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# <E-Restaurant> Software Requirements Specification For <Online Restaurant System>

Version < 0.4>

Developers: Chenhao L., Peggie L., Mavis Y., Riaz A., Jessie S.

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# **Revision History**

| Date     | Version | Description   | Author                                  |
|----------|---------|---|---|
| 03/03/22 | <0.10>  | Group Meeting for Week 1 Design/layout for the project and familiarize yourselves with HTML, CSS, Python, and Flask modules.  | Chenhao, Peggie, Mavis,<br>Riaz, Jessie |
| 10/03/22 | <0.11>  | Created footer, including mobile view.  | Chenhao                                 |
| 10/03/22 | <0.12>  | Created the home page.  | Mavis                                   |
| 10/03/22 | <0.13>  | Created login page.   | Jessie                                  |
| 10/03/22 | <0.14>  | Created the menu page   | Riaz                                    |
| 10/03/22 | <0.15>  | Created the navbar, including mobile view.  | Peggie                                  |
| 10/03/22 | <0.20>  | Group Meeting for Week 2 Standup for week 1 and distributed tasks for week 2.   | Chenhao, Peggie, Mavis,<br>Riaz, Jessie |
| 17/03/22 | <0.21>  | Make pages for the FAQs, Privacy Policy,<br>Terms of Service, Customer Support, and<br>Careers.   | Chenhao                                 |
| 17/03/22 | <0.22>  | Adjusted home page formatting and optimized for mobile view.  | Mavis                                   |
| 17/03/22 | <0.23>  | Adjusted grids and layout for mobile and desktop view. Adjusted code and remove unnecessary lines.  | Riaz                                    |
| 17/03/22 | <0.24>  | Created a forget password page and a new user page.   | Jessie                                  |
| 17/03/22 | <0.25>  | Adjusted the formatting for the navbar items, added a logo to the top left corner of the navbar, and changed the mobile view of the navbar to a vertical dropdown menu. | Peggie                                  |
| 17/03/22 | <0.30>  | Group Meeting for Week 3 Standup for week 2 and distributed tasks for week 3.   | Chenhao, Peggie, Mavis,<br>Riaz, Jessie |

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| 25/03/22 | <0.31> | Cleaned up the website and made things look pretty, optimized the website for mobile usage. | Chenhao, Jessie, Riaz                   |
|----------|--------|---|---|
| 25/03/22 | <0.32> | Created a database for users and implemented user log in.                                   | Peggie, Mavis, Riaz                     |
| 25/03/22 | <0.40> | Group Meeting for Week 4 Fill out the Team Report together.                                 | Chenhao, Peggie, Mavis,<br>Riaz, Jessie |
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### **Software Requirements Specification**

#### 1. Introduction

The Phase 1 report provides a brief overview of the software requirement specifications for the online restaurant system. This section includes the purpose, scope, definitions of specific terms used, references, and an overview of the project.

#### 1.1 Purpose

The purpose of this document is to present a detailed description of the Online Restaurant System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate, and how the system will react to external stimuli. This document is intended for the developers of the system and the stakeholders.

#### 1.2 Scope

The "E-Restaurant" website application is an online restaurant order and delivery system that allows customers to browse the food menu, order, and get the food delivered by the restaurant. This application should be free to use from a mobile or computer device.

The restaurant provides information about the restaurant through the website application. This information will act as the basis for the search results displayed to the customer. The manager of the restaurant also uses the web to process customer registrations, handle customer compliments/complaints, hire/fire/raise/cut pay for employees.

Moreover, the application requires an internet connection to fetch and display information from the web-portal. Information provided by the customer is maintained and stored in a database.

#### 1.3 Definitions, Acronyms, and Abbreviations

**Database**: Collection of all the information monitored by this system.

**Software Requirements Specification**: A document that completely describes all of the functions of a proposed system and the constraints under which it must operate.

**Stakeholder**: Any person with an interest in the project who is not a developer.

Web-Portal: A web application which presents special facilities for restaurant owners.

