



TIS2151 - Web Application Development

Group Project

Sushi Sama

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1. Introduction

1.1 Problem Statement

After analyzing a few restaurants' websites, our group realized that the functionalities of these websites are severely limited and are usually used merely as a display of information about their companies, location, menu, careers, catering and more. To make it worst, Sakae Sushi do not even display the menu served in their website.

Other than that, the websites lack interactivity and do not retain the attention of users. For example, Rakuzen, Sakae Sushi and Sushi Zanmai have primitive website designs, which consists of a header photo, a nav bar, content and footer. In fact, Rakuzen and Sushi Zanmai shares a similar unattractive design layout, where the interface does not appeal to users visually.

1.2 Objectives

1. To have useful functions that can attract and retain users
2. To have aesthetically pleasant interface and interactive elements

2. Proposed Solution

2.1 Analysis on websites

Since the nature of our restaurant is Japanese cuisine, our group have visited several websites of popular Japanese restaurants in Malaysia, such as Sakae Sushi, Rakuzen, Sushi Zanmai, and last but not least Sushi Mentai. A table that summarize our analysis is on the final page of this section.

2.1.1 Sakae Sushi



Figure 1: Screenshot of Sakae Sushi website

As you can see from the above figure, the website is plain and boring; The design layout is simple, the color palette is only Sakae Sushi's signature green, white and black. The website also does not have a menu display.



Figure 2: Pop up from Sakae Sushi website

When you first visit the website, a pop-up will appear; promoting the membership of Sakae Sushi as shown in Figure 2. However, the application of membership can not be done through online. When you click on the "Explore" -> "SAKAECard" on the navigation card, it displays the privilege of being a member, a link to its membership portal, and the terms and conditions of SAKAECard membership.

Other than that, when you click on the button for Sakae Delivery, it redirects you to another website, where it requires you to sign in with an Oddle Pass. It is a login mechanism that allows customers to log in to *Oddle* Shops with a single set of login credentials. The website is lacking in terms of functionality.

2.1.2 Rakuzen (Super Dining)



Figure 3: Screenshot of Rakuzen website

Super Dining is a group of Japanese restaurants, consisting of Rakuzen, Kura and Notoya. It is obvious from first sight that the website is not optimized for bigger screen size because of the left and right empty spaces. Among all the websites we analyzed, it has the simplest design and color theme. However, it has responsive design on both tablets and phones.

The website only displays information about its outlets, different menus, careers for the three different restaurants. The promotion page supported by promotion.php displays nothing. Other than displaying information, the website does nothing. In comparison to other modern websites, it is severely lacking in terms of functionality.

2.1.3 Sushi Zanmai



Figure 4: Screenshot of Sushi Zanmai website

During our analysis, we realized how similar Sushi Zanmai website look in comparison to Rakuzen's. It is also hosted by the same company with the same copyright year. Most of the comments on Rakuzen website can be applied here as well; unattractive color theme and simple layout. Different from Rakuzen, it does not have a responsive design.

Other than that, while navigating through the website, the "Outlets" in the navigation bar is linked incorrectly to the index.php, which is the website's home. As of 4th January 2020, the promotion page has yet to be updated to the most recent promotion offered in their restaurants. It can be seen from their Facebook post, but not on their website.

As compared to Rakuzen website, it allows users to apply for franchise through a form on their website. However, it still does not have enough functionalities to attract and retain users.

2.1.4 Sushi Mentalai

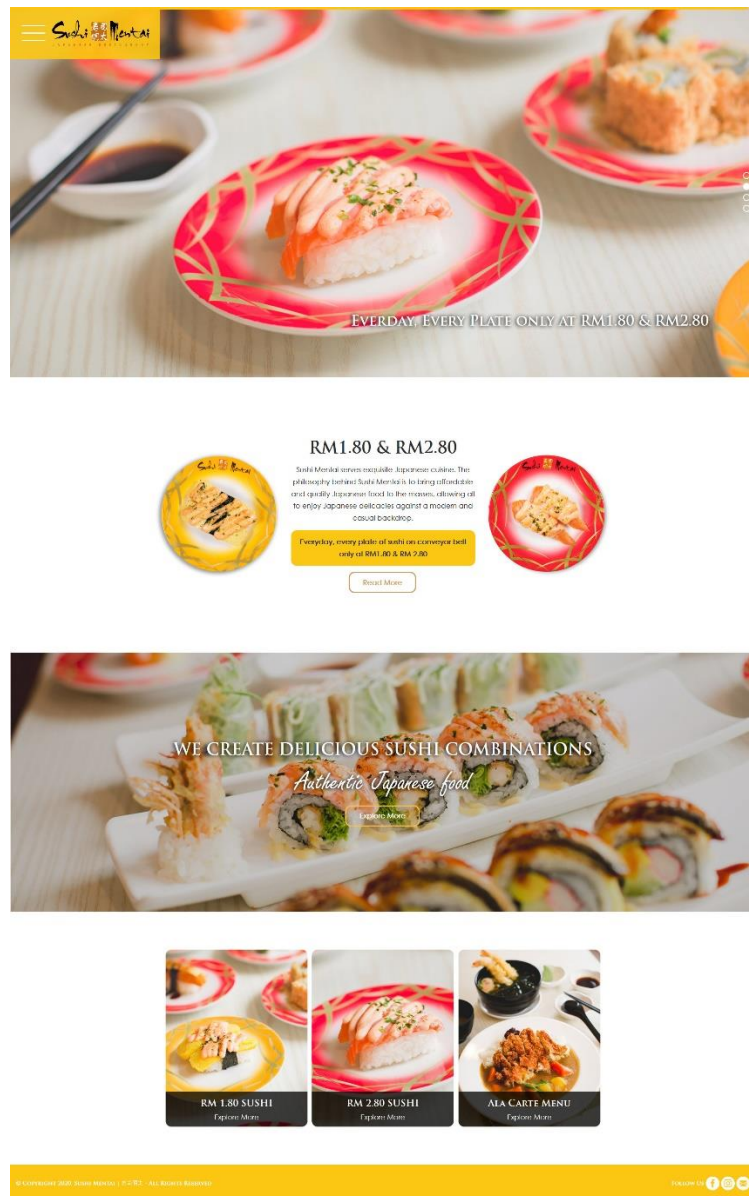


Figure 5: Screenshot of Sushi Mentalai website

Sushi Mentalai website offers a refreshing and enticing look, where the colors used complement the food pictures well and attracts your attention. It is not reflected in the still screenshot, but certain elements of the website have animation, such as pop-up effect, slight rotation when hovering over, fly-in effect and more. It also has a responsive design on both tablets and phones.

Despite the beautiful and appealing interface, the website does not offer many functionalities. It has the basic functionalities such as menu display, outlets display, career display and company information. Sushi Mentai offers lucky draw and customers can join the mentioned lucky draw through online. After clicking the button to join, it redirects you to a google form, where you can fill in your details. The Japanese restaurant is no longer accepting franchisees so we are not sure whether you can apply for franchise through online or not.

Features	Sakae Sushi	Rakuzen	Sushi Zanmai	Sushi Mentai
1. Attractive design (layout, color theme)	X	X	X	✓
2. Responsive design	X	✓	X	✓
3. Profile management (registration, login)	✓	X	X	X
4. Membership application	X	Not offered	Not offered	Not offered
5. Franchise application	X	X	✓	Closed
6. Lucky draw application	X	X	X	✓
7. Information display (menu, outlet location, company information, careers, promotions)	✓ (Missing Menu)	✓ (Missing Promotion)	✓ (Missing outlets)	✓
8. Food delivery	✓ (Different website)	X	X	X
9. Order pick-up	X	X	X	X
10. Reservation booking	X	X	X	X

