# Introduction

## Purpose of Document

This is a Requirements Specification document for a new web-based food ordering system. Local Life Platform will be providing the service to its customers to register the store and order food online. The new system will help in browsing of the food items catalog and the ability to complete product orders on-line. This document describes the scope, objectives and goal of the new system. In addition to describing non-functional requirements, this document models the functional requirements with use cases, interaction diagrams, and class models. This document is intended to direct the design and implementation of the target system in an object-oriented language.

## Project Summary

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| Project Name: | Local Life Platform |
| Project Analysts: | Zhonghua Bao  Anirudh Das Bezzam  Vignesh Mohan  Shrey Vaity  Vineet Singh |
| Responsible Users: | Zhonghua Bao, Anirudh Das Bezzam, Vignesh Mohan, Shrey Vaity, Vineet Singh |

## Project Scope

The scope of this project is a web-based system that supports the marketing of the stores and its food items directly to customers. Since the project is being created from the scratch therefore inventory control, account billing, implementation of a new database system, web search engine, recommendation engine, website and its user’s data security are part of this project.

## System Purpose

### Users

Those who will primarily benefit from the new system and those who will be affected by the new system include

### Customers

Upon implementation of the system, customers will find site navigation, product identification and ordering easier. Customers will be able to choose from variety of product options available throughout the stores near to them.

### Store Owners

Store owners will be allowed to maintain the menu about their products directly.

### Customer Service Department

The new system should reduce the workload of Customer Service as customers are able to find the information they need from the website.

### Recommendations

Site navigation data could be used to understand how a customer uses the web site to make a purchase will result in improvements in getting and keeping customers.

### Purchasing

Purchase information will be sent directly to store owners, allowing for more accurate billing.

### Shipping

Purchase information will be sent directly to store shipping for inventory control and order processing.

### Admins

Admins will be responsible for implementing the new database, hosting the website and maintaining the system.

### Location

The system will be available to any potential customer using the Internet. LLP owners may also use the system from any location and will be able to access restricted areas of the site through a password protection scheme.

### Responsibilities

The primary responsibilities of the system will be:

* provide customers direct access to up-to-date, product information on which they can make a decision to order
* customize product offerings to all the users
* allow differential access to web pages based on type of user
* allow customers to place an order through the website
* allow product owners to maintain information about their stores directly
* allow access to whitepapers on demand
* send order information directly to store owners for shipping

### Other desired features of the new system

* a consistent "look and feel" throughout the website
* full-text searches of the web pages a user has permission to access
* password protection scheme for non-public web pages

### Need

This system is needed in order to service the expected increase in demand for home deliveries. The new system will allow local store owners to rapidly increase sales and business of their stores.

### Overview of Document

The rest of this document gives the detailed specifications for the new sales system. It is organized as follows:

## Functional Objective

Each objective gives a desired behavior for the system, a business justification, and a measure to determine if the final system has successfully met the objective. These objectives are organized by priority. In order for the new system to be considered successful, all high priority objectives must be met.

## Non-Functional Objectives

## This section is organized by category. Each objective specifies a technical requirement or constraint on the overall characteristics of the system. Each objective is measurable.

## Context Model

This section gives a text description of the goal of the system, and a pictorial description of the scope of the system in a context diagram. Those entities outside the system that interact with the system are described.

## Use Case Model

The specific behavioral requirements of the system are detailed in a series of use cases. Each use case accomplishes a business task and shows the interaction between the system and some outside actor. Each use case is described with both text and an interaction diagram. An interface prototype is also shown. The system use case diagram depicts the interactions between all use cases and system actors.

## Functional Objectives

### High Priority

* The system shall allow for on-line product ordering by the customer. For customers, this will eliminate the current delay between their decision to buy and the placement of the order.
* The system shall reflect a new and changed product description within few minutes of the database being updated by the product owner. This eliminates the current redundant update of information, saving money annually.
* The system shall allow a customer to directly contact the nearest store in his region. This will improve service by reducing the time to respond to a customer request.
* The system shall provide accounting with accurate purchase transaction data. This will improve customer service by reducing billing complaints.
* The system shall provide shipping with accurate order data. This will allow the order to be processed instantly and inventory to be updated within few hours.

