Online Food Ordering (OFO)

This Project report has been submitted in fulfillment of the requirements for the Degree of
Bachelor of Science in Software Engineering

Submitted by

Enthia Emran Orra

ID: 152-35-1299

Department of Software Engineering

Daffodil International University

Supervised by:

Khalid Been Md. Badruzzaman Biplob

Lecturer

Department of Software Engineering

Approval

This **Project/Thesis** titled "**Online Food Ordering System**", submitted by **Enthia Emran Orra, ID: 152-35-1299** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Software Engineering and approved as to its style and contents.

Board of examiners

Dr. Touhid Bhuiyan

Professor and Head

Department of Software Engineering   **Chairman**

Faculty of Science and Information Technology

Daffodil International University

Dr. Md. Asraf Ali

Associate Professor

Department of Software Engineering   **Internal Examiner 1**

Faculty of Science and Information Technology

Daffodil International University

Mohammad Khaled Sohel

Assistant Professor

Department of Software Engineering   **Internal Examiner 1**

Faculty of Science and Information Technology

Daffodil International University

Prof Dr. Mohammad Abul Kashem

Professor

Department of Computer Science and Engineering   **External Examiner**
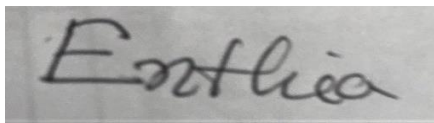
Faculty of Electrical and Electronic Engineering

Dhaka University of Engineering & Technology, Gazipur

Declaration

I hereby declare that I have taken this project under the supervision of **Khalid Been Md. Badruzzaman Biplob**, Lecturer, Department of Software Engineering, Daffodil International University. I also declare that neither this project nor any part of this report has been submitted elsewhere for any degree of award.
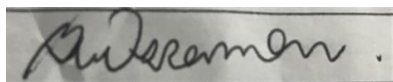
Submitted by:

Enthia Emran Orra

ID: 152-35-1299

Department of Software Engineering

Daffodil International University

Supervised by:

Khalid Been Md. Badruzzaman Biplob

Lecturer

Department of Software Engineering

ACKNOWLEDGEMENT

At first, I want to say that, I am so much great full to almighty ALLAH as HE has given me the idea and ability to build this project. Additionally, I offer Durud to Hazrat Mohammad (SM) peace be upon him. And I am so thanked to Daffodil International University for giving me the chance to give me the chance to prove myself. I also so thanked to Dr. Touhid Bhuiyan, Head, Department of Software Engineering for giving academic supports. Lastly, I am so thanked to Khalid Been Md. Badruzzaman Biplob Sir, for his valuable guiding in order to work this project and my parents and friends also.

ABSTRACT

The online food delivery system is a web application that is designed for use in the food delivery industry where they need to deliver all the food to the customers. This system can help hotels and restaurants to increase the profit of the business by reducing the labor cost involved and including some delivery guy. The system also allows to quickly and easily manage their food orders in an online menu where customers can browse on the internet and use it to make the orders with just a few clicks by finger. Restaurant employees will use these orders list which comes from customers through an easy to navigate graphical interface for efficient processing all the orders.

The main idea of this project is to develop an E-Commerce system. Which will be doing business through the computer networks. where A person sitting at his/her home in front of computer or smart phone or laptop and he/she will access all the facilities of the internet to purchase the food items or order.

In our traditional commerce system, we have to go to the restaurants or hotels and order the food items and pay the bill and get the foods then we have to come back to our home. And all the things we have to do physically with effort. But this system OFO will make it easier for human to reduce physical effort and cost and time. In early 1990's has taken a great leap in the world of computers, but the fact that has hindered the growth of e-commerce is security. Security is the challenge facing for e-commerce now a d

Table of Content

List of Figures

©Daffodil International University

List of Table

1. INTRODUCTION

The online ordering system that I am proposing here mostly simplifies the ordering process for both the customer and the restaurant or the hotels. This System will be an interactive and up-to-date menu with all available options for all food items. Customer can choose one or more food items to place an order which will land in the Cart. And that Cart will contain all the ordered items for delivering the order to the customer. And Customers can view all the order details in the cart before checking out. In the end, the customer gets order confirmation details. Once the order will be placed it will enter the database system and retrieved that information. This System will allow Restaurant Employees to rapidly go through the orders as they are received and process all orders efficiently for delivering and effectively with minimal delays and confusion to make happy the customers.

This Software Requirements Specification focus to report easily the Functionality of that system, And External Interfaces, Attributes and Design Constraints ER diagram,

Terms	Definition
Online Food	Many types of food item picture will be shown here for customer to make them understand, what item they can choose.
Food Ordre	They can make an order according to their needs by few clicks.
Order Status	Customer and Admin can monitor order status like processing, delivering, or done.
Order Cancelation	Order cancelation means if the order has been reached to the customer and food quality is not good then customer can cancel the order by paying only delivering charge. If the customer order in processing state then for the cancelation customer do not have to pay any single amount for the order.

Table 2: list of terms and Definition

and imposed on Implementation of the software system point throughout the repose of the document. Throughout all the descriptions of the Web application, the language and terminology should unambiguous and consistent throughout the document part.

1.1 Purpose

Defining and describing the functions and specifications of the Online Food Ordering System (OFO) is the primary goal of this Software Requirements Specification (SRS). This Software Requirements Specification illustrates, in clear terms, the system's primary functionality is collected from general people and specified by our customer requirements.

1.2 Documentation Conventions

This SRS is divided up into several sections detailing an overall description or overview, the external interface requirements, system features, and other functional and non-functional requirements. As this is the final draft of the project if any future modifications of this document will involve adapting and dynamic for the product to change the systems and uses purpose. I hope to have the product release to change times to ensure continued process use and success. The Document and Specification what I have prepared the overall information in this document to the best of my ability. Once read, it is evident that I mention here, each section is important to the overall SRS of OFO and significant to the project in its own right.