Table 1: Summary of website analysis

2.2 Use-case diagram

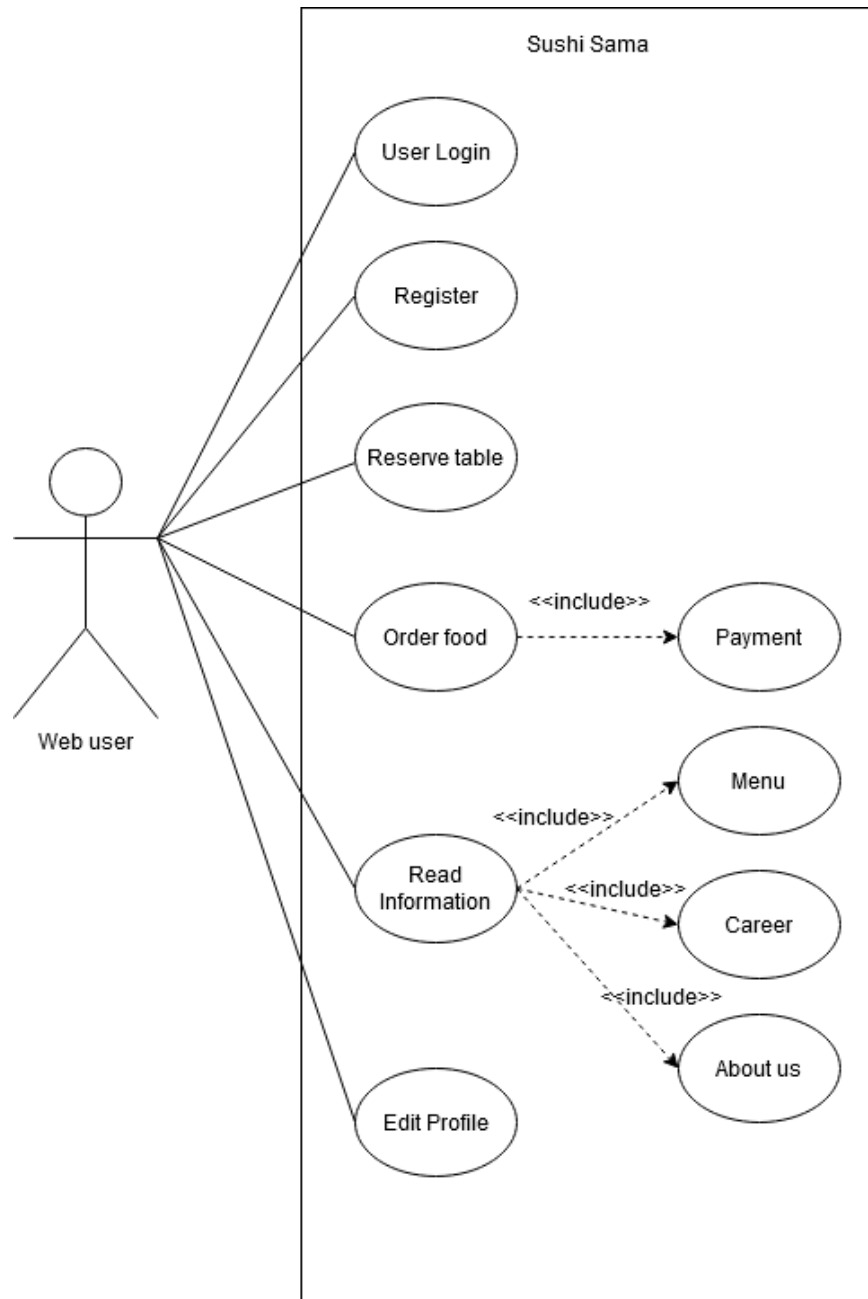


Diagram 1: UCD Diagram for users

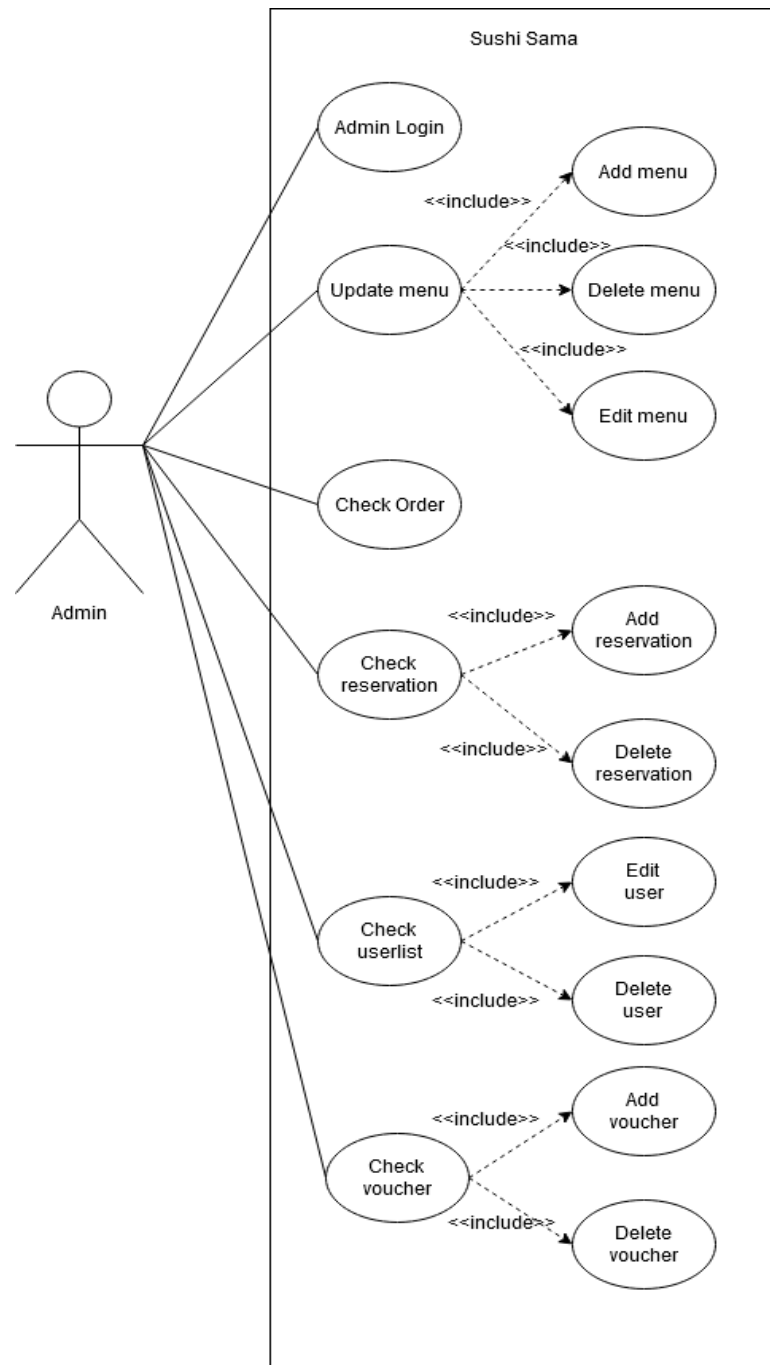


Diagram 2: UCD Diagram for admins

2.3 Distribution of development / coding tasks

Tasks	Kar Sing	Guan Cheng	Yuan Jun	Michelle	Wong Zi Jiang
Website design (navigational flow, layout, color palette, etc.)				✓	✓
Homepage and other information display		✓		✓	✓
Table reservation			✓	✓	
Profile management (login/register)	✓	✓			
Menu display/ Menu selection				✓	
Order summary	✓	✓			
Discount calculation			✓		
Payment processing			✓		
Admin – Login		✓			
Admin – Menu update				✓	✓
Admin – User List					✓
Admin- Voucher List	✓	✓			
Admin – Check order	✓				✓
Admin – Check reservation				✓	✓
Documentation	✓	✓	✓	✓	✓

Table 2: Distribution of tasks

3. Implementation

3.1 HTML

3.1.1 *Description of elements used*

We have used several HTML elements such as container, card, tables, navbar, custom form, where certain elements are only available thanks to the Bootstrap framework.

For every page, we use a combination of container, row and different sizes of column to create the multicolumn layout that will resize and fit automatically in response to different device width through the Bootstrap framework, which allows a simple process of creating responsive design.

Our menu includes the usage of bootstrap cards, which provide flexible and extensible content containers since the cards support a wide variety of content including the images, text and more.

We use bootstrap table to create our order summary because working with the bootstrap framework, we can easily improve the appearance of the table so that the user can have a greater experience.

The table reservation is made through a form so that we can receive information when the user submits. Forms are also used in many areas so that we can data can be stored in the superglobal array and then be processed in our PHP script.

We also use Bootstrap modals for seeking for confirmation of actions, for asking details to insert new data or to edit the existing data.

3.1.2 *Navigational flow design*

A navigation bar is located top of our website, it links users to home, menu, order, career, profile and login. Since the navigation is generally the direction

that takes the users where they want to go, setting it at the top allows user to navigate through our website quickly and easily.

Our utility navigation, i.e. user login is on top of the website also. This allow us to have a user-friendly navigation and user will interact with the site because they are able to perform the actions at the first moment. Meanwhile, our website has a page exclusive for admin login which can redirect to Sushi Sama Panel. Inside the Panel, we have order summary, table reservation, menu list, and user list as well.

We have Call to Action (CTA) function for the table reservation, which users will automatically notice once they enter our homepage. Clicking it redirects users to the table reservation form at the bottom of homepage.

Our footer also provides some navigation so users can click on them when they reach the bottom of the page, without the need to scroll up to reach the nav bar.

3.1.3 Any tools used?

We used Bootstrap framework because it speeds up our website design process, and it is also compatible with all modern browsers.

We also used font awesome for the various icons displayed in our pages.

Google fonts are used to apply more font-family that suits the web pages.

3.2 CSS

3.2.1 Description of CSS styles

CSS stands for Cascading Style Sheet which is used for describing the presentation of how HTML is displayed on the screen.

We have used several elements such as font family, font-weight, font-size to improve the appearance of the font. For the background of the page, images and linear gradient are used to bring out the eye-catching design for users. Also, the images allow us to give certain ideas to the users about what our website must present.

By using media query and the elements of bootstrap such as grids function and collapse, these allow us to adapt the presentation to different types of devices such as size-adapting, and easier for both parties as in developers' stand and most importantly, users' stand.

3.2.2 Responsive design?

Bootstrap allows us to split the website into grids of columns and rows. Based on the device's width, these columns will arrange themselves appropriately. For certain cases, we also specify the properties of certain elements that we would like to display differently as opposed to the predefined rules, by using the @media notation.

3.2.3 Any tools used?

Just as explained under 3.1.3, we used Bootstrap framework because it is one of the most popular HTML, CSS and Javascript framework directed at responsive, mobile-first web development.

Our group has also used the material design for bootstrap (MDBootstrap), where it provides many user interface (UI) elements, such as animation, icons, plugins.

3.3 Client-Side Script

3.3.1 Description of Script Usage

Javascript is used for client-side script, where it is mainly used for manipulation of data of our HTML. JQuery is used to pass the value of the respective data's unique ID to the bootstrap modal, which seeks for confirmation when manipulating data on the admin side. Other than that, alert and prompt are also used.

Examples of jQuery usage:

To make our navbar attached to the top after scrolling down, we used the jQuery displayed below, where the class 'scrolled' is applied to the element with the class 'navbar-fixed-top' after scrolling more than the navbar's height.

```
$(function () {  
    $(document).scroll(function () {  
        var $nav = $(".navbar-fixed-top");  
        $nav.toggleClass('scrolled', $(this).scrollTop() > $nav.height());  
    });  
});
```

If an admin wants to delete data from the database, they must click on the delete button and a modal will pop up asking for confirmation. The following jQuery will pass the item of deletion to that modal, which allows the data to be sent to the backend side (our PHP code) for processing.

```
$(document).ready(function() {  
    $(".deleteButton").click(function() { // Click to only happen on deleteButton  
        $("#reservationID").val($(this).data('id'));  
        $('#dltReserveModal').modal('show');  
    });  
});
```

If an admin wants to edit data from the database, they must click on the edit button and a modal will pop up, displaying the current information for that specific item. The following jQuery obtains the information and displays it, which allows admin to easily edit the data.


```

<script>
    $(document).on('click', '.editButton', function() {
        var row = $(this).closest('table');
        var name = row.find('.name').text();
        var username = row.find('.username').text();
        var password = row.find('.password').text();
        var birthday = row.find('.birthday').text();
        var email = row.find('.email').text();
        var contact = row.find('.contact').text();
        var is_staff = row.find('.is-staff').text();
        $('#editUserModal').find('#editName').val(name);
        $('#editUserModal').find('#editUsername').val(username);
        $('#editUserModal').find('#editPassword').val(password);
        $('#editUserModal').find('#editBirthday').val(birthday);
        $('#editUserModal').find('#editEmail').val(email);
        $('#editUserModal').find('#editContact').val(contact);
        $('#editUserModal').find('#editIsStaff').val(is_staff);
        $('#editUserModal').modal('show');
    });
    $(document).on('click', '.dltButton', function() {
        $('#userID').val($(this).data('id'));
        $('#dltUserModal').modal('show');
    });
</script>

```

3.3.2 Any tools used?

No tools are used for Javascript.

3.4 Server-Side Script

3.4.1 Description of Script Usage

PHP is used for the server-side script. For manipulation of data regarding displaying information, editing information and deleting information from our database, we use PHP to connect to our database through mysqli statements. Data from form are obtained through super global array, \$_POST, where they are then stored in our SQL database. PDO statements are used to retrieve the data from our SQL database for display of information and deletion of information.

