**Web-based Ordering & Ingredient Estimating for Bakery Manufacturer**

Traceability Record

By

**Miss. Nontra Mahachanont 542115026**

**Mr. Parinya Panyanak 542115034**

Department of Software Engineering

College of Arts, Media and Technology

Chiang Mai University

Project Advisor

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**Mr.Phudinan Singkhamfu**

**Document History**

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| **Documents** | | | | | | |
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**\*NM = Nontra Mahachanont**

**\*PP = Parinya Panyanak**

**\*PS = Phudinan Singkhamfu**

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# **Chapter One | Introduction**

## 1.1 Purpose

The purpose of traceability record document is to show the relation of the project. The traceability linked between user requirements to system requirement specification, use case, activity diagram, sequence diagram and test case.

## 1.2 Scope

Web-based Ordering & Ingredient Estimating for Bakery Manufacturer is a management system that helps the admin can manage manufacture’s information efficiency. Then the system helps the wholesaler to manage their order easier, and the employee also can apply ingredient usage’s information with traditional workflows. The project focuses on implementation of the general order management system and supports the process of manufacturer system. The objective of this project is to develop management system that apply to the Phungnoi bakery manufacturer for controlling information’s correction and ingredient usage standard. Another objective is to develop a system that support conveniently ordering for the Phungnoi bakery’s wholesalers.

## 1.3 Dependency

This traceability record is depended on the following documents:

- Software Project Management Plan

- Software Requirement Specification

- Software Design Document

- Software Test Plan

- Software Test Record

# **Chapter Two | Traceability Record Table**

## SRS and URS

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| SRS - 138 |  |  |  |  |  |  |
| SRS - 139 |  |  |  |  |  |  |
| SRS - 140 |  |  |  |  |  |  |
| SRS - 141 |  |  |  |  |  |  |
| SRS - 142 |  |  |  |  |  |  |
| SRS - 143 |  |  |  |  |  |  |
| SRS - 144 |  |  |  |  |  |  |
| SRS - 145 |  |  |  |  |  |  |
| SRS - 146 |  |  |  |  |  |  |
| SRS - 147 |  |  |  |  |  |  |
| SRS - 148 |  |  |  |  |  |  |
| SRS - 149 |  |  |  |  |  |  |
| SRS - 150 |  |  |  |  |  |  |
| SRS - 151 |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| URS  SRS | URS - 21 | URS - 22 | URS - 23 | URS - 24 | URS - 25 | URS - 26 |
| SRS - 152 |  |  |  |  |  |  |
| SRS - 153 |  |  |  |  |  |  |
| SRS - 154 |  |  |  |  |  |  |
| SRS - 155 |  |  |  |  |  |  |
| SRS - 156 |  |  |  |  |  |  |
| SRS - 157 |  |  |  |  |  |  |
| SRS - 158 |  |  |  |  |  |  |

## 2.2 Use Case and User Requirement Specification

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| UC  URS | UC - 01 | UC - 02 | UC - 03 | UC - 04 | UC - 05 | UC - 06 | UC - 07 | UC - 08 | UC - 09 | UC - 10 | UC - 11 | UC - 12 | UC - 13 | UC - 14 | UC - 15 | UC - 16 | UC - 17 | UC - 18 | UC - 19 | UC - 20 | UC - 21 | UC - 22 | UC - 23 |
| URS - 01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URS - 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## 2.3 Activity Diagram and User Requirement Specification

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| URS  AD | URS - 01 | URS - 02 | URS - 03 | URS - 04 | URS - 05 | URS - 06 | URS - 07 | URS - 08 | URS - 09 | URS - 10 | URS - 11 | URS - 12 | URS - 13 | URS - 14 | URS - 15 | URS - 16 | URS - 17 | URS - 18 | URS - 19 | URS - 20 |
| AD - 01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD - 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| URS  AD | URS - 21 | URS - 22 | URS - 23 | URS - 24 | URS - 25 | URS - 26 |
| AD - 31 |  |  |  |  |  |  |
| AD - 32 |  |  |  |  |  |  |
| AD - 33 |  |  |  |  |  |  |
| AD - 34 |  |  |  |  |  |  |
| AD - 35 |  |  |  |  |  |  |
| AD - 36 |  |  |  |  |  |  |
| AD - 37 |  |  |  |  |  |  |
| AD - 38 |  |  |  |  |  |  |

## 2.4 User Interface and User Requirement Specification

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| URS  UI | URS - 01 | URS - 02 | URS - 03 | URS - 04 | URS - 05 | URS - 06 | URS - 07 | URS - 08 | URS - 09 | URS - 10 | URS - 11 | URS - 12 | URS - 13 | URS - 14 | URS - 15 | URS - 16 | URS - 17 | URS - 18 | URS - 19 | URS - 20 |
| UI - 01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UI - 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| URS  UI | URS - 21 | URS - 22 | URS - 23 | URS - 24 | URS - 25 | URS - 26 |
| UI - 02 |  |  |  |  |  |  |
| UI - 03 |  |  |  |  |  |  |
| UI - 04 |  |  |  |  |  |  |
| UI - 26 |  |  |  |  |  |  |
| UI - 27 |  |  |  |  |  |  |
| UI - 28 |  |  |  |  |  |  |

## 2.5 Sequence Diagram and User Requirement Specification

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| URS  SD | URS - 01 | URS - 02 | URS - 03 | URS - 04 | URS - 05 | URS - 06 | URS - 07 | URS - 08 | URS - 09 | URS - 10 | URS - 11 | URS - 12 | URS - 13 | URS - 14 | URS - 15 | URS - 16 | URS - 17 | URS - 18 | URS - 19 | URS - 20 |
| SD - 01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD - 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| URS  SD | URS - 21 | URS - 22 | URS - 23 | URS - 24 | URS - 25 | URS - 26 |
| SD - 20 |  |  |  |  |  |  |
| SD - 21 |  |  |  |  |  |  |
| SD - 22 |  |  |  |  |  |  |
| SD - 23 |  |  |  |  |  |  |
| SD - 24 |  |  |  |  |  |  |
| SD - 25 |  |  |  |  |  |  |
| SD - 26 |  |  |  |  |  |  |