1.3 Product Scope

The software system being produced is called Online Food Ordering System (**OFO**). It is being produced for a customer interested in Buying Food items via the Internet. This system is largely available for anyone who have the Internet connection. The system will be run on a central server and distribute the remote user interface through a web browser to all the devices.

The proposed software product is the Online Food Ordering System (**OFO**) for the Food industry in Dhaka. It will be used to maintain various hotels and restaurants. Customers will use the system to give daily food orders to their needs if it is necessary for them. Customers can view the date-wise food collections or the status of the overall item of each restaurant in his/her area. The customer will be able to view their ordered items and manage them.

The project Online Food Ordering System (OFO) is specially developed for General people of Bangladesh who love foods. There are many people in our country who want to order online, it's an easy process to get food items. We are making an easy way for people who love food and who are unable to go to the restaurant or do not have enough time to go for buying food. They can visit our web application; they will find various types of food items and can choose and make orders online. After completing the order, our delivery guy will deliver the product to the customer and receive the money from the customer. Customers can also cancel his/her order if you don't like the Food quality live, we will only cost the delivery charge at that time.

The purpose of this document is to describe all the requirements for the targeted project the Online Food Ordering System (OFO) for all the restaurant and hotels. The intended audience includes all stakeholders in the potential system.

Developers should ask this document to know how the system's design should be and its revisions as the only source of requirements for the project and also future plans included. They should valid until they appear in this document or its revision and not consider any requirements statements, written or verbal as like that.

The admin of the system will be able to define and manage all the food items and price and quantity, date and location. The admin then will select the order and confirm it then monitor the status of the order for a specific customer. Along with that, the admin will also add a new food item to the system along with its price. Moreover, the admin will handle all the necessary roles for this system. The customer can cancel the order or modify it by login to the system.

1.4 Glossary

Here there are some clarifications of the terms uses in this document and also some explanation related to the Online Food Ordering System (OFO).

1.5 Overview

This Software Requirements Specification (SRS) specifies all the requirements for OFO. Various techniques such as interviews, brain storming and idea reduction, use cases and prototyping were used to elicit the requirements properly and I have identified the needs, and analyzed and refined all of them. The objective of this document therefore is to formally describe all the necessary things the system's high-level requirements including functional requirements, non-functional requirements and constraints. The detail structure of this document is organized. as follows:

Section 2 of this document provides an overview of the domain that the proposed software SIS will support. These include a general description of the product, user characteristics, general constraints, and assumptions for this system. To contrast, in section 3 all the design and Implementation constraints are given as well the Assumptions and Dependencies are described concisely in the Section 5. Section 6 includes the system features having all the functional requirements along with their rationale. Section 7 presents the details of the external interface requirements. Finally, section 9 contains the other non-functional requirements.

2. Overall Description

This section includes details about what is and is not expected of the system in addition to which cases are intentionally unsupported and assumptions that will be used in the creation of the system.

2.1 Product Perspective

OFO is an online food ordering and selling website which supports a number of functions for both the customer and admin.

The website must be available to anyone using a computer or a smart phone with internet connection

2.2 Product Functions & Modules

The OFO will provide a number of functions.

The following are the major functions of the OFO software:

- Login/Logout
- Activate/Deactivate user
- Accept Order
- Deliver Item
- Place Order

- Pay Bill
- Process Bankcard Payment
- Process Cash Payment
- Abort Meal
- Abort Account
- Issue Refund
- Accept/Reject Item
- Indicate Item Ready
- Monitor order status
- Maintain data associated with the inventory (collections of food items)

- A food item has a title, description and price.

- The inventory also keeps track of the stock/quantity of each food item.

- Maintain records for many customers

- A customer can be either a member or non-member.

- A customer has a username (unique across all users), password, email address and postal address.

- Anyone may sign up for a customer account.

- Allow any customer to become a member.

- Shopping cart

- Anyone is able to add one or more food items to the cart.

- The cart allows multiple copies of any product.

- Checkout

- Checkout is only available to logged-in customers. A user that is not logged in as a customer is given a chance to log in.

- Allow customer to specify a stop-order for an item

- Each item has its own stop-order status – either on or off. Details of its use are involved in the following feature.

Modules
–Admin

–User Module

–Contact Us Module

–Search Module

2.3 User Classes & Characteristics

2.3.1 Administrator

In the OFO the major and sensitive role is played by the admin, to illustrate, he will define the food items, whit quantity, price, data entry of the food item and control the users and customers. Again, how the customer will order to get the items

attached to admin panel that should be defined by the admin. In the other hand, all types of approval by the admin authority will be done by the system via admin.

2.3.2 Customer

Customer are the only users who have chance to add food items in to the cart as an input on OFO system. Customer can only see his/her massages and order details on his/her dashboard Here, s/he will have the option of seeing full Order or cart information sheet.

2.3.3 User

In the OFO the users only use the system and can browse all the items but cannot make order or add to cart without login. They will give their basic information until the system is approved the correctness of their information and freeze it.

The OFO user is simply anyone who has access to the Internet and a web browser or with a smart phone. It is assumed that the user is familiar enough with a smart phone or a computer to operate the browser, keyboard and mouse and is capable of browsing from and within simple websites.

2.4 Design & Implementation Constraints

2.4.1 Operating Environment

The OFO for the food industry will be web-based system. Thus, anyone having a browser can hit the specific link and can get access to it. Thus, it will ensure its best usage and will ease the means of getting access to the system. Moreover, it will remove the complexities of running the system in multiple platforms as it will be deployed in a web server and platform independent.

2.4.2 Software Language Used

The application will be developed using server site language will be PHP and the front end will be developed using HTML, JavaScript and Angular JS. Besides for eye satisfaction user interface experience CSS 3 will also be used.