### Medium Priority

The system shall provide a search facility that will allow full text searching of all the stores across the web pages that the user is permitted to access. The system must support the following searches:

* find all words specified
* find any word specified
* find the exact phrase

### Low Priority

* The system shall allow the user's status to be stored for the next time he returns to the web site. This will save the user time per visit by not having to reenter already supplied data.
* The system shall provide recommendations with customer navigation information.
* This information will allow system to determine what information prompts a purchase and help target potential customers more effectively.

## Non-Functional Objectives

### Reliability

* The system shall be completely operational at all time.
* Down time after a failure shall not exceed x hours.

### Usability

* A store owner should be able to use the system in no time.
* A user who already knows what product he is interested in should be able to locate and view that page in seconds.
* The number of web pages navigated to access product information from the top page should be as minimum as possible.

### Performance

* The system should be able to support multiple users.
* The mean time to view a web page should be in milliseconds.

### Security

* The system shall provide password protected access to web pages that are to be viewed only by store owners and admins.
* Transaction data must be transmitted in encrypted form.

### Supportability

* The system should be able to accommodate new products and product lines without major reengineering.
* The system web site shall be viewable from Internet Explorer 4.0 or later
* Purchased Components
* A web site search engine will be needed.

### Interfaces

The system must interface with:

* The Oracle database systems for product and order information
* The Oracle Financial accounting system
* The AccountPro inventory system
* The acquired web site search engine

## The Context Model

### Goal Statement

* The goal of the system is to allow to increase sales revenue by x% over the next y years
* allowing complete and accurate customer and order information to be captured directly from the customer
* providing customers fast access to up-to-date and accurate product information

### Context Diagram

### NEEDS TO DONE

## System Externals

### Customer

* A customer is any user of the system that has not identified himself as an admin or store owner. A customer may search for public product information by keyword, access particular product, order a product. A customer who provides personal information will get search and query results customized to his preferences.

### Store Owner

* The store owner is a user who has been verified as a store owner. The product owner may update product information for those products for which he is responsible.
* Shipping
* The store owner is informed of purchases so that it can process the order and update inventory.

## The Use Case Model

### System Use Case Diagram

### NEEDS TO BE DONE

## Use Case Descriptions (for selected cases)

Notes:

* For all use cases, the user can cancel the use case at any step that requires user input. This action ends the use case. Any data collected during that use case is lost.
* For all use cases that require a logged in user, the current login session is updated during the use case to reflect the navigation paths through the use case.

### Login User

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| Use Case Name: | Login User |
| Summary: | In order to get personalized or restricted information, place orders or do other specialized transactions a user must login so that that the system can determine his access level. |
| Basic Flow: | The use case starts when a user indicates that he wants to login.  The system requests the username and password.  The user enters his username and password.  The system verifies the username and password against all registered users.  The system starts a login session and displays a welcome message based on the user's preferences. |
| Alternative Flows: | Step 4:  if username is invalid, the use case goes back to step 2.  Step 4:  if the password is invalid the system requests that the user re-enter the password. When the user enters another password the use case continues with step 4 using the original username and new password. |
| Extension Points: | none |
| Preconditions: | The user is registered. |
| Postconditions: | The user can view store, their products and perform functions according to his registered access level. |
| Business Rules: | Some data and functions are restricted to certain types of users or users with a particular access level. |