**Shop**: Another way of describing this restaurant.

User: Someone who interacts and utilizes the website application.

**Shop Manager**: User type for Manager. Processes customer accounts, handles customer complaints and compliments, and supervises over shop employees.

Chef: User type for Employee. Determines menu items and prices of the items.

**Delivery Personnel**: User type for Employee. Delivers food to customers through a bidding system and

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evaluates customers.

**Registered Customer**: User type for Customer. Orders, pays, and rates the food, files complaints and compliments for shop employees, and starts or participates in discussions.

**VIP Customer**: User type for Customer. Upgraded to VIP status after spending more than \$100 or after 5 orders as a registered customer. Receives 5% discount, 1 free delivery every 3 orders, and has access to specially developed dishes. Complaints and compliments are regarded twice as important.

Visitor: User type. Can view menus and ratings, but cannot order food. Can apply to be a registered customer.

**GUI**: Graphical User Interface.

#### 1.4 References

proj\_req.docx, CS32200 Software Engineering Project Specification
(https://www.dropbox.com/s/siwvxfkdrvhzgss/proj\_req.docx?dl=0)

Sample Report.pdf, Sample Phase 1 Report by "ThreeAsianGuys" for Mini Flickr Software Requirements Specification for Web Application (https://github.com/isatou/csc322/blob/master/Sample%20Report.pdf)

Weirdoughs Phase 1 Report.pdf, Phase 1 Report by "Weirdoughs" for Pizza Ordering System Software Requirements Specification for Web & Mobile Application (https://github.com/ayushyamitabh/PizzaOrderSystem/blob/master/documentation/Weirdoughs%20Phase%20 1%20Report.pdf)

*IEEE 93 – Recommended Practice for SRS*, Key Points of the IEEE 93 (https://docs.google.com/document/d/1JkuYnZKb4Ov5r9DVpcDgxV5TjMRuP5j48K0Q0leZWfw/edit)

#### 1.5 Overview

The next chapter, Overall Description, gives an overview of the functionality of the product. It will describe the factors that affect the product and its requirements. It is used to provide context for technical requirements for the next chapter, Specific Requirements.

The third chapter, Specific Requirements, is written mainly for developers and it describes all software requirements that are required for the developers to design.

The fourth chapter, Supporting Information, allows for easier navigation in the Software Requirements Specification document which includes the table of contents, index, and appendices

#### 2. Overall Description

This section of the Software Requirements Specification describes the general factors that affect the website application and its requirements. This section will explain how the system will interact with other systems. It will also discuss the product perspective, product functions, user characteristics, constraints, assumptions and dependencies, and requirements subsets.

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#### 2.1 Use-Case Model Survey

Chefs: Decide the menu

**Delivery people**: Deliver the food

Manager: Process customer registrations, handles customer compliments/complaints, hire/fire/raise/cut

pay for employees

Registered Customers: Can browse/search, order and vote on food delivered, participate/start

discussion topic on chefs/dishes/delivery

VIP Customers: Can browse/search, order and vote on food delivered, participate/start discussion topic

on chefs/dishes/delivery

Visitors: Can browse the menu and ratings only and apply to be a registered customer

