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Development Of Food Ordering Web Based System For Restaurant

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Abstract: The Food Ordering System is developed in web-based system with simplified and neat interface for easier the user to use this system. Since the people nowadays are busying all the time and do not much time to dine in the restaurant, so the Food Ordering System can help them to order food online. There is some problem suffer by the owner and customer of the restaurant. Before using this Food Ordering System, the manual filing system is using before using food ordering system. The staff of restaurant is using the pen and calculator to record and calculate the total amount of order. The objective of the Food Ordering System is to identify the problems of existing food ordering, to design a food ordering system and to evaluate the food ordering system. The object-oriented approach used for developed the Food Ordering System such as use case diagram, sequence diagram and activity diagram. The Food Ordering System will be developed according to the agile model. The Gantt chart will be produced to record the project timeline. The proposed system can be used by the worker of the restaurant and the customer of restaurant. The owner and the worker can take order of the customer through online or offline in the restaurant. The customer can make order through the system online by delivery or self-collect. The owner can also manage the menu and the order of the customer. This system will increase the efficiency of the restaurant in ordering the food of the customer and also will help the management of the restaurant more systematically.

Keywords: Objectives, Problem, Manage, Object-Oriented, Agile

1. Introduction

Heng Family Kopitiam is a restaurant that located in Melaka and near to the residential area. Heng Family Kopitiam provide various choice of cuisine for their customers. The price of cuisine is affordable and cheap for the resident. Therefore, Heng Family Kopitiam has a lot of customer visit their food court and having dinner. Heng Family Kopitiam is opened for dinner time. The business hour of Heng Family Kopitiam is opened from 5pm to 12am for every day except Monday and public holidays.

The food ordering system is developed to help the owner in ordering the food of the customer. This system is a simple but attractive in interfaces to help the kopitiam owner in uploading their cuisine

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to the menu and customers can also order cuisines through the system if they want to save their time or dine quickly in the restaurant.

The owner of Heng Family Kopitiam facing some problem in ordering the food from customer online. The first problem was The manual filing system been usually make high probability of mistaken order of the customer since the handwriting maybe misunderstood by the chef. The customer difficult to contact the owner to book place to eat and also the cuisine that they want to take away to conserve time. By using manual filing system, the stuff of the restaurant may miscalculate the total amount of the order since the stuff used a pen and calculator to calculate.

The objective of the food ordering system is to identify the problems and limitations of the existing food ordering procedure at Heng Family Kopitiam. The next objective is to design and develop a food ordering system to solve problems identified in objective above. The last objective is to evaluate the restaurant food ordering system in objective with potential users which including restaurant's owner, staff and customer.

The food ordering system is to be designed and develop for Heng Family Kopitiam. There are some users of the system such as owner, staff and the customers of the restaurant. This system gives a great help for the owner of restaurant to solve their operating problems.

The food ordering system is proposed to help the owner and the customer in ordering food. The system can allow the user to register as a member. The system can allow the user to login and logout their member's page. The system can allow the user to manage the data. The system can allow customer to make order through online. The system can allow the owner of restaurant to see generate the report using that system. The system can allow the customer to choose payment method while make payment.

2. Literature review

2.1 Background of the Case Study

Heng Family Kopitiam is a restaurant located in Melaka and near to the residential area. Heng Family Kopitiam is opened for dinner time. The business hour of Heng Family Kopitiam is opened from 5 p.m. to 12 a.m. for every day except Monday and public holidays. Figure 1 shows current Heng Family Kopitiam does not provide an online delivery service but only uses WhatsApp application and taking the order of the dine-in customer by using pen and paper.

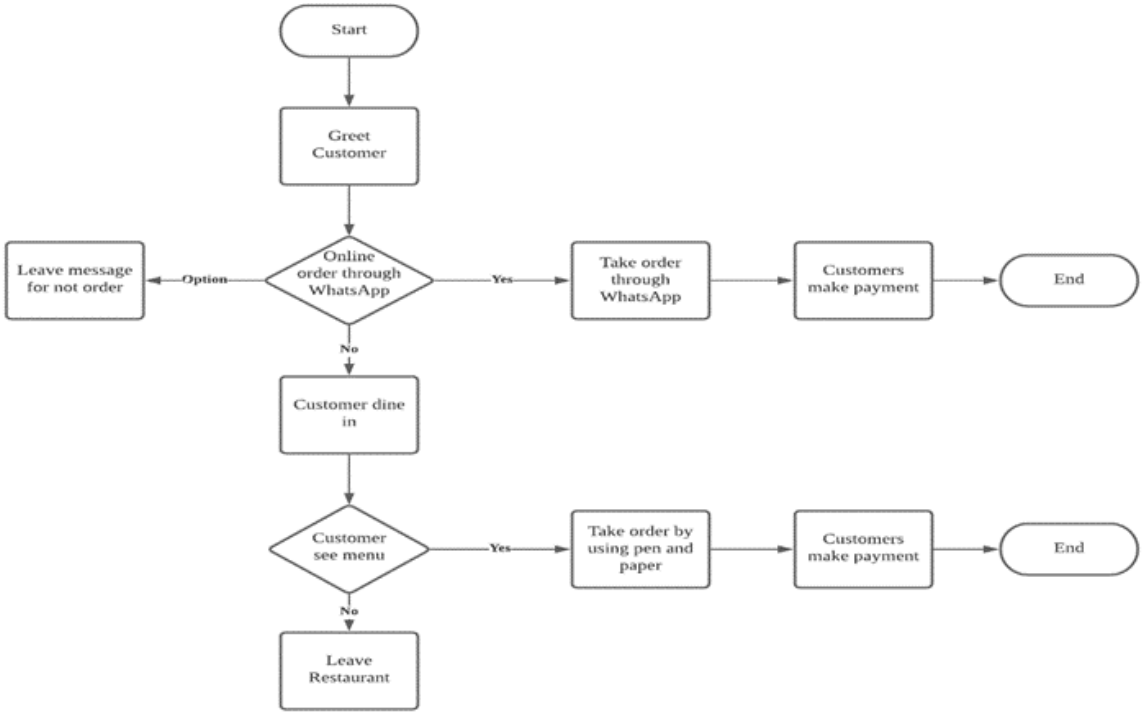

Figure 1: Flow chart of the current existing system of Heng Family Kopitiam

2.2 Web Application Development Technology

HTML is a markup language used for creating web pages [4]. HTML is easy to use and implement in a system. The web page can be easily created by UTML due to a multiple choice of the text editor. The limitation of HTML is the syntax errors are not identified or displayed by HTML and only can create the web page [4].

CSS is a programming language to design the creative interface of the web pages. The advantages of CSS is can conserve time in designing an interface and make the design more neatly. The limitation of CSS is cannot generate text such as page number [4].

