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# Web-Based Ordering Information System on Food Store

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**Abstract.** The purpose of this research is to develop a system that can help food shop owners and customers to make transactions on the website without having to come to the store. The method used in this research was a descriptive method which presents a complete illustration of the current situation, collecting primary and secondary data with interviews and observations about ordering systems in food stores, for the method of approaching the system using object-oriented and developing the system using a prototype. The results of this research are to increase the effectiveness and make it easier for customers to order food and the admin can provide maximum service to customers via the web. This research was conducted by discussing food ordering by customers, payment systems, and order reports.

## 1. Introduction

Web-based ordering system is a medium for ordering products through the web by customers so that it easier to place an order [1]. Nowadays the competition in food store business has increased with the advancement in food ordering system using web-based [2]. That statement was supported by K. Kamarudin et al explain that using web-based ordering system was the first step to eliminate by developing web-based in ordering process [3].

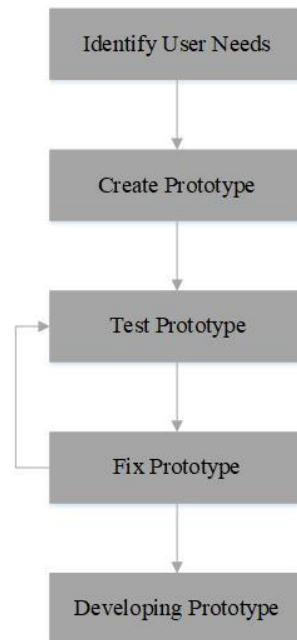
In previous research, Lorenzo et al argue that ordering system is the one of success factor with related to online food store because customers enable into the web and perform ordering without coming to store [4]. As well Shweta stated that using web-based ordering system can provide useful information for customers to place order online on the web [5]. Instead of using a web, Hashim prefers to develop ordering system via Bluetooth. Based on that, the development of web-based ordering system was carried out [6]. Varsha explains that it is possible for everyone to order their food via internet so we must build a system that will allow customers to the web and place their order [7]. Food store ordering system based on web also has some advantages and it can be ideal solutions for improving efficiency and service quality to customers by owner store [8]. Web-based ordering system is the best solution for customers to perform order, especially through food store web [9]. Internet utilization has become trend of small business in the era of globalization, therefore, web-based utilization will be main part of development in advancing small business [10].

The aim of this study is to develop system that may help owner and customers of Feandra Cake to perform transaction during on web and create order report base on customers order data in website. The research method used was descriptive method.



## 2. Method

The method used in this research was descriptive method. Data collection method used primary and secondary data sources from interview with Feandra Cake business owners and observation as reference for this study. While system approach method used object-oriented and also prototype system development method. The tools used for object-oriented are Use case diagram, Use case scenarios, and Activity diagram. Prototype method is software development method by generating acceptable information system and transformation that occur can be considered as part of software development process (Figure 1).