## 2.6 Unit Test Case and User Requirement Specification

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| URS  UTC | URS - 01 | URS - 02 | URS - 03 | URS - 04 | URS - 05 | URS - 06 | URS - 07 | URS - 08 | URS - 09 | URS - 10 | URS - 11 | URS - 12 | URS - 13 | URS - 14 | URS - 15 | URS - 16 | URS - 17 | URS - 18 | URS - 19 | URS - 20 |
| UTC - 01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 31 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| URS  UTC | URS - 01 | URS - 02 | URS - 03 | URS - 04 | URS - 05 | URS - 06 | URS - 07 | URS - 08 | URS - 09 | URS - 10 | URS - 11 | URS - 12 | URS - 13 | URS - 14 | URS - 15 | URS - 16 | URS - 17 | URS - 18 | URS - 19 | URS - 20 |
| UTC - 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UTC - 33 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| URS  UTC | URS - 21 | URS - 22 | URS - 23 | URS - 24 | URS - 25 | URS - 26 |
| UTC - 34 |  |  |  |  |  |  |
| UTC - 35 |  |  |  |  |  |  |
| UTC - 36 |  |  |  |  |  |  |
| UTC - 37 |  |  |  |  |  |  |
| UTC - 38 |  |  |  |  |  |  |
| UTC - 39 |  |  |  |  |  |  |
| UTC - 40 |  |  |  |  |  |  |
| UTC - 41 |  |  |  |  |  |  |
| UTC - 42 |  |  |  |  |  |  |
| UTC - 43 |  |  |  |  |  |  |
| UTC - 44 |  |  |  |  |  |  |

## 2.7 System Test Case and User Requirement Specification

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| URS  STC | URS - 01 | URS - 02 | URS - 03 | URS - 04 | URS - 05 | URS - 06 | URS - 07 | URS - 08 | URS - 09 | URS - 10 | URS - 11 | URS - 12 | URS - 13 | URS - 14 | URS - 15 | URS - 16 | URS - 17 | URS - 18 | URS - 19 | URS - 20 |
| STC - 01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STC - 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| URS  STC | URS - 21 | URS - 22 | URS - 23 | URS - 24 | URS - 25 | URS - 26 |
| STC - 28 |  |  |  |  |  |  |
| STC - 29 |  |  |  |  |  |  |
| STC - 30 |  |  |  |  |  |  |
| STC - 31 |  |  |  |  |  |  |
| STC - 32 |  |  |  |  |  |  |
| STC - 33 |  |  |  |  |  |  |
| STC - 34 |  |  |  |  |  |  |
| STC - 35 |  |  |  |  |  |  |

## 2.8 Database and User Requirement Specification

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DB  URS | DB - 01 | DB - 02 | DB - 03 | DB - 04 | DB - 05 | DB - 06 | DB - 07 | DB - 08 | DB - 09 | DB - 10 |
| URS - 01 |  |  |  |  |  |  |  |  |  |  |
| URS - 02 |  |  |  |  |  |  |  |  |  |  |
| URS - 03 |  |  |  |  |  |  |  |  |  |  |
| URS - 04 |  |  |  |  |  |  |  |  |  |  |
| URS - 05 |  |  |  |  |  |  |  |  |  |  |
| URS - 06 |  |  |  |  |  |  |  |  |  |  |
| URS - 07 |  |  |  |  |  |  |  |  |  |  |
| URS - 08 |  |  |  |  |  |  |  |  |  |  |
| URS - 09 |  |  |  |  |  |  |  |  |  |  |
| URS - 10 |  |  |  |  |  |  |  |  |  |  |
| URS - 11 |  |  |  |  |  |  |  |  |  |  |
| URS - 12 |  |  |  |  |  |  |  |  |  |  |
| URS - 13 |  |  |  |  |  |  |  |  |  |  |
| URS - 14 |  |  |  |  |  |  |  |  |  |  |
| URS - 15 |  |  |  |  |  |  |  |  |  |  |
| URS - 16 |  |  |  |  |  |  |  |  |  |  |
| URS - 17 |  |  |  |  |  |  |  |  |  |  |
| URS - 18 |  |  |  |  |  |  |  |  |  |  |
| URS - 19 |  |  |  |  |  |  |  |  |  |  |
| URS - 20 |  |  |  |  |  |  |  |  |  |  |
| URS - 21 |  |  |  |  |  |  |  |  |  |  |
| URS - 22 |  |  |  |  |  |  |  |  |  |  |
| URS - 23 |  |  |  |  |  |  |  |  |  |  |
| URS - 24 |  |  |  |  |  |  |  |  |  |  |
| URS - 25 |  |  |  |  |  |  |  |  |  |  |
| URS - 26 |  |  |  |  |  |  |  |  |  |  |

