

**Online Restaurant Order and Delivery System
Software Requirements Specification
For Web Application**

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Version 2.0

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Revision History

Date	Version	Description	Author
19/03/2017	1.0	First version of the Online Restaurant Order and Delivery System	Justin Chin, Ammar Karim, Lenny Gonzalez, Emmanuel Simkhayev
18/04/2017	2.0	Updates done reflecting comments from TA in the Use-Case Diagram Section	Justin Chin, Ammar Karim, Lenny Gonzalez, Emmanuel Simkhayev

Los Quatro Amigos	Version: 2.0
Software Requirements Specification	Date: 19/03/2017
<document identifier>	

Table of Contents

1.	Introduction	4
1.1.	Purpose	4
1.2.	Scope	4
1.3.	Definitions, Acronyms, and Abbreviations	4
1.4.	Overview	5
2.	Overall Description	5
2.1.	Use-Case Model Survey	5
2.2.	Assumptions and Dependencies	6
3.	Specific Requirements	6
3.1.	Use-Case Reports	6
3.2.	Supplementary Requirements	Error! Bookmark not defined.
4.	Supporting Information	12

Los Quatro Amigos	Version: 2.0
Software Requirements Specification	Date: 19/03/2017
<document identifier>	

Software Requirements Specification

1. Introduction

1.1. Purpose

The purpose of this Software Requirements Specification is to present a detailed description of the Online Restaurant Order and Delivery System. It will explain the function and features of the system.

1.2. Scope

This software system we are going to develop, is an online restaurant order and delivery system to connect restaurants and customers to a central location. Customers will be able to order food from a menu, have it delivered to them, and rate the food and service. The restaurant is able to decide the food selection of the menu, make deliveries, manage customer accounts, and manage employees. Visitors to the restaurant, denoted as surfers, will be able to view the menu and its ratings, and decide if they want to apply to become customers. This online restaurant order and delivery order system consists of three groups of users: restaurant, customers, and surfers.

1.3. Definitions, Acronyms, and Abbreviations

Terms	Definition
Restaurant Users	These are the restaurant employees and have a higher level of access compared to the other users in order to manage the content of the system and receive privileged information. There are three types of restaurant users, chef, manager, and delivery person.
Chef	A type of restaurant user who determines what is on the menu.
Manager	A type of restaurant user who manages customer accounts, and manages the chef and delivery person.
Delivery Person	A type of restaurant user who determines which route to take when delivering food to the customer.
Customer Users	These are customers to the restaurant and have an account with the restaurant. These users are able to search the menu, make orders, and rate the quality of the food and delivery. There are two types of customer users, registered customer and VIP customers.
Registered Customer	A type of customer user who has a standard account with the restaurant.
VIP Customer	A type of customer user who has a premium account

Los Quatro Amigos	Version: 2.0
Software Requirements Specification	Date: 19/03/2017
<document identifier>	

	with the restaurant which comes with special perks.
Surfer	These are visitors to the restaurant with only the privilege to view the menu and associated ratings. They are eligible to apply to become a registered customer.