Examples of PHP usage:

To read data from our database and display the data on our website, we use PDO statements (as learned from our Labs). The example given below is on menu items.

```
function setConnectionInfo(){
    $connString='mysql:host=localhost;dbname=sushisamadb';
    $user='root';
    $password='';
    //Actual connection to database with this line
    $pdo=new PDO($connString, $user, $password);
    $pdo->setAttribute(PDO::ATTR_ERRMODE,PDO::ERRMODE_EXCEPTION);
    return $pdo;
}

//Michelle
function readMenu(){
    $pdo=setConnectionInfo();
    //Assign string to sql
    $sql='SELECT * FROM menu';
    //Execute sql (statement hold the result of the query)
    if ( $statement=$pdo->query($sql)){
        return $statement;
    } else{
        $errorMessage = "Error entering data:".mysqli_error($link)."<br>";
        session_unset();
        session_destroy();
        header("Location: menu.php?sql_error");
        exit();
    }
    $pdo = null;
}
```

From our frontend files, we use the readMenu function to obtain all the data and echo the data we need.

```

session_start();
$_SESSION['page'] = "menu";
include "includes/menu.inc.php";
$stmt = readMenu();
$foodList = $stmt->fetchAll();

```

```

<?php
$count=0;
// 0 -> ID, 1 -> food name, 2 -> food price, 3 -> category, 4 -> file image path
foreach($foodList as $food){
    //Ensure that only those food that falls under Sushi are displayed
    if ($food[3] == "Sushi"){
        echo '<form method="POST" action="">';
        echo '<div class = "col-xs-2 mx-auto mx-auto">';
        echo '<div class="card">';
        echo '<input type="text" name="id" id="id" value="'. $food[0].'" hidden>';
        echo '';
        echo '<div class="card-body">';
        echo '<h2 class="card-title text-center">'. $food[1]. '</h2>';
        echo '<!-- p class="card-text"-->'; // For future use
        echo '</div>';
        echo '<div class="card-footer text-center">';
        echo '<span class="pricing">'. $food[2]. 'RM'. number_format((float)$food[2],2,'.',''). '</span>';
        echo '<input type="hidden" id="tmp_id" name="tmp_id" />';
        echo '<input type="hidden" id="qty" name="qty" />';
        echo '<button type="submit" name="" onClick="order('.$count.')" class="btn peach-gradient"><i class="fa fa-shopping-cart fa-lg" aria-hidden="true">';
        echo '</form>';
        echo '</div>';
        echo '</div>';
        $count++;
    }
}
?>

```

Deletion of data from our database is handled similarly to the display of data, where PDO statements are used. The example given is on Menu items as well.

```

/*****
*                               Delete Menu Item
******/
function deleteMenuItem($ID_number){
    $pdo=setConnectionInfo();
    $sql='DELETE FROM menu WHERE menuID =:ID_number';
    if ( $statement=$pdo->prepare($sql) ){
        $statement->bindParam(':ID_number', $ID_number);
        $statement->execute();
        header("Location: Admin-MenuList.php?deleteMenuItem=success");
        exit();
    } else{
        $errorMessage = "Error entering data:".mysql_error($link). "<br>";
        session_unset();
        session_destroy();
        header("Location: Admin-MenuList.php?sql_error");
        exit();
    }
    $pdo = null;
}

if (isset($_POST['deleteMenuItem'])){
    $getID = $_POST['menuID'];
    deleteMenuItem($getID);
}

```

We also use sql statements to edit our data or insert new data to our database. The following codes are on Menu items as well.

```

/*****
 *                               Edit Menu Item                               *
 *****/
if(isset($_POST['editMenu'])){
    require 'dbh.inc.php';
    $id = $_POST['editMenuID'];
    $name = $_POST['editMenuName'];
    $price = $_POST['editMenuPrice'];
    $category = $_POST['editMenuCategory'];

    if (empty($id) || empty($name) || empty($price) || empty($category)){
        header("Location: ../Admin-MenuList.php?error=emptyfields");
        exit();
    }
    else{
        $sql = "UPDATE menu SET food_name='$name', food_price='$price', category = '$category' WHERE menuID='$id'";
        $stmt = mysqli_stmt_init($conn);
        if (mysqli_stmt_prepare($stmt, $sql) ){
            mysqli_stmt_execute($stmt);
            session_unset();
            session_destroy();
            header("Location: ../Admin-MenuList.php?edit=success");
            exit();
        }
        else {
            $errorMessage = "Error entering data:".mysqli_error($link)."<br>";
            session_unset();
            session_destroy();
            header("Location: ../Admin-MenuList.php?sql_error");
            exit();
        }
    }
}

```

```

/*****
 *                               Add Menu Item                               *
 *****/
if(isset($_POST['addMenuButton'])){
    require 'dbh.inc.php'; //connect to database
    $foodName = $_POST['menuName'];
    $foodPrice = $_POST['menuPrice'];
    $foodCategory = $_POST['category'];
    $foodPicUrl = $_POST['menuPic'];
    $file = $_FILES['menuPic'];
    if (empty($foodName) || empty($foodPrice) || empty($foodCategory) || empty($foodPicUrl)){
        header("Location: Admin-MenuList.php?error=emptyfields");
        exit();
    }
    else{
        $sql = "INSERT INTO menu (food_name, food_price, category, img_file_path ) VALUES (?, ?, ?, ?)";
        $stmt = mysqli_stmt_init($conn);
        if (mysqli_stmt_prepare($stmt, $sql) ){
            //string = s, i = integer
            mysqli_stmt_bind_param($stmt, "sdss", $foodName, $foodPrice, $foodCategory, $foodPicUrl);
            mysqli_stmt_execute($stmt);
            session_unset();
            session_destroy();
            header("Location: Admin-MenuList.php?create=success");
            exit();
        }
        else {
            $errorMessage = "Error entering data:".mysqli_error($link)."<br>";
            session_unset();
            session_destroy();
            header("Location: Admin-MenuList.php?sql_error");
            exit();
        }
    }
    mysqli_close($conn);
}

```

3.4.2 Any tools used?

We used XAMPP as our PHP development environment, where it runs a web server and a database.

3.5 Database

3.5.1 Description of Database

MySQL is used for our database, where we create multiple tables to store our data such as Menu, Reservation, User details, Payment, Payment Detail, Promo (vouchers) and Credit Card. Examples of MySQL statements for table creation and data insertion are as below:

Table	MySQL Statements
Credit Card	<pre>CREATE TABLE `credit_card` (`card_id` int(255) NOT NULL, `card_name` varchar(255) COLLATE utf8_bin NOT NULL, `card_num` varchar(20) COLLATE utf8_bin NOT NULL, `card_exp` varchar(20) COLLATE utf8_bin NOT NULL, `card_code` varchar(20) COLLATE utf8_bin NOT NULL, `card_country` varchar(50) COLLATE utf8_bin NOT NULL, `card_ref` varchar(100) COLLATE utf8_bin NOT NULL, `card_payment` float NOT NULL, `payment_id` int(11) NOT NULL) INSERT INTO `credit_card` (`card_id`, `card_name`, `card_num`, `card_exp`, `card_code`, `card_country`, `card_ref`, `card_payment`, `payment_id`) VALUES (1, 'Loo Yuan Jun', '5196032041483065', '12/31', '123', 'Malaysia', '20200218-100001', 6.16, 9);</pre>
Menu	<pre>CREATE TABLE `menu` (`menuID` int(255) NOT NULL, `food_name` varchar(255) DEFAULT NULL, `food_price` float DEFAULT NULL, `category` varchar(60) DEFAULT NULL,</pre>

	<pre> `img_file_path` varchar(200) DEFAULT NULL) INSERT INTO `menu` (`menuID`, `food_name`, `food_price`, `category`, `img_file_path`) VALUES (1, 'Salmon Sushi', 4.8, 'Sushi', 'images/menu/salmon_sushi.jpg'); </pre>
Payment	<pre> CREATE TABLE `payment` (`payment_id` int(11) NOT NULL, `payment_total` float NOT NULL, `payment_tax` float NOT NULL, `promo_code` varchar(255) COLLATE utf8_bin DEFAULT NULL, `promo_type` varchar(255) COLLATE utf8_bin DEFAULT NULL, `payment_discount` float NOT NULL DEFAULT 0, `payment_grand` float NOT NULL, `payment_paid` float NOT NULL, `payment_change` float NOT NULL, `payment_time` timestamp NOT NULL DEFAULT current_timestamp(), `payment_type` varchar(255) COLLATE utf8_bin NOT NULL DEFAULT '0', `remark` varchar(1000) COLLATE utf8_bin NOT NULL DEFAULT '0', `username` varchar(255) COLLATE utf8_bin NOT NULL) INSERT INTO `payment` (`payment_id`, `payment_total`, `payment_tax`, `promo_code`, `promo_type`, `payment_discount`, `payment_grand`, `payment_paid`, `payment_change`, `payment_time`, `payment_type`, `remark`, `username`) VALUES (1, 8.4, 0.84, 'PROMO12', 'PERCENT', 1.01, 8.23, 0, 0, '2020-02-18 13:14:18', '', '8'); </pre>

Payment Detail	<pre>CREATE TABLE `payment_detail` (`detail_id` int(11) NOT NULL, `menuID` int(255) NOT NULL, `food_name` varchar(255) COLLATE utf8_bin NOT NULL, `food_price` float NOT NULL, `food_qty` int(10) NOT NULL, `category` varchar(60) COLLATE utf8_bin NOT NULL, `img_file_path` varchar(200) COLLATE utf8_bin NOT NULL, `payment_id` int(11) NOT NULL) INSERT INTO `payment_detail` (`detail_id`, `menuID`, `food_name`, `food_price`, `food_qty`, `category`, `img_file_path`, `payment_id`) VALUES (1, 2, 'California roll', 2.8, 3, 'Sushi', 'images/menu/california-rol.jpg', 5);</pre>
Promo	<pre>CREATE TABLE `promo` (`promo_code` varchar(255) COLLATE utf8_bin NOT NULL, `promo_type` varchar(255) COLLATE utf8_bin NOT NULL, `promo_price` float NOT NULL, `promo_active` tinyint(4) NOT NULL) INSERT INTO `promo` (`promo_code`, `promo_type`, `promo_price`, `promo_active`) VALUES ('DISCOUNT12', 'CASH', 12, 1);</pre>
User	<pre>CREATE TABLE `user` (`id` int(11) NOT NULL, `username` tinytext NOT NULL, `password` longtext NOT NULL, `email` tinytext NOT NULL,</pre>

	<pre> `name` varchar(255) DEFAULT NULL, `birthday` date DEFAULT NULL, `contact` varchar(13) NOT NULL, `is_admin` tinyint(1) NOT NULL) INSERT INTO `user` (`id`, `username`, `password`, `email`, `name`, `birthday`, `contact`, `is_admin`) VALUES (1, 'test', '123', 'test123@mmu.edu.my', 'I am testing', '2020-02-02', '012- 345 6789', 1); </pre>
Reservation	<pre> CREATE TABLE `reservation` (`reservationID` int(155) NOT NULL, `date_of_reservation` date DEFAULT NULL, `time_of_reservation` time DEFAULT NULL, `num_of_adult` int(11) DEFAULT NULL, `num_of_child` int(11) DEFAULT NULL, `full_name` varchar(100) DEFAULT NULL, `email` varchar(50) DEFAULT NULL, `phone` varchar(20) DEFAULT NULL, `city` varchar(20) DEFAULT NULL, `special_remarks` varchar(300) DEFAULT NULL) INSERT INTO `reservation` (`reservationID`, `date_of_reservation`, `time_of_reservation`, `num_of_adult`, `num_of_child`, `full_name`, `email`, `phone`, `city`, `special_remarks`) VALUES (1, '2012-12-10', '10:00:00', 1, 0, 'Michelle Chai', 'test', '0165727809', 'test', 'testtest'); </pre>

3.5.2 Any tools used?

Through XAMPP, we can look and manipulate the data in our database through phpMyAdmin, where we can drop tables, delete a record (row in the table), edit the structures of our table, insert new data and more.

