

Web Programming Language - Final Project Report

- **Project Title**

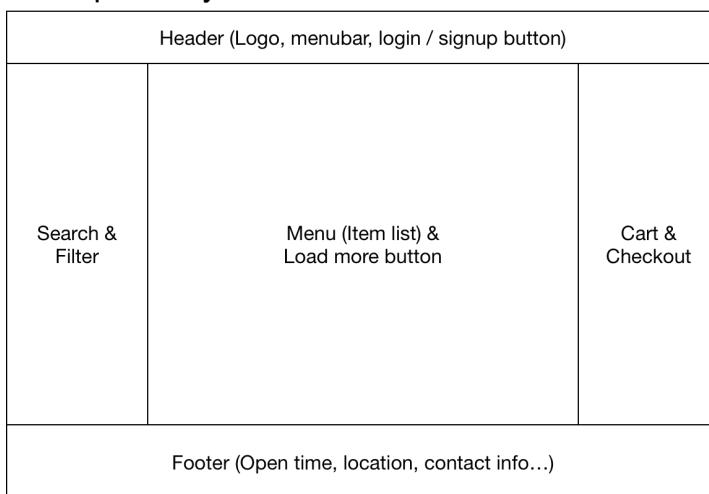
Online Restaurant Orders

- **Name for the Website**

DALAO HOTPOT (<http://eys.red>)

- **Project Description**

- **Abstract** - Dalao Hotpot is a website that implements functions of making orders online. Users can search their favorite dishes in our website with various filters in the left side. Once a user has decided what dishes to buy, they could click on the dishes they want to add them into the cart. The user would see the dishes they selected and the price details for their order, then they could proceed to check-out. As the user successfully makes an order (by clicking check-out button), the order would be recorded into the order history window at the same time. The user can check all orders he/she has made by clicking "My orders" button in the drop-down list on the navigation bar. Note that Dalao Hotpot also enables admin mode that certain users are authorized to edit dishes (add / delete / update) listed in the main page.
- **Homepage** - Homepage contains five sections. Header fixed on top, search bar, menu and cart as a row as main section, footer on bottom. We mainly use Bootstrap to arrange the layout. What is cool is both search bar and cart can be hidden, and three sections will automatically adjust to their layout respectively.



- **Login & Signup** - Users visit our website can sign up as a user. Login and Sign up buttons are easily accessible on the right side of the header. Users are required to provide username(unique), mobile(unique), email(unique), password and name. All fields are validated on both front-end and server-side to protect user privacy and the server. For the password, we use SHA256 to encrypt, transmit, store and validate. Users can log out by click the logout button under the drop-down menu of their user button.
- **Item list** - Item list use grid as display layout and contain every dish in restaurant menu. It will change the column number dynamically with the adjustment of width of window. Every unit of gird is an item container. We import every 12 dishes once load the page, or click the “Load next page” button, as a method of paging.
- **Search and filter** - Search and filter function are implemented on front-side. When user input the part of the dish’s name, available dish will be shown in the list, leave the others hidden, just like all the filters. Filters include category, price, calorie and vegetarian ready.
- **Item detail** - Every item will pop up a window when user click it in the list at once, no new page will be open since we think it is a waste of time. Within the detail window, user can see the full description of the dish, with calorie, inventory, for vegetarian, and of course, photo. User can add dish to the cart with provided quantity using the quantity buttons or input.
- **Admin mode (Add or edit dish)** - When login as an admin (which is determined by role in database), he/she can see the add button on the homepage and edit button under each dish. Both functions provide the same window, while edit dish will load the current information about this dish. Admins can change name, picture, description, price, inventory, calories and availability of the dish. Notice that availability implements soft-delete in our project, which means, when a dish is not available, users cannot see this dish in their menu. When a dish is zero inventory, user can still see it, but cannot make an order with that dish.
- **Cart and Checkout** - Since cart is also a section of page, user can select their dishes when see or change the cart as the same time. cart is on the server side and in the database, so user can access their cart everywhere. Cart is hide by default, when click the cart button or just add a dish, the cart bar will show. Every item with their quantity will show as a row in cart. User can change the quantity or delete when quantity is zero by click +/- button or input a specific number. User without login cannot add dishes to cart and checkout. When at least one item is in the cart, user can see the tip window and checkout button, with detail calculation of subtotal, delivery

fee, tip, tax and total fee. Users can adjust tip by click the button or input a specific amount. After clicking checkout, user need to provide their address, and payment info, or use PayPal to pay. And users can leave message to restaurant. After clicking the confirm button, front-end and server side will validate all the input to check if everything is valid, then an order will be established, and user can see the result of his/her order information.

- **Order list** - User can see the order list whenever he/she click the “My Order” button under the drop-down menu of their user button. Then their history orders will pop-up as a window. She / He can see all the detail of every single order, such as order time, message, dishes, subtotal, tip, delivery fee, tax and total fee.

● Database Design

※ All tables have been normalized to 3NF.