## 2.9 Traceability Record

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS** | **Function Name** | **SRS** | **UI** | **SD** | **AD** | **UC** | **UTC** | **STC** | **DB** |
| URS-01 | Admin can register to activate member to access the application. | SRS-01  SRS-02  SRS-03  SRS-04  SRS-05  SRS-06  SRS-07  SRS-08  SRS-09 | UI-02  UI-05  UI-16 | SD-01 | AD-01 | UC-01 | UTC-06  UTC-07 | STC-01 | DB-01  DB-02 |
| URS-02 | Member authenticate the web application account. | SRS-01  SRS-10  SRS-11  SRS-12  SRS-13  SRS-14  SRS-15  SRS-16  SRS-17  SRS-18  SRS-19  SRS-20 | UI-01  UI-02  UI-04  UI-15 | SD-02 SD-03 | AD-02  AD-03 | UC-02 | UTC-01  UTC-02 UTC-20  UTC-21 | STC-02 STC-03 | DB-01  DB-02 |
| URS-03 | Admin can manage all member information. | SRS-01  SRS-05  SRS-06  SRS-08  SRS-09  SRS-21  SRS-22  SRS-23  SRS-24  SRS-25  SRS-26  SRS-27 | UI-02  UI-06  UI-07 | SD-04  SD-05 | AD-04  AD-05 | UC-03 | UTC-03  UTC-04 UTC-05 | STC-04 STC-05 | DB-01  DB-02 |
| URS-04 | Member can update own information. | SRS-01  SRS-05  SRS-06  SRS-08  SRS-09  SRS-21 SRS-22  SRS-23 | UI-02 UI-04  UI-06 | SD-04 | AD-06 | UC-04 | UTC-08 UTC-09  UTC-10 UTC-11 | STC-06 | DB-01  DB-02 |
| URS-05 | Member view own personal information. | SRS-01  SRS-28  SRS-29 | UI-02 UI-04  UI-09 | SD-06 | AD-07 | UC-05 | UTC-05 | STC-07 | DB-01  DB-02 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS** | **Function Name** | **SRS** | **UI** | **SD** | **AD** | **UC** | **UTC** | **STC** | **DB** |
| URS-06 | Admin view all member’s information. | SRS-01  SRS-28  SRS-29  SRS-30  SRS-31  SRS-32  SRS-33 | UI-02 UI-08  UI-09 | SD-06 | AD-08 | UC-05 | UTC-12 | STC-08 | DB-01  DB-02 |
| URS-07 | Admin manage all bakery product. | SRS-08  SRS-25  SRS-34  SRS-35  SRS-36  SRS-37 SRS-38  SRS-39  SRS-40  SRS-41  SRS-42 SRS-43  SRS-44 SRS-45  SRS-46 | UI-02 UI-10  UI-11 UI-12 UI-16 | SD-07  SD-08 SD-09 | AD-09  AD-10 AD-11 | UC-06 | UTC-12  UTC-13 UTC-14  UTC-15 UTC-16  UTC-17 UTC-18  UTC-19 | STC-09 STC-10  STC-11 | DB-01  DB-03 |
| URS-08 | Member and Visitor view all bakery product information. | SRS-31  SRS-47  SRS-48  SRS-49  SRS-50 SRS-51  SRS-52 | UI-02 UI-04  UI-13  UI-14 | SD-10 | AD-12 | UC-07 | UTC-12  UTC-13 | STC-12 | DB-03 |
| URS-09 | Wholesaler order bakery product. | SRS-08 SRS-53  SRS-54 SRS-55  SRS-56 SRS-57  SRS-58 SRS-59  SRS-60 SRS-61  SRS-62 SRS-63  SRS-64 SRS-65  SRS-66 SRS-67  SRS-68 | UI-22 | SD-11  SD-12 | AD-13  AD-14 AD-15  AD-16 | UC-08 | UTC-29  UTC-30  UTC-31 | STC-13 | DB-01  DB-02  DB-03  DB-06  DB-07  DB-09 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS** | **Function Name** | **SRS** | **UI** | **SD** | **AD** | **UC** | **UTC** | **STC** | **DB** |
| URS-10 | Wholesaler manage own order information. | SRS-08  SRS-53  SRS-56 SRS-62 SRS-63  SRS-64  SRS-65  SRS-66  SRS-67  SRS-69 SRS-70 SRS-71  SRS-72 SRS-73  SRS-74 | UI-03  UI-22 | SD-12 | AD-17  AD-18 | UC-09 | UTC-29  UTC-30  UTC-31 | STC-14  STC-15 | DB-01  DB-02  DB-03  DB-06  DB-07  DB-09 |
| URS-11 | Wholesaler view current order information. | SRS-75 SRS-76  SRS-77 | UI-23 | SD-13 | AD-19 | UC-10 | UTC-12  UTC-13 | STC-16 | DB-01  DB-02  DB-07  DB-09 |
| URS-12 | Employee view current order information. | SRS-31  SRS-75 SRS-76  SRS-77 SRS-78  SRS-79  SRS-80 | UI-04 UI-23 UI-25 | SD-14 | AD-20 | UC-10 | UTC-12  UTC-13 | STC-17 | DB-01  DB-02  DB-07  DB-09 |
| URS-13 | Employee view total ordered. | SRS-31 SRS-81 SRS-82  SRS-83 SRS-84  SRS-85 SRS-86  SRS-87 | UI-04 | SD-14 | AD-21 | UC-11 | UTC-12  UTC-13 | STC-18 | DB-01  DB-07 |
| URS-14 | Employee mark order status. | SRS-08 SRS-75 SRS-77  SRS-88 SRS-89  SRS-90 SRS-91 | UI-04 | SD-14 | AD-22 | UC-13 |  | STC-19 | DB-01  DB-02  DB-07  DB-09 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS** | **Function Name** | **SRS** | **UI** | **SD** | **AD** | **UC** | **UTC** | **STC** | **DB** |
| URS-15 | Wholesaler view ordered history. | SRS-31 SRS-58 SRS-75  SRS-92  SRS-93 SRS-94  SRS-95 | UI-03 UI-24 | SD-13 | AD-23 | UC-13 | UTC-12  UTC-13 | STC-20 | DB-01  DB-02  DB-07  DB-09 |
| URS-16 | Employee view all ordered history. | SRS-31 SRS-58 SRS-75  SRS-94 SRS-95  SRS-96 SRS-97 | UI-04 UI-24 UI-25 | SD-14 | AD-24 | UC-14 | UTC-32  UTC-33 | STC -21 | DB-01  DB-02  DB-07  DB-09 |
| URS-17 | Wholesaler comment suggestion message. | SRS-08  SRS-98 SRS-99 SRS-100  SRS-101 SRS-102 | UI-03 |  | AD-25 | UC-15 |  | STC -22 | DB-01  DB-02  DB-10 |
| URS-18 | Wholesaler and Employee view all suggestion message. | SRS-98 SRS-103 SRS-104 | UI-03 |  | AD-26 | UC-16 |  | STC -23 | DB-01  DB-02  DB-10 |
| URS-19 | Admin manage all ingredient information. | SRS-08  SRS-105 SRS-106  SRS-107  SRS-108 SRS-109  SRS-110  SRS-111  SRS-112 SRS-113  SRS-114  SRS-115  SRS-116  SRS-117 | UI-02  UI-17  UI-18  UI-19 | SD-15  SD-16  SD-17 | AD-27  AD-28  AD-29 | UC-17 | UTC-24  UTC-25  UTC-26  UTC-27  UTC-28 | STC -24  STC -25  STC -26 | DB-01  DB-05 |
| URS-20 | Admin view all ingredient information. | SRS-31 SRS-105 SRS-118  SRS-119  SRS-120  SRS-121 | UI-02  UI-20  UI-21 | SD-18  SD-19 | AD-30 | UC-18 | UTC-22  UTC-23 | STC -27 | DB-01  DB-05 |
| **URS** | **Function Name** | **SRS** | **UI** | **SD** | **AD** | **UC** | **UTC** | **STC** | **DB** |
| URS-21 | Admin manage menu recipe information. | SRS-08  SRS-122 SRS-123  SRS-124  SRS-125 SRS-126  SRS-127  SRS-128  SRS-129 SRS-130  SRS-131  SRS-132  SRS-133 SRS-134 | UI-02  UI-26 | SD-20  SD-21  SD-22 | AD-31  AD-32  AD-33 | UC-19 | UTC-34  UTC-35  UTC-36  UTC-37  UTC-38  UTC-39 | STC -28  STC -29  STC -30 | DB-01  DB-03  DB-04  DB-05  DB-08 |
| URS-22 | Admin view all menu recipe information. | SRS-31  SRS-122 SRS-135 SRS-136  SRS-137  SRS-138 | UI-02  UI-26 |  | AD-34 | UC-20 | UTC-36  UTC-37  UTC-38  UTC-39 | STC -31 | DB-01  DB-03  DB-04  DB-05  DB-08 |
| URS-23 | Employee view current ingredient estimation. | SRS-139  SRS-140  SRS-141  SRS-142 | UI-04 | SD-23 | AD-35 | UC-21 | UTC-40  UTC-41  UTC-42 | STC -32 | DB-01  DB-04  DB-07  DB-08 |
| URS-24 | Employee view previous ingredient estimation. | SRS-31  SRS-139  SRS-140  SRS-141  SRS-142  SRS-143 SRS-144 SRS-145 | UI-04 | SD-24 | AD-36 | UC-22 | UTC-40  UTC-41  UTC-42 | STC -33 | DB-01  DB-04  DB-07  DB-08 |
| URS-25 | Employee and Wholesaler make a report. | SRS-146  SRS-147  SRS-148  SRS-149  SRS-150  SRS-151  SRS-152 | UI-03  UI-04  UI-27 | SD-25 | AD-37 | UC-23 | UTC-43 | STC -34 | DB-01  DB-02  DB-04  DB-07 |
| URS-26 | Employee and Wholesaler make a graph. | SRS-75  SRS-153  SRS-154  SRS-155  SRS-156  SRS-157  SRS-158 | UI-03  UI-04  UI-28 | SD-26 | AD-38 | UC-13 | UTC-44 | STC -35 | DB-01  DB-02  DB-07 |