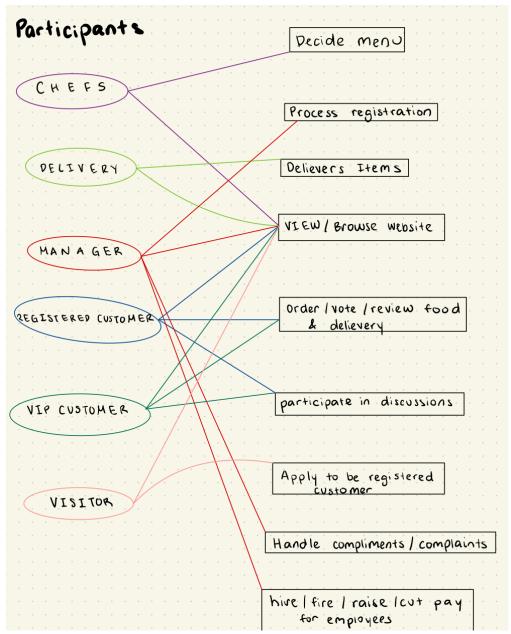


Figure 1. Use-Case Model for All Participants

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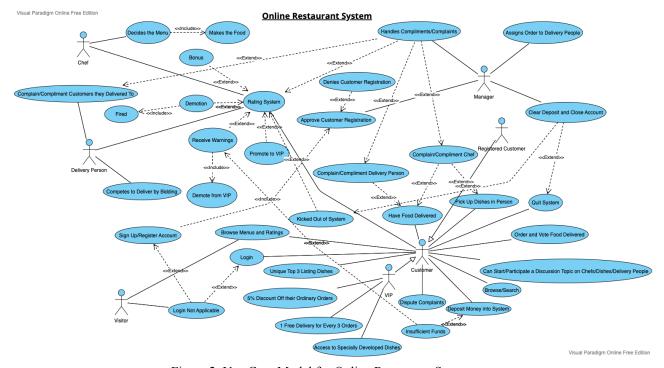


Figure 2. Use-Case Model for Online Restaurant System

#### 2.2 Assumptions and Dependencies

The user is assumed to have a stable internet connection, have used similar food delivery apps before this one, have enabled javascript in their browser, and is using a modern web browser such as Chrome, Firebox, or Edge.

The user can access the site by using a laptop, desktop, or mobile device. However, using the site on a laptop or a desktop is highly recommended.

The site can only work functionally when the hosting service and MySQL server are active.

#### 3. Specific Requirements

This section of the Software Requirements Specification contains all functional and quality requirements for the website application. It also gives a detailed description of the system, its use cases, and all its features.

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#### 3.1 Use-Case Reports

1. User Class 1 – Customers (Registered Customers, VIPs)

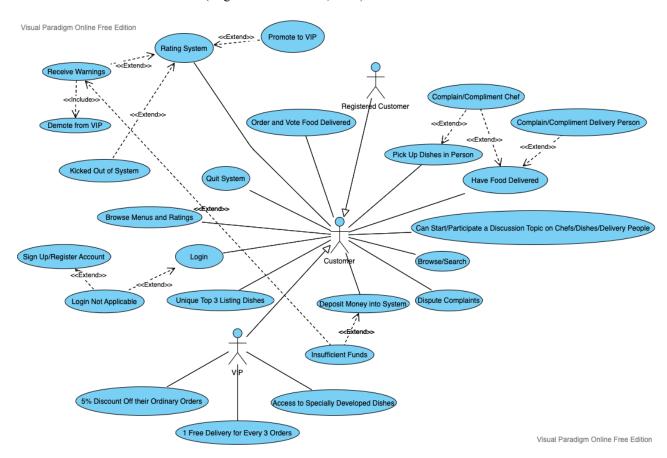


Figure 3. Use-Case Model for Customers (Registered and VIPs)

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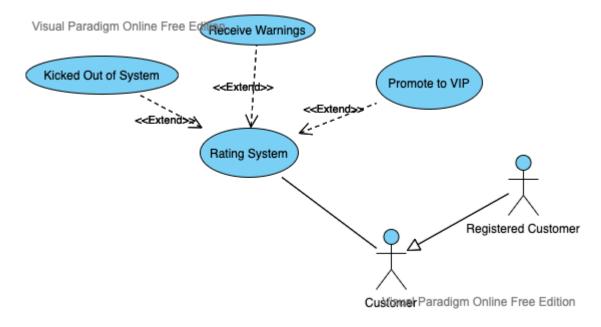


Figure 4. Use-Case Model for Registered Customers

Note: Registered Customers receive all the attributes of Customers. In the Rating System, Registered Customers only have access to "Promote to VIP", "Receive Warnings", and "Kicked Out of System".

