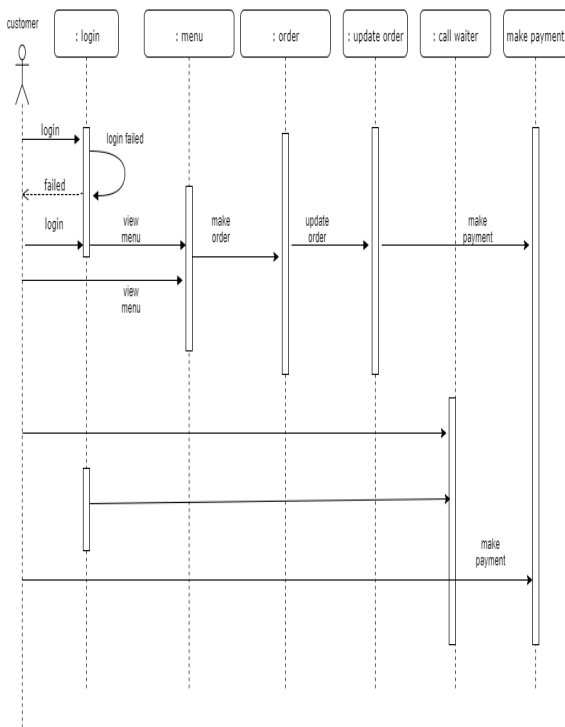
II. METHODOLOGY

Nay-restaurant POS an android application and website works on multiple platforms. The main purpose of this application and website is to manage restaurant more effectively. There are some additional features that are not present in current system.

NAY restaurant POS will work in following way:

I. For Customer:

- Responsibilities:
 - Visit restaurant for food and dining experience.
- Operation goals:
 - i. Make table reservations
 - ii. Login/Register
 - iii. View menu
 - iv. Order
 - v. Modify order
 - vi. Give reviews
 - vii. Make payments
 - viii. Take away
 - ix. Buy coupons



II. For manager:

- Responsibilities:

Oversee restaurant operations. They ensure sufficient resources such as food materials and staff to operate the restaurant. They also plan menu and promotion for restaurant.

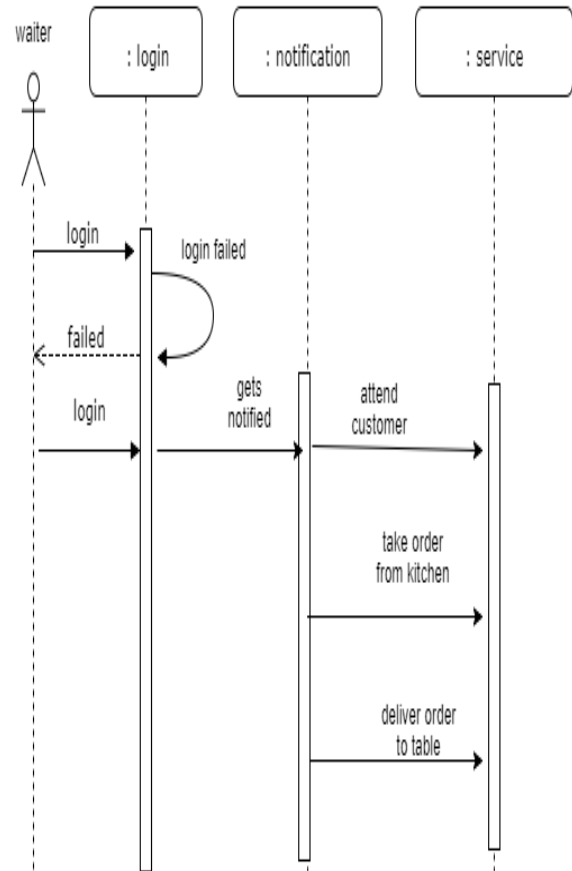
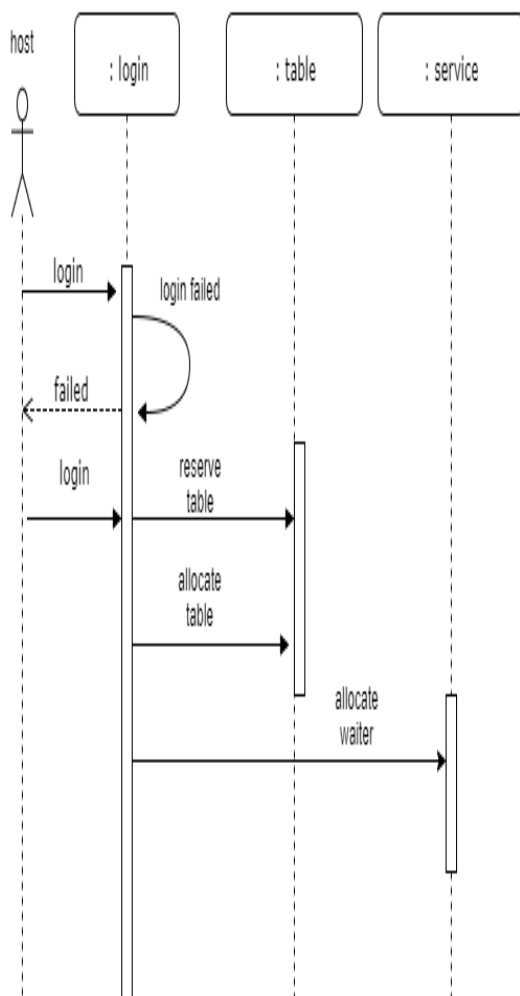
- Operation goals:
 - i. Manage staff information
 - ii. Order ingredients from external suppliers
 - iii. Generate and view reports
 - iv. Maintain menu
 - v. Maintain and update customer records
 - vi. Give access permissions
 - vii. Generate e-bills
 - viii. Manage payments

