Software Engineering (ECE 452) - Spring 2019
Group #3

Restaurant Automation Codename Adam

Demo 1: User Documentation

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Team Members:
Seerat Aziz
Lieyang Chen
Christopher Gordon
Alex Gu
Yuwei Jin
Christopher Lombardi
Arushi Tandon
Taras Tysovskyi
Hongpeng Zhang

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INTRODUCTION

As an automated restaurant management system, project ADAM is a suite of programs that allows restaurants to seamlessly manage the workload of their staffing, reduce inventory waste, as well as improve customer satisfaction. ADAM consists of a Database, a Website as well as 4 applications, all of which are service by a common API. Of the applications we have the “Waiter App” and the “Chef App” for the staffing of a restaurant along with the “Table App” and the “Customer App” which are meant as a front end for customers.

CUSTOMER APP

Customer app is meant to be downloaded by customers onto their personal devices. When they open it, they are greeted with the most up to date menu. Additionally, they also have an option to log into their account or create a new one, which can be found in the slide out menu.

In the menu view, the customer can scroll through the list of dishes offered by the restaurant and add one or multiple to cart. If they want to see a more detailed information they can click on any dish to go to dish details view, where they can see caloric value, ingredients and any possible allergy warnings for that dish, as well as enter any information they want the chefs to see (for example how they want their meat cooked, or what they want on the side). Afterwards they can press Add to Cart button to add the current dish to cart.

After the customer is done choosing dishes, they can press the cart button in the top right corner to go to the cart view. From there the customer can finalize their order and pay with a credit card, or choose to pay in person.

Additionally, the customer can press “Recommendation” option in the slide out menu to have a dish recommended to them, either by taking a quiz or by analyzing their past ordering habits (if they decide to log in).

TABLE APP

The Table App, similar to the Customer App, is meant to be used by the customers within the restaurant on a per seat tablet. When in front of a tablet the app will attempt to log the user in via facial recognition. If this fails the customer will have an option to log in via username and password. If it’s customer’s first time in the restaurant, he will be asked for permission to store their picture in the database for facial recognition in the future. A customer who refuses to log in will still be able to order a meal, however, said customer will not be able access the dish

recommendation based on previous dining habits. He or she will still, however, be able to take a dish recommendation quiz.

Similar to the customer application, the table app contains a menu with the list of dishes, where by clicking on a dish the customer will be able to see dish detail view, identical to the one in the customer app.

Differing from the Customer App, the Table app has the “Need Assistance” button, which upon pressing will notify the wait staff that the customer at that table requires further assistance.

CHEF APP

Chef app is meant to be downloaded by chefs onto the devices provided by the restaurant. When they open it, they are greeted to with the most up to date orders that need to be prepared.

In the order view, chefs can scroll through the list of orders placed by customers. They can click into each order in order to view the details of it, which will open up a new view containing the list of dishes in that particular order, as well as any extra information the chef should keep in mind while preparing it.

To start an order, a chef can press “start” button to start the order and a timer will be set simultaneously, this can make sure that chefs know which orders are started so that they don’t have to memorize them.

For each order in the list, there is a “complete” button included. When the chef finishes everything inside the order, he or she can press the “complete” button. Then the order will be removed from the “current orders” list and added to the “completed orders”. Also, this action will send a notification to the waiter to tell him or her that the order is completed and the “order status” of the order shown in customer app will be changed from “in progress” to “cooked”.

WAITER APP

Waiter app is meant to be downloaded by waiters onto the devices provided by the restaurant. When they open the application, they can easily check the Menu, current order list, and Customer Request list.

In the order view, waiters are able to view the most up to date orders. They can scroll through the list of orders placed by customers and check the details of the order, such as the Customer ID, Order Date, and the Status. Once the order was placed, the order status will be in progress. After the Chef completed the order, the order status would be updated to “Cooked” and waiters can bring the dishes to customers in time. Once the order was completed, waiters

could click the serve button on the right side of each order and the order would automatically be removed and added to the Served Orders list which contains all served orders.

In the Customers Requests view, all requests would be inserted into a queue so that all requests could be served in First-in first-out manner.

RESTAURANT WEBSITE

The Restaurant Website contains information about the menu, the recommendation feature and ingredient prediction feature (Administrative Console). It also allows customers to make reservations and order food.

The Administrative Console will allow the restaurant owner to view trends, such as most popular dishes and rate of ingredient consumption. Moreover, the restaurant owner will have the ability to update the menu and change prices of dishes through the website. These changes to the menu will be made based on the results given by the ingredient prediction feature.

Along with making reservations and ordering food from the website, registered customers (with accounts) can use the “Recommend Me” feature, which generates meal predictions based on previous orders, and dish ratings. Additionally, both logged in and guest user can take a quiz to receive meal recommendation based on their answers. Similar to how the restaurant owner has an administrative console, registered users will have access to their profile information, which will let them view previous orders, rate previously eaten dishes, and make any changes to their account.