2.4.3 Development Tools

For the development purpose Xampp, Apache server will be used. For handling different database operations MySQL will be used. And the text editor will be sublime text 3.

2.4.4 Database Support

The database that will be used is MySQL database. It will be used from the applications end to insert, update and delete the required data.

2.5 User Documentation

According to the schedule, after 4 months of the start of the project, I will hand-over the complete The Online Food Ordering to DIU Authority. At the same time, I will also provide a user manual, where all the how-toss will be put together. I am also responsible to conduct training sessions for the Administrative task, where I will provide tutorials, notes along with the hands-on training. On the other hand, the project should be launched as a pilot project for about 4 months to get more feedback from the end-users and responsible to change with new feedback's requirements.

2.6 Assumptions and Dependencies

2.6.1 OFO Protocol

In this system there is an option to access from the Internet along with Intranet and Ethernet. Here, the Customer can only see the food item and can maintain profile (before it would be approved by the admin and frozen the editable option) and maintain their orders or cart information. The User can only see the food items. In

contrast the main task is belongs to the admin where the admin needs to define food items, price, description etc. and any kind of modifications.

2.6.2 Data Entry

Though the data entry operation is out of the scope of this project, but for giving it a standard look I have added some meaningful data to check the compatibility of the system. To include, this information has collected from the requirement elicitation process from the Restaurant owners. It is assumed that Restaurants and Hotels authority will make arrangement to enter all the previous information related to the system to the database. Supply of correct information is possible only when valid data is entered in the database. Since the data entry is a separate task and will be performed by the Restaurants and Hotels authority, the authority will be responsible for the validity of the information to be provided to the user through OFO.

2.6.3 Hardware Dependencies

To operate the system the following hardware dependencies are needed:

- Runs on any x86-64 machine.

- Depending on the number of users its server, it'll need a reasonably powerful machine to perform its tasks. The actual requirements will be profiled at a later phase.

- Every user must have internet connectivity devices to use the system.

2.6.4 Browser Dependencies

The system is based on web; therefore, no custom-tailored client is required to access it.

2.7 Apportioning of Requirements

This subsection pertains to both the functional and non-functional requirements omitted unintentionally from this part of the SRS document.

©Daffodil International University

3. Specific Requirements Analysis

3.1 External Interfaces

3.1.1 User Interface

In the OFO there should be different portal for each type of users. To illustrate, the admin has a lot of functionalities to be done. So, the functionalities are grouped and thus used in the navigation bar. The user: admin can expand or shrink the navigation bar. Next, there will be almost same functionalities between Customers and Users as a non-customer must be a customer to order the food items. So, while a user is registered as a customer s/he will see an extra tab regarding the functionalities of a customer. Last, the UI for User should be very simple where there is only option to see all the food items.

3.1.2 Software Interface

To the end-user there is no need of any extra software to be installed. It is to be mentioned that, the user need JavaScript enabled browsers to run the system. For OS, there has no boundary or strict rules, it is platform independent and can run smoothly in any OS like Windows, MacOS, Linux, Android etc. However, through the channel the cryptography should be maintained through the whole system as the user can access it through internet also from anywhere.

3.1.3 Communication Interface

All sorts of communications between server and client programs will be using Hyper

Text Transmission Protocol (HTTP) and the messaging will be done. As a result, any user using standard communication protocols can communicate with the OFO without any protocol conversion or any other hassles.

3.2 Functional Requirements

Before identification of the requirements we needed the comprehensive engagement and lighting quick coordination with the stakeholders. So, the listed requirements go with all the previous processes.

3.2.1 User Management

User management is the task of admin where the key roles is to give input the user ids and approves the users.

Requirement No.	Requirement
UM-001	Add user with username, password, contact number and email id
UM-002	Password should be given twice to match
UM-003	Username and password should be mailed to the respective email id by the system
UM-004	Password should be in md5 format
UM-005	Approve a users' information
UM-006	Freeze the editing option of users' information by the users

Table 3: list of User Management requirements

3.2.2 Login & Retrieve Password

Here, the requirements are based on the task of login system and password retrieval by the users including teachers, students and coordinators.

Requirement No.	Requirement
LP-001	While login match the username with user type
LP-002	User will get the functionalities of his/her type
LP-003	Login time should be stored in the log file
LP-004	While retrieving the password (if forgot) user should provide the username and email id
LP-005	System will mail a link to that user containing the password
LP-006	With the new password link user will give his/her favorable password
LP-007	Update the new reset password with the log file

Table 4: Login and retrieve password requirements

3.2.3 Order Management

Here, the requirements are based on the task of Order system and getting the food by the delivery guy.

Requirement No.	Requirement

OM-001	Customer can order the food items
OM-002	Multiple items can be added to single cart
OM-003	Order can be modified by the specific customer
OM-004	An Order can be monitored by the specific customer and admin
OM-005	An Order can be canceled by the customer or admin

Table 5: Order Management requirements

3.2.4 Delivering Food Management

Here, the requirements are based on the task of Order system and getting the food by the delivery guy. And delivery guy will be responsible for:

Requirement No.	Requirement
DFM-001	Delivery guy will receive the order of food items
DFM-002	He will get the location and deliver the items to the correct location.
DFM-003	When the customer will receive the item then the customer will pay the price of order and delivery charge to delivery guy.
DFM-004	Or if the item price has been paid then the customer should pay only delivery charge to delivery guy.
DFM-005	An Order can be canceled by the customer if the food quality is not good. Then only delivery charge will be required.

Table 6: Delivering Food Requirements

3.2.5 Payment Management

Requirement No.	Requirement
PM-001	Customer will pay money to Delivery guy when it will be cash on delivery.
PM-002	S/he can also pay the money by various gateway like bkash, Roket, master card etc.
PM-003	When the customer will receive the item then the customer will pay the price of order and delivery charge to delivery guy.