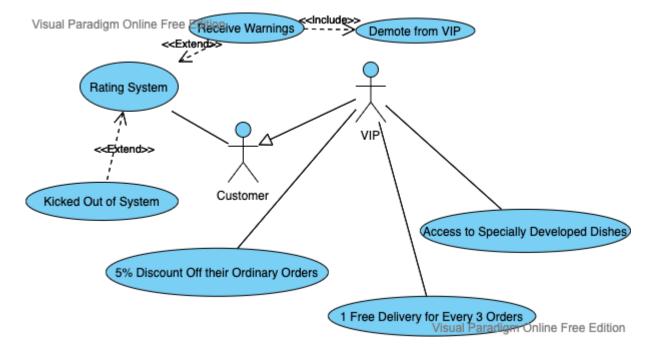


Figure 5. Use-Case Model for VIPs

Note: VIPs receive all the attributes of Customers. In the Rating System, VIPs only have access to "Receive Warnings", "Demote from VIP", and "Kicked Out of System".

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<u>Use-Case:</u> Browse/Search

<u>Description:</u> Customers can browse and search the website as Visitors cannot.

<u>Use-Case:</u> Dispute Complaints

<u>Description</u>: Customers can dispute the complaints made by the delivery person that delivered to them.

<u>Use-Case:</u> Deposit Money into System

<u>Description:</u> Customers should deposit some money into the system. If the order price is greater than the amount of money deposited, the order will be rejected and the customer receives a warning.

<u>Use-Case:</u> Insufficient Funds

<u>Description:</u> Customers that try to purchase an order with insufficient funds will have that order canceled and will receive a warning.

<u>Use-Case:</u> Unique Top 3 Listing Dishes

<u>Description:</u> Different Registered Customers and VIPs will have different top 3 listing dishes that are unique to them.

<u>Use-Case:</u> Login

<u>Description</u>: Customers are prompted to log in with their username and password before being able to order.

<u>Use-Case:</u> Login Not Applicable

Description: Customers are treated as Visitors if they are not logged in.

<u>Use-Case:</u> Sign Up/Register Account

<u>Description:</u> Visitors can sign up/register an account to become a Customer.

<u>Use-Case:</u> Browse Menus and Ratings

Description: Customers and Visitors can browse the restaurant's menus and ratings.

<u>Use-Case:</u> Kicked Out of System

<u>Description:</u> Registered Customers can be black-listed and de-registered from the system if they received 3 or more warnings. If VIPs receive 2 warnings, they will be demoted to a Registered Customer.

Use-Case: Quit System

Description: Customers can choose to guit the system.

Use-Case: Receive Warnings

<u>Description:</u> Customers can receive warnings from the delivery person.

<u>Use-Case:</u> Order and Vote Food Delivered

<u>Description:</u> Customers can order and vote on the food that was delivered but Visitors cannot.

Use-Case: Pick Up Dishes in Person

<u>Description:</u> Customers can choose to pick the dishes up in person.

<u>Use-Case:</u> Have Food Delivered

<u>Description:</u> Customers can choose to have the food delivered.

<u>Use-Case:</u> Complain/Compliment Chef

<u>Description:</u> Customers that pick up their food and have their food delivered can complain or compliment the chef.

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<u>Use-Case:</u> Complain/Compliment Delivery Person

<u>Description</u>: Only Customers that have their food delivered can complain or compliment the delivery person.

<u>Use-Case:</u> Can Start/Participate a Discussion Topic on Chefs/Dishes/Delivery People

<u>Description</u>: Customers can start a discussion topic about the chefs, dishes, or delivery people.

Use-Case: Rating System

<u>Description:</u> Customers can rate the chefs, dishes, or delivery people.

Use-Case: Promote to VIP

<u>Description:</u> Registered Customers can be promoted to VIPs if they spend more than \$100 or purchase 5 orders.

<u>Use-Case:</u> Receive Warnings

<u>Description:</u> Customers can receive warnings from the delivery person or if they try to purchase an order without sufficient funds.

