

# Software Engineering Project

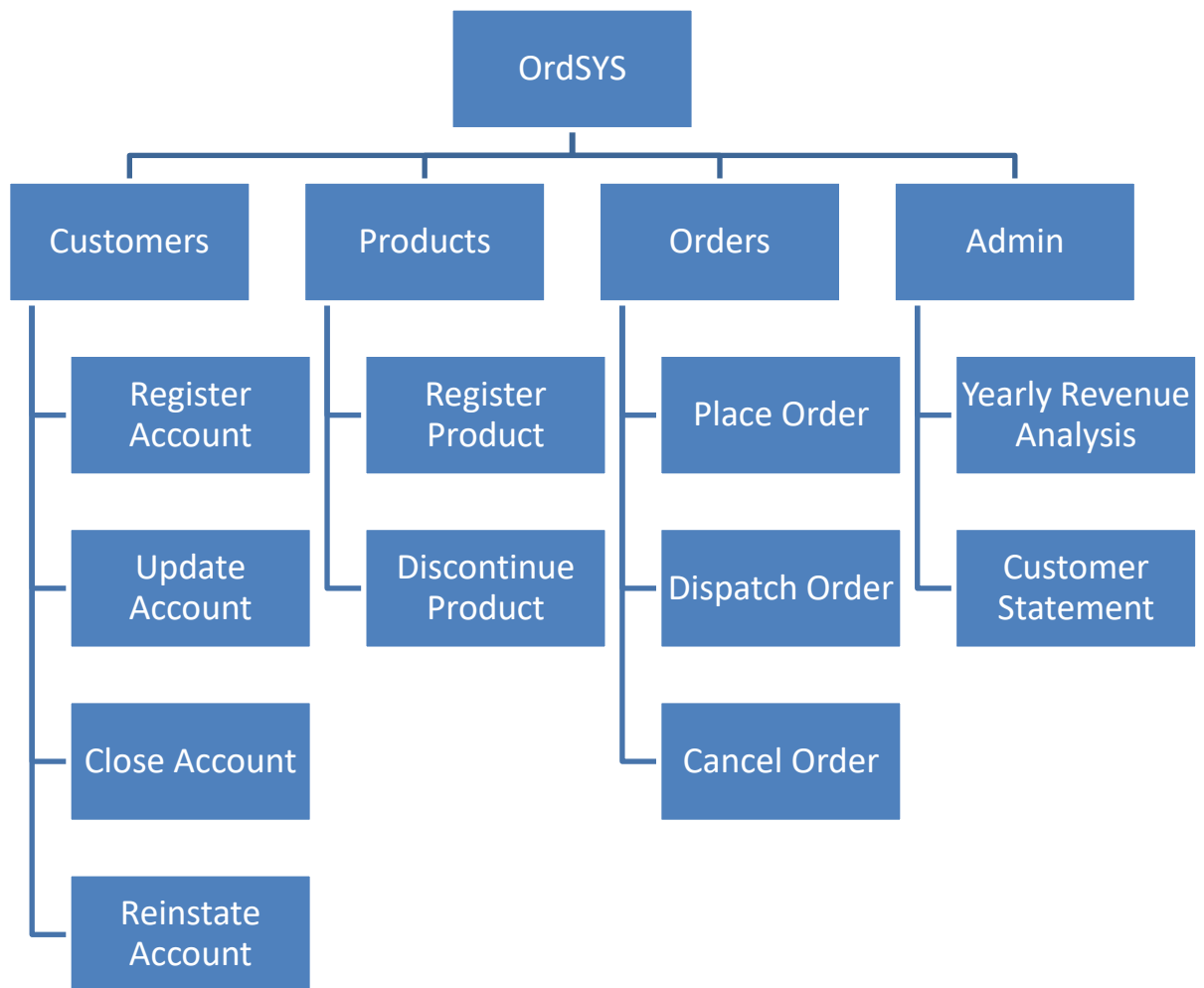
## Online Grocery Store Order System

## **1. Introduction**

The requirements for an online grocery store ordering system must be analysed, specified and implemented. The functional user requirements are shown below.

## 2. Functional Components

This section presents the user requirements as functional components of the system. There are four modules as shown below.



### **3. User Requirements**

This section presents the user requirements as abstract statements.

#### **3.1. OrdSYS will manage customers**

- 3.1.1. OrdSYS will register a customer account
- 3.1.2. OrdSYS will update a customer account
- 3.1.3. OrdSYS will close a customer account
- 3.1.4. OrdSYS will reinstate a customer account

#### **3.2. OrdSYS will manage store products**

- 3.2.1. OrdSYS will register a new product
- 3.2.2. OrdSYS will discontinue a product

#### **3.3. OrdSYS will process orders OrdSYS will process orders**

- 3.3.1. OrdSYS will record details of a customer order
- 3.3.2. OrdSYS will record that an order has been dispatched
- 3.3.3. OrdSYS will record that an order has been cancelled

#### **3.4. OrdSYS will perform financial analysis**

- 3.4.1. OrdSYS will generate a yearly revenue analysis
- 3.4.2. OrdSYS will generate a customer statement

#### **4. Business Requirements**

Customers register themselves. Customers are assigned a unique 4-digit account number. The email address associated with an account must be unique. Communication with a customer must be possible via phone, email and written correspondence.

Only a customer can update their profile.

If a customer closes their account, they can no longer place orders. If a customer wishes to reactivate their account, they must contact the business requesting their account be reinstated. Only the administration can reinstate a customer account.

Any product available to customers must first be registered. A product can be discontinued at any time, even if some are unsold. Only the administrator can register and discontinue a product.

Customers place orders when they require. Multiple products can be ordered in a single order. Sufficient product quantities must be verified before adding to the order. As products are added to the order, the order total is adjusted. Any product added to the order in error can be removed and the order total adjusted. When an order is finalised, the order reference number and details of products ordered are issued by email to the customer.

An order is recorded as dispatched once the dispatch department releases the products for delivery.

An order can be cancelled by the customer but not if it has already been dispatched.

The system will allow the administrator to view and/or print a Yearly Revenue Analysis report for a specified year. This report may be obtained for the current year and the four previous years only.

A customer can request a customer statement for a specified time frame. A statement can be obtained for a time frame in the current and two previous years only. The statement details a summary of all orders placed by the customer and the total spend for the specified period.

#### **5. Implementation**

The delivered system:

- Must be specified to an acceptable standard
- Must run in MTU Kerry lab
- Must be implemented in Microsoft Visual Studio C# Windows Forms User Interface (Version compatible with MTU Kerry build)
- Must use Oracle 19C for data storage

#### **6. Submission**

Please check email and Canvas for information regarding submission and presentation. Support material is also available on Canvas.