3.6 Final product

3.6.1 Instruction Manual

For user:

1. Once the website is launched, home page will be shown.

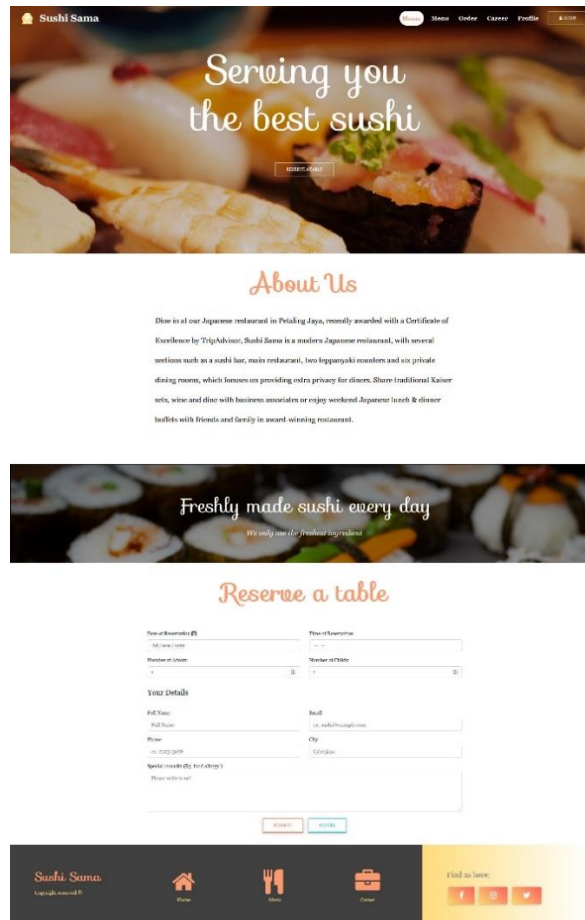
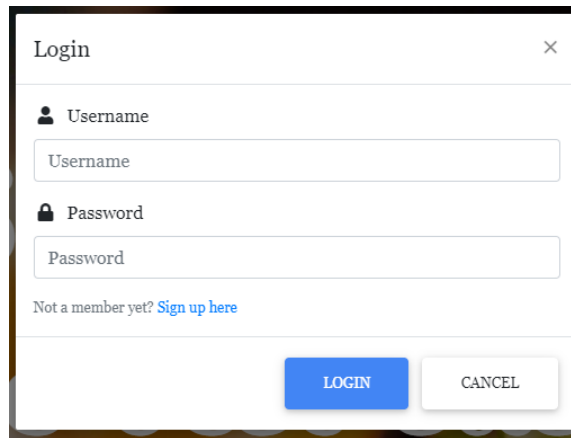


Figure 6: Home page

2. Click Sign Up to register a new account, if account is registered, click login button on the navigation bar to login by entering username and password. Login is required for payment after order is made.

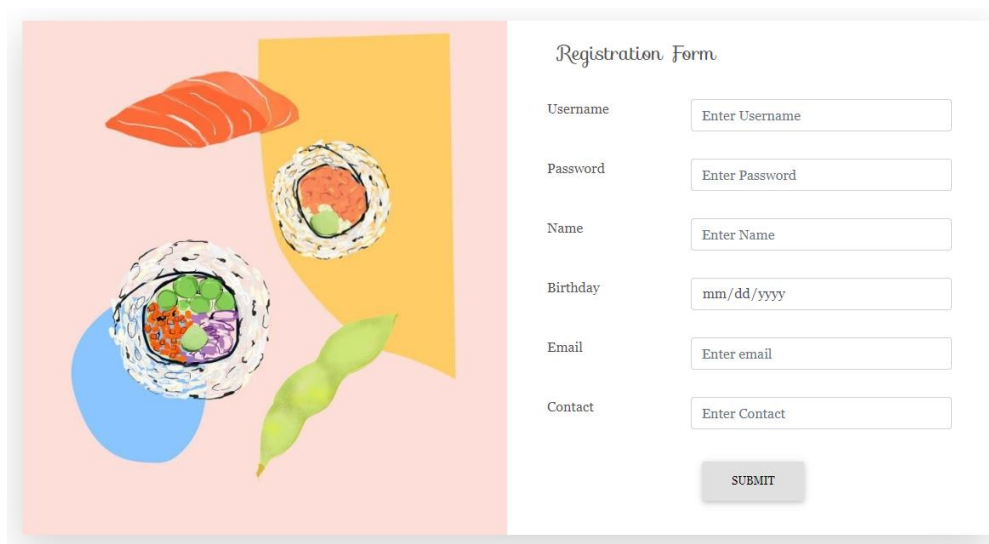


Figure 7: Navigation Bar



A login popup window with a title bar containing the word "Login" and a close button (X). The form contains two input fields: "Username" with a person icon and "Password" with a lock icon. Below the password field is a link "Not a member yet? [Sign up here](#)". At the bottom are two buttons: "LOGIN" (blue) and "CANCEL" (white).

Figure 8: Login Popup



A registration form titled "Registration Form" in a cursive font. The form is divided into two sections. The left section features a colorful illustration of sushi (salmon, tuna, and a green bean) on a pink and yellow background. The right section contains six input fields: "Username" (placeholder: "Enter Username"), "Password" (placeholder: "Enter Password"), "Name" (placeholder: "Enter Name"), "Birthday" (placeholder: "mm/dd/yyyy"), "Email" (placeholder: "Enter email"), and "Contact" (placeholder: "Enter Contact"). A "SUBMIT" button is located at the bottom right of the form.

Figure 9: Registration Page

3. Reservation can be made in home page, which can be seen after scrolling down, successful reservation is made upon entering valid detail and clicking the 'Reserve' button.

Reserve a table

Date of Reservation 📅	Time of Reservation
<input type="text" value="mm/dd/yyyy"/>	<input type="text" value="--:-- --"/>
Number of Adult:	Number of Child:
<input type="text" value="1"/>	<input type="text" value="0"/>

Your Details

Full Name	Email
<input type="text" value="Full Name"/>	<input type="text" value="ex: sushi@example.com"/>
Phone	City
<input type="text" value="ex: 012345678"/>	<input type="text" value="Cyberjaya"/>


Special remarks (Eg. food allergy)

RESERVE


CANCEL

Figure 10: Reservation Form at home page

- From home page, user can navigate to menu, career, order. After logged in, user can navigate to profile page.

 **Sushi Sama**

Home Menu Order Career **Profile** [Logout](#)

**Lim Teh**
@gorden

admin@limteh.com

Username

Email

Birthday

Contact

EDIT PROFILE

Support

Get fast, free help from our friendly assistants.

CONTACT US

Figure 11: Profile page

- User can edit profile by clicking edit profile button. User will be redirected to edit profile page for change of detail.

Username
gorden

Full Name
Lim Teh

Password

Email
limguancheng@hotmail.com

Birthday
09/29/1999

Contact
012-345 6789

SAVE

Figure 12: Edit profile page

6. Order can be made in menu page. By clicking cart button on specific dish, user will be prompted to enter quantity for the item to be passed to order. After submitting the quantity, menu page will be refresh and allow user to add more food into the order.

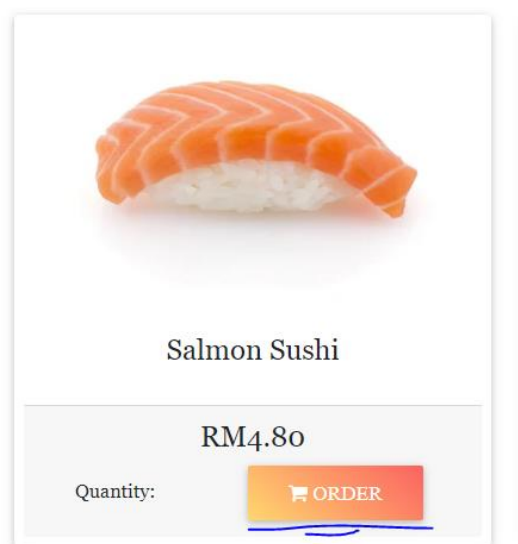
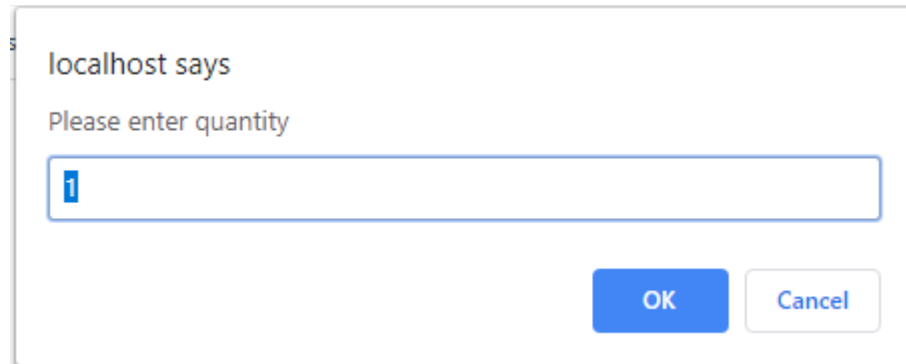


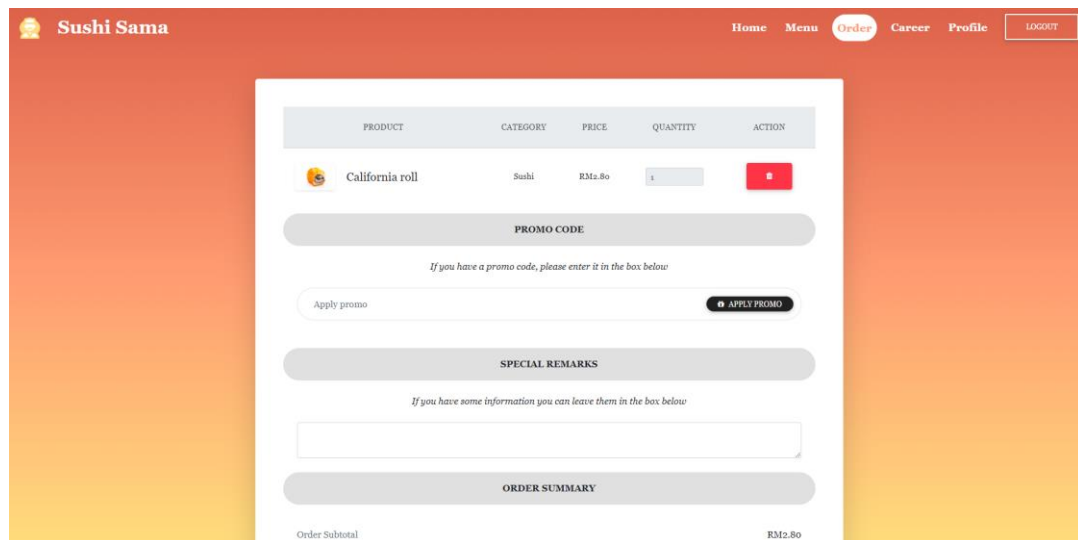
Figure 13: Menu item card



A modal dialog box with a white background and a thin grey border. At the top, it says "localhost says" in a dark grey font. Below that, it says "Please enter quantity" in a lighter grey font. There is a text input field with a blue border and a blue outline, containing the number "1". At the bottom right, there are two buttons: a blue "OK" button and a white "Cancel" button with a blue border.