MySQL is an easier and systematically database for a web [5]. Furthermore, MySQL is open-source and has a lean learning curve. The security of MYSQL is very high in order to prevent leaking of data. The limitation of MySQL is the number of databases and tables are limited and not infinity and the column and size of the tables are also limited [5].

PHP is a programming language to write the program to perform the function of the current web page [5]. The advantage of using PHP is it is flexible in a scripting language and can compatible with the majority of operating systems. The limitation of PHP will not support or compatible with all programming language such as the "C" or "C++" language because it is a scripting language [5].

2.3 Foodpanda Online Food Ordering System

Foodpanda [1] is a convenient online food ordering system and one of the biggest food delivering service provider for the customers. It is developed as a web-based system and mobile application. Therefore, the customer can download the application of Foodpanda to make the order. Foodpanda consists of various types of restaurants and premises such as Sushi Mentai, a Japanese Restaurant and consists of various type of culture food such as halal-certified food. A commission is taken from the participatory restaurant, whereas a delivery fee is charged to the customer.

2.4 Just Eat Food Delivery Application

Just Eat is a mobile application food delivery system [2]. Initially, Just Eat is developed as a web-based application. But nowadays, it is changed to a mobile application food delivery system due to the need of the residents. The customer can conserve their time by using their mobile phones to make order. Just Eat consists of a various types of restaurants and premises including culture food. A commission is taken from the participatory restaurant and the delivery fees is charged to the customer.

2.5 Papa John's Pizza Web-Based Food Ordering System

Papa John's Pizza is a food ordering system that developed as a web-based application system [3]. Papa John's Pizza offers western dishes, pizzas and some beverages. The web page interface is designed using a simple and user-friendly user interface.

2.6 Comparison Between Existing System and Proposed System

Table 1: Comparison Between Existing System and Proposed System

System Features	Foodpanda Online food ordering system	Just Eat Food delivery application	Papa John's Pizza Web-based food ordering system	Proposed Food Ordering System
Delivery Service	Yes	Yes	Yes	Yes
Payment Method	Online, cash on delivery	Online, cash on delivery	Online, cash on delivery	Online, cash on delivery

Tracking System	Yes	Yes	No	No
Display Food Preparation Status	No	No	No	Yes
System Management	System Admin	System Admin	System Admin	Store Owner
Application types	Mobile application and web-based application	Mobile application	Web-based application	Web-based application
Report	No	No	No	Yes
Branches Availability	Show nearby restaurants that are available for ordering.	Show nearby restaurants that are available for ordering.	Show nearby restaurants that are available for ordering	No
Estimated Arriving Time	Yes	Yes	Yes	Yes
Advantages	- The customers can track the location of food. - Provide nearby availability branches. - Provide comment function.	- The customers can track the location of food. - Provide nearby availability branches.	- Provide nearby availability branches.	- The food preparation status will be displayed. - The admin can view the sales report. - Provide comment function.

Table 1: (cont)

System Features	Foodpanda Online food ordering system	Just Eat Food delivery application	Papa John's Pizza Web-based food ordering system	Proposed Food Ordering System
Disadvantages	- The food preparation status did not display.	- The food preparation status did not display. - Did not provide comment function.	- The food preparation did not display. - Cannot track the current location of	- Cannot track the current location of food.

		food. - Did not provide comment function.

3. Methodology

Methodology is a method or a part used to plan and discussed the process and flow of developing the system. Agile Software Development model had been chosen to develop this proposed system. Agile Software Development model is one of the most established software process models used in developing a system nowadays. Agile Software Development model is a combination of iterative and incremental process models which focus on process adaptability and the requirements of customer by rapid delivery of working software product. The agile model uses the concept of Software Development Life Cycle (SDLC). The first phase in agile model is planning phase. Next is the requirement analysis phase and the third phase is the design phase which how to design the system. After that is the implementation phase and finally will follow by the testing phase. Once the process flow from planning phase to testing phase is completed and will be considered as one iteration and this process flow will be run again in the second iteration and third iteration. The process flow from first iteration to second iteration is called incremental process [6].

3.1 Phases of Agile Software Development Model

Agile Software Development model had been chosen to develop this proposed system. Agile Software Development model is one of the most established software process model used in developing a system nowadays. Agile Software Development model is a combination of iterative and incremental process models which focus on process adaptability and the requirements of customer by rapid delivery of working software product. The agile model uses the concept of Software Development Life Cycle (SDLC). The first phase in agile model is planning phase. Next is the requirement analysis phase and the third phase is the design phase which how to design the system. After that is the implementation phase and finally will follow by the testing phase. Once the process flow from planning phase to testing phase is completed and will be considered as one iteration and this process flow will be run again in the second iteration and third iteration. The process flow from first iteration to second iteration is called incremental process [6].

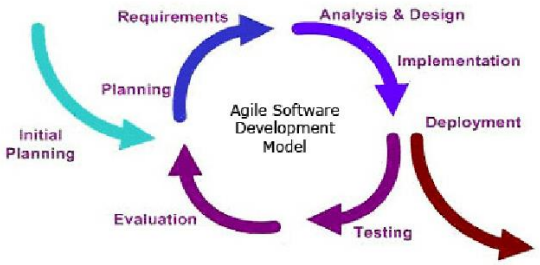

Figure 2: Agile Software Development Model [8]

3.2 Phases of Agile Software Development Model

a. Planning Phase

In this phase, project planning is discussed and completed. The outcome of the planning phase has been discussed in Chapter 1 and Chapter 2. The title and type of the system have been discussed and defined after the restaurant owner requires the proposed system. The objective and the scope of the project have been planned in Chapter 1 before proceed to develop the system. The current existing system and the proposed system had been discussed to ensure the project is successfully completed. The project timeline had been planned and be presented by using Gantt Chart.

b. Requirement Analysis Phase

The hardware and software requirements and user requirements had been collected and gathered in order to develop the system. The data and requirements such as functional requirements and non-functional requirements are gathered from the stakeholder by using the interview. The interview question is also designed to ask the owner. The interview identified the manual process issues arising from it. The interview session is conducted between the software developer as the interviewer and the interviewee, the owner of Heng Family Kopitiam. The outcome of the interview enabled the developer to propose a customized solution that will be incorporated into the food ordering system. The use case diagram will be the output according to the module that needed for the system.

c. Design Phase

In this phase, the design of the process of the current system and proposed running such as architecture, flow chart, use case diagram, sequence diagram and activity diagram will be drafted. The database design such as class diagram and data dictionary will be produced. The interface design is also carried out in this step according to the user interface's principles.

d. Implementation Phase

In this phase, the proposed system will be developed by using the scripting language and database. The proposed system will be implemented and the data will be store in the database as well. The development of the system is performed in this phase partially and the next phase completely. The Adobe Dreaweaver CC 2019 will be used to develop the system and MySQL will be the database used for this project.

e. Testing Phase

The system will be tested in this phase before proceeding to develop to a real system. The test plan will be done for every iteration. There are many types of testing will be done in this phase such as system testing, integration testing and unit testing. The system will be tested to figure out the bug and make sure to fulfil the requirements of the stakeholder [7].