1.4. Overview

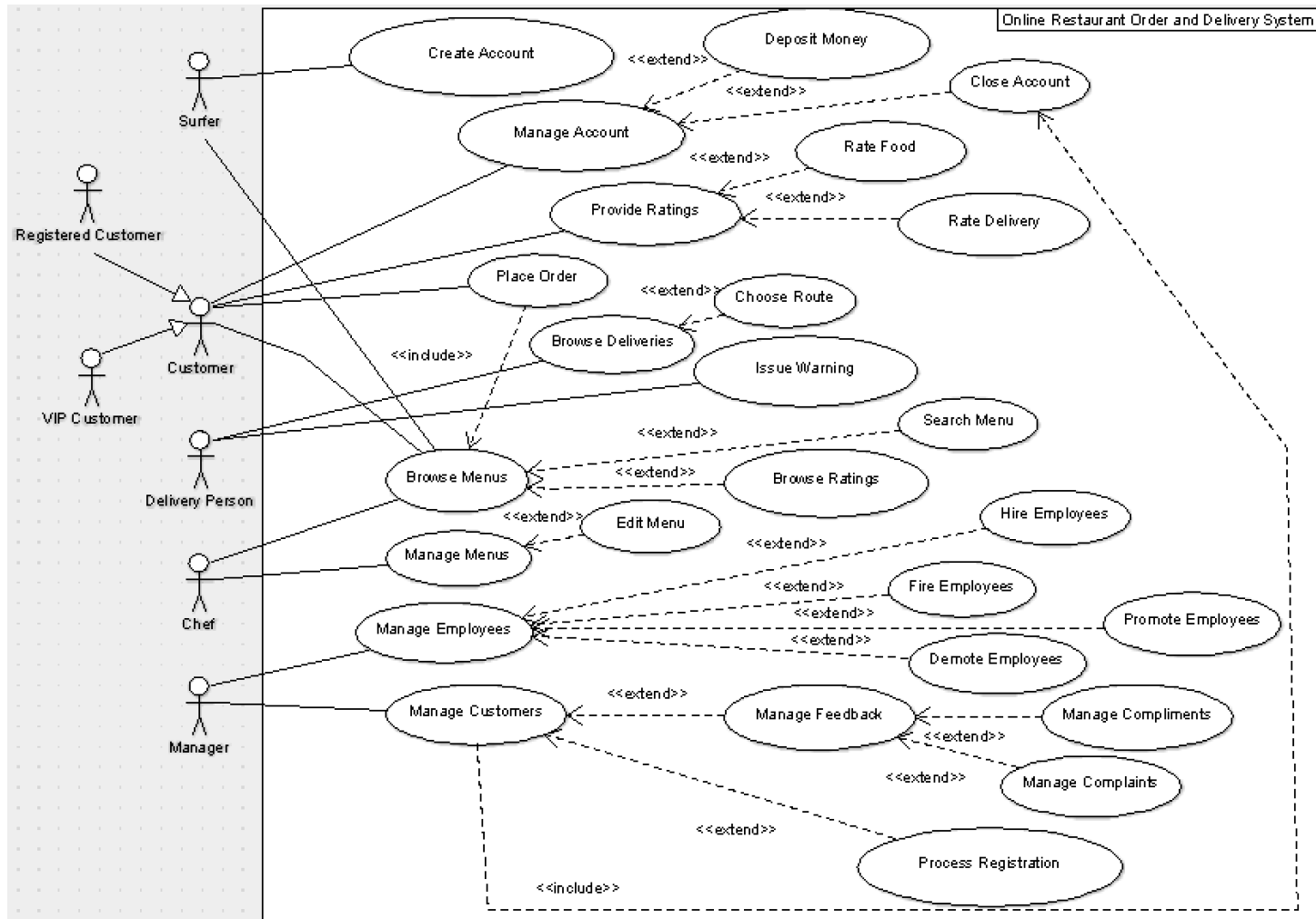
The rest of this document will contain more detailed Use-Case Model and system specifications. The Use-Case Model will include the different functions that each of the user can act on. Following the model, the system specifications will include additional features, conditions, and restrictions of the system not indicated in the Use-Case Model.

2. Overall Description

2.1. Use-Case Model Survey

The Use-Case diagram is an illustrative guide that demonstrates the functionalities of our system and clearly depicts how users can interact with our system.