Table 7: Payment Management requirements

Here, the requirements are based on the task of Order Payment Management system and getting the food from the delivery guy.

3.2.6 Delivery Records

Requirement No.	Requirement
PM-001	Admin can check how many items has been delivered in a day
PM-002	Checking how many orders are pending today.
PM-003	Controlling the orders delivery record.

Table 8: Delivery Records requirements

the requirements for delivery records will be managed by the Administrator authority.

3.3 Non-Functional Requirements

3.3.1 device capacity Requirements

Server software does not require any special hardware other than the minimum hardware required for running enterprise OS. Extra disk storage will be required for archives and electronic documents. Increases of memory enables efficient query processing, which is required for quick bibliographic search. Two server grade processors with clock speed core i3, 2.3 GHz, at least 4GB RAM and 1TB hard disk is recommended for the server. Client machine with recommended hardware required for desktop operating system and web browser (with open JavaScript enable).

3.3.2 Safety Requirements

As per Restaurant and Hotels work place safety rules and the Restaurant and Hotels where the server is supposed to be placed and the monitoring people.

3.3.3 Security Requirements

Each time there is a security violation, the log file will be updated with the login, date, and time. Again, high level cryptography and checking should be kept to make it more secured. However, while email or request from any unwanted customer the request should drop and let that user know about the fault.

3.4 Performance Requirements

Two server grade processors with clock speed core i3, 2.3 GHz, at least 4GB RAM and 500 GB hard disk is recommended for the server. Client machine with recommended hardware required for desktop operating system and web browser (with open JavaScript enable).

3.5 Logical Database Requirements

Table 3.5 Logical Database Requirements

Requirement No.	Requirement
DR-001	Customer will purchase the food item. And the product will have a cart.
DR-002	All the product will be maintaining by admin.
DR-003	When the customer will order the product then S/he will get the invoice for that purchasing.

Table 9: Database Requirements
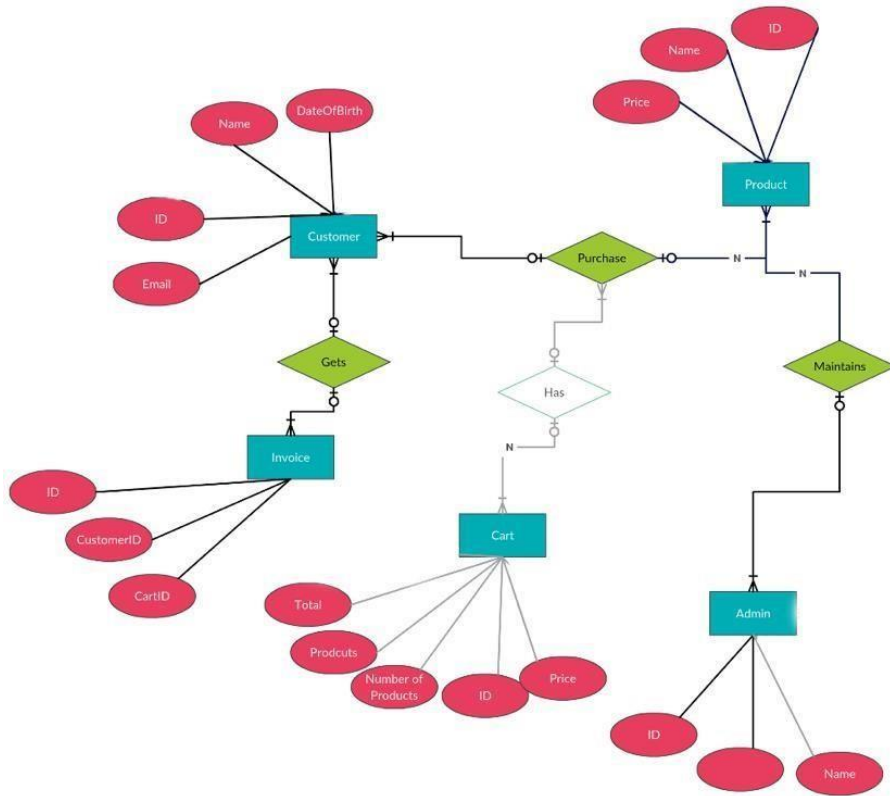
Figure 3.5 ER Diagram of the Logical Database Requirements of the OFO

3.6 Design Constraints

The scope of this OFO, which fall within the boundaries of restaurant operations and management, calls for no design constraints and/or standard compliances at this stage.

ID	Characteristic	H/M/L	1	2	3	4	5	6	7	8	9	10	11	12
1	Correctness													
2	Efficiency													
3	Flexibility													
4	Integrity/Security													
5	Interoperability													

6	Maintainability													
7	Portability													
8	Reliability													
9	Reusability													
10	Testability													
11	Usability													
12	Availability													

Table 10: the priority of requirements

Once the relevant characteristics are selected, a subsection should be written for each, explaining the rationale for including this characteristic and how it will be tested and measured. A chart like this might be used to identify the key characteristics (rating them High or Medium), then identifying which are preferred when trading off design or implementation decisions (with the ID of the preferred one indicated in the chart to the right). The chart below is optional (it can be confusing) and is for demonstrating tradeoff analysis between different non-functional requirements. H/M/L is the relative priority of that non-functional requirement.

Definitions of the quality characteristics not defined in the paragraphs above follow.