3.3 Hardware and Software Requirements

At the stage of developing a prototype of the food ordering system, the software required to build the proposed system is XAMPP as the local host or local server. It is a software distribution that consists of the Apache HTTP Server, Maria DB database, Mercury, and interpreters for scripts written in the PHP and Perl programming languages. The Adobe Dreamweaver act as a web developer tool which can support various programming language to develop and design the system such as PHP, ASP and CSS. Draw IO and Lucidchart are used to design the process of the current system and proposed running and the database such as flow chart and class diagram.

Hardware is also very essential in developing the proposed system. The hardware included are the computers or laptop and input-output devices. A well and suitable specification laptop is needed to operate and run all the software that required to develop the proposed system. Furthermore, the input-output devices such as keyboard and mouse which used to input are very important to be used in developing the proposed system.

4. System Analysis and Design

In this section, the system analysis and design that was done for Food Ordering System will be discuss.

4.1 Functional Requirement Analysis

Functional requirements are product features or functions that developers must implement to enable users to accomplish their tasks.

1. Registration
   - The system will allow the customer to register into the system.
   - The system will allow the users to login or logout from the system.

2. Ordering Management
   - The system will allow the customer to make order through this system.
   - The system will allow the owner to display the order list through this system.
   - The system will enable the customer having delivery service through this system.
   - The system will allow the customer to track the process of food.
   - The system will allow the owner which act as admin to update the process of food.
   - The system will enable the customer can choose whether paid cash or by card through this system.

3. Data Record Management
   - The system will allow the details of customer stored after register as a member.
   - The system will allow the details of food and drink recorded and show through the system.

4. Report Management
   - The system will allow the admin to view the report through this system.
   - The system will allow the admin to check the history of sales.

5. Comment Management
   - The system will allow the customer to write comment as feedback to the restaurant.
   - The system will allow the admin to answer the comment through this system.

4.2 Functional Requirement Analysis

Non-functional requirements describe how a system must behave and establish constraints of its functionality.

1. Operational
   a. The system should be able to integrate with other food ordering systems.
   b. The system should be able to work properly in all web browsers.
2. Performance
   a. Any interaction between users and the system should not be longer than two seconds.

   b. The system should be able to process a suitable number of item purchases at once.

3. Security
   a. The users can only access their own data and display their page.
   b. The system should be able to prevent SQL injection attacks.

4. Cultural and Political
   a. Personal information is protected in compliance with the Data Protection Act.

4.3 Use Case Diagram

Figure 3 presents the use case diagram for the system. There are two (2) - actors (stakeholders) involved in this system namely Admin and Customer. Each actor can relate to multiple use cases. There are nine use cases that are Register Account, Login as User, Manage Menu, Display Menu, Make Order, Manage Order, Comment, Report and Manage User.

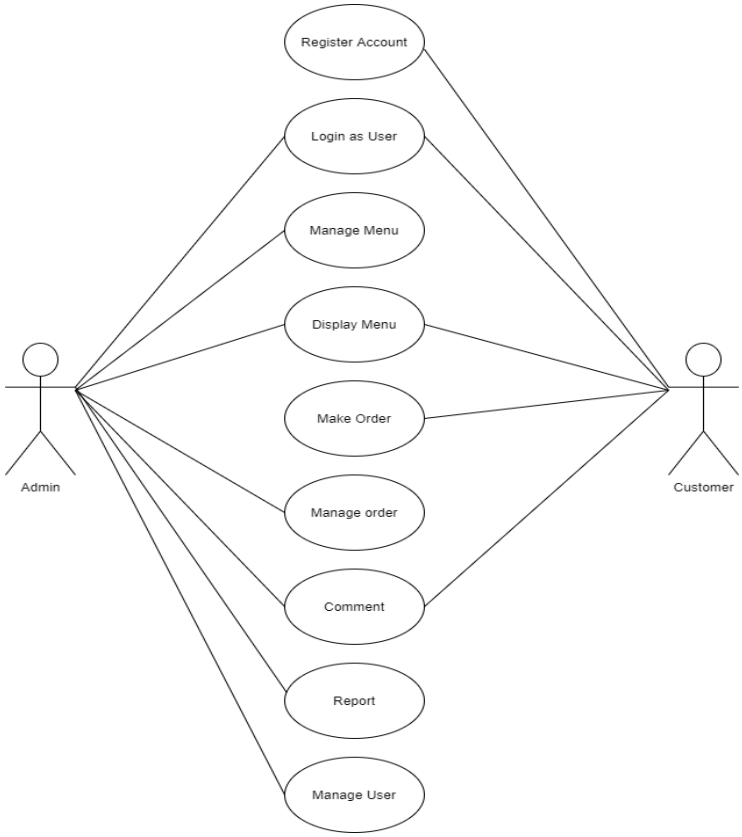

Figure 3: Use Case Diagram

4.4 Database Design

Figure 4 presents the class diagram of Food Ordering System, there are eight (8) tables will be produced in the database. The tables are USERS, WALLET, WALLET_DETAILS, ITEMS, ORDERS, ORDERS DETAILS, TICKETS and TICKETS_DETAILS. Each table have their own attributes.