**Figure 1.** System Development with Prototype

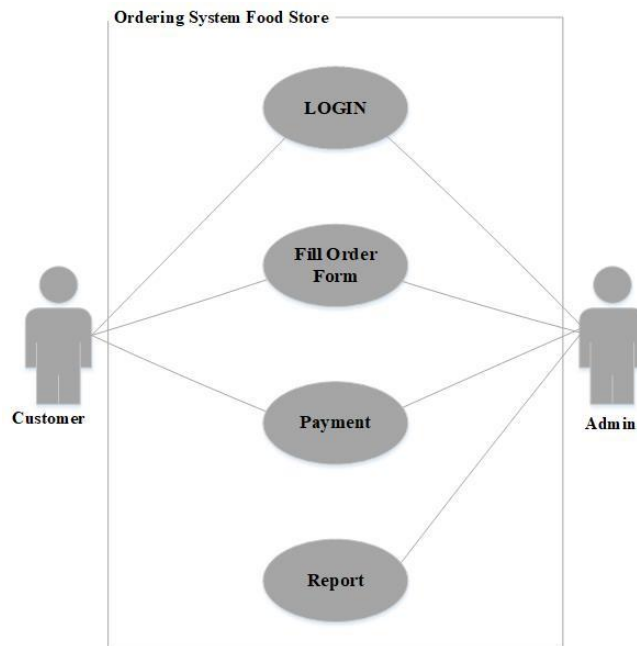
## 3. Results and Discussion

### 3.1 Designing System

Web-based ordering information system is an information system that aims to process food orders from customers to the admin through the website. Payment methods can be carried out by customers through a system that is already available. In this designing system using object-oriented tools namely Use case diagrams, Use case scenarios, and Activity diagrams. In use case diagram contains an overview and explanation of the functions of each use case. Use case scenario contains a description of the use case workflow through a scenario. Activity diagram contains an overview of the various streams of activity that occur in the system designed.

### 3.2 Use Case Diagram

In the use case diagram proposed have 2 actors, namely Customer, and Admin. Customers can access the website to place orders and payments while the Admin can access the website to receive orders, payments and making order report. Use case starts from login into the website with the customer's username and password, ordering food, making payment to the admin. Then admin makes an order report based on customer order data (Figure 2).



**Figure 2.** Use Case Diagram of Ordering System

3.3 Use Case Scenarios

The initial part in proposed use case scenario is to log in first and make form that containing use case number, name of use case, function, actor, actor action and system reaction (Table 1).

**Table 1.** Use Case Scenario Doing Proposed Login

Alternative Scenario use case login	
Use Case Number	01
Name of use case	Login
Function	To access web with login account
Description	Doing login activity customers and admin to web
Actor	Customers and Admin
Actor Action	System Reaction
1. Customers input username and password	2. System check login data
	3. System displays login data
4. Customer login	5. System displays home menu

After finish use case scenario login, next part is use case scenario proposed ordering with make form that containing same as use case scenario login (Table 2).

**Table 2.** Use Case Scenario Doing Proposed Ordering

Alternative Scenario use case login	
Use Case Number	02
Name of use case	Ordering
Function	To fill order form
Description	Doing order activity customers to admin
Actor	Customers and Admin
Actor Action	System Reaction
1. Customers to order menu	
2. Customers input order menu	
	3. System check order data
	4. System displays order data
5. Customer validate order data	
	6. System storing order data

Then, make form use case scenario proposed payment with similar format as use case scenario login and ordering (Table 3).

**Table 3.** Use Case Scenario Doing Proposed Payment

Alternative Scenario use case login	
Use Case Number	03
Name of use case	Payment
Function	To do payment order
Description	Doing payment activity customers order to admin
Actor	Customers and Admin
Actor Action	System Reaction
1. Customers to payment menu	
2. Customers input amount of payment	
	3. System check payment data
	4. System displays payment data
5. Customer validate payment data	
	6. System storing payment data

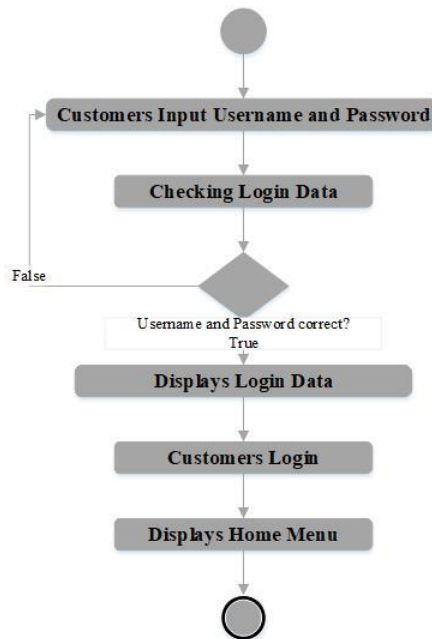
Final part makes use case scenario proposed report with similar format as use case scenario ordering (Table 4).