- Correctness - extent to Order function satisfies specifications, fulfills user's mission objectives

- Efficiency - some CSS and JavaScript resources and code required to perform function
- Flexibility - effort needed to modify operational program in PHP
- Interoperability - MySQL database can connect one system with another
- Reliability - extent to MD5 performs with required precision
- Reusability - extent to basic registration and Login system those can be reused in another application
- Testability - effort needed for black box & white box testing to test to ensure performs as intended
- Usability - effort required to learn to all users, operate, prepare input, and interpret output

3.7 Use Case Diagram
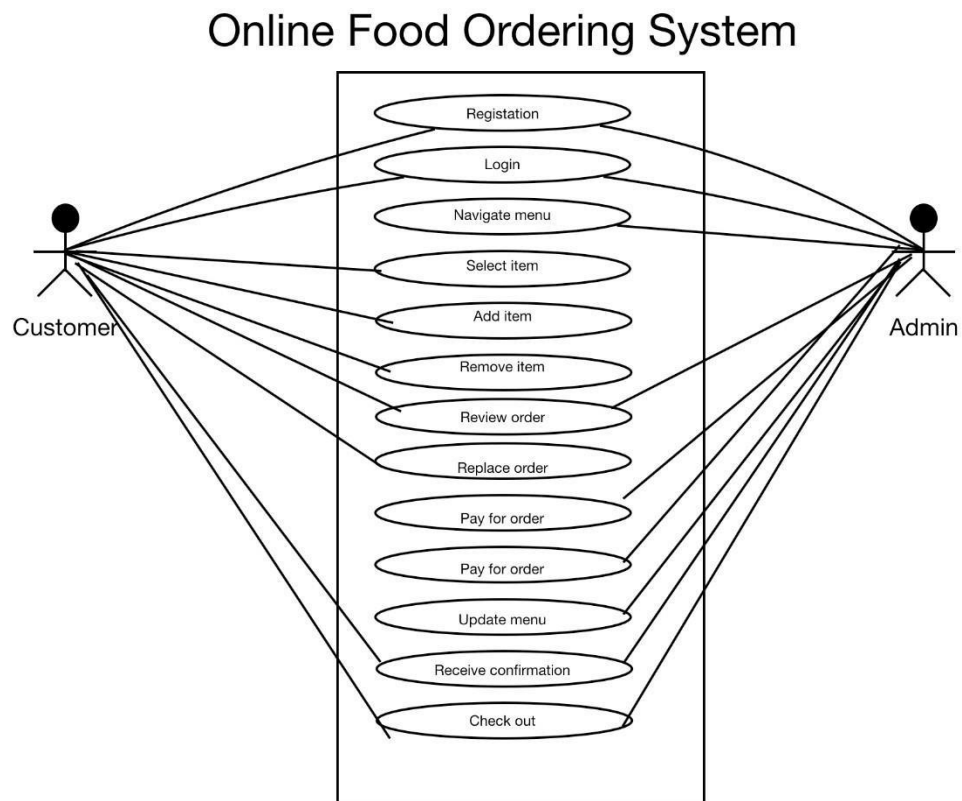