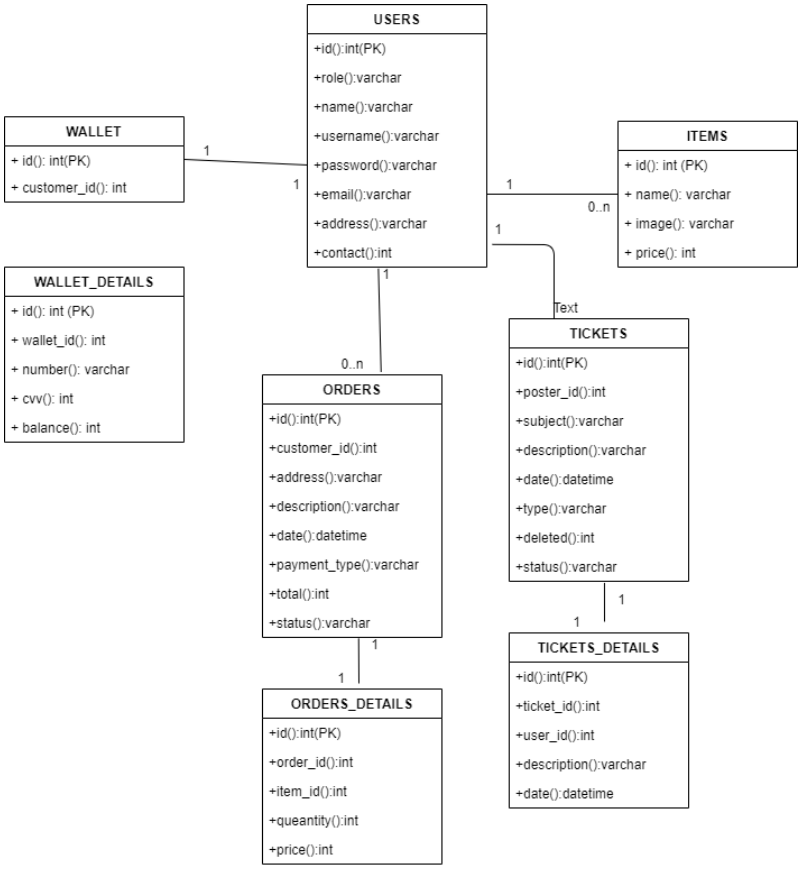

Figure 4: Class Diagram

4.5 Interface Design

The interface of the main page, admin main page and customer main page of the system had been shown in Figure 5, Figure 6 and Figure 7.

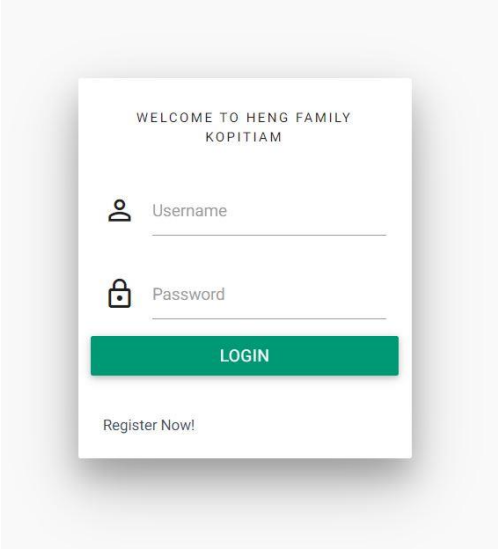

Figure 5: Login Page

Figure 5 shows the login page with two text field to input and a login button to login the system.

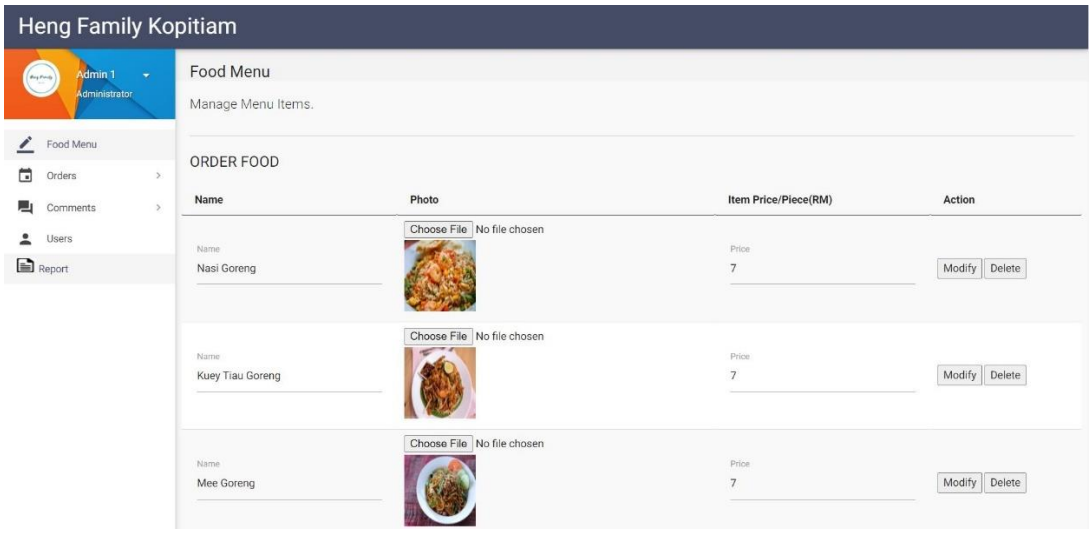

Figure 6: Main Page

Figure 6 shows the main page with the menu interface and user can update the menu by input data in text field given and the click the button designed. The navigation bar is designed at left hand-side such as Food Menu, Orders, Comments, Users and Report.

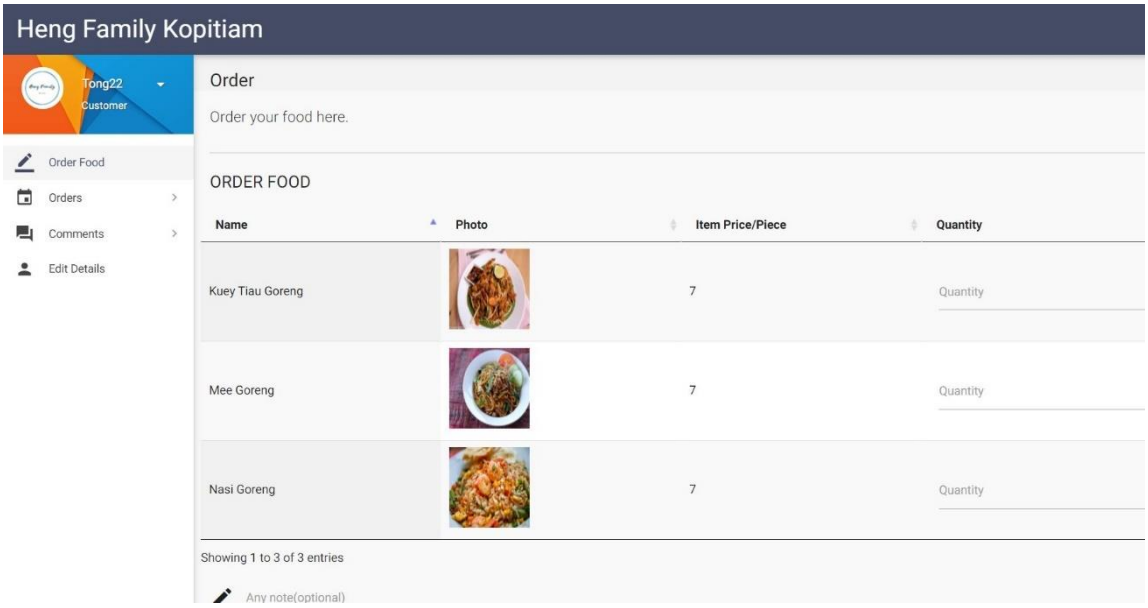

Figure 7: Main Page

Figure 7 shows the main page for the user to see the menu in table. The text field been designed for the user to input quantity. The navigation bar is designed at left hand-side such as Order Food, Orders, Comments, Edit Details.