Figure 14: Prompt to enter meal quantity

7. After finish order, user can navigate to order page from the navigation bar. User can enter promo code that is active to apply for discount on total price. User can enter special remarks for their orders. After that, user may proceed to check out



The Sushi Sama Order page features a white central panel on an orange-to-yellow gradient background. At the top left is the "Sushi Sama" logo. The top navigation bar includes "Home", "Menu", "Order" (highlighted), "Career", "Profile", and a "LOGOUT" button. The main content area includes a table with columns: PRODUCT, CATEGORY, PRICE, QUANTITY, and ACTION. The table lists "California roll" under the "Sushi" category at a price of "RM2.80", with a quantity of "1" and a red minus button. Below the table are three sections: "PROMO CODE" with a text input and an "APPLY PROMO" button; "SPECIAL REMARKS" with a text input; and "ORDER SUMMARY" which shows "Order Subtotal" as "RM2.80".

Figure 15: Order page

Please enter promo code!

SPECIAL REMARKS

If you have some information you can leave them in the box below

ORDER SUMMARY

Order Subtotal	RM2.80
Tax(10%)	RM0.28
Discount	-RM0.00
Total	RM3.08

PROCEED TO CHECKOUT

Figure 16: Order page's order summary

8. After proceeding to checkout is clicked, user will be redirect to payment page, user can select cash payment or credit card payment. After entering amount bigger than total price, payment successful will be shown for cash payment. While for card payment, user will be direct to card page.

Sushi Sama Home Menu **Order** Career Profile Logout

PAYMENT

Full Name

gorden

Email

linguancheng@hotmail.com

Contact Number

012-345 6789

Total Price (RM)

3.08

Cash to be pay(only for Cash Payment)

0.00

Payment Method

CASH CREDIT CARD

Figure 17: Payment page

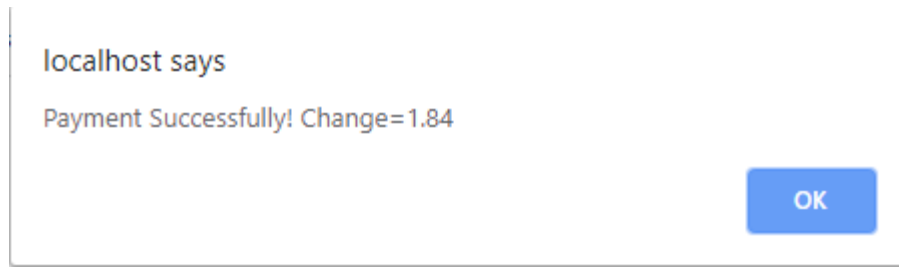


Figure 18: Cash payment successful message

A credit card payment form titled "Credit Card Payment" at the top center. Below the title are logos for VISA, Mastercard, and American Express. The form contains several input fields: "Merchant Name" with the value "Sushi Sama", "Payment Ref." with the value "20200218-100003", "Payment amount" with the value "RM 10.56", "Name on card", "Card number", "Expiration" (MM/YY), "Security code", and "Card Issuer Country" (Malaysia). At the bottom, there is a large teal button with a white credit card icon and the text "Pay RM 10.56".

Figure 19: Credit card payment page

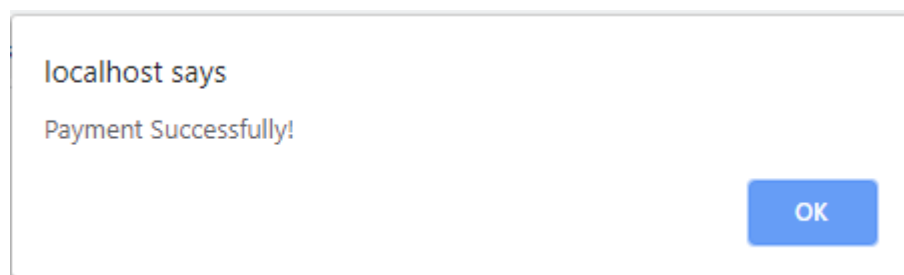


Figure 20: Credit card payment successful message

9. Besides, user can navigate to career page to see the detail of recruitment.

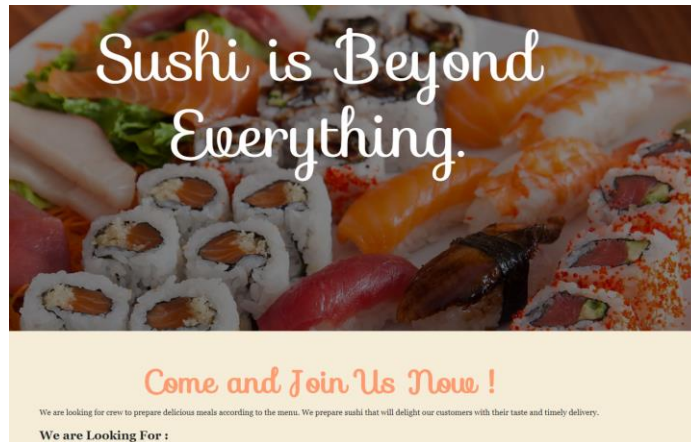




Figure 21: Career Page

For admin:

1. To access admin page, admin need to login from the login page by entering valid credential.

A login form titled 'Sushi Sama Panel' with a gear icon. It has two input fields: 'Username' with the text 'gorden' and 'Password' with masked characters '....'. A 'Login' button is at the bottom. The form is centered on a background with a vertical orange-to-red gradient.

 **Sushi Sama Panel**

 Username


 Password

Figure 22: Admin login page

2. After logged in, admin can click on either one of the five buttons to check the details for respective tables such as order summary, table reservation list and so on. Admin can log out by clicking the logout button at the top right corner of the navigation bar from any of the pages.

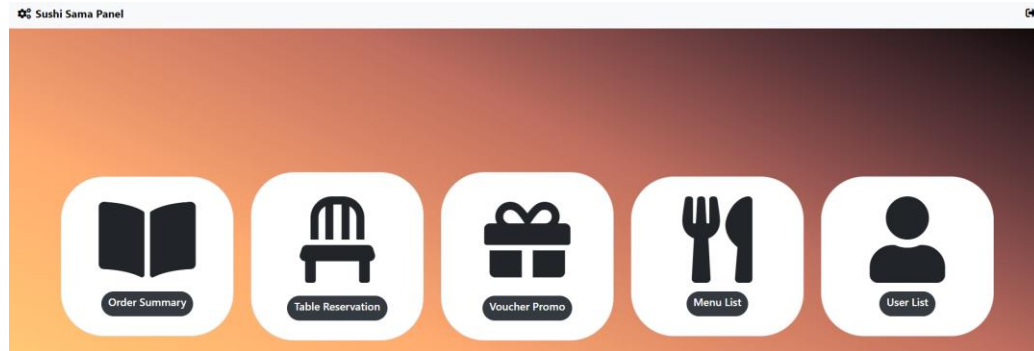


Figure 23: Admin Homepage

3. At order summary page, admin can check the order and payment made by user, admin can also remove the order by clicking the trash bin button. A modal will appear for delete confirmation. Admin can also check the detail of the order by clicking the info button.

/ Order Summary

Payment ID	Username	Total	Promo Code	Discount	Grand Total	Time	Action
15	gorden	5.6		0	6.16	2020-02-19 06:31:20	
16	gorden	9.6		0	10.56	2020-02-19 06:33:25	
17	gorden	9.6		0	10.56	2020-02-19 06:34:54	
18	gorden	560		0	616	2020-02-19 21:22:04	
19	gorden	2.8		0	3.08	2020-02-19 21:42:14	

Figure 24: Order Summary Page

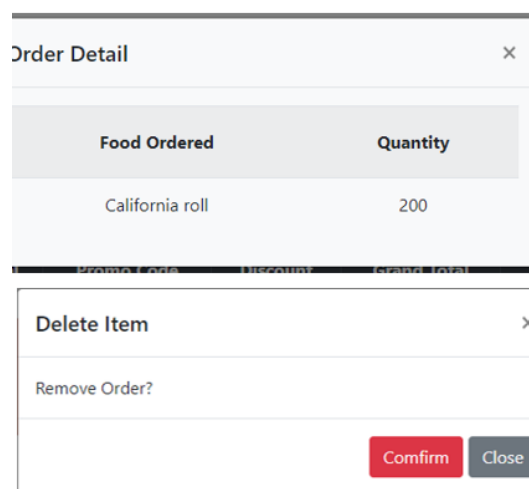


Figure 25: Modals for order

4. To navigate back to admin homepage, admin can click the house icon.

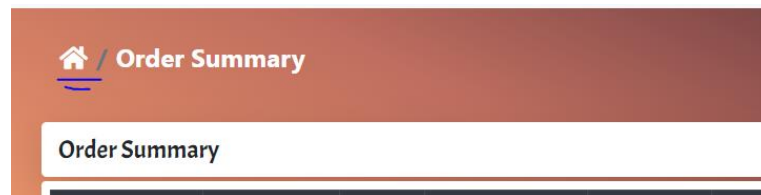


Figure 26: Breadcrumb to navigate to admin homepage

5. For table reservation list, admin can add, edit and delete reservation made by customers. By clicking respective button, a modal will be shown to perform the action.

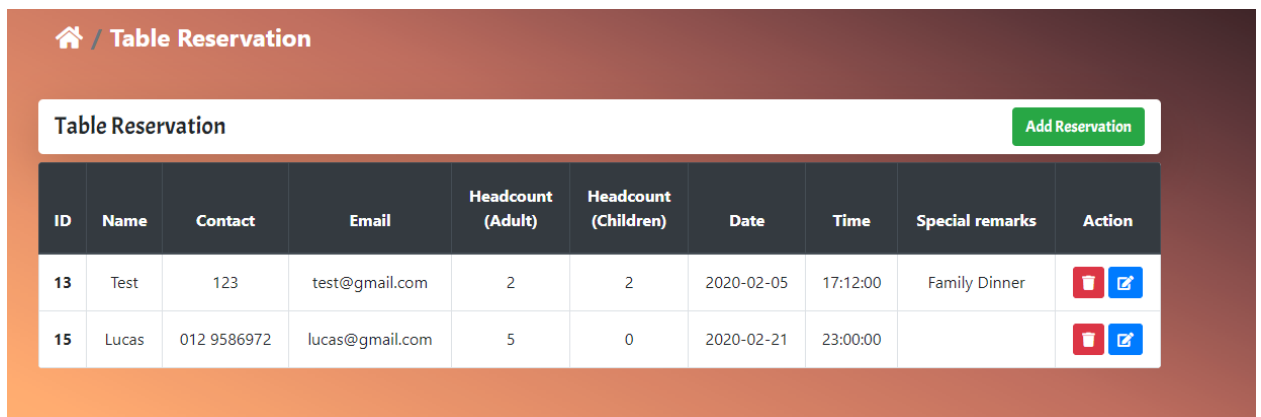






Table Reservation									
Table Reservation									Add Reservation
ID	Name	Contact	Email	Headcount (Adult)	Headcount (Children)	Date	Time	Special remarks	Action
13	Test	123	test@gmail.com	2	2	2020-02-05	17:12:00	Family Dinner	 
15	Lucas	012 9586972	lucas@gmail.com	5	0	2020-02-21	23:00:00		 

Figure 27: Table reservation list

Add Item

Date:

Time:

Name:

Contact:

Email:

City:

Headcount(Adult):

Headcount(Children):

Special Remarks:

Close Save changes

Edit Reservation

Date:

Time:

Name:

Contact:

Email:

Headcount(Adult):

Headcount(Children):

Special Remarks:

Close Save changes

Delete Item

Remove Reservation?