III. For host:

- Responsibilities:

Ensure fine dining experience and smooth customer communication. They manage table allocation and reservation list.

- Operation goals:
 - i. Manage Waiter/waitress
 - ii. Manage table reservations
 - iii. Allocate tables as per reservations



III. SPECIAL FEATURES

The idea to the application was inspired by the difficulty faced at the restaurants due to insufficient staff or chaos caused by multiple customers at specific restaurants. Various systems of restaurant POS currently lacked features which could be an added feature for our system. Thus, it makes our idea of the project unique as there is no such existing android application providing an all in one feature list amalgamated in a single application on various platforms.

Unique Features:

- i Inventory Management: Inventory management systems integrated with the restaurant POS allows you to control and organize each and every aspect of the stock, maintains a smooth flow of supply and also helps you boost your overall profit.
- ii Loyalty Management: Restaurant profitability can only be ensured through Repeat Customers and the solution has multiple options to ensure that customers

IV. For waiter:

- Responsibilities:

Responsible for servicing customers at restaurant dining hall. They gather order information from customers and serve cooked food dishes to customer table.

- Operation goals:
 - i. Collect orders from kitchen
 - ii. Deliver order to tables
 - iii. Answer customer queries
 - iv. Get notifications regarding order status

- are adequately engaged and are rewarded for their Loyalty.
- iii Kitchen Display: Kitchen Display is a special feature for the chefs of the restaurant where orders are displayed and easy interface through which they can interact and give timely updates of the orders.
 - iv Cross-selling: Cross-selling is the practice of selling an additional product or service to an existing customer. Restaurant POS define cross-selling in many different ways by taking into considerations what the customers are buying together and giving special offers on the combined products.
 - v Item modifiers: Item modifiers is a unique feature added to the system wherein if the customer order has not started to cook, then the customer can modify the order.

IV. CONCLUSION

Nay-Restaurant POS is an all-in-one system which can work in all platforms like smartphone, tablets, desktops and both in online and offline mode depending on the way of use. With so much of diversity we are sure we would be able to make a lot of impact in the digital world. More research is possible in the field by contacting various restaurant owners and proposing the system to them. If they approve the idea and are ready to share all the confidential details about their users then this may work as a successful live android application for them. If it happens as so it will surely make restaurants' work minimal.

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