Figure 2: Use Case- User of OFO

3.8 Sequence Diagram
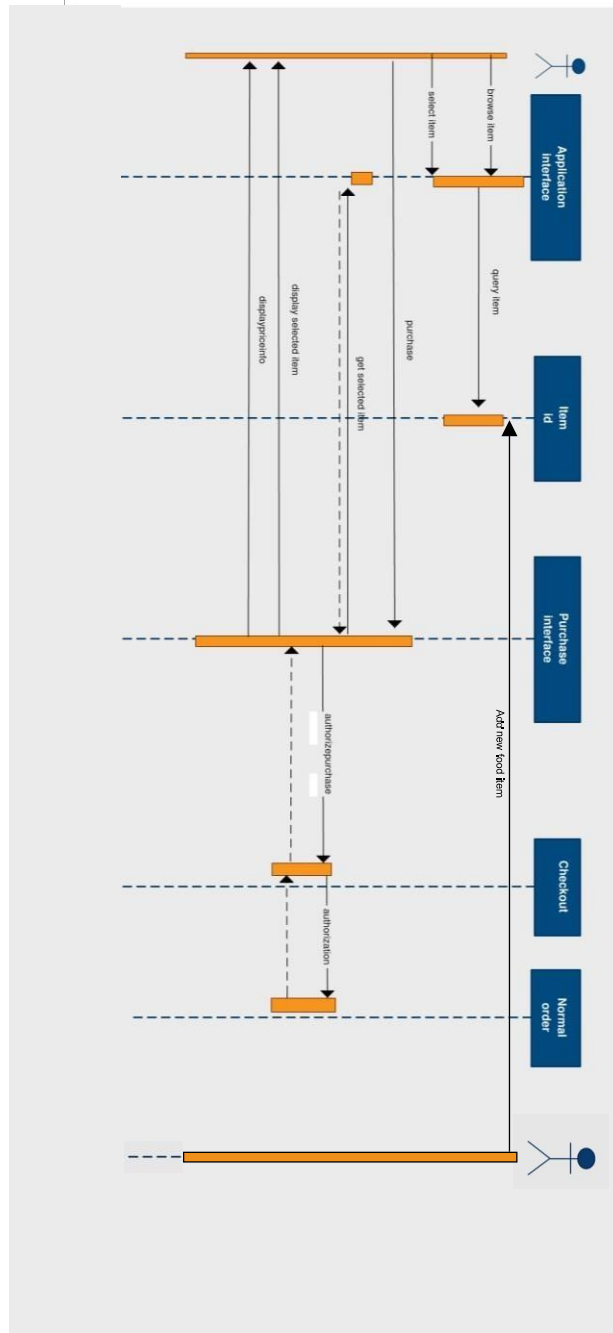
Figure 3: Sequence Diagram of OFO

3.9 Class Diagram
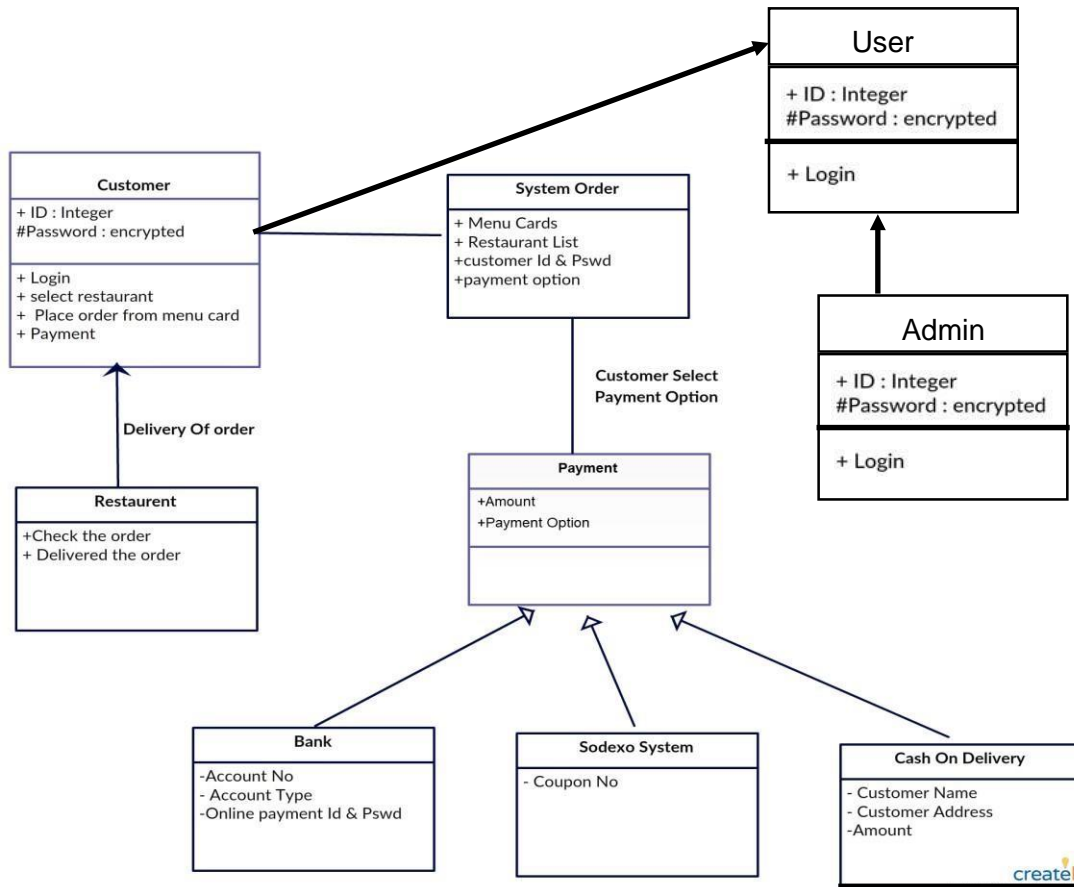
Figure 4: Class Diagram of OFO

3.10 Activity Diagram
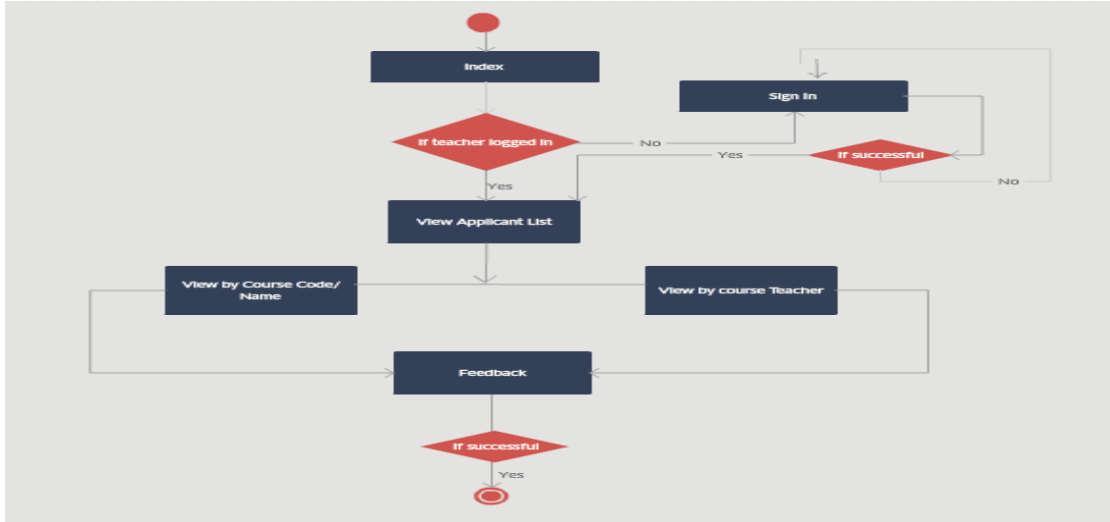
Figure 5: Activity Diagram of OFO

3.11 Data Flow Diagram
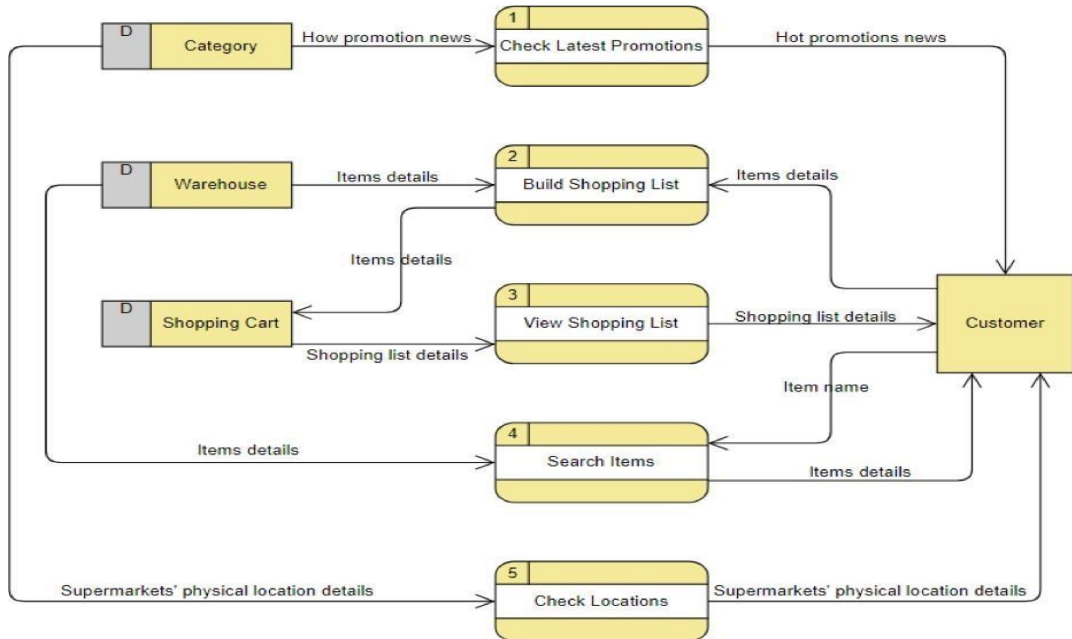
Figure 3: Data Flow Diagram of OFO

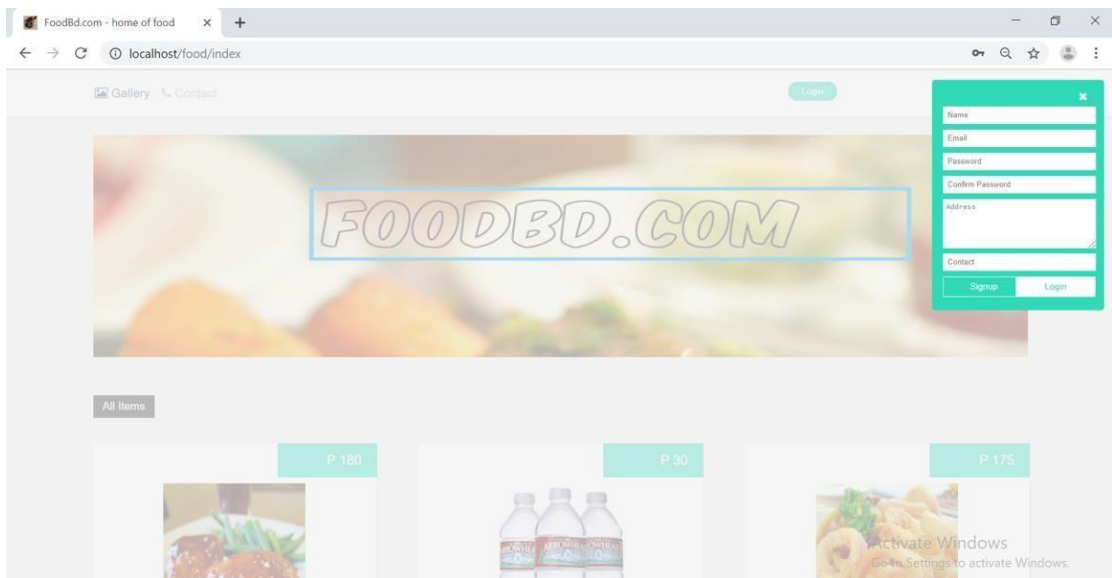# 4. Result & Discussions

4.1 Project Sample
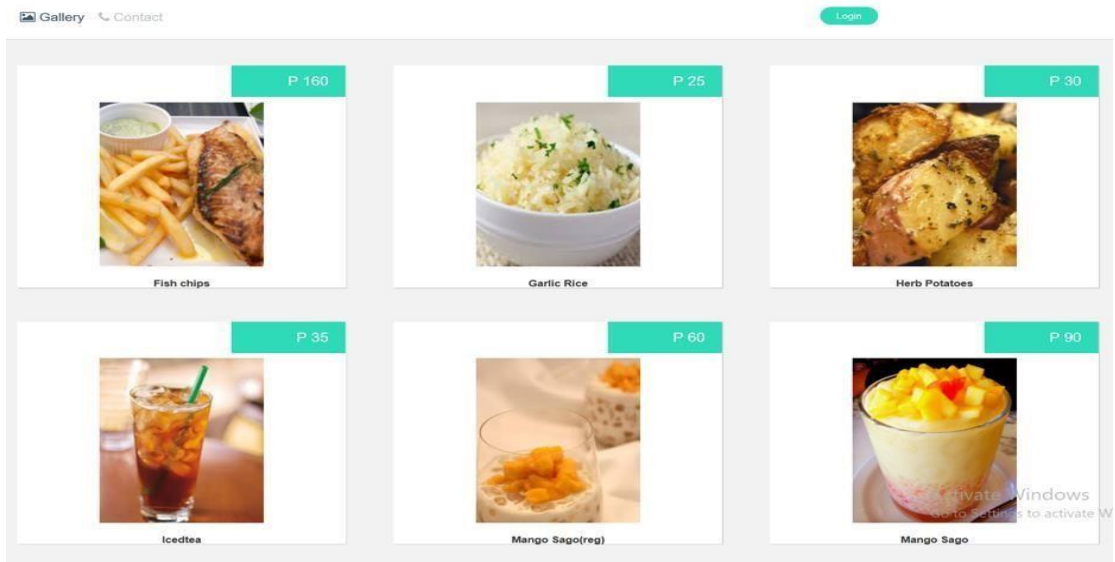
4.2 View Product…
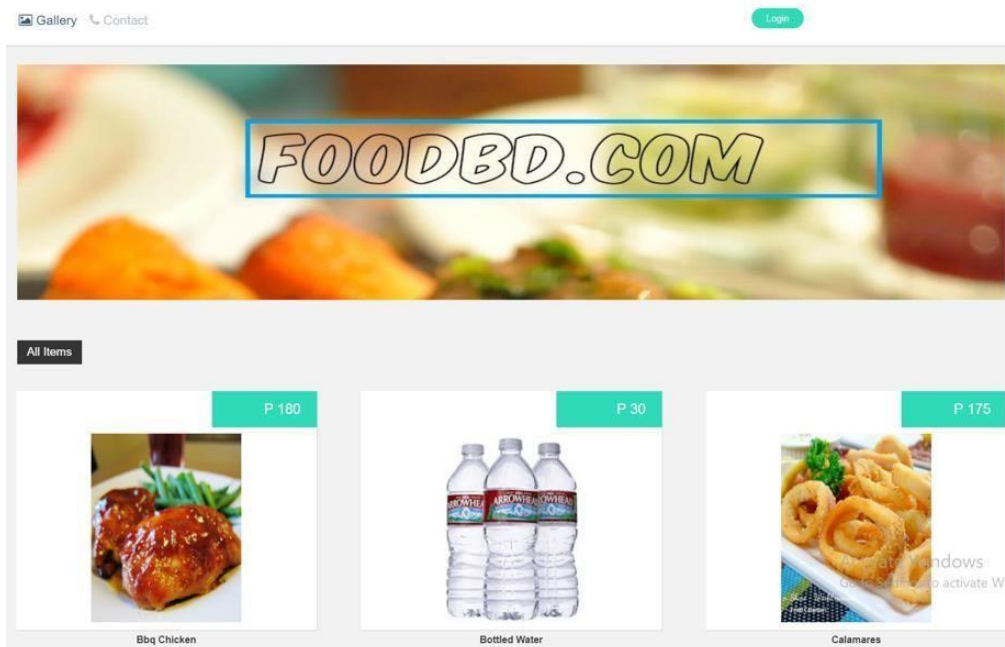
4.3 Login
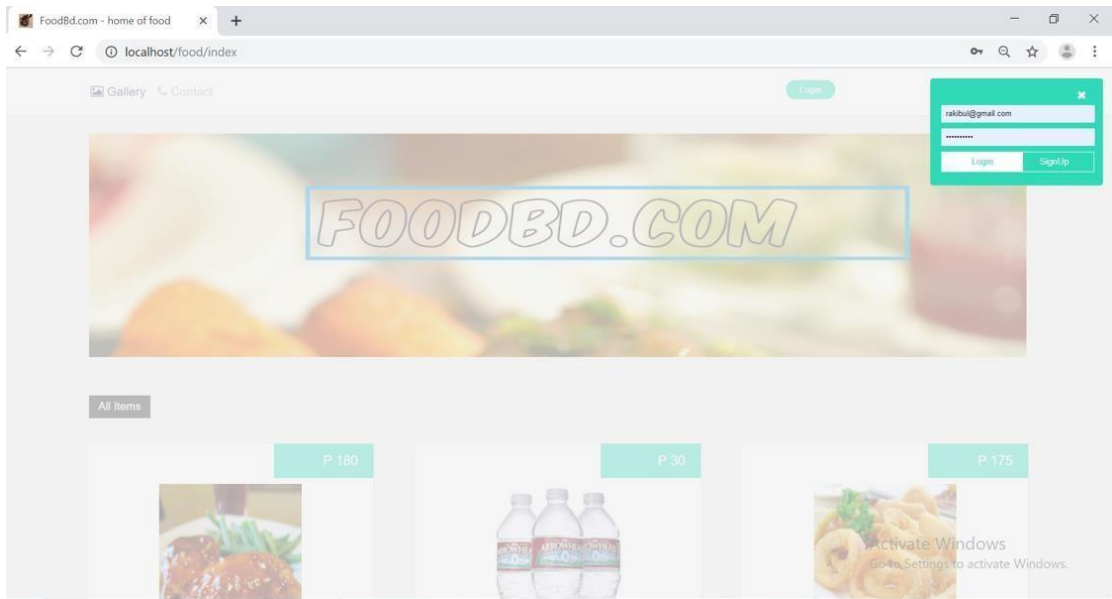
4.4 New Customer Registration

4.5 Cart List

4.6 Order Status

©Daffodil International University