# **Chapter Three | Appendix**

## 3.1 User Requirement Specification

* **URS-01:** Admin can register to activate member to access the application by create

new member information; username, password, first name, last name, phone number, address, role name, and profile picture into the database.

* **URS-02:** Member authenticate the web application account.
  + **URS-03:** Admin can manage all member information; username, password,

first name, last name, phone number, address, role name, and profile picture in the database.

* **URS-04:** Member can update own personal information; username, password, first

name, last name, phone number, address, and profile picture in the database.

* **URS-05:** Member can view own personal information; member ID, username,

password, first name, last name, phone number, address, role name, create date, last sign in date, and profile picture in the database.

* **URS-06:** Admin can view all member’s information; member ID, username,

password, first name, last name, phone number, address, role name, create date, last sign in date, and profile picture in the database.

* **URS-07:** Admin can manage all product information; product name, price,

category, information, and product picture in the database.

* **URS-08:** Member and Visitor can view all bakery product information by search

filter keywords of the product ID, product name, price, and category in the database.

* **URS-09:** Wholesaler can order bakery products from the existing bakery product

in the system. An order can select by input product name, product quantity, and delivery date.

* **URS-10:** Wholesaler can manage own ordered information; product name, product

quantity, and delivery date. (According to time constraint of 8:00 am – 12:00 pm, same day with current order created)

* **URS-11:** Wholesaler can view their current order information; order ID, first name,

last name, product ID, product name, product quantity, price, total price, discount, order date, delivery date, and order status.

* **URS-12:** Employee can view current order information of all wholesalers by search

filter keywords of the order ID, member ID, first name, last name, order status, and delivery date in the database.

* **URS-13:** Employee can view the summary of total bakery product are ordered in

daily.

* **URS-14:** Employee can mark progressive of all order status while the order in the

preparation stage.

* **URS-15:** Wholesaler can view their ordered history by choosing a period of the

day, month, and year to searching the previous ordered in the database.

* **URS-16:** Employee can view all ordered history by choosing a period of the day,

month, and year with another filter keywords. For an example member ID, first name, last name, delivery date, order status, and order ID to searching the result in the database.

* **URS-17:** Wholesaler can comment the suggestion message to the feedback page.
* **URS-18:** Wholesaler and Employee can view all suggestion message in the

feedback page.

* **URS-19:** Admin can manage all ingredient information; ingredient name, category,

and ingredient picture in the database.

* **URS-20:** Admin can view all ingredient information by search filter keywords of

The ingredient ID, ingredient name, and category in the database.

* **URS-21:** Admin can manage all menu recipe information; product name,

ingredient name, ingredient quantity, and units in the database.