### Register User

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| Use Case Name: | Register User |
| Summary: | In order to get personalized or restricted information, place orders or do other specialized transactions a new user must register a username and password. |
| Basic Flow: | The use case starts when a user indicates that he wants to register.  The system requests a username and password.  The user enters a username and password.  The system checks that the username does not duplicate any existing registered usernames.  The system requests a name (\*), street, city, state, zip code (\*), phone and email address. Items marked by (\*) are required.  The user enters the information.  The system determines the user's location and access level and stores all user information.  The system executes use case Register Preferences.  The system starts a login session and displays a welcome message based on the user's preferences. |
| Alternative Flows: | Step 4: If the username duplicates an existing username the system displays a message and the use case goes back to step 2.  Step 5: If the user does not enter a required field, a message is displayed, and the use case repeats step 4. |
| Extension Points: | Register Preferences |
| Preconditions: | none |
| Postconditions: | The user can view store, their products and perform functions according to his registered access level. |

### Register Preferences

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| Use Case Name: | Register Preferences |
| Summary: | This use case allows a registered user to enter or change his preferences. |
| Basic Flow: | The use case starts when a user indicates that he wants to enter or modify his preferences.  The system displays all current product lines. It indicates any product lines that the user has currently selected.  The user selects/deselects product lines.  The system displays current language preferences. It indicates the language preference currently selected.  The user may select a different language preference.  The system stores any change to language preference. |
| Alternative Flows: | none |
| Extension Points: | none |
| Preconditions: | The user is logged in. |
| Postconditions: | The system can customize a welcome message based on the user's revised preferences. |
| Business Rules: | Language selections allowed will be English by default |

### Place Order (Customer)

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| Use Case Name: | Place Order Scenario: Customer places his own order. |
| Summary: | This use case allows a registered customer to place an order for a product. |
| Basic Flow: | The use case starts when a customer indicates he wants to place an order for the current product being displayed.  The system displays the customer's information: name, street, city, zip, phone, email.  The customer may add or change any of the information.  The system stores any changes. If the zip code has changed, the system modifies the customer's location.  The system requests the quantity to order and the shipping address.  The customer enters quantity and shipping address.  The system displays the payment options available to this customer.  The customer selects a payment option.  The system completes the payment by executing use case Charge Customer or Bill Customer depending on which option was selected.  The system stores the order information, decreases the quantity on hand for the product and sends the order details to store owner.  The system displays an order completion message and sends a receipt to the user. |
| Alternative Flows: | Step 9:  If the selected payment method could not be validated, go to step 8 to get another payment option.  Step 10:  If the quantity on hand is not sufficient for this order, a message is sent to the customer and the use case is canceled. |
| Extension Points: | Charge Customer; Bill Customer |
| Preconditions: | The customer is logged in and has completed a search for the product to be ordered |
| Postconditions: | The product is sold. |
| Business Rules: | The customer must pay in full by credit card at the time of the order. |

### Charge Customer

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| Use Case Name: | Charge Customer |
| Summary: | This use case charges the order currently being placed to a credit card. |
| Basic Flow: | The use case begins when a user selects "Credit Card" as a payment option, while in use case Place Order  The system requests the credit card number, expiration date, name on the card and security code.  The user enters the information.  The system verifies that the credit card is valid for the amount to be charged and completes the credit card transaction.  The system stores the payment details and returns a success message |
| Alternative Flows: | Step 4: If the credit card cannot be validated the use case ends, returning a failure message |
| Extension Points: | none |
| Preconditions: | The system is executing use case Place Order. |
| Postconditions: | The customer has been charged for the order. |
| Business Rules: | Credit cards accepted are Visa, MasterCard and Discover. |

### Bill Customer

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| Use Case Name: | Bill Customer |
| Summary: | This system gets the billing details for the order. |
| Basic Flow: | The use case begins when a user enters payment information.  The system requests the billing address.  The user enters the billing address.  The system stores the payment details. |
| Alternative Flows: | none |
| Extension Points: | none |
| Preconditions: | The system is executing use case Place Order and the customer is authorized for billing. |
| Postconditions: | The concern department can bill the customer for this order. |
| Business Rules: | Customers can be billed if they authorize the system to process the order. |