**Software Requirements Specification**

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**1. Introduction and Context**

The purpose of this application is to provide customers who visit our restaurant with a convenient way to order food from their table and to enhance restaurant patrons’ overall experience. This electronic ordering system will also allow the restaurant to reduce the number of **wait-staff** needed to take **orders**.

In almost every aspect of our lives, there is an opportunity for improvement through technology. As access to mobile applications and technologies proliferates, people prefer to be in control of their user experience. Unfortunately, when customers dine at a restaurant, they have little sense of control and their experience is subject to the pace of their server. This can result in the possibility of waiting long periods of time for service or feeling rushed while eating.

Our application will provide the customers of our restaurant with an interface allows them to regain some control over their dining experience by controlling the flow of service to their table. This application will also provide interfaces for the restaurant **wait-staff**, kitchen staff (**cooks**), and **managers** to work together with the customer interface to provide the best possible service.

**2. Users and their Goals**

Our application will be used by every **party** that comes to our restaurant, though we will provide a traditional restaurant experience for those who choose not to use our application. At each table in our restaurant, there will be a tablet pre-loaded with our application. The customers will be able to do a variety of functions on the tablet such as: view the **menu**, order drinks and food, call the **wait-staff** for help, pay the **bill**(s), and sign up or login to our game system to play games

**3. Functional Requirements**

There will be multiple screen views that can only be accessed via login credentials

**3.1 Customer View**

The system will provide a customer screen view. **Wait-staff** will be responsible for making sure that the tablet on each table is logged into the customer view.

The system will provide a **menu** that shows a listing of drinks, appetizers, entrees, and desserts, as well as pricing. With each **menu** item that is prepared by the restaurant, the system will show the list of ingredients, and any relevant allergy information. The system will also provide a full list of **nutritional content** for each item on the **menu**.

The system will allow customers to place an **order** with as many items as they choose from the **menu** and also provide a way for customers to add special instructions for their **order**. Special instructions may include a modification of any **menu** item such as “no onions”, or “extra spinach”. To make food delivery and **bill** paying easier, any single customer can add their name to their individual **order**.

The system will provide a login, sign-up, and logout feature where customers can login or sign-up with their emails to receive occasional **rewards**. **Rewards** will consist of coupons sent to a customer’s email that can be redeemed on a later visit. The system will allow a customer to log out of their account when they are ready to leave the restaurant.

Customers can choose to Like our restaurant’s Facebook page to receive **rewards**. Customers can also choose to post to Facebook or Twitter to receive **rewards**

From the tablet, customers can select a game to play from the list of available games. After logging in, the customer can play games to receive points which can be used to earn **rewards**.

The system will provide a “Refill Drink” button to allow customers to request a drink refill. The customer can ask for a refill of their existing drink or choose to order a new drink from the **menu**. The system will also provide an always-visible button to call the **wait-staff** for general assistance as needed.

The system will provide customers with an option to order food for take-out from their table. A take-out **order** will be the same as a dine-in **order**, but the customer will flag the **order** as a take-out **order**. This flag will let the **wait-staff** and kitchen staff know to pack the food for take-out.

The customer can pay their **bill** from the table. When multiple customers sit at the same table, they can choose to split their **bills** up to four ways. The individual **bills** will be calculated either by specific items ordered by each customer or as a fraction of the total **bill**. Customers can select either credit card or cash as a payment type. Customers can also call the **wait-staff** to assist with splitting the **bill** or correct problems with the **bill**. The system will provide customers with pre-set percent values as suggestions for a tip, but customers can also choose to enter their tip manually. Finally, the customer can choose to be given a printed receipt or have a copy sent to their email address.

**3.2 Wait-staff View**

The system will provide an additional **wait-staff** screen view where each waiter will login using their employee login.

The system will allow the **wait-staff** to **comp** **orders** with **manager’s** approval, and **managers** will be able to enter their login credentials to accomplish this. The system will allow the **wait-staff** will be able to view the **orders** placed for all tables, print the **bill** for customers, and be able to finalize the **bill** for customers.

The system will also allow **wait-staff** to add coupons/discounts to the customer’s **order**. If the customers do not want to pay their **bills** at their table, **wait-staff** can pay the **bill** for a customer (using customer’s credit-card or customer’s cash). The system will also notify the **wait-staff** if a customer wants a drink refill along with the drink details, or if a table needs assistance with anything.