※ Foreign keys representation

Table-1(attr-1) → Table-2(attr-2)

equals to

ADD FOREIGN KEY Table-1(attr-1) REFERENCES Table-2(attr-2)

<Dish>

dish_id	name	description	price	category	calorie	vegetarian	photo	inventory	availability
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<User>

user_id	username	pwd	sign_up_time	status	role	mobile	email	first_name	last_name
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<Order>

order_id	user_id	built_time	message	tip	status	delivery_fee
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Foreign keys:

- Order(user_id) → User(user_id)

<Cart>

cart_id	user_id	dish_id	dish_qty
---------	---------	---------	----------

Foreign keys:

- Cart(user_id) → User(user_id)
- Cart(dish_id) → Dish(dish_id)

<Order_dish_quantity>

order_id	dish_id	dish_quantity	dish_price_that_time
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Foreign keys:

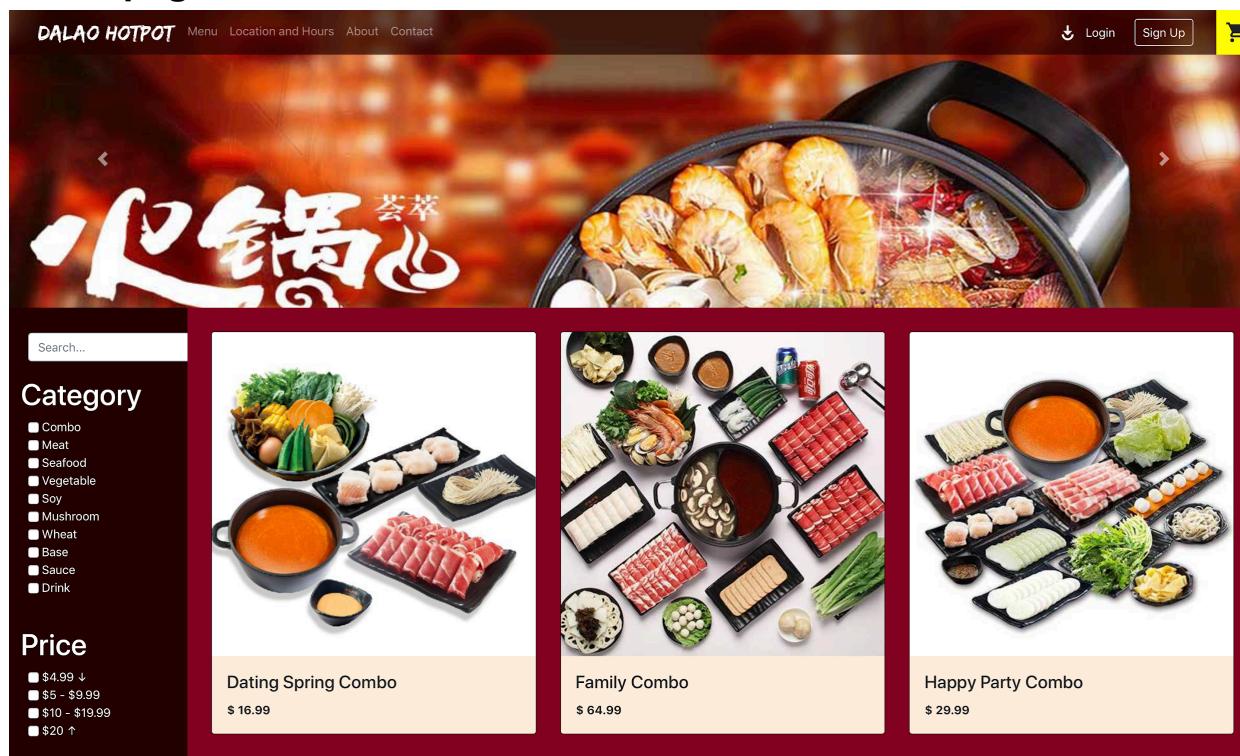
- Order_dish_quantity(order_id) → Order(order_id)
- Order_dish_quantity(dish_id) → Dish(dish_id)

- **Languages / frameworks used for implementation**

- **Database**
 - MySQL Community 5.6.39
- **Server-side**
 - PHP 5.6.33
- **Client-side**
 - HTML / CSS / Javascript
 - JQuery 3.3.1
 - Bootstrap 4.0
 - Google Material Icons
- **OS / IDE / Version Control**
 - (Deployment) Ubuntu 17.10
 - (Development) Windows 10 / MacOS 10.13
 - PhpStorm 2018.1
 - Github <https://github.com/eysure/restaurant>

- **Screenshots for main functionalities**

- **Home page with item list**



○ Log-in & Sign-up

The screenshot displays the DALAO HOTPOT website interface. At the top, there is a navigation bar with links for "Menu", "Location and Hours", "About", and "Contact". On the right side of the header, there are "Login" and "Sign Up" buttons, along with a shopping cart icon.

The main content area features a large banner with the restaurant's name "DALAO HOTPOT" and some promotional text. Below the banner, there are two overlapping modal windows:

- Login Modal:** A white box titled "Welcome" with fields for "Name" (containing "Henry") and "Password" (containing "*****"). A blue "Login" button is at the bottom.
- SignUp Modal:** A white box titled "SignUp" with fields for "Username" (containing "henry"), "Password" (containing "*****"), "Email" (containing "Eysure"), "Mobile Number" (containing "+1 4699747430"), and "Name" (containing "Xinyang" and "Zhu"). A blue "Sign Up" button is at the bottom. Error messages are displayed above the password and email fields: "Sorry, this username has been taken, change a new one" and "Password is too weak, it's insecure".

