Software Requirements Specification for The Healthy Table

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***Change Log***

* ***Version 1.0 (03/11/2015): Document created. - Shuaibo Gao***
* ***Version 1.1 (03/12/2015): Updated Chapter 2 - Overall Description. - Shuaibo Gao***
* ***Version 1.2 (03/13/2015): Added Chapter 3 – Specific Requirements. - Shuaibo Gao***
* ***Version 1.3 (03/14/2015): Updated Chapter 3 – Specific Requirements. - Shuaibo Gao***

# Introduction

## Purpose

This software requirements specification is intended to document the requirements for The Healthy Table (THT). So that professor Berajawala may approve the project idea and keep tracking of the project progress.

# Overall Description



## Background

People have always been attracted to heathy food, because the way people eat can make huge difference in their health. Recent studies conducted by the USDA show that Americans are making healthier food choices. The research concludes that increased consumer preferences for nutritious foods led to improvements in diet quality over a 5 year-period from 2005 to 2010.

The Online-to-Offline (O2O) commerce mode is popular these years. Typically, it includes online payment to get e-tickets, offline verification and consumption. It can attract customers online and direct them to offline physical stores, such as restaurants.

## Problem

Knowing what to eat can be confusing. Everywhere you turn, there is news about what is or isn't good for you. While most of us often don’t have ideas or plans on how and what should we eat for our everyday meals. In conjunction with such query, there are also a large group of people who need food plans that are specifically customized for them, such as patients, athletes and people with desire of improving their health conditions, such as loosing or gaining weight.

Now, the problem becomes to how to bridge restaurants with the public who are demanding customized healthy diet experience. How customer can easily order healthy food online and make payment online. How customer know how many calorie a dish have and how many calories is taken every day.

## Scope (Solution to the Problem)

I plan to build a system that bridge restaurants with the public. And such a system would also allow consumers to be able to monitor their everyday food combustion as well as are able to track how they have progressed over time. Restaurants need more channels to promote their business and attract customers. On both ends of the system a new dynamic can be established to form a completely new eco-system. For instance, the system can provide dinning recommendations for individual customer base on their health conditions and or special requirements which are customizable base on their preference. Orders can be made online via the system then updated among restaurants and customers. The payment can be paid via the system.

# Specific Requirements



## System Roles

System should have the roles below:

* Administrator Role
* Restaurant Role
* Customer Role
* Customer Service Role
* Sales Manager Role
* Finance Role

## Administrator Role

* Administrator shall be able to login to the system and manage all the accounts.

## Restaurant Role

* Restaurant shall be able to register to the system and login.
* Restaurant shall be able to add dishes and shall be able to add ingredients.
* Restaurant shall be able to view the orders.
* Restaurant shall be able to confirm the orders by using the ticket code auto generated by the system.
* Restaurant shall be able to update the profile.
* Restaurant shall be able to view finance report for the restaurant.

## Customer Role

* Customers shall be able to register to the system and login.
* Customers’ information shall be able to collected via a survey (ingredient preference, ingredient allergy, location, budget and whether want to lose weight)
* Customers shall be able to browse restaurant’s dishes and view details.
* Customers shall be able to place orders through the system.
* Customer shall be able to either make payment online or pay at the restaurant. If online payment is chosen, customer will get a discount from the system.
* Customers shall be able to update profile.
* Customers shall be able to add dishes to the cart.
* Customers shall be able to view the diet plan that auto generated by the system based on the information taken from the survey.
* Customers shall be able to track the calories taken every day.

## Customer Service Role

* Customer service shall be able to set the discount for all customer, if the customer pay online, this discount should be applied to the payment.
* Customer service shall be able to manage all of the customers.

## Sales Manager Role

* Sales manager shall be able to approve or reject the registration of restaurant. If approved, the restaurant can sign in to the system. If not, the restaurant cannot sign in.
* Sales manager shall be able to manage all of the restaurants.

## Finance Role

* Finance shall be able to view the finance report of the system.

## Diet Recommendation

* System shall be able to recommend the optimized selection of dish combinations to customer as per customer’s situation (a formula shall be created to generates diet recommendations base on individual customer’s information such as location, budget, health conditions, diet habits, and etc.)

## Registration

* Customer can register to the system directory without any approval. After customer registered the system, he or she will be able to sign in with the account directly.
* After restaurant registered to the system, it have to be approved by sales. During the pending time before sales approve new restaurants. The restaurant’s user account is inactive and can’t sign in to the system. After sales confirm the restaurant's certification (by some other ways, like go to the restaurant), sales should approve the restaurant so that the restaurant can sign in to the system.
* The other user account like sales, customer, finance and admin will be created by admin role directly.

## Restaurant, Menu, Dish and Ingredient

* Each restaurant have one menu that contains zero or more dishes.
* Each dish include one or more ingredient.
* Each ingredient should be mapped to a calorie table, so that total calorie of the dish can be calculated.

## About Customer, Cart, Order and Payment

* Customer should be able to view all of the dishes and add dishes to cart. Dishes from different restaurant will be separated into different cart items.
* Customer place order of the item in cart, then can make payment online or pay offline. Because I don’t have any payment API, a hard code should be used to verify the card number.
* After the payment, a ticket (code) is generated. Then the customer need go to the restaurant with the electronic ticket for consuming.

## Healthy Diet Formula and Survey

* If the customer want to lose weight, the calorie taken into body should between 1000 and 1400.
* If the customer want to gain weight, the calorie taken into body should between 1800 and 2200.
* If the customer want to gain weight, the calorie taken into body should between 1400 and 1800.
* The dishes we recommended to customer should be filtered by the customer’s allergy. We should not recommend the dishes that made by the ingredient of customer’s allergy.
* The dishes we recommended to customer should contain the ingredient customer like. That’s mean we should fit customer’s eating habit for recommendation.
* The location area should be taken into consideration. We can only recommend dishes whose restaurant is in customer’s location area.
* The budget of customer should be taken into consideration. The total price of the dishes we recommend to customer per day should be in the customer’s budget.
* If the customer didn’t take the survey, he or she will not be able to access the diet plan feature.

## Calorie Trace

* The calorie should be tracked for customer as per day. That’s mean the calorie will be added per day.

## About Sales and Customer Service

* Sales can set an income rate for each restaurant. That’s mean our system should get some income from the restaurant’s income.
* Customer service can set the discount rate. That’s mean if the customer make the payment online, the discount will be applied to the payment, and the customer will save money.