**3.3 Kitchen View**

The system will also provide an additional “Kitchen” view that each member of the kitchen (**cook**) will login to using their employee login.

The system will allow **cooks** to view all open **orders**, and they will get assigned an open **order** on a first-come-first-serve basis. The system will allow **cooks** close their **order** and get a new one if the food is prepared and sent out. The **cooks** can remove items from the **menu** if the kitchen is out of ingredients, and this change will be applied to every view so customers no longer order items that cannot be made

**3.4 Administrator View**

The system will also provide an additional “Administrator” view that each **manager** can login to using their employee login.

The system will allow administrators to access all features of the **wait-staff** view. Additionally, administrators will be able to generate different types of reports. The system will allow administrators to generate a report on total sales for the night or month. Administrators can also generate a report on the quantity of each **menu** item sold for each night or month.

**4. Non-functional Requirements**

**4.1** The system will run on a tablet

**4.2** The system will require Wi-Fi to run

**5. Glossary**

**Party** - a customer, or group of customers that are together

**Wait-staff** - all employees (excluding **managers** and **cooks**) that will directly interact with the customers

**Manager** - employee that is in-charge of other working employees, ensures normal business flow, and handles any customer complaint

**Cook** - employee that is in charge of food preparation and works in the kitchen

**Menu** - list of all available food and drink items for sale. Broken down into sub-categories such as appetizers, entrees, dessert, drinks

**Nutritional** **content** - number of calories per **menu** item

**Order** - list of items the customer is purchasing

**Bill** - total price for the customer’s **order**

**Comp** - a refund on the meal or **menu** item.

**Rewards** - rewards will consist of coupons sent to a customer’s email that can be redeemed on a later visit.

========end of report. information below is for our purposes only. do not turn in!=========

To do this weekend:

<http://www.codecademy.com/en/tracks/python>

<http://codingbat.com/python/>

<https://www.djangoproject.com/>

<http://www.imdb.com/title/tt1853728/>

**Potential additions - 25% of total grade:**

-Administration view (3% for log in system, 1% for each report, up to 7% total)

- Create Log-Ins

- Assign Hourly Wages

- Assign Interfaces they have access to (Cook, Waiter)

- Add tables as well

- Remove Log-Ins

- If an employee leaves (remove them from the database and delete log-in)

- Track Hours

- ~~Create Schedules (Based on Job) (6%)~~

- Reports (1% each)

- Total sales

- Hours worked

- Popular items

- ...

-User set name for each order (3%)

-can change which refill to reorder (first Coke, then Dr.Pepper) (1.5%)

-be able to split checks by people/multiple people (1.5%)

-Take-out interface (3%)

- Add a takeout option when ordering

-Email account system (option to sign in with facebook/twitter or email) (3%)

-game point system tied to user account (1%)

-send email for redemption

-sign up for promotional emails

- email coupon for free appetizer/entree/dessert

-Show food allergies on each item (includes nuts, contains shellfish, etc) (5% for 3 filters)

-We could tie the ingredients into the description of items on menu

-Facebook/twitter share (3% each)/Post on wall advertising rest. (5%)

Functional Requirements

0.1 Screen Views

**0.1.1 Customer View**

- Display Menu

- Ability to order

- Modify orders for special requirements

- Ability to order per person (up to 4)

- Ability to play games

- One game has 1/5 chance of free appetizer/entree/dessert

- Ability to pay bill

- Ability to split payment

- Ability to call on waitstaff

- Option to tip waitstaff

- Manual option

- Auto option

- Choose option for printed receipt or emailed receipt

- Ability to call waitstaff (help) (always visible)

- Ability to refill drink (always visible)

- Ability to change drink (optional)

- Ability to choose who needs a drink (optional)

- Ability to enter name for the order

- Ability to order take-out

**0.1.2 Server View**

- Comp order

- View orders of any table

- Get notified when table has paid

- Notify for drink refill

- Notify when food is ready to be served

**0.1.3 Kitchen View**

- Ability to remove menu items if out of available ingredients

- Show all open orders

- Pick one order to work on

- Ability to select when order is completed

**0.1.4 Administrator View**

- Ability to view all other orders

- Ability to create logins for employees