**Table 4.** Use Case Scenario Proposed Report

Alternative Scenario use case login	
Use Case Number	04
Name of use case	Report
Function	To create order report
Description	Doing activity making report by admin
Actor	Admin
Actor Action	System Reaction
1. Admin to report menu	
2. Admin import order and payment data	
	3. System check import data
	4. System creates order report
5. Admin download order report	
6. Admin print order report	

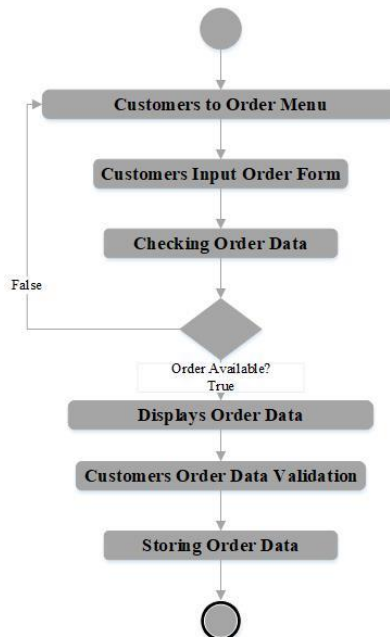
### 3.4 Activity Diagram

After making use case diagram and use case scenarios, next part is creating a proposed activity diagram. Start from activity diagram use case login until activity diagram use case report. First activity diagram use case login (Figure 3).



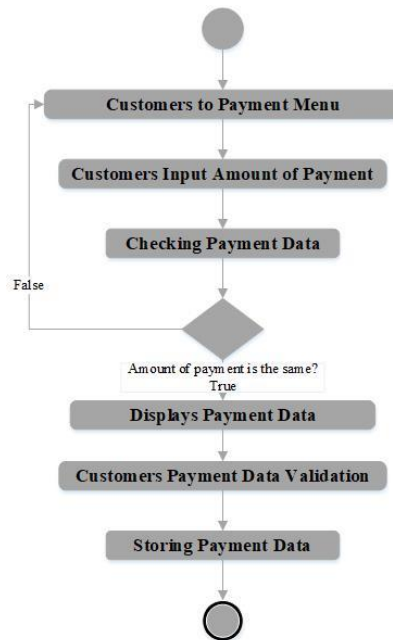
**Figure 3.** Activity Diagram Login

Activity diagram use case order is about created diagram doing proposed order (Figure 4).



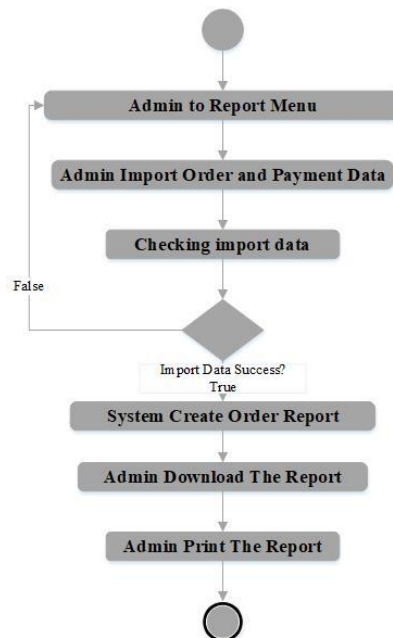
**Figure 4.** Activity Diagram Order

Activity diagram use case payment is about created diagram doing proposed payment (Figure 5).



**Figure 5.** Activity Diagram Payment

Activity diagram use case order report is about diagram to create a proposed order report. Start from admin to report menu, admin import order and payment data, checking import data, system creates order report, admin download order report, and admin print order report (Figure 6).



**Figure 6.** Activity Diagram Order Report

**4. Conclusion**

For customers, web-based ordering system can make it easier to order food without having to visit the restaurants so that customers can save time and costs. For admin, they can serve customers optimally in ordering their food and making the order report easier. Payment methods can also be done by customers through a system that is available on the web to facilitate customers in paying for their orders.

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