Confirm Close

Figure 28: Modals for reservation

- User can navigate to voucher page to add and remove vouch that is applicable for customer to add discount.

/ Voucher

Voucher Add Voucher

Promo Code	Promo Type	Promo Price	Promo Active	Action
DISCOUNT12	CASH	12	1	
DISCOUNT15	CASH	15	1	
PROMO12	PERCENT	12	1	

Figure 29: Voucher Table

Add Item

Promo Code:

Promo Type:

Promo Price:

Promo Active:

Close

Save changes

Delete Item

Remove Voucher?

Confirm

Close

Figure 30: Modals for vouchers

7. Admin can use menu list to manage menu items. Admin can add, edit or delete item from the menu for user to order.

Menu List

Add Item

























ID	Category	Name	Price	Picture	Action
1	Sushi	Salmon Sushi	4.8		 
2	Sushi	California roll	2.8		 
3	Sushi	California roll with tuna	4.8		 
4	Sushi	Shrimp Sushi	4.8		 
5	Sushi	Avocado Roll	2.8		 
6	Sushi	Inari Nigiri	1.8		 
7	Sushi	Salmon Roll	3.8		 
8	Sushi	Ika Nigiri	4.8		 

Figure 31: Menu List

Add Item

Name:

Price:

Category:

Upload picture:

No file chosen

Edit Item

Name:

Price:

Category:

Delete Menu

Remove Item?

Figure 32: Modals for menu list

- Admin can use user list to manage user profile and user details. Admin can edit or remove user.

User List

User List

ID	Username	Password	Name	Birthday	Email	Contact	Staff	Action
6	gorden	123	Lim Teh	1999-09-29	limguancheng@hotmail.com	012-345 6789	1	<div> <div></div> <div></div> </div>

Figure 33: User List

Edit User

Username:

gorden

Password:

123

Name:

Lim Teh

Birthday:

09/29/1999

Email:

limquancheng@hotmail.com

Contact:

012-345 6789

Is Staff:

1

Close

Save changes

Delete Item

Remove User?

Confirm

Close

Figure 34: Modal for User List

3.6.2 Screenshots

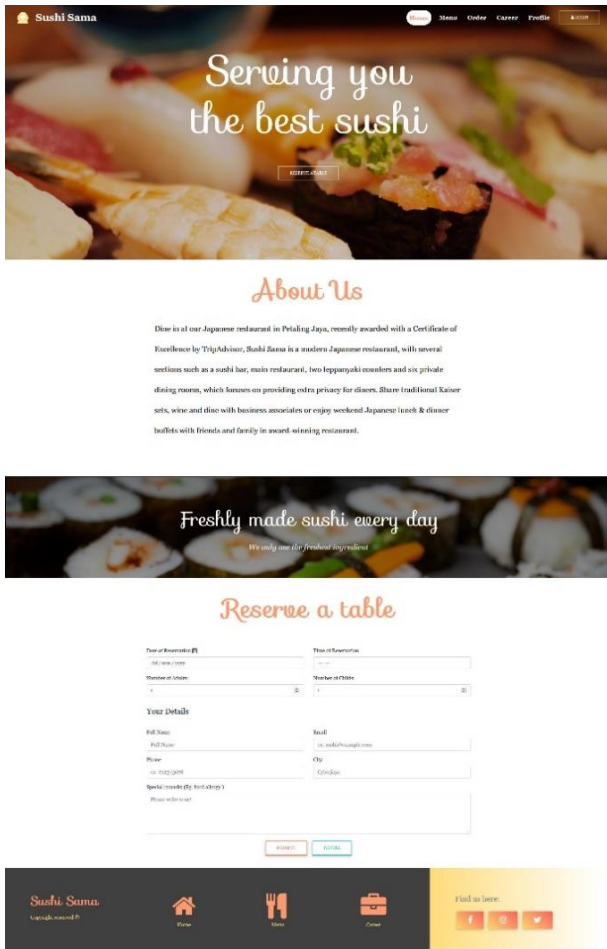


Figure 35: Homepage (home.php)

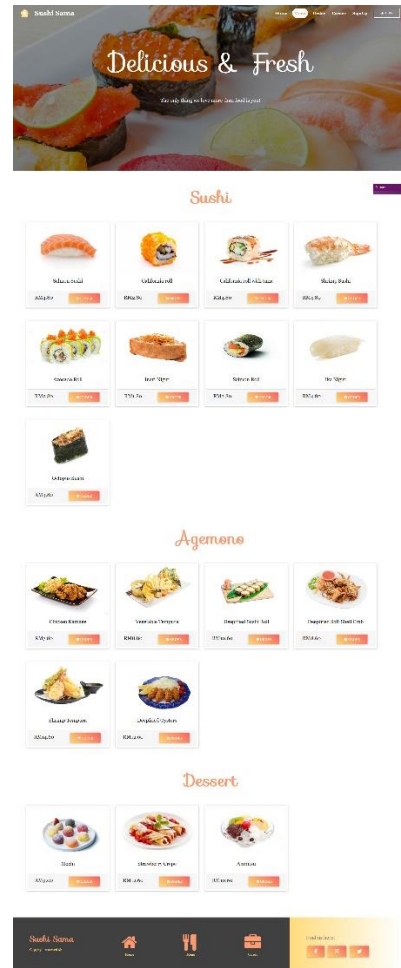


Figure 36: Menu (menu.php)

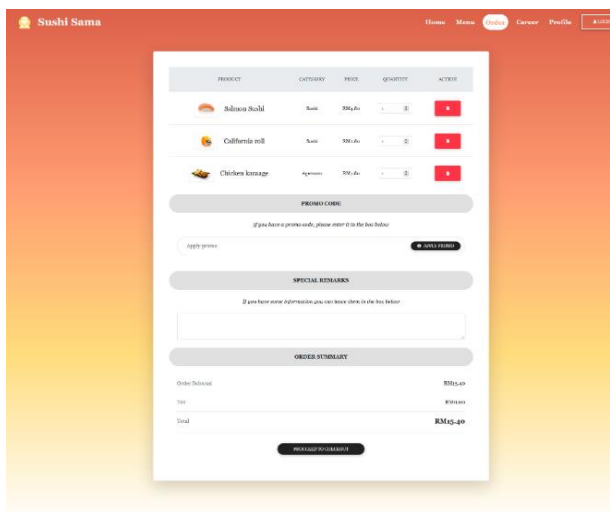


Figure 37: Order summary (order.php)



Figure 38: Career (career.php)

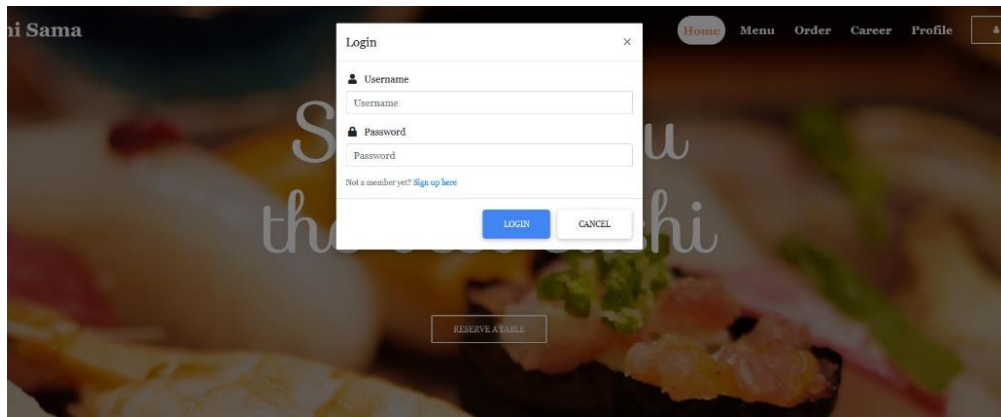


Figure 39: Login modal (pop up)

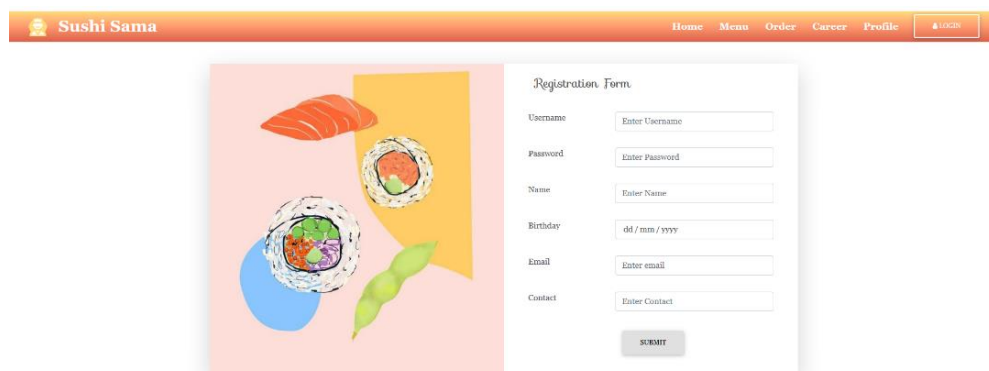


Figure 40: Registration (registration.php)

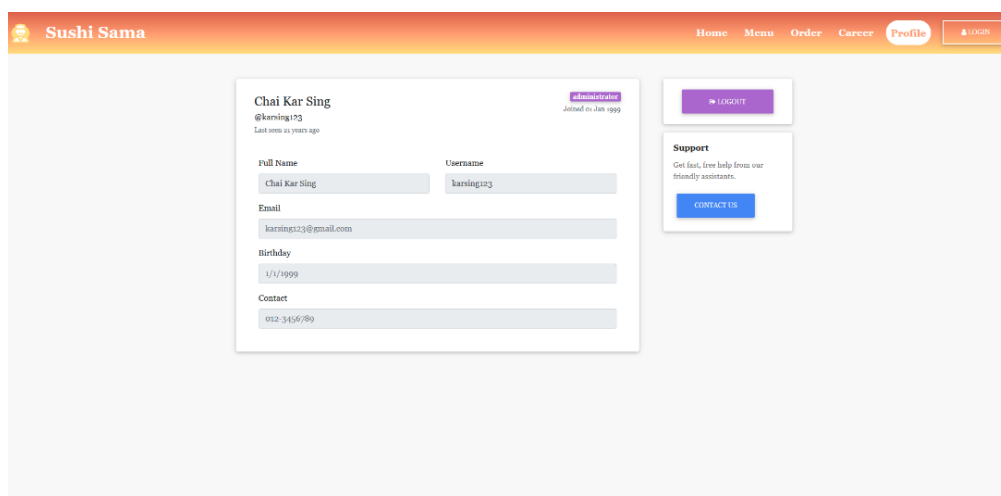


Figure 41: Profile (profile.php)