Use-Case: Demote from VIP

<u>Description:</u> VIPs can be demoted from VIP if they receive 2 warnings.

<u>Use-Case:</u> Access to Specially Developed Dishes

<u>Description:</u> Only VIPs can have access to specially developed dishes.

<u>Use-Case:</u> 1 Free Delivery for Every 3 Orders

<u>Description:</u> Only VIPs receive 1 free delivery for every 3 orders.

<u>Use-Case:</u> 5% Discount Off their Ordinary Orders

<u>Description:</u> Only VIPs receive a 5% discount on their orders.

#### 2. User Class 2 – Visitors

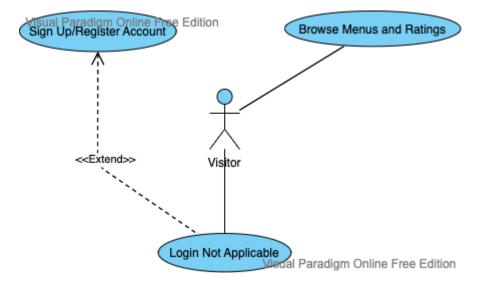


Figure 6. Use-Case Model for Visitors

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**Use-Case:** Browse Menus and Ratings

<u>Description:</u> Visitors can browse the restaurant's menus and ratings.

<u>Use-Case:</u> Login Not Applicable

<u>Description:</u> Visitors cannot log in because they do not have an account.

Use-Case: Sign Up/Register Account

<u>Description:</u> Visitors can sign up/register an account to become a Customer.

#### 3. User Class 3 – Delivery People

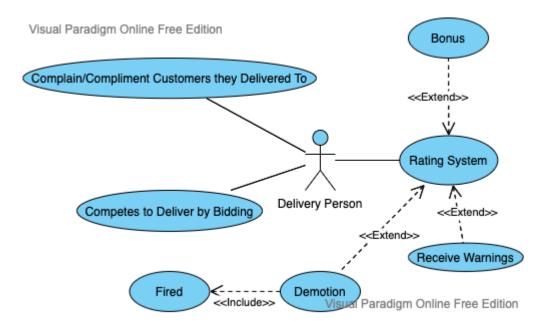


Figure 7. Use-Case Model for Delivery People

Note: In the Rating System, Delivery People only have access to "Bonus", "Receive Warnings", "Demotion", and "Fired".

<u>Use-Case:</u> Complain/Compliment Customers they Delivered To

<u>Description:</u> Delivery People can complain or compliment the customers that they delivered to.

<u>Use-Case:</u> Competes to Deliver by Bidding

<u>Description:</u> Delivery People compete to deliver by bidding. The Delivery Person with the lowest delivery price will be chosen. If the Delivery Person with a higher delivery price is chosen, the manager must write a memo to the system to justify the choice.

**Use-Case:** Rating System

<u>Description:</u> Delivery People can receive bonuses and warnings that lead to demotion and eventually being fired.

**Use-Case**: Bonus

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<u>Description:</u> Delivery People will receive a bonus if they have high ratings (>4) or 3 compliments.

**Use-Case:** Received Warnings

<u>Description</u>: Delivery People who did not deliver anything in the past 5 orders will receive 1 warning.

Use-Case: Demotion

<u>Description:</u> Delivery People will be demoted if they receive low ratings (<2) or 3 complaints.

Use-Case: Fired

<u>Description:</u> Delivery People will be fired if they are demoted twice.

#### 4. User Class 4 – Chefs

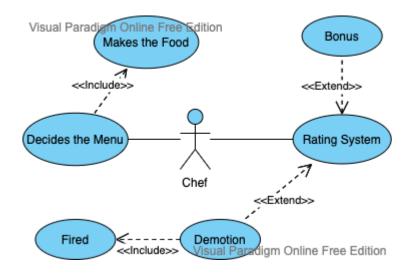


Figure 8. Use-Case Model for Chefs

Note: In the Rating System, Chefs only have access to "Bonus", "Demotion", and "Fired".