5. Result and Discussion

5.1 Implementation

5.1.1 Registration Modules

In this section, the registration module will be discussed. The registration modules include the login, logout and register functions for the system. The user can register as member through this system. Once the user had register as member, the user can login the system by entering username and password. All the detail will be updated in database.

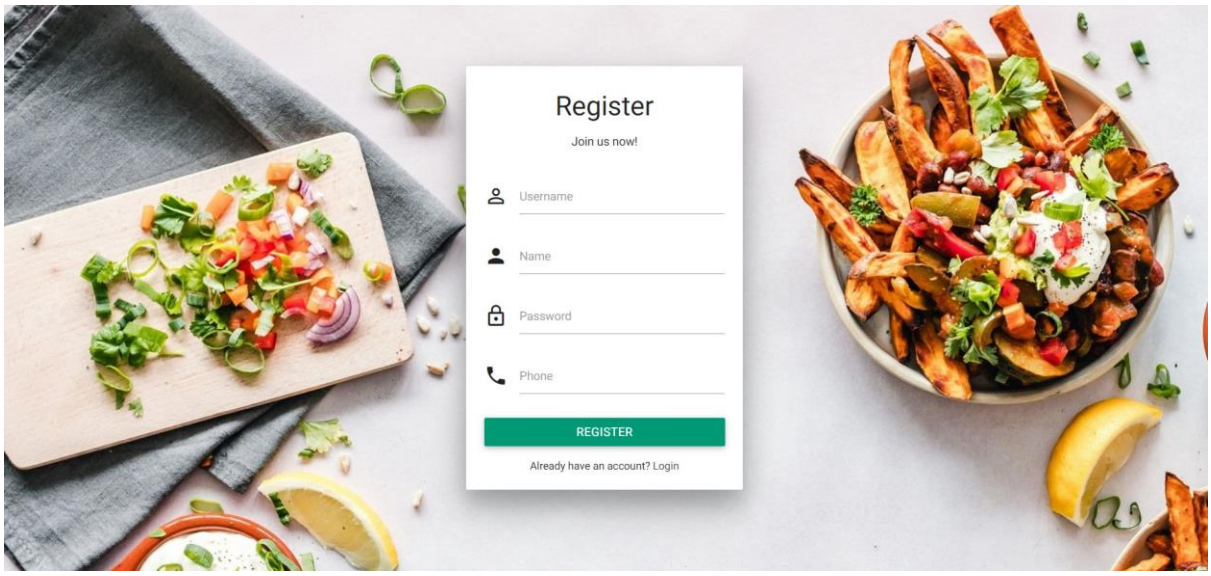

Figure 8: Register Page

Figure 8 shows the register page with four text field to input and button to make action to register.

```php
<?php
include '../includes/connect.php';
$name = htmlspecialchars($_POST['name']);
$username = htmlspecialchars($_POST['username']);
$password = htmlspecialchars($_POST['password']);
$phone = $_POST['phone'];

function number($length) {
    $result = '';

    for($i = 0; $i < $length; $i++) {
        $result .= mt_rand(0, 9);
    }

    return $result;
}

$sql = "INSERT INTO users (name, username, password, contact) VALUES ('$name', '$username', '$password', $phone);";
if($con->query($sql)==true){
$user_id =  $con->insert_id;
$sql = "INSERT INTO wallet(customer_id) VALUES ($user_id)";
if($con->query($sql)==true){
    $wallet_id =  $con->insert_id;
    $cc_number = number(16);
    $cvv_number = number(3);
    $sql = "INSERT INTO wallet_details(wallet_id, number, cvv) VALUES ($wallet_id, $cc_number, $cvv_number)";
    $con->query($sql);
}
}
header("location: ../login.php");
?>
```

Figure 9: Code Segment of Registration

5.1.2 Ordering Management Modules

The ordering modules will be discussed in 5.1.2. The ordering modules consists of ordering food through online, take order, tracking the process of food and make payment. The admin can take order through this system online and can update the process status of the food. The customer can make order through this system track the status of food. Once order food, the customer will make payment by using bank card or cash on delivery.