4.7 Contact

4.8 Admin Panel

4.9 Admin View Products

4.10 Admin View Orders

Order Id	Date	Email	Total	Status
b7QvKsiehB	2019-02-09 20:49:44	enthiaemrana@yahoo.com	P180	complete
KDpRFBVvO4	2019-02-09 20:49:53	enthiaemrana@yahoo.com	P30	shipping
mhtqYBZEOA	2019-02-09 20:50:01	enthiaemrana@yahoo.com	P180	processing
7GxcLE8KwN	2019-02-09 20:50:09	enthiaemrana@yahoo.com	P85	complete
BivbWHeA3l	2019-02-09 20:50:18	enthiaemrana@yahoo.com	P180	processing
XMT0t8CSBc	2019-02-09 21:19:05	test@gmail.com	P420	processing
1RpcLzB3k2	2019-07-27 22:57:01	rakibul@gmail.com	P505	processing
HCaszl3QLG	2019-08-28 23:26:22	rakibul@gmail.com	P1775	processing

4.11 Admin Sales Report

Id	Date	Email	Total
14	2019-02-09 20:49:44	enthiaemrana@yahoo.com	P180
17	2019-02-09 20:50:09	enthiaemrana@yahoo.com	P85

Total Sales P265

©Daffodil International University

5. Conclusion

This OFO will help all the restaurant to achieve more customer to serve their food using online. Many customers can order easily using computer and internet. So, I believe, this system will help us for future evolution of food industry. Any food industry can hire delivery boy and I will create new job for them. Which is most dangerous problem in our country. Many jobs less people will get the job in this system that will increase our GDP.

6. References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

Software_Requirements_Specification_Rest, Master of Engineering Graduate School, Dareal Alann B. Garcia, EcE, March 2016.