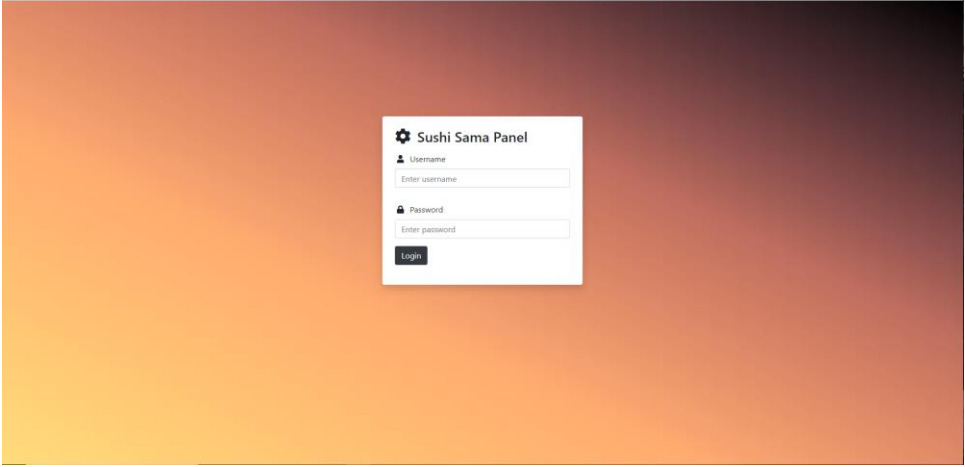


Figure 42: Admin Login (AdminLogin.php)

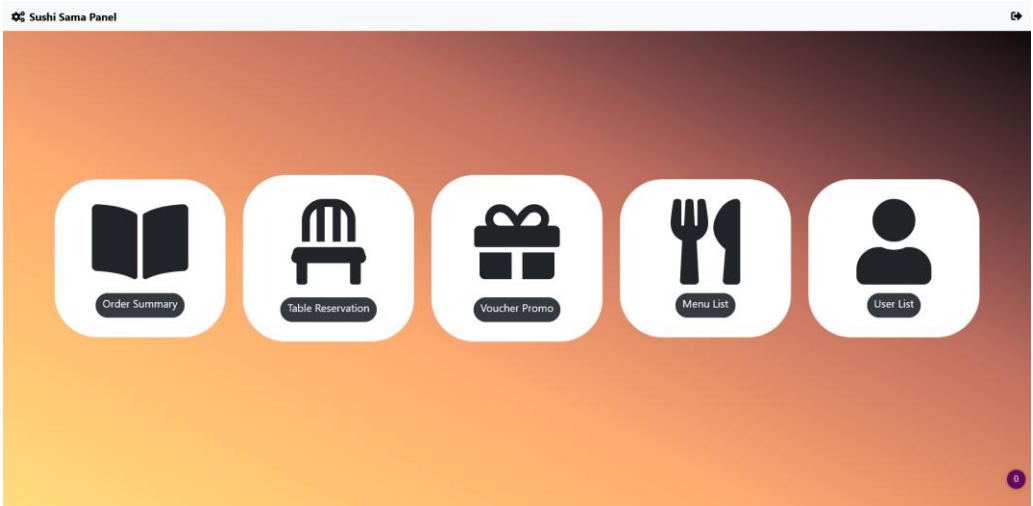


Figure 43: Admin Home (AdminHome.php)

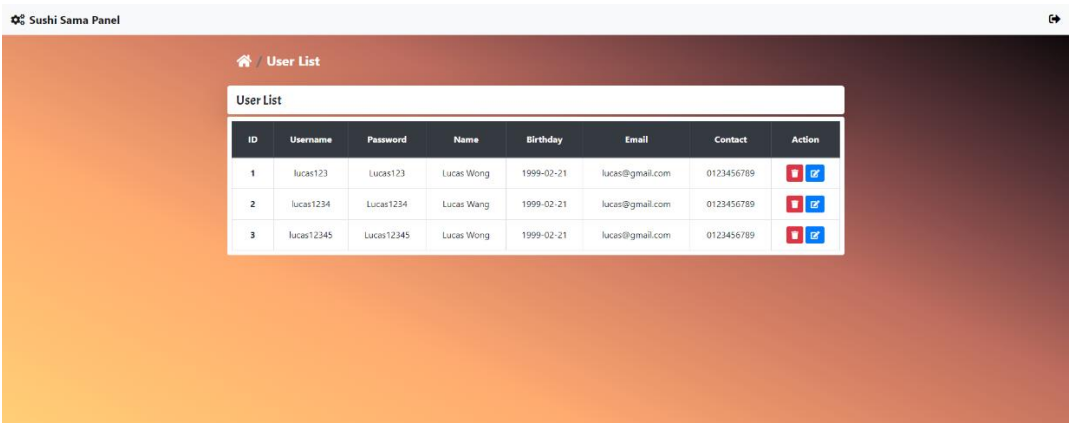
























































Figure 44: User List (Admin-UserList.php)

Sushi Sama Panel

Menu List

Menu List Add Item

ID	Category	Name	Price	Picture	Action
1	Sushi	Salmon Sushi	4.8		 
2	Sushi	California roll	2.8		 
3	Sushi	California roll with tuna	4.8		 
4	Sushi	Shrimp Sushi	4.8		 
5	Sushi	Avocado Roll	2.8		 
6	Sushi	Inari Nigiri	1.8		 
7	Sushi	Salmon Roll	3.8		 
8	Sushi	Ito Nigiri	4.8		 
9	Sushi	Octopus Sushi	3.8		 
10	Agemono	Chicken Karaage	7.8		 
11	Agemono	Vegetable Tempura	8.8		 
12	Agemono	Deepfried Sushi Roll	10.6		 
13	Agemono	Deepfried Soft Shell Crab	8.8		 
14	Agemono	Shrimp Tempura	14.6		 
15	Agemono	Deepfried Oysters	12.6		 
16	Dessert	Mochi	9		 
17	Dessert	Strawberry Crepe	12.6		 
18	Dessert	Anmitsu	10.6		 



0 Loading

Figure 45: Menu (Admin-MenuList.php)

Sushi Sama Panel

Table Reservation

Table Reservation Add Reservation

ID	Name	Contact	Email	Headcount (Adult)	Headcount (Children)	Date	Time	Special remarks	Action
2	Michelle	0165727809	michelle123679@gmail.com	1	0	2020-02-06	11:00:00		 

0

Figure 46: Reservation (Admin-ReservedList.php)

Sushi Sama Panel

Voucher

Add Voucher

Promo Code	Promo Type	Promo Price	Promo Active	Action
DISCOUNT12	CASH	12	1	
DISCOUNT15	CASH	15	1	
PROMO12	PERCENT	12	1	

0

Figure 47: Voucher (Admin-Voucher.php)

Sushi Sama Panel

Order History

Order History

ID	Username	Amount	Order Time	Action
1	lucastest	RM4.80	2020-01-17 15:30:00	
2	lucastest	RM2.80	2020-01-17 15:30:00	
3	lucastest	RM7.80	2020-01-17 15:30:00	

Figure 48: Order History (Admin-OrderSummary.php)

4. Limitations and Future Improvements

In terms of functional design, there are more functions we can make for the website such as showing the order history made by user and even provide function for user to repeat their order. Other than that, we can ensure data security through certain encryption, which is currently not implemented for our website. Initially, our passwords for users are encrypted through hash encryption, but it was a one-way encryption; after the encryption, it was too long for us to process at the admin's side. There is also a lack of validation of input data such as alphanumeric characters check, email validation checks, date of reservation must be after the date of today etc.

Moreover, we can find an online solution for our database such as AWS or Firebase, where manual insertion and update of MySQL tables are unnecessary. This allows everyone who uses the website to have access to the same consolidated data. Currently, we export the data we input and share it among ourselves for all of us to have access to the same set of data.

In terms of design, we would like to make the website more interactive through placing animations that will only be triggered once the user performs certain actions such as scrolling to one section. Furthermore, we would love to make our website more attractive and pleasing to users through both front-end and back-end development.

5. Discussion and Conclusion

Websites play an important role for all types of businesses; it is their face and main front when interacting with customers. The eye-capturing visual effects from dynamic and interactive elements are commonly used on websites. Many of us browse websites to obtain information about certain businesses or their products.

In our Assignment 1, we have learned the basics of building website using HTML and CSS with Bootstrap. We have examined a few different websites, where we did a thorough analysis to identify the strength and weaknesses of each website. All our group members offered different opinion to improve our websites so that it can be more user friendly and attractive. Other than that, we also develop responsive elements for our website so that the webpage can be viewed on mobile phones, tablets, and smaller screens. Mobile phones are commonly used to browse website, so we pay extra attention to the responsiveness of our websites.

For our Assignment 2, we added JavaScript, PHP, and added MySQL database for our website so that we can manipulate the data submitted by the users. Furthermore, we can also add new information, edit existing information or delete information from our website easily through the admin panel. For example, we can use the add button on the admin's side to add a new menu item by providing food name, food price, food category and uploading the image.

For this website, we aim to achieve better user experience than others website and make our website one of the best in the field.

6. Appendix – HTML validation (Assignment 1)

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change.

Showing results for contents of text-input area

☐ source
 ☐ outline
 ☐ image report

Check by ☒ text input
 ☐ CSS

```
<!DOCTYPE html>
<html lang=en>

<head>

  <!-- Required meta tags -->
  <meta charset=UTF-8>
  <meta name=viewport content=device-width, initial-scale=1, shrink-to-fit=no>
  <title>Unit Name / Title</title>
  <link href=/css -->
  <link rel=stylesheet href=https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css
        integrity=sha384-Czso/wza续写...>
  <!-- for bootstrap -->
  <link rel=stylesheet href=/web.min.css>

  <!-- jquery font(faces) -->
  <script src=/static/js/jquery.js,font_awesome.js,bootstrap.js>
```

Check

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

- Warning** The date input type is not supported in all browsers. Please be sure to test, and consider using a polyfill.
 From line 164 column 9 to line 164 column 69
 <input name=date type=date class=form-control required=>
 ></>
- Warning** The time input type is not supported in all browsers. Please be sure to test, and consider using a polyfill.
 From line 173 column 9 to line 173 column 69
 <input name=time type=time class=form-control required=>
 ></>

Document checking completed.

Source

```
1. <!DOCTYPE html>>
```

Figure 46: home.html

The screenshot displays the NuHTML Checker application. At the top, it says "Nu HTML Checker". Below that, a note states: "This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change". The main section is titled "Showing results for contents of text-input area". It includes a "Checker Input" box with tabs for "Show", "source", "outline", "image report", and "Options...". The "source" tab is active, showing HTML code for a Bootstrap navbar. Below the input box is a "Check" button. A message below the button reads: "Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings." There is a "Message Filtering" button. The bottom section shows two accessibility warnings:

- Warning**: Section lacks heading. Consider using `<h2>` or `<h3>` elements to add identifying headings to all sections.
From line 64, column 2 to line 64, column 54
Code snippet: `<section class="cover text-center" id="menu-banner"></-->`
- Warning**: Consider using the `<h1>` element as a top-level heading only (all `<h1>` elements are treated as top-level headings by many screen readers and other tools).
From line 108, column 5 to line 108, column 34
Code snippet: `<h1 class="heading mb-3 py-4">Delicia`

At the very bottom, it says "Document checking completed." and "Source" with a link to view the source code.