There are three types of users in this system: Surfer, Customer, & Restaurant



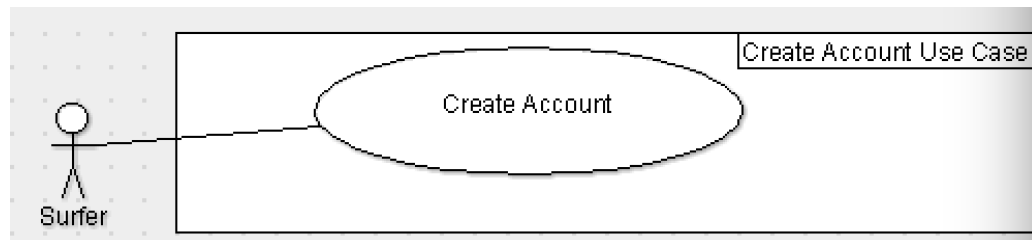
2.2. Assumptions and Dependencies

Within the Online Restaurant Order and Delivery System there is one problem, the manager's ability to handle customer compliments and complaints. This can get a delivery boy, or chef fired and can deauthorize customer accounts. Therefore the management is a key technical problem, because it needs to be controlled so that chefs, delivery boys, and customers aren't penalized so often. This can easily be solved by a counter being placed for all the individuals and an action is taken on a monthly or half-yearly basis.

3. Specific Requirements

3.1. Use-Case Reports

- I. Use Case: Create Account
 - A. Diagram:



B. Brief Description:

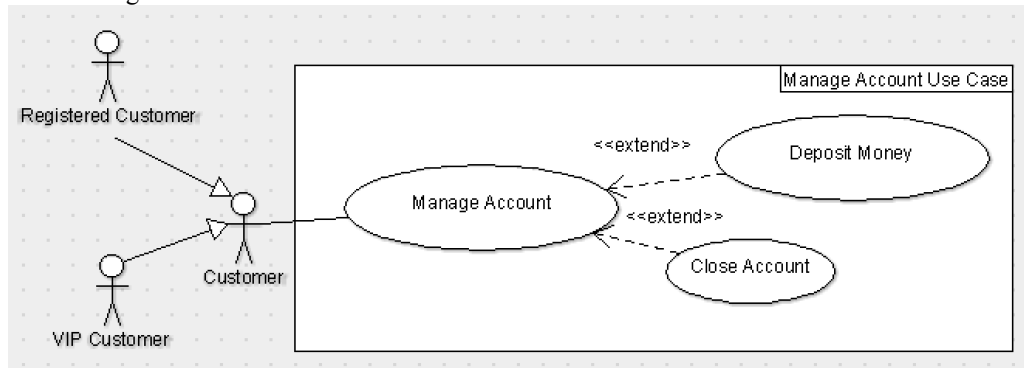
1. Surfers can apply to be a registered customer.

C. Initial Step-By-Step Description:

1. Before surfer becomes a registered customer, the application will need to be certified by the manager and contain a fixed amount of deposit money.

II. Use Case: Manage Account

A. Diagram:



B. Brief Description:

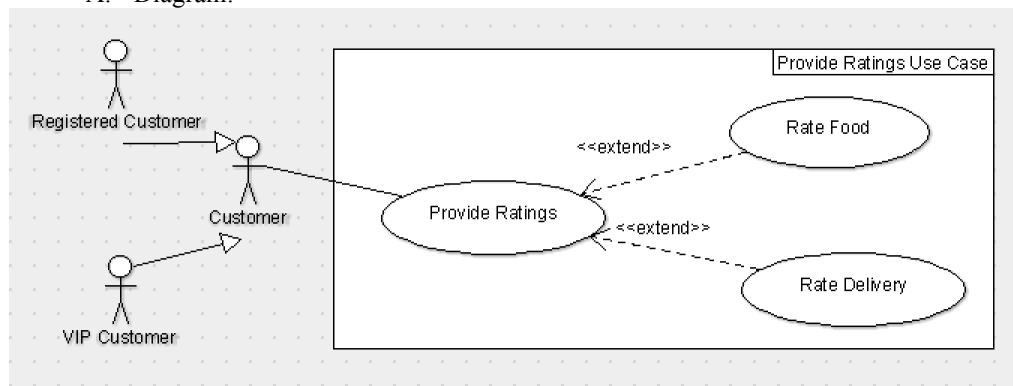
1. When a customer access their account, they have an option of closing their account or depositing more money.

C. Initial Step-by-Step Description:

1. Customers always have the option to access their account, therefore they can close their account if they no longer wish to be a customer or they can add more money to their account for future orders.
2. When Customers want to close account they will also clear their deposits.