* **URS-22:** Admin can view all menu recipe information by search filter keywords of

the recipe ID, product ID, product name, ingredient ID, and ingredient name in the database.

* **URS-23:** Employee can view the current ingredient estimation result; product ID,

product name, ingredient ID, ingredient name, ingredient quantity, and units.

* **URS-24:** Employee can view previous ingredient estimation by choosing a period

of the day, month, and year.

* **URS-25:** Wholesaler and Employee can make a different report type according to

their member’s role.

* **URS-26:** Wholesaler and Employee can make a graph result from the ordered

statistical data.

## 3.2 System Requirement Specification

**SRS-01:** The system can connect to the phungnoi database and access Member and webpages\_Roles tables.

**SRS-02:** The system shall provide a link for the admin registering new member information in member management page.

**SRS-03:** The system shall provide a registration form with a creating new member page for the admin input username, password, first name, last name, phone number, address, role name, and profile picture.

**SRS-04:** The system shall generate a new member ID by sort all member ID indefinitely.

**SRS-05:** The system shall provide a button for the admin saving new member in the database.

**SRS-06:** The system shall provide a service to validation input information; username, password, first name, last name, phone number, address, role name, and profile picture.

**SRS-07:** The system shall provide a message to display a notification after the registration form has saved.

**SRS-08:** The system shall provide a service to store new information into the database.

**SRS-09:** The system shall provide a service to upload new member information to display in the member profile interface.

**SRS-10:** The system shall provide a link for the member logging in to the web application on the authentication page.

**SRS-11:** The system shall provide a login form in an authenticate interface for the admin, employee, and wholesaler login members as a different role.

**SRS-12:** The system can hide the characters in the password field.

**SRS-13:** The system shall provide a button for the member logging in to the system.

**SRS-14:** The system shall provide a service to validation input information; username and password.

**SRS-15:** The system shall provide a message to display a notification after the login form has authenticated.

**SRS-16:** The system can take the wholesaler, employee or admin to the main layout page of their roles.

**SRS-17:** The system shall provide a service to keep the last sign in date and time of the member.

**SRS-18:** The system shall provide a link for the member logging out from the web application.

**SRS-19:** The system shall provide a confirmation dialog box after logout link has chosen.

**SRS-20:** The system can take the wholesaler, employee or admin exit from the program.

**SRS-21:** The system shall provide a link for updating member information in the member management interface.

**SRS-22:** The system shall provide the existing member information in member management page for update new member information; username, password, first name, last name, phone number, address, role name, and profile picture.

**SRS-23:** The system shall provide a message to display a notification after the update profile form has saved.

**SRS-24:** The system shall provide a link for the admin deleting member information in the member management interface.

**SRS-25:** The system shall provide a confirmation dialog box after delete link has chosen.

**SRS-26:** The system shall provide a service to remove member information that chosen from the database.

**SRS-27:** The system shall provide a message to display a notification after the member information has removed.

**SRS-28:** The system shall provide a link for viewing member information in the member profile interface.

**SRS-29:** The system shall provide a user interface to display the existing member information which are the member ID, username, password, first name, last name, phone number, address, role name, create date, last sign in date, and profile picture on member profile page.

**SRS-30:** The system shall provide a textbox in member management interface to search filter keywords of the member information; member ID, username, first name, last name, phone number, address, role name, and last sign in date in the database.

**SRS-31:** The system shall provide a button for requesting to search the filter keywords in the textbox.

**SRS-32:** The system shall provide a service to matching input information; member ID, username, first name, last name, phone number, address, role name or last sign in date with the existing database.

**SRS-33:** The system shall provide a user interface to display all member list. In each label, shall display the member ID, username text, first name text, and last name text of member information that related to filter keywords.

**SRS-34:** The system can connect to the phungnoi database and access webpages\_Roles and Product tables.

**SRS-35:** The system shall provide a link for the admin creating new bakery product information in the product management interface.

**SRS-36:** The system shall provide a bakery product form with a creating new product page for the admin input product name, price, category, information, and product picture.

**SRS-37:** The system shall generate new product ID by sort all product ID indefinitely.

**SRS-38:** The system shall provide a link for the admin updating bakery product information in the product management interface.

**SRS-39:** The system shall provide the existing bakery product information in product management page for the admin update new bakery product information; product name, price, category, information, and product picture into the database.

**SRS-40:** The system shall provide a button for the admin saving new bakery product in the database.

**SRS-41:** The system shall provide a service to validation input information; product name, price, category, information, and product picture.

**SRS-42:** The system shall provide a message to display a notification after the bakery product form has saved.

**SRS-43:** The system shall provide a service to upload new bakery product information to display in the product interface.

**SRS-44:** The system shall provide a link for the admin deleting bakery product information from the product interface.

**SRS-45:** The system shall provide a service to remove bakery product information which chosen from the database.

**SRS-46:** The system shall provide a message to display a notification after the bakery product information has removed.

**SRS-47:** The system can connect to the phungnoi database and access Product tables.

**SRS-48:** The system shall provide a textbox in product interface to search filter keywords of the bakery product information; product ID, product name, price, and category in the database.

**SRS-49:** The system shall provide a service to match input information; product ID, product name, price, and category with the existing database.

**SRS-50:** The system shall provide a user interface to display all list of bakery product. In each label, shall display the product ID, product name text, and price that related to filter keywords.

**SRS-51:** The system shall provide a link for viewing bakery product information in the product interface.

**SRS-52:** The system shall provide a user interface to display the existing bakery product information which are the product ID, product name, price, category, information, and product picture on the product page.

**SRS-53:** The system can connect to the phungnoi database and access Member, webpages\_Roles, Product, Order, OrderDetail, and Status tables.

**SRS-54:** The system shall provide a link for the wholesaler ordering in the order interface within 8:00 am – 12:00 pm of daily.

**SRS-55:** The system shall provide a product cart in order page for the wholesaler select product name, product quantity, and delivery date.