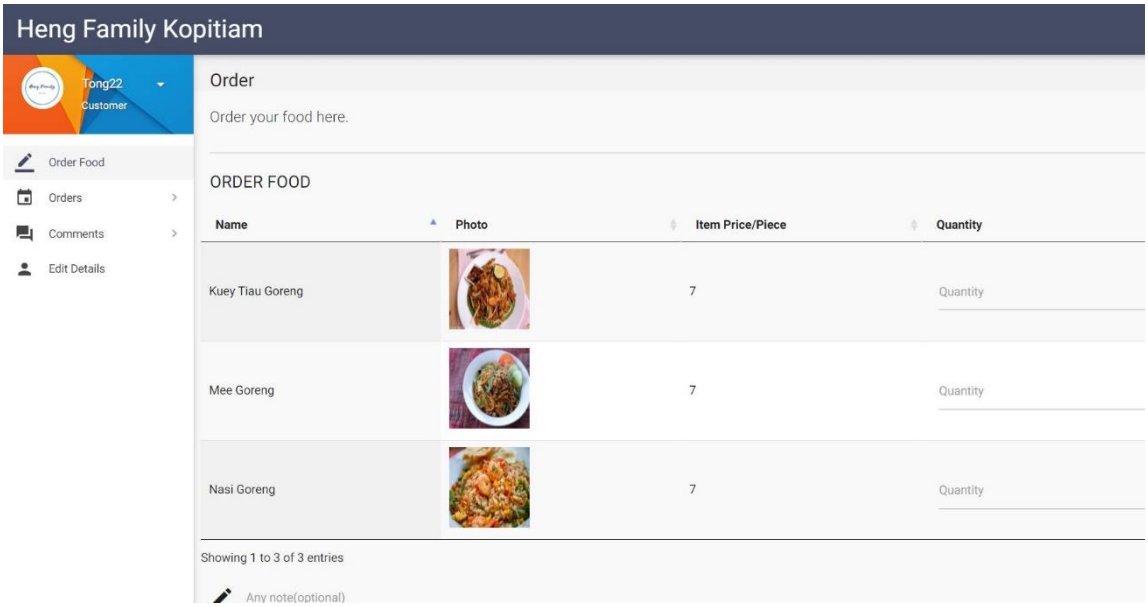

Figure 10: Make Order Interface

```
$total = 0;
$address = htmlspecialchars($_POST['address']);
$description =  htmlspecialchars($_POST['description']);
$payment_type = $_POST['payment_type'];
$total = $_POST['total'];
    $sql = "INSERT INTO orders (customer_id, payment_type, address, total, description) VALUES ($user_id, '$payment_type', '$address', $total,
    '$description')";
    if ($con->query($sql) === TRUE){
        $order_id =  $con->insert_id;
        foreach ($_POST as $key => $value)
        {
            if(is_numeric($key)){
            $result = mysqli_query($con, "SELECT * FROM items WHERE id = $key");
            while($row = mysqli_fetch_array($result))
            {
                $price = $row['price'];
            }
                $price = $value*$price;
            $sql = "INSERT INTO order_details (order_id, item_id, quantity, price) VALUES ($order_id, $key, $value, $price)";
            $con->query($sql) === TRUE;
            }
        }
        if($_POST['payment_type'] == 'Wallet'){
        $balance = $balance - $total;
        $sql = "UPDATE wallet_details SET balance = $balance WHERE wallet_id = $wallet_id;";
        $con->query($sql) === TRUE;
        }
            header("location: ../orders.php");
    }
```

Figure 11: Code Segment of Make Order

5.1.3 Data Record Management Modules

In section 5.1.3 will discussed the implementation of data record management modules. The personal details of the registered user will be store in database. The details of menus will be also record in database. The admin can verify the registered customers. The recorded details will be display on each page of the system.

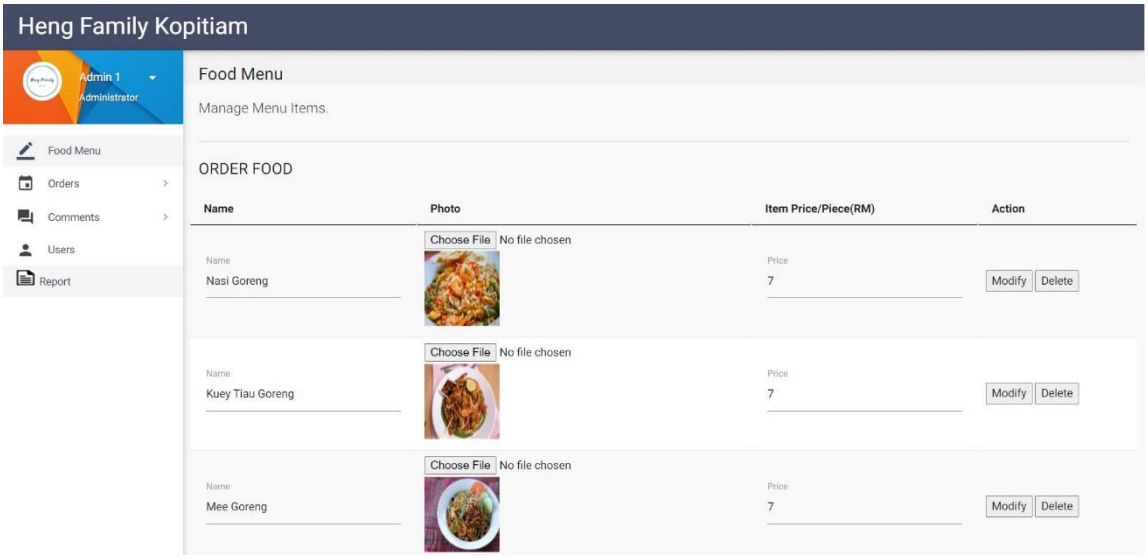

Figure 12: Menu Interface

```php
<?php
    include 'includes/connect.php';

    $id = $_POST["id"];
    $foodName = $_POST["foodName"];
    $itemPrice = $_POST["itemPrice"];

    if ($_FILES['photo']['size'] == 0) {
        $sql = "UPDATE items SET name = '$foodName', price = '$itemPrice' WHERE id = '$id'";
        $con->query($sql);
    } else {
        $photo = addslashes(file_get_contents($_FILES['photo']['tmp_name']));
        $sql = "UPDATE items SET name = '$foodName', price = '$itemPrice', image = '$photo' WHERE id = '$id'";
        $con->query($sql);
    }

    header("Location: admin-page.php");
?>
```

Figure 13: Code Segment of Update Menu(a)

```php
<?php
    include 'includes/connect.php';

    $id = $_POST["id"];

    $sql = "DELETE FROM items WHERE id = '$id'";
    $con->query($sql);
?>
```

Figure 14: Code Segment of Update Menu(b)

5.1.4 Report Management Modules

In section 5.1.4 will discussed the implementation of report management modules. The orders details will be store in the database. The details of the pass orders will be display in a table.