III. Use Case: Provide Ratings

A. Diagram:



B. Brief Description:

1. Food can be affected by delivery in many ways, therefore customers can grade the food they receive.

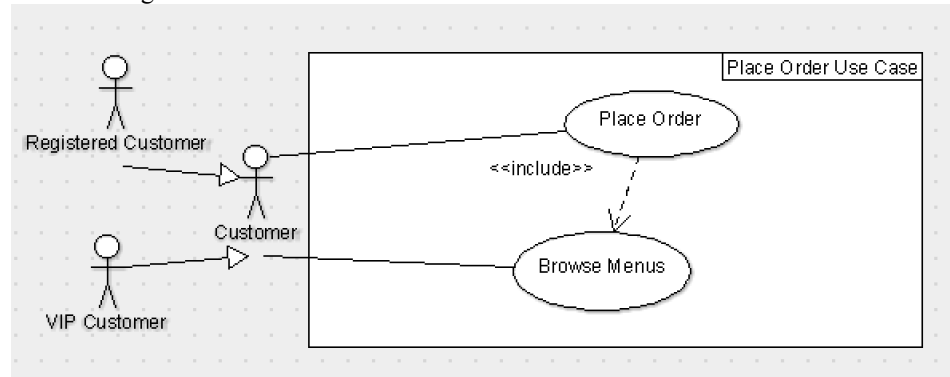
C. Initial Step-by-Step Description:

Los Quatro Amigos	Version: 2.0
Software Requirements Specification	Date: 19/03/2017
<document identifier>	

1. Registered customers can grade, lowest 1 star to highest 5 stars, the food they are receiving. The delivery could take a long time, therefore they can grade delivery quality. In addition the delivery could have been fast, but they food is delivered cold/squished and therefore food quality from delivery can also be graded.
2. VIP customers can also grade food quality and delivery quality, however their feedback is regarded twice as important than that of an ordinary customers feedback.

IV. Use Case: Place Order

A. Diagram:



B. Brief Description:

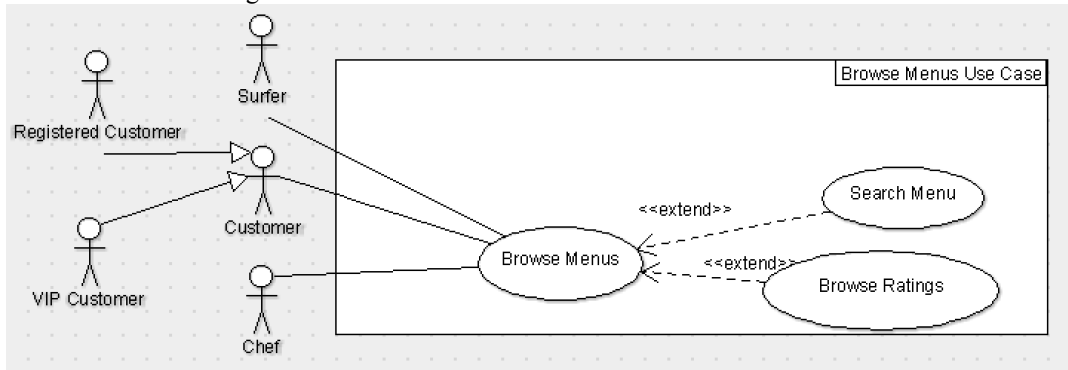
1. Customers can place orders, which requires viewing the menu.