**SRS-56:** The system shall generate the other information from product name field consist of the product ID and price in each label of bakery product list.

**SRS-57:** The system shall provide a button for the wholesaler repeating previous ordered information from the ordered history interface.

**SRS-58:** The system shall provide a user interface to display all ordered history list. In each label, shall display the delivery date, order ID, order status text and total price which related to filter keywords.

**SRS-59:** The system shall provide a link for the wholesaler requesting to use previously ordered list in the order interface.

**SRS-60:** The system shall provide a confirmation dialog box after previously ordered link has chosen.

**SRS-61:** The system shall provide a service to reuse all bakery product name and quantity information from the chosen previously ordered.

**SRS-62:** The system shall provide a calculating function to compute the total price and discount of each order.

**SRS-63:** The system shall provide a user interface to display the result of the total price and discount from all bakery product list.

**SRS-64:** The system shall provide a button for the wholesaler sending finished product cart.

**SRS-65:** The system shall provide a service to validation incoming order follow the time condition. (According to time constraint of 8:00 am – 12:00 pm in daily)

**SRS-66:** The system shall provide a message to display a notification after the product cart has sent.

**SRS-67:** The system shall provide a service to upload new ordered information to display in the order information interface.

**SRS-68:** The system shall provide a button for the wholesaler saving unfinished product cart in their account.

**SRS-69:** The system shall provide a link for the wholesaler updating current order information in the order interface.

**SRS-70:** The system shall provide a user interface to display current order information in the order page for the wholesaler update order information; product name, product quantity, and delivery date into the database.

**SRS-71:** The system shall provide a cancel link for the wholesaler canceling current order information in the order interface.

**SRS-72:** The system shall provide a confirmation dialog box after cancel link has chosen.

**SRS-73:** The system shall provide a service to remove current order information from the database.

**SRS-74:** The system shall provide a message to display a notification after the current order information has canceled.

**SRS-75:** The system can connect to the phungnoi database and access Member, webpages\_Roles, Status, and OrderDetail tables.

**SRS-76:** The system shall provide a link for viewing current order information in the order information interface.

**SRS-77:** The system shall provide a user interface to display current order information which are the order ID, member ID, first name, last name, product ID, product name, product quantity, order status, delivery date, order date, total price and discount on the current order information page.

**SRS-78:** The system shall provide a textbox in order interface to search the order information; order ID, member ID, first name, last name, and order status.

**SRS-79:** The system shall provide a service to match input information; order ID, member ID, first name, last name, and order status with the existing current order information in the database.

**SRS-80:** The system shall provide a user interface to display all current order list. In each label, shall display the order ID, first name text, last name text, total price, and order status text which related to filter keywords.

**SRS-81:** The system can connect to the phungnoi database and access webpages\_Roles and OrderDetail tables.

**SRS-82:** The system shall provide a user interface to display the current total ordered information which are the product ID, product name, total number, and summary price on the total ordered page.

**SRS-83:** The system shall provide a textbox in the total ordered interface to search the filter keywords of the day, month, and year of the previously total ordered result.

**SRS-84:** The system shall provide a service to match the period of the day, month, and year in the field textbox with the previously total ordered information in the database.

**SRS-85:** The system shall provide a user interface to display all total ordered list. In each label, shall display the delivery date and summary price which related to filter keywords.

**SRS-86:** The system shall provide a link for the employee viewing the total number of all bakery product and summary price in the total ordered interface.

**SRS-87:** The system shall provide a user interface to display the total ordered information which chosen by the employee.

**SRS-88:** The system shall provide a drop down list for the employee selecting progressive of order status in the order management interface.

**SRS-89:** The system shall provide a button for the employee saving changed order status in the order management interface.

**SRS-90:** The system shall provide a message to display a notification after the order status in the preparation stage has changed.

**SRS-91:** The system shall provide a service to upload new progressive of order status to display in the order information interface.

**SRS-92:** The system shall provide a textbox in order interface to search the filter keywords of the day, month, and year of the delivery date.

**SRS-93:** The system shall provide a service to match the period of the day, month, and year in field textbox with the ordered history information in the database.

**SRS-94:** The system shall provide a link for viewing the ordered history information in the ordered history interface.

**SRS-95:** The system shall provide a user interface to display the ordered history information which are the member ID, first name, last name, order ID, product ID, product name, product quantity, total price, discount, order status and delivery date on the ordered history page.

**SRS-96:** The system shall provide the first textbox in the order interface to search the filter keywords of the day, month, and year. And the second textbox to search ordered history information; member ID, first name, last name, delivery date, order status, and order ID.

**SRS-97:** The system shall provide a service to match the filter keywords in the first textbox and second textbox with the ordered history information in the database.

**SRS-98:** The system can connect to the phungnoi database and access Member, webpages\_Roles, and Feedback tables.

**SRS-99:** The system shall provide a link for the wholesaler commenting the suggestion message to in the feedback interface.

**SRS-100:** The system shall provide a textbox in the feedback interface to the wholesaler comments a critical text.

**SRS-101:** The system shall provide a button for the wholesaler sending a suggestion message in the feedback interface.

**SRS-102:** The system shall provide a service to upload the suggestion message to display in the feedback interface.

**SRS-103:** The system shall provide a link for viewing all suggestion message in the feedback interface.

**SRS-104:** The system shall provide a user interface to display all comments content on the feedback page. In each comments textbox, shall display the feedback ID, username text, time, and detail text.

**SRS-105:** The system can connect to the phungnoi database and access webpages\_Roles and Ingredient tables.

**SRS-106:** The system shall provide a link for the admin creating new ingredient information in the ingredient management interface.

**SRS-107:** The system shall provide an ingredient form in the ingredient management page for the admin input ingredient information; ingredient name, category, and ingredient picture.

**SRS-108:** The system shall provide a link for the admin updating ingredient information in the ingredient interface.

**SRS-109:** The system shall provide a user interface to display the existing ingredient information in the ingredient management page for the admin update new ingredient information; ingredient name, category, and ingredient picture.