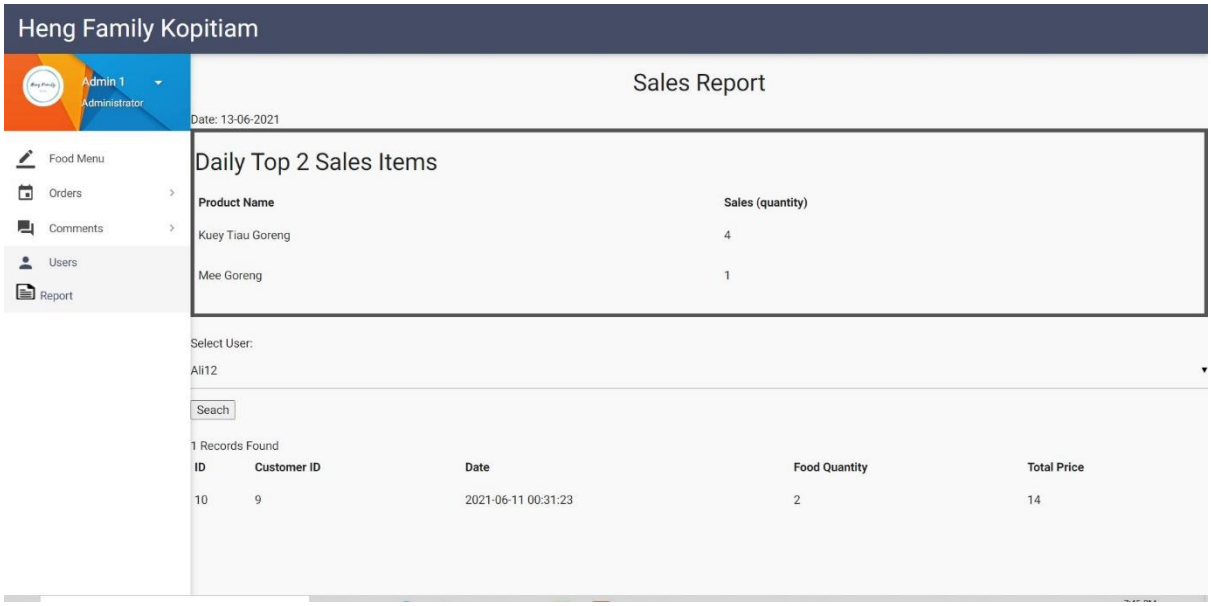

Figure 15: Report Interface

```
  $top_sales_data = mysqli_query($con,"SELECT order_details.item_id, SUM(order_details.quantity) FROM order_details INNER JOIN orders ON
  orders.id=order_details.order_id WHERE date(orders.date) =CURRENT_DATE GROUP BY order_details.item_id ORDER BY SUM(order_details.quantity) DESC
  LIMIT 2");

  while($row_sales = mysqli_fetch_array($top_sales_data))
                          {
         //$order_id=$row_sales['id'];
 echo"<tr>";
 //echo"<td>{$row_sales['item_id']}</td>";


 $order_id= $row_sales['item_id'];

 $top_s_food_name = mysqli_query($con,"SELECT DISTINCT name FROM items WHERE id = $order_id; ");

         while($row_f_name = mysqli_fetch_assoc($top_s_food_name))
                          {

             echo"<td>{$row_f_name['name']}</td>";
            echo"<td>{$row_sales['SUM(order_details.quantity)']}</td>";
 echo"</tr>";
 }
 }
```

Figure 16: Code Segment of Report(a)

```
      <?php

        $sql = mysqli_query($con, "SELECT * FROM users WHERE role = 'Customer';");

        while($row=mysqli_fetch_array($sql))
        {
                                  echo "<option value='{$row['id']}' >{$row['name']}";
                                  echo "</option>";


        }

        echo "</select>";

        ?>
<input type="submit" value="Seach"/>
</form>

<table border="5px">
    <?php

        if(isset($_POST['taskOption'])){

        $cus_id = $_POST['taskOption'];

        $ord = mysqli_query($con, "SELECT distinct orders.id, orders.customer_id, orders.date, order_details.quantity , orders.total FROM orders
        left JOIN order_details ON orders.id=order_details.order_id where orders.customer_id=$cus_id; ");
        $count_d = mysqli_query($con, "SELECT * FROM orders where customer_id = $cus_id; ");
        $count = mysqli_num_rows($count_d);
```

Figure 17: Code Segment of Report(b)

5.1.5 Comment Management Modules

In section 5.1.4 will discussed the implementation of comment management modules. The customer can give comment to the owner as a feedback while the owner can display the comment and give comment on it. The comment details will be store in the database.

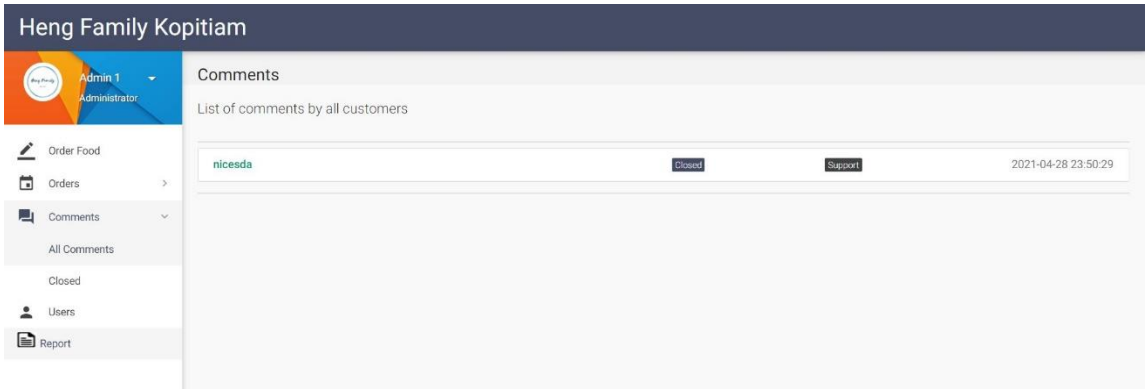

Figure 18: Comment Interface

```php
<?php
include '../includes/connect.php';
$subject = htmlspecialchars($_POST['subject']);
$description =  htmlspecialchars($_POST['description']);
$type = $_POST['type'];
$user_id = $_POST['id'];
if($type != ''){
    $sql = "INSERT INTO tickets (poster_id, subject, description, type) VALUES ($user_id, '$subject', '$description', '$type')";
    if ($con->query($sql) === TRUE){
        $ticket_id =  $con->insert_id;
        $sql = "INSERT INTO ticket_details (ticket_id, user_id, description) VALUES ($ticket_id, $user_id, '$description')";
        $con->query($sql);
    }
}
header("location: ../tickets.php");
?>
```

Figure 19: Code Segment of Comment

5.2 Testing

5.2.1 Alpha Testing

Table 2: Test Case of Registration Modules

Test Case ID	Requirement	Description	Result
STD_TEST_100_001	REQ_101	The system shall be able to show register form for customer.	PASS
STD_TEST_100_002	REQ_102	The system shall be able to save the detail entered form the user.	PASS
STD_TEST_100_003	REQ_103	The system shall be able to verify the users.	PASS
STD_TEST_100_004	REQ_104	The system shall redirect validated users to the respective home	PASS

		page based on their identity.	

Table 3: Test Cases of Ordering Management Modules

Test Case ID	Test Cases	Description	Result
STD_TEST_200_001	REQ_201	The system shall be able to show menu list to the users.	PASS
STD_TEST_200_002	REQ_202	The system shall be able to display the total amount of the ordered menu.	PASS
STD_TEST_200_003	REQ_203	The system shall be able to allow the user to choose payment method and make payment.	PASS

Table 3: (cont)

Test Case ID	Test Cases	Description	Result
STD_TEST_200_004	REQ_204	The system shall be able to show order from customers.	PASS
STD_TEST_200_005	REQ_205	The system shall be able to update the order information.	PASS
STD_TEST_200_006	REQ_206	The system shall be able to store the order information.	PASS

Table 4: Test Cases of Data Record Management Modules

Test Case ID	Test Cases	Description	Result
STD_TEST_300_001	REQ_301	The system shall be able to show menu to the owner and staff.	PASS
STD_TEST_300_002	REQ_302	The system shall be able to retrieve the menu information.	PASS
STD_TEST_300_003	REQ_303	The system shall be able to store the menu information.	PASS
STD_TEST_300_004	REQ_304	The system shall be able to show menu to customers.	PASS
STD_TEST_300_005	REQ_305	The system shall be able to display user's profile.	PASS
STD_TEST_300_006	REQ_306	The system shall be able user to update user's profile.	PASS

Table 5: Test Cases of Report Management Modules

Test Case ID	Test Cases	Description	Result
STD_TEST_400_001	REQ_401	The system shall be able to display report.	PASS