C. Initial Step-by-Step Description:

1. Registered Customer and VIP customers can place orders, which requires viewing the menu.

V. Use Case: Browse Menus

A. Diagram:



B. Brief Description:

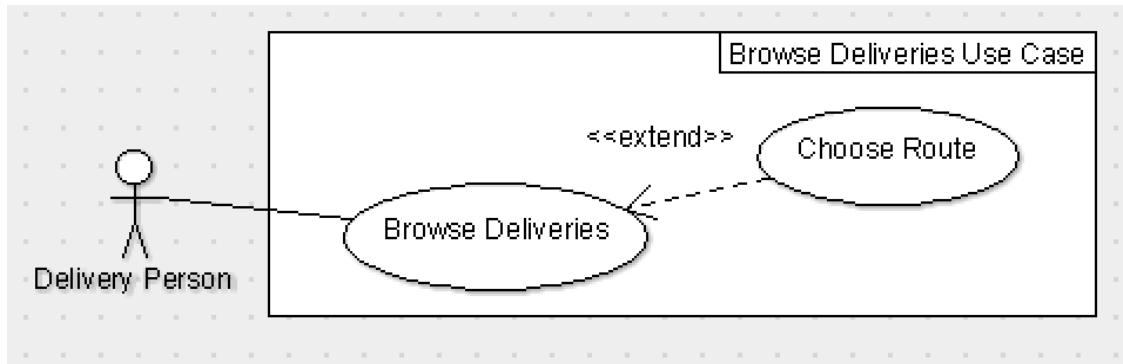
1. Surfers, Customers, and Chefs can view the menu, which also includes the seeing the ratings of each dish and searching specifically for something.

C. Initial Step-by-Step Description:

1. A surfer, customer, and chef can view menu which does include viewing ratings, and searching the menu

VI. Use case: Browse Deliveries

A. Diagram:



B. Brief Description:

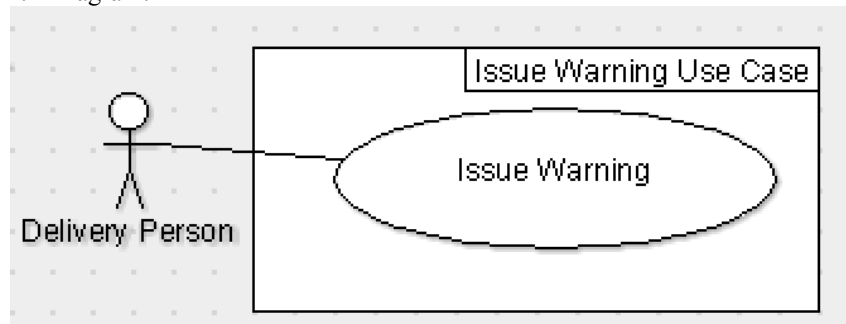
1. Delivery Person can view and choose route for deliveries.

C. Initial Step-By-Step Description:

1. The user Delivery Person, must be logged into the restaurant's profile.
 - a) The Delivery Person can view his current deliveries.
 - b) Necessary delivery information for each customer such as name, address, and phone number will be available to user.
 - c) User can then select the optimal route for deliveries.

VII. Use Case: Issue Customer Warning

A. Diagram:



B. Brief Description:

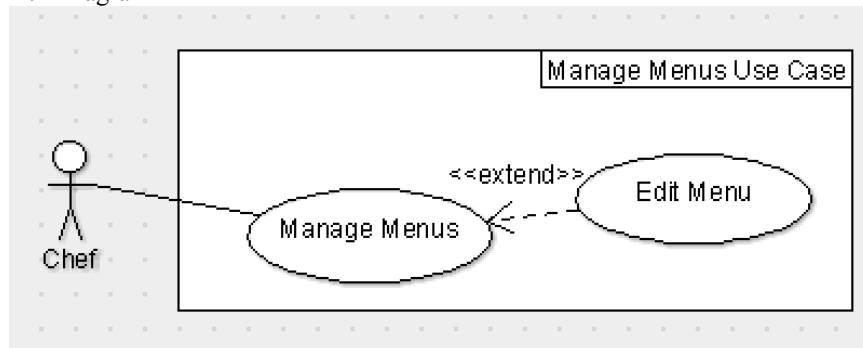
1. Delivery Personnel can report customers and issue warnings.

C. Initial Step-By-Step Description:

1. This applies in the instance a customer breaks one of the restaurants policies.
2. Customer was rude or acting inappropriately towards Delivery Personnel.