**SRS-110:** The system shall generate the other information from the ingredient name field consist of the ingredient ID in each label of the ingredient list.

**SRS-111:** The system shall provide a button for the admin saving new ingredient in the database.

**SRS-112:** The system shall provide a service to validation input information; ingredient name, category, and ingredient picture.

**SRS-113:** The system shall provide a message to display a notification after the ingredient form has saved.

**SRS-114:** The system shall provide a link for the admin deleting ingredient information in the ingredient information interface.

**SRS-115:** The system shall provide a confirmation dialog box after delete link has chosen.

**SRS-116:** The system shall provide a service to remove ingredient information which chosen from the database.

**SRS-117:** The system shall provide a message to display a notification after the ingredient information has removed.

**SRS-118:** The system shall provide a textbox in the ingredient interface to search the filter keywords of the ingredient information; ingredient ID, ingredient name, and category.

**SRS-119:** The system shall provide a service to match the input information; ingredient ID, ingredient name, category, and ingredient picture with the existing ingredient information in the database.

**SRS-120:** The system shall provide a user interface to display all ingredient list. In each label, shall display the ingredient name text and ingredient ID which related to the filter keywords.

**SRS-121:** The system shall provide a user interface to display the existing ingredient information which are the ingredient ID, ingredient name, category, and ingredient picture on the ingredient information page.

**SRS-122:** The system can connect to the phungnoi database and access webpages\_Roles, Product, Ingredient, Recipe, and Units tables.

**SRS-123:** The system shall provide a link for the admin creating menu recipe information in the menu recipe interface.

**SRS-124:** The system shall provide a menu recipe form in the menu recipe page for the admin input menu recipe information; product name, ingredient name, ingredient quantity, and units.

**SRS-125:** The system shall provide a link for the admin updating menu recipe information in the menu recipe interface.

**SRS-126:** The system shall provide a user interface to display the existing menu recipe information in the menu recipe page for the admin update new menu recipe information; product name, ingredient name, ingredient quantity, and units.

**SRS-127:** The system shall generate the other information from the product name and ingredient name field consist of the product ID, information, category and ingredient ID in each menu recipe.

**SRS-128:** The system shall provide a button for the admin saving new menu recipe in the database.

**SRS-129:** The system shall provide a service to validation input information; product name, ingredient name, ingredient quantity, and units.

**SRS-130:** The system shall provide a message to display a notification after menu recipe form has saved.

**SRS-131:** The system shall provide a link for deleting menu recipe information in the menu recipe interface.

**SRS-132:** The system shall provide a confirmation dialog box after delete link has chosen.

**SRS-133:** The system shall provide a service to remove menu recipe information which chosen from the database.

**SRS-134:** The system shall provide a message to display a notification after the menu recipe information has removed.

**SRS-135:** The system shall provide a textbox in the menu recipe interface to search filter keywords of the menu recipe information; recipe ID, product ID, product name, ingredient ID, and ingredient name.

**SRS-136:** The system shall provide service to match the input information; recipe ID, product ID, product name, ingredient ID, and ingredient name.

**SRS-137:** The system shall provide a user interface to display all menu recipe list. In each label, shall display the product name text and recipe ID on menu recipe list.

**SRS-138:** The system shall provide a user interface to display the existing menu recipe information which are the recipe ID, product ID, product name, product picture, information, category, ingredient ID, ingredient name, ingredient quantity, and units on the menu recipe information page.

**SRS-139:** The system can connect to the phungnoi database and access webpages\_Roles, OrderDetail, Recipe and Units tables.

**SRS-140:** The system shall provide a button for the admin viewing the ingredient usage in the ingredient estimation interface.

**SRS-141:** The system shall provide a calculating function to compute the ingredient usage by using information from the menu recipe and total ordered.

**SRS-142:** The system shall provide a user interface to display the ingredient estimation information which are the product ID, product name, ingredient ID, ingredient name, ingredient quantity, and units on the ingredient estimation page.

**SRS-143:** The system shall provide a textbox in the ingredient estimation interface to search the filter keywords of the day, month, and year of the previous ingredient estimation result.

**SRS-144:** The system shall provide a service to match the period of the day, month, and year in field textbox with the previous ingredient estimation result in the database.

**SRS-145:** The system shall provide a user interface to display the previous ingredient estimation list. In each label, shall display the delivery date which related to the filter keywords.

**SRS-146:** The system can connect to the phungnoi database and access Member, webpages\_Roles, OrderDetail, and Recipe tables.

**SRS-147:** The system shall provide a button for making a report.

**SRS-148:** The system shall provide a report function to retrieve the summary information from the database.

**SRS-149:** The system shall provide a user interface to display the summary report contents on the report page.

**SRS-150:** The system shall provide a button for saving a summary report as a PDF file format from the report interface.

**SRS-151:** The system shall provide a service to export a summary report document out.

**SRS-152:** The system shall provide a button for printing a summary report as a documented paper.

**SRS-153:** The system shall provide a button for converting ordered information to be a statistical graph.

**SRS-154:** The system shall provide a service to process statistical data became to a graph image.

**SRS-155:** The system shall provide a user interface to display the graph image and statistical portion on the graph page.