Table 6: Test Cases of Comment Management Modules

Test Case ID	Test Cases	Description	Result
STD_TEST_500_001	REQ_501	The system shall be able to display comment to the owner and customer.	PASS
STD_TEST_500_002	REQ_502	The system shall enable the users to comment.	PASS
STD_TEST_500_003	REQ_503	The system shall be able to store the comment information.	PASS

5.2.1.1 Testing Result

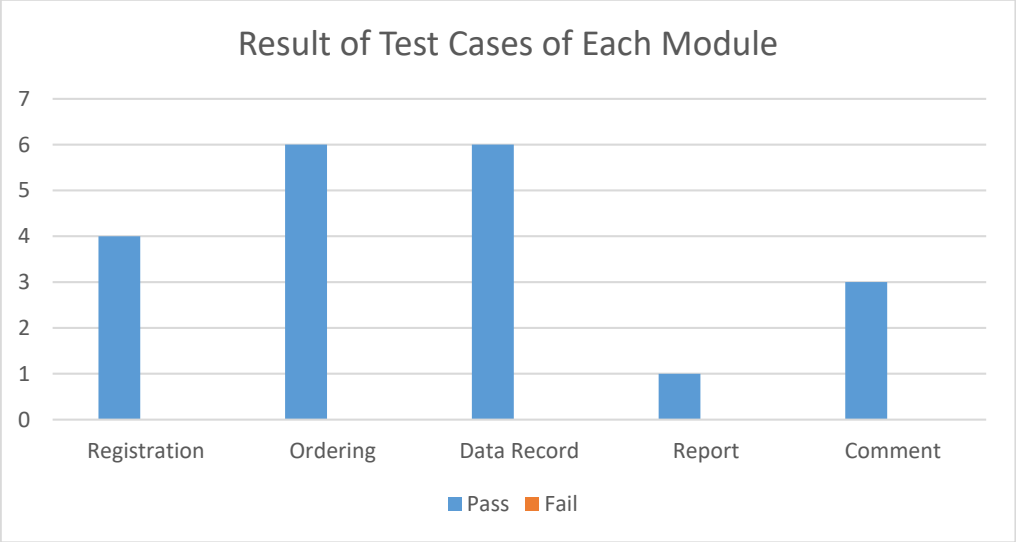

Figure 20: Result of Test Cases

5.2.2 User Acceptance Testing

User Acceptance Testing (UAT)

Food Ordering System of Heng Family Kopitiam

Name: Ng Ban Heng

Phone number: 016-4107767

Position: Owner of restaurant

No	Acceptance Criteria	Test Results		Comments
		Pass	Fail	
1	**Login to the system**			
	a) Display Login page.	✓		
	b) Enter the username and password to login.	✓		
2	**Manage menu**			
	a) Display menu at menu page.	✓		
	b) Provide add, update, and delete function to update menu.	✓		
3	**Manage order**			
	a) Display the order list in Order page.	✓		
	b) Provide option to update the status of order.	✓		
4	**Manage comment**			
	a) Display the comment in Comment page.	✓		
	b) Provide option to give comment and update comment's status.	✓		
5	**Manage user's status**			
	a) Display the user list in User page.	✓		
	b) Provide add, verify and delete the user to use the system.	✓		
6	**Manage report**			
	a) Display the report in Report page.	✓		

I Ng Ban Heng hereby declare that the information provided is true and correct.

Agreed by,

Heng

Name: Ng Ban Heng

Position: Owner

Date: 25-5-2021

Figure 21: User Acceptance Testing (Owner)

6. Conclusion

In a nutshell, the introduction part discussed the problem statement, objective and scope of the project. The literature review had discussed the existing system and a comparison between the existing system and proposed system had been made. The technology also been discussed in the literature review. In methodology, every phase of agile model had been discussed according to the activity done for this project. Lastly, the use case diagram, sequence diagram and activity diagram had been discussed. The requirement and non-requirement have been stated while the system designed such as class diagram and interface design has been stated. The project has some limitation and can be improve in future times. The system now had been developed to help the owner of Heng Family Kopitiam to manage order, manage menu and view the daily three top sales reports while the customer can make order online, view menu and make payment. However, the system will be improved by developed the application of the Food Ordering System with provided GPS function and a various type of online payment in the future. Hopefully this project can contribute a lot of benefits for the human being.

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References

[1] Badhan Mustary, “Case Study on Foodpanda”, 2019. [Online]. Available: https://www.academia.edu/22424501/Case_Study_on_Foodpanda.

[2] Shahirah Mohamed Hatim et al, “E-FoodCart: An Online Food Ordering Service,” International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-4, 2019.

[3] Cherrie Tansil, “Papa John's case analysis”. 2017. [Online]. Available: https://www.academia.edu/34033789/Papa_Johns_case_analysis.

[4] Silbio Peroni et al, “Research Articles in Simplified HTML: A Web-first format for HTML-based scholarly articles,” PeerJ Computer Science 3(194):e132. 2017. [Online] Available: https://www.researchgate.net/publication/320171394_Research_Articles_in_Simplified_HTML_A_Web-first_format_for_HTML-based_scholarly_articles [Accessed 2020].

[5] Sorana D. Bolboaca, “SQL by Example. 2. PHP and MySQL Web Application based on Tanner-Whitehouse Standard,” Leonardo Electronic Journal of Practices and Technologies 2(2). 2003. [Online] Available: https://www.researchgate.net/publication/26440510_SQL_by_Example_2_PHP_and_MySQL_Web_Application_based_on_Tanner-Whitehouse_Standard. [Accessed 2020].

[6] Mrs. Gunjan Behl and Mr Nripesh Kumar Nrip. “A STUDY OF AGILE SOFTWARE DEVELOPMENT MODEL,” International Conference on Current Trends & Challenges in Management, Engineering, Computer Application & Technology-2012. [Online] Available: https://www.researchgate.net/publication/264626696_A_STUDY_OF_AGILE_SOFTWARE_DEVELOPMENT_MODEL. [Accessed 2020].

[7] Sheetal Sharma et al. “Agile Processes and Methodologies: A Conceptual Study,” International Journal on Computer Science and Engineering (IJCSE). 2012. [Online] Available: https://www.researchgate.net/publication/267706023_Agile_Processes_and_Methodologies_A_Conceptual_Study. [Accessed 2020].

[8] Ray Uzwyshyn. “Can We Get Some Order Here? The Application of Principles of IT Project Management for Online Library Projects,” IT PROJECT MANAGEMENT FOR ONLINE LIBRARY PROJECTS. 2013. [Online] Available: https://www.researchgate.net/publication/277665842_Can_We_Get_Some_Order_Here_The_Application_of_Principles_of_IT_Project_Management_for_Online_Library_Projects. [Accessed 2020].