VIII. Use Case: Manage Menus

A. Diagram



B. Brief Description:

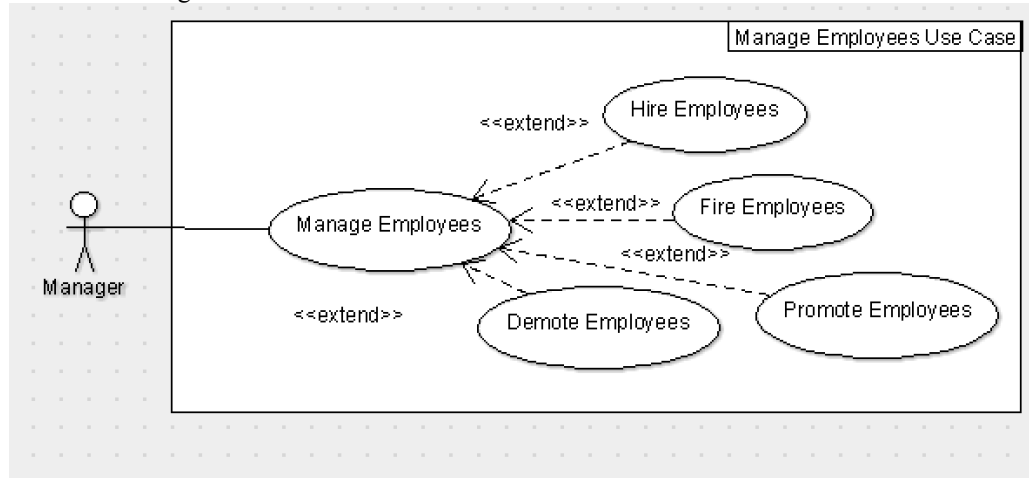
1. Chefs can view their menus, read ratings, and edit their menus.

C. Initial Step-By-Step Description:

1. Before the use case can be initiated, the chef has already logged onto [website].
 - a) Chefs can look at the current state of their menus and make alterations.
 - b) Any changes that a chef wants to make to their menus can be done in the Edit Menu tab.

IX. Use Case: Manage Employees

A. Diagram



B. Brief Description:

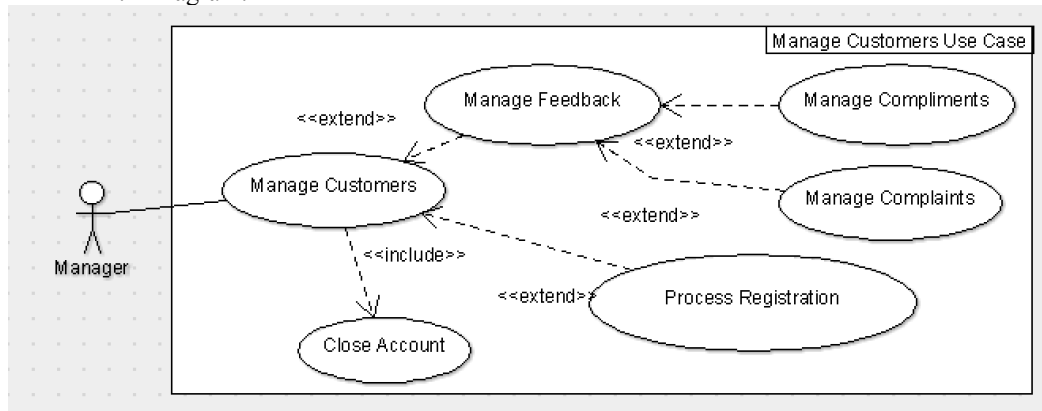
1. Managers can hire, fire, promote, and demote employees.

C. Initial Set-by-Step Description:

1. Before this use case can be initiated, the Manager must login to the restaurant profile.
2. For Hire Employees:
 - a) Managers can view applications and resumes.
 - b) Applications must make an account to apply for a position.
3. For Fire Employees:
 - a) Employees that have too many complaints or mistakes will be terminated.
4. For Promote Employees:
 - a) Employees that receive three or more compliments are eligible for promotion.
 - b) Promotions include higher salary and/or more hours to work.
5. For Demote Employees:
 - a) Three or more customer complaints towards a chef will result in demotion.
 - b) Demotion includes less pay and/or less working hours.