Figure 47: Menu.html

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for AdminLogin.html

Checker Input

Show ☒ source ☒ outline ☒ image report [Options...](#)

Check by [file upload](#) [Choose File](#) No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

[Check](#)

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

[Message Filtering](#)

Document checking completed. No errors or warnings to show.

Figure 48: AdminLogin.html

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for Profile.html

Checker Input

Show ☒ source ☒ outline ☒ image report [Options...](#)

Check by [file upload](#) [Choose File](#) No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

[Check](#)

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

[Message Filtering](#)

Document checking completed. No errors or warnings to show.

Figure 49: Profile.html

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for Registration.html

Checker Input

Show ☒ source ☒ outline ☒ image report [Options...](#)

Check by [file upload](#) [Choose File](#) No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

[Check](#)

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

[Message Filtering](#)

1. **Warning** The `date` input type is not supported in all browsers. Please be sure to test, and consider using a polyfill.

[From line 146, column 9: to line 146, column 48](#)

>+<

```
<input type="date" class="form-control">+<
```

Figure 50: Registration.html

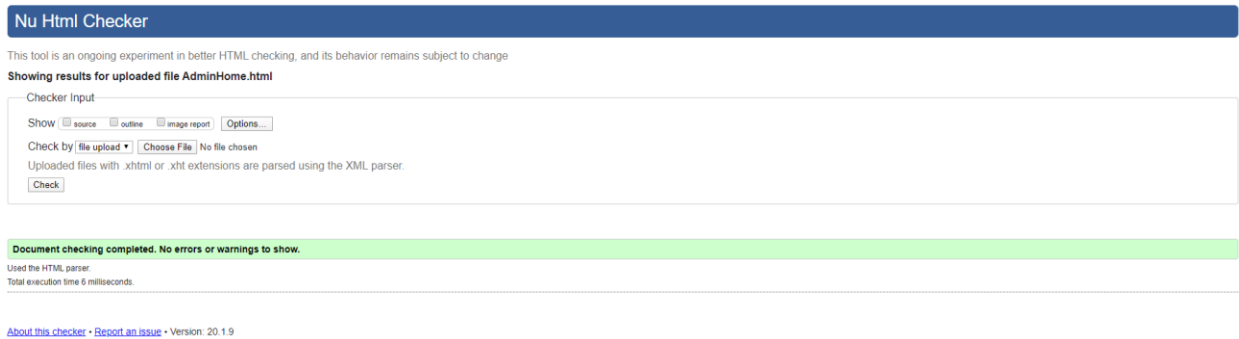


Figure 51: AdminHome.html

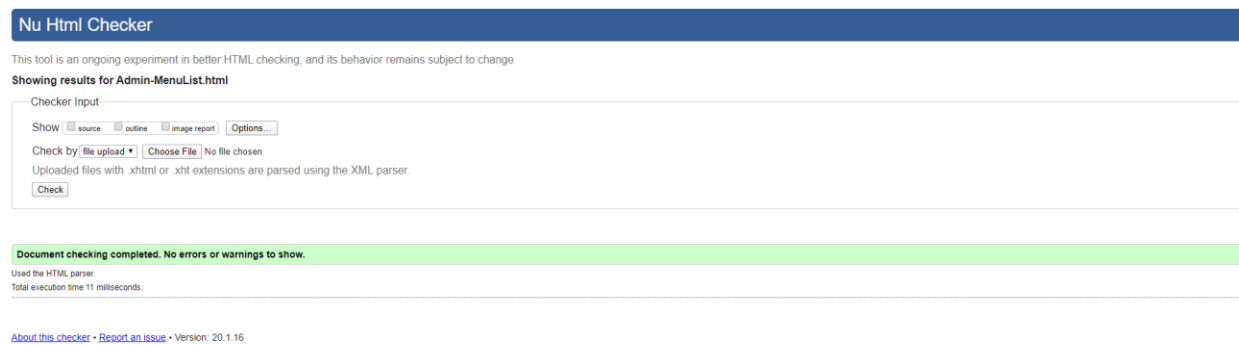


Figure 52: Admin-MenuList.html

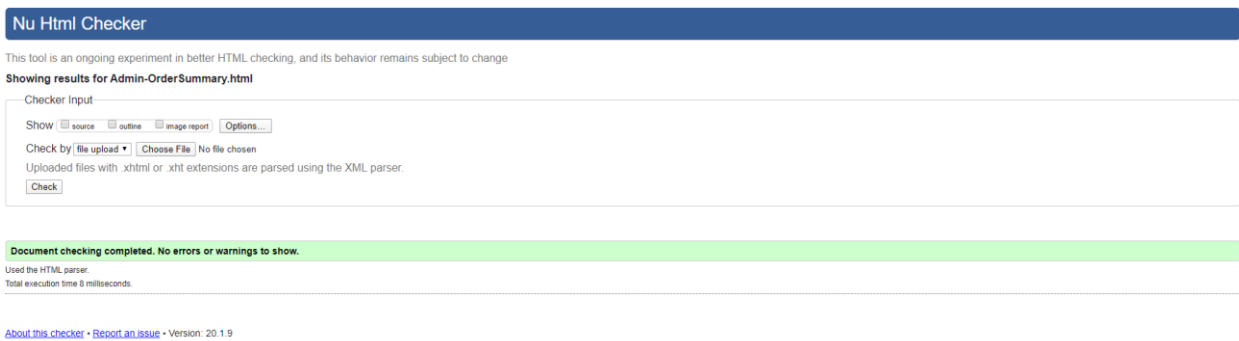


Figure 53: Admin-OrderSummary.html

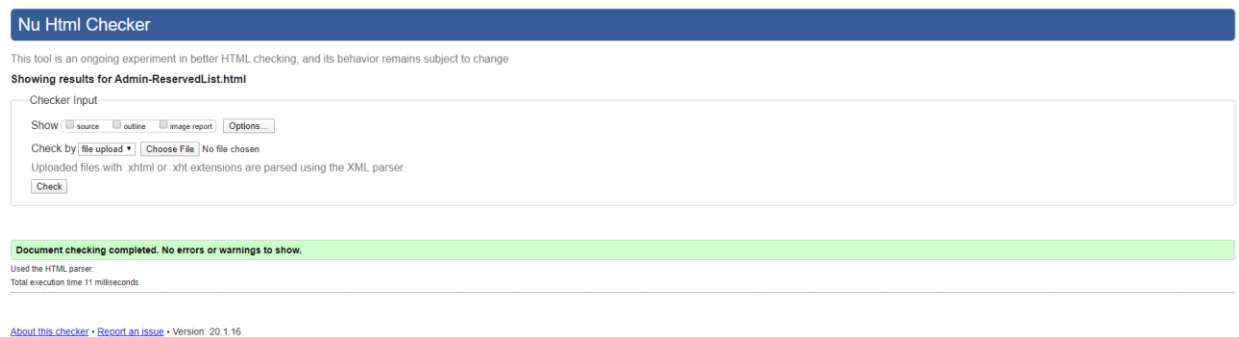


Figure 54: Admin-ReservedList.html

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for Admin-UserList.html

Checker Input

Show ☐ source ☐ outline ☐ image report

Check by No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 8 milliseconds.

[About this checker](#) • [Report an issue](#) • Version: 20.1.16

Figure 55: Admin-UserList.html

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for uploaded file creditCard.html

Checker Input

Show ☐ source ☐ outline ☐ image report

Check by No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 13 milliseconds.

Figure 56: creditCard.html

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for payment.html

Checker Input

Show ☐ source ☐ outline ☐ image report

Check by No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 10 milliseconds.

Figure 57: payment.html

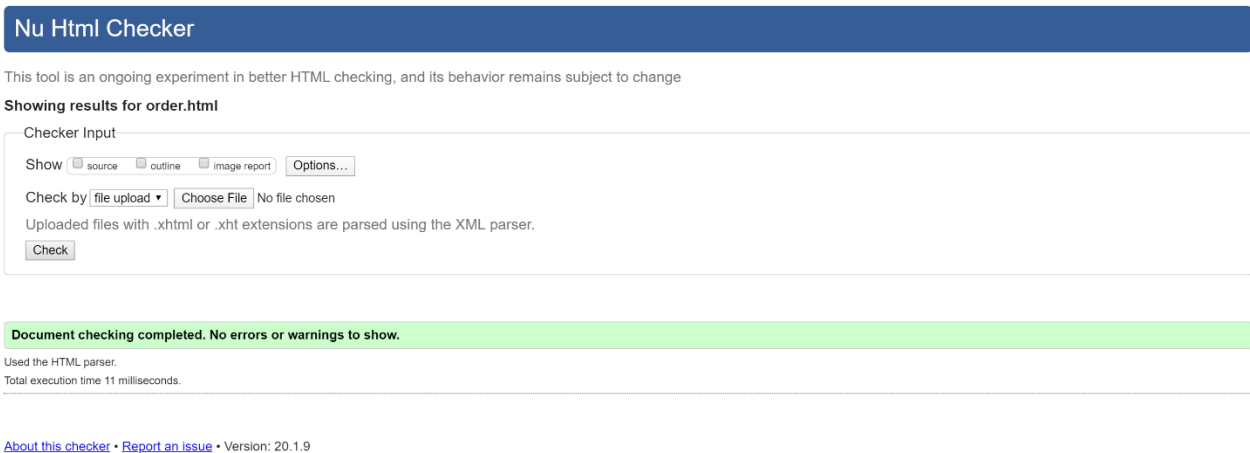


Figure 58: order.html

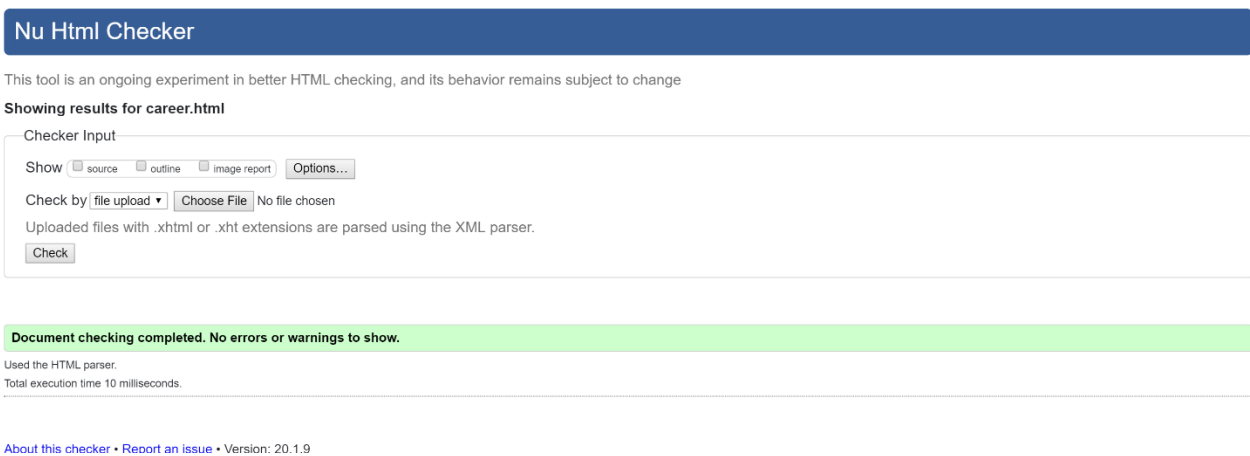


Figure 59: career.html