**SRS-156:** The system shall provide a button for saving a graph as an image file format from the graph interface.

**SRS-157:** The system shall provide a service to export a graph image out.

**SRS-158:** The system shall provide a button for printing a graph image as a documented paper.

## 3.3 Activity Diagram

**AD-01:** Admin activate member

**AD-02:** Member login

**AD-03:** Member logout

**AD-04:** Admin edit member information

**AD-05:** Admin delete member information

**AD-06:** Member update own personal information

**AD-07:** Member view personal information

**AD-08:** Admin view all member information

**AD-09:** Admin add bakery product information

**AD-10:** Admin update bakery product information

**AD-11:** Admin delete bakery product information

**AD-12:** Wholesaler and Employee view product information

**AD-13:** Wholesaler order bakery product

**AD-14:** Wholesaler repeat previous ordered information

**AD-15** Wholesaler save unfinished product cart

**AD-16:** Wholesaler send product cart

**AD-17:** Wholesaler update own order information

**AD-18:** Wholesaler cancel own order information

**AD-19:** Wholesaler view current order information

**AD-20:** Employee view current information

**AD-21:** Employee view total ordered information

**AD-22:** Employee mark order status

**AD-23:** Wholesaler view ordered history

**AD-24:** Employee view ordered history

**AD-25:** Wholesaler comment feedback

**AD-26:** Wholesaler and Employee view feedback

**AD-27:** Admin create ingredient information

**AD-28:** Admin update ingredient information

**AD-29:** Admin delete ingredient information

**AD-30:** Admin view ingredient information

**AD-31:** Admin create menu recipe information

**AD-32:** Admin update menu recipe information

**AD-33:** Admin delete menu recipe information

**AD-34:** Admin view menu recipe information

**AD-35:** Employee view current ingredient estimation

**AD-36:** Employee view previous ingredient estimation

**AD-37:** Employee and Wholesaler make report

**AD-38:** Employee and Wholesaler make graph

## 3.4 Use Case

**UC-01:** Register member

**UC-02:** Authentication

**UC-03:** Manage member

**UC-04:** Update personal information

**UC-05:** View member information

**UC-06:** Manage bakery product information

**UC-07:** View bakery product information

**UC-08:** Order bakerry product

**UC-09:** Manage order information

**UC-10:** View current order information

**UC-11:** View total ordered information

**UC-12:** Mark order status

**UC-13:** View order history information

**UC-14:** Comment suggestion message

**UC-15:** View suggestion message

**UC-16:** Manage ingredient information

**UC-17:** View ingredient information

**UC-18:** Manage menu recipe information

**UC-19:** View menu recipe information

**UC-20:** View current ingredient estimation

**UC-21:** View previous ingredient estimation

**UC-22:** Make report

**UC-23:** Make graph

## 3.5 User Interface

**UI-01:** Login page

**UI-02:** Admin main layout page

**UI-03:** Wholesaler main layout page

**UI-04:** Employee main layout page

**UI-05:** Create member information page

**UI-06:** Edit member information page

**UI-07:** Delete member page

**UI-08:** Member list page

**UI-09:** Member details page

**UI-10:** Create bakery product page

**UI-11:** Edit bakery product page

**UI-12:** Delete bakery product page

**UI-13:** Bakery product list page

**UI-14:** Bakery product details page

**UI-15:** Logout page

**UI-16:** Validation form page

**UI-17:** Create ingredient information page

**UI-18:** Edit ingredient information page

**UI-19:** Delete ingredient information page

**UI-20:** Ingredient list page

**UI-21:** Ingredient information page

**UI-22:** Order page

**UI-23:** Product cart page

**UI-24:** History page

**UI-25:** Order list page

**UI-26:** Menu recipe page

**UI-27:** Report information page

**UI-28:** Graph information page

## 3.6 Sequence Diagram

**SD-01:** Admin activate member

**SD-02:** Member login

**SD-03:** Member logout

**SD-04:** Admin edit member information

**SD-05:** Admin delete member information

**SD-06:** Admin view member

**SD-07:** Admin create bakery product information

**SD-08:** Admin edit bakery product information

**SD-09:** Admin delete bakery product information

**SD-10:** Member and Visitor view bakery product

**SD-11:** Wholesaler order bakery product

**SD-12:** Wholesaler send product cart

**SD-13:** Wholesaler view their order information

**SD-14:** Employee view all order information

**SD-15** Admin create ingredient information

**SD-16:** Admin edit ingredient information

**SD-17:** Admin delete ingredient information

**SD-18:** Admin view ingredient list

**SD-19:** Admin view all ingredient information.

**SD-20:** Admin create menu recipe information

**SD-21:** Admin edit menu recipe information

**SD-22:** Admin delete menu recipe information.

**SD-23:** Employee view current ingredient estimation

**SD-24:** Employee view previous ingredient estimation

**SD-25:** Employee and Wholesaler make report

**SD-26:** Wholesaler and Employee make graph

## 3.7 System Test Case

**STC-01:** Admin activate member

**STC-02:** Member login

**STC-03:** Member logout

**STC-04:** Admin edit member information

**STC-05:** Admin delete member information

**STC-06:** Member update own personal information

**STC-07:** Member view personal information

**STC-08:** Admin view all member information

**STC-09:** Admin create bakery product information

**STC-10:** Admin edit bakery product information

**STC-11:** Admin delete bakery product information

**STC-12:** Member and Visitor view bakery product

**STC-13:** Wholesaler order bakery product

**STC-14:** Wholesaler edit order information

**STC-15** Wholesaler cancel order information

**STC-16:** Wholesaler view current order information

**STC-17:** Employee view current order information

**STC-18:** Employee view total ordered information

**STC-19:** Employee mark order status

**STC-20:** Wholesaler view ordered history information

**STC-21:** Admin view ordered history information

**STC-22:** Wholesaler comment feedback

**STC-23:** Employee and Wholesaler view feedback

**STC-24:** Admin create ingredient estimation

**STC-25:** Admin edit ingredient estimation

**STC-26:** Admin delete ingredient estimation

**STC-27:** Admin view ingredient information

**STC-28:** Admin create menu recipe information

**STC-29:** Admin edit menu recipe information

**STC-30:** Admin delete menu recipe information

**STC-31:** Admin view menu recipe information

**STC-32:** Employee view current ingredient estimation

**STC-33:** Employee view previous ingredient estimation

**STC-34:** Wholesaler and Employee make report

**STC-35** Wholesaler and Employee make graph

## 3.7 Database

**DB-01:** Webpages\_Roles

**DB-02:** Member

**DB-03:** Product

**DB-04:** Recipe

**DB-05:** Ingredient

**DB-06:** Order

**DB-07:** Order Detail

**DB-08:** Units

**DB-09:** Status

**DB-10:** Feedback