X. Use Case: Manage Customers

A. Diagram:



B. Brief Description:

1. This is where all customer related issues are dealt with by the manager.

Los Quatro Amigos	Version: 2.0
Software Requirements Specification	Date: 19/03/2017
<document identifier>	

C. Initial Set-by-Step Description:

1. For Manage Feedback
 - a) Manager is able to manage various feedbacks.
 - b) For Manage Complaints:
 - (1) Process customer complaints towards Chefs or Delivery Personnel.
 - (2) Managers can dismiss an invalid complaint towards an employee.
 - (3) Valid complaints are approved and employees are dealt with accordingly.
 - c) For Manage Compliments:
 - (1) Any compliments towards employees can be viewed here.
 - (2) Managers can still deny a compliment towards an employee if they deem the compliment invalid.
2. For Process Registrations:
 - a) Surfers can apply online to become registered customers.
 - b) These requests are processed by the manager.
 - c) Any applicant is eligible for approval.
3. For Close Account:
 - a) Registered customers that have three or more complaints are deregistered, and return to surfer status.
 - b) VIP customers having two warnings are not deregistered, but demoted to registered customers.
 - c) Customers who are kicked out the system or choose to quit the the system will have their deposits cleared and accounts closed.

3.2. Supplementary Requirements

- I. VIP Customer
 - A. Eligibility
 1. Registered Customers automatically becomes VIP Customers when they either spend more than \$500 or placed 50 orders.
 - B. Perks
 1. Receive 10% discount on orders
 2. Complaints and Compliments are worth two times their value
- II. Customer
 - A. Login
 1. All customer types (VIP Customer/Register Customer) have a login and password
 2. History of their prior choice is provided
 3. Random top listing dishes will be shown
 - B. Account Management
 1. Customers can choose to quit the system, which would be cleared by the manager. Afterwards, the money they deposited would be returned and their account would be closed
 2. Customers can be kicked from the system, if complaints from the staff begin to increase.
- III. Surfers / New Customers
 - A. Page
 1. 5 most ordered dish will be listed
- IV. Chef
 - A. Fired / Demotion
 1. A chef is demoted if any of their dishes receive no order for 3 days, receive three complaints net any compliments, or receive a 2 or lower star rating after 5 orders.
 2. A demoted chef loses \$10,000 from their salary.
 3. A chef that is demoted twice consecutively is fired.
 - B. Promotion

Los Quatro Amigos	Version: 2.0
Software Requirements Specification	Date: 19/03/2017
<document identifier>	

1. A chef is promoted if any of their dishes receive three compliments net any complaints or a four or higher star rating after 5 orders.
2. A promoted chef receives an additional \$10,000 bonus to their salary.
- V. Delivery Person
 - A. Fired / Demotion / Promotion
 1. Handled similar to the Chef listed above
- VI. Delivery System
 - A. Method
 1. Using Google maps to find the optimal route
 2. Using a shortest-path algorithm (Dijkstra's)
- VII. Checkout
 - A. Discounts
 1. A unique code is distributed to each VIP customer, which would be run against the database to match the user it was assigned to, in order to make sure ONLY that user is using the discount, and 10% is given to them.
 - B. Account Balance Authentication
 1. The price of the order cannot be more expensive than the deposited money in the account, the order is frozen until the customer puts more money into the account.
- VIII. Complaints
 - A. Merit
 1. Evidence needs to be supplement the customer's complaint, or else a warning will be issued to the customer who sent a complaint without evidence.
 2. Delivery people must
 - B. Account status
 1. Registered customers who have 3 warnings will be de-registered, leaving them at surfer status.
 2. VIPs having 2 warnings will demoted to registered customers
 3. Delivery people who have 3 warnings or more will be fired.

4. Supporting Information

This SRS includes:

- Table of Contents