Use-Case: Decides the Menu

<u>Description:</u> Chefs decide on their own menu items.

<u>Use-Case:</u> Makes the Food

<u>Description:</u> Chefs make the food on their menus.

**Use-Case:** Rating System

<u>Description</u>: Chefs can receive bonuses and warnings that lead to demotion and eventually being fired.

Use-Case: Bonus

<u>Description:</u> Chefs will receive a bonus if they have high ratings (>4) or 3 compliments.

Use-Case: Demotion

<u>Description:</u> Chefs will be demoted if they receive low ratings (<2) or 3 complaints.

Use-Case: Fired

Description: Chefs will be fired if they are demoted twice.

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#### 5. User Class 5 – Manager

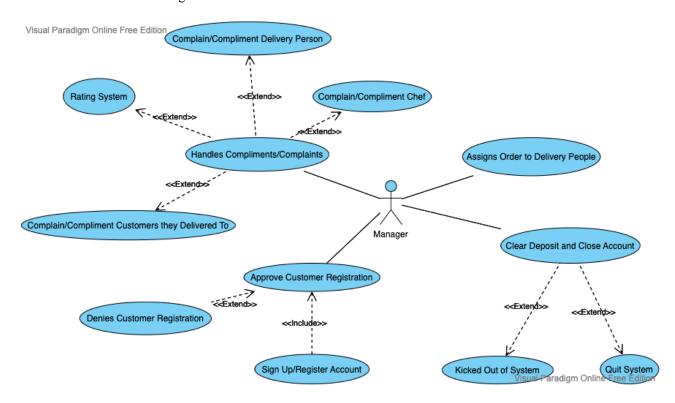


Figure 9. Use-Case Model for Manager

Use-Case: Assigns Order to Delivery People

<u>Description:</u> Manager assigns the order to the Delivery People from the bidding results.

<u>Use-Case:</u> Clear Deposit and Close Account

<u>Description:</u> If Customers are kicked out of the system or choose to quit the system, Manager is in charge of clearing their deposits and closing their accounts.

<u>Use-Case:</u> Kicked Out of System

<u>Description:</u> Registered Customers can be black-listed and de-registered from the system if they received 3 or more warnings. If VIPs receive 2 warnings, they will be demoted to a Registered Customer.

<u>Use-Case:</u> Quit System

Description: Customers can choose to quit the system.

**Use-Case:** Approve Customer Registration

<u>Description:</u> When Visitors register for an account, Manager can approve the registration.

<u>Use-Case:</u> Denies Customer Registration

<u>Description:</u> When Visitors register for an account, the Manager can deny the registration.

Use-Case: Sign Up/Register Account

<u>Description:</u> Visitors can sign up/register an account to become a Customer.

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Use-Case: Handles Compliments/Complaints

<u>Description:</u> Manager handles the compliments and complaints from customers and delivery people.

Use-Case: Rating System

<u>Description:</u> The Rating System is closely tied to the compliments and complaints.

Use-Case: Complain/Compliment Customers they Delivered To

<u>Description:</u> Delivery People can receive bonuses and warnings that lead to demotion and eventually being fired.

<u>Use-Case:</u> Complain/Compliment Chef

<u>Description:</u> Customers that pick up their food and have their food delivered can complain or compliment the chef.

Use-Case: Complain/Compliment Delivery Person

<u>Description</u>: Only Customers that have their food delivered can complain or compliment the delivery person.

#### 3.2 Supplementary Requirements

#### Functionality:

Response to abnormal situations: users will be able to submit a ticket through the website in which the manager will handle and resolve.

#### Reliability:

The Online Restaurant System should be online and available 24/7.

#### Performance:

The Online Restaurant System should be able to handle multiple users at once.

#### Supportability:

All functions are written in camel case and file names are written in snake case in order to enhance maintainability.

#### 4. Supporting Information

This Software Requirements Specification includes,

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