On the left side of the page, there is a sidebar with sections for "Category" (listing items like Combo, Meat, Seafood, Vegetable, Soy, Mushroom, Wheat, Base, Sauce, and Drink) and "Price" (listing price ranges: \$4.99, \$5 - \$9.99, \$10 - \$19.99, and \$20). Below the sidebar, there are two menu items: "Dating Spring" (\$16.99) and "Happy Party Combo" (\$29.99).

○ Item Detail & Admin Mode

The image shows a dual-screen view of a restaurant's website and its administrative interface.

Top Screen (Customer View):

- Pork Belly:** \$5.49
- Basha Fish Roll:** \$3.49
- Chinese Cabbage:** \$1.99 (Inventory: 299 left). A green checkmark icon is present.
- Fish Roll:** \$3.49
- Oiled Wheat Dish:** \$1.99

Bottom Screen (Admin Mode):

A modal window is open for editing a new item, "Dating Spring Combo".

Form Fields (Dating Spring Combo):

- Image preview: Choose File (no file selected)
- Item name: Dating Spring Combo
- Description: It is a very delicious combo.
- Category: Combo
- Price (\$): 16.99
- Calorie: 1600
- Vegetarian: Yes (radio button selected)
- Inventory: 38
- Availability: 1

Buttons:

- Cancel
- Update (highlighted in blue)

Left Sidebar (Customer View):

- + Food
- Search...
- Category**
 - Combo
 - Meat
 - Seafood
 - Vegetable
 - Soy
 - Mushroom
 - Wheat
 - Base
 - Sauce
 - Drink
- Price**

Right Sidebar (Customer View):

- DALAO HOTPOT
- Menu
- Location and Hours
- About
- Contact

Bottom Right (Customer View):

- Happy Party Combo
- \$29.99

○ Search & Filter

Basha

Category

- Combo
- Meat
- Seafood**
- Vegetable
- Soy
- Mushroom
- Wheat
- Base
- Sauce
- Drink

Price

- \$4.99 ↓
- \$5 - \$9.99
- \$10 - \$19.99
- \$20 ↑

Basha Fish Roll
\$ 3.49

○ Cart & Check-out

DALAO HOTPOT

Menu Location and Hours About Contact

henry

Food

Search...

Category

- Combo
- Meat
- Seafood
- Vegetable
- Soy
- Mushroom
- Wheat
- Base
- Sauce
- Drink

Price

Dating Spring Combo
\$ 16.99

Family Combo
\$ 64.99

Happy Party Combo
\$ 29.99

Family Combo
\$ 64.99

Pork Belly
\$ 5.49

Golden Pine Meat
\$ 5.49

Chinese Cabbage
\$ 1.99

Tip

\$1	\$2	\$3
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Subtotal \$77.96
Delivery Fee \$0.00
Tax \$4.87
Tip \$3.00
Total \$85.83

Comment
Please no spicy.

Delivery Info

Address 1
800 W Campbell Rd

Address 2
Apartment, suite, unit, building

Zip/Postal Code
75080

City
Richardson
TX, United States

Payment

Check out with **PayPal**

Card No.
Card number

- Order detail

Order Built-Time	
2018-04-23 18:43:47	
Message	
Please no spicy.	
Order Status	
Processing...	
Ordered Dishes	
Family Combo (\$64.99/serving) x1 Pork Belly (\$5.49/serving) x1 Golden Pine Meat (\$5.49/serving) x1 Chinese Cabbage (\$1.99/serving) x1	
Subtotal	
\$77.96	
Tip	
\$2.00	
Delivery Fee	
\$0.00	
Total	
\$79.96	

Order Built-Time	
2018-04-20 20:27:02	
Message	
msg	
Order Status	
Processing...	
Ordered Dishes	
Family Combo (\$64.99/serving) x1	
Subtotal	
\$64.99	
Tip	
\$2.00	

- Team Members

Name	Net-ID
Ye Yao	yxy175230
Hao-Lun Lo	hx173830
Xinyang Zhu	xxz170001

- Work division among team members

- Ye Yao

- Search & Filter (Front-end implement)
- Dish List / Dish Details (UI / Front-end)
- Add Dish (UI / Front-end / Server-side)
- Edit Dish (UI / Front-end / Server-side)
- Contents

- Hao-Lun Lo

- Database design / implementation / normalization
- Homepage: Search & Filter (UI)
- Order list (UI / Front-end / Server-side)

- Order detail (UI / Front-end / Server-side)
- **Xinyang Zhu**
 - Homepage: Header (UI / Front-end)
 - Log-in / Sign-up / User role (UI / Front-end / Server-side)
 - Dish (Front-end / Server-side)
 - Dish list paging (UI / Front-end)
 - Cart (UI / Front-end / Server-side)
 - Checkout (UI / Front-end / Server-side)