**Restaurant Management Automation**

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***Requirements:***

1. **Functional Requirements**
   1. **Menu list**

The menu should be available at all times. Based on the time of the day and the availability of items, it should be changeable by the admin.

* 1. **Food Order**

Customers can order food only by connecting to Restaurant specific Wifi. The customer needs to register on the website before ordering food.

* 1. **Acceptation of Order**

The chef will receive the order and if it is possible to prepare then he will confirm the order and start the preparation of food.

* 1. **Serve Food**

When the food is ready to be served then the chef will alert the waiter. After serving the food the waiter will mark the order as served.

* 1. **Customer Information**

The registered customers who fit into a set of criteria will become eligible for special membership.

* 1. **Payment**

The payment can be done through any mobile wallet or cash. If the customer is a special member, they will get a discount.

* 1. **Inventory Information**

The chef will update inventory data and send a request to the admin for required goods. The admin should be able to download the data of inventory usage for every month. Based on this data, the chef shall be able to judge and set the minimum stock to be maintained.

* 1. **Allocation of Tables for the customers**

The application should be able to reserve a table for the customer based on the number of seats demanded. If the restaurant is fully occupied, it should be able to send the message to the customer requesting to wait for some more time.

Admin should be given access to update the number of tables (in the case of addition or removal, if any). Admin should also be given access to block or unblock any table.

* 1. **Prediction demand of menu items**

Based on the previous database, the application should be able to predict which items are being liked and which are not. The admin can then remove the least liked item from the menu.

* 1. **Customer Feedback**

Customer feedback on the Cleanliness of Restaurant, Services of staff, Quality of food items shall be obtained after payment of bill. Also a suggestion column shall be included in the feedback form.

* 1. **Metrics and revenue viewing tool**

Admin can access the restaurant metrics to track their profits or losses. The metrics to be found out are:

Cost of Items Sold, Labour Cost percentage, Prime Cost, Break-Even Point, Food Cost Percentage, Gross profit, Inventory Turnover Ratio and Net Profit Margin.

1. **Non-Functional Requirements**
2. The product will be based on local server.
3. The product will take initial load time.
4. Payment system will be fully secure through POS system.
5. The source code developed for this system shall be maintained in configuration management tool.
6. The whole system is secured. Only Admin can access all the data.