



Design and Construction of Taoli-Hanfu Shopping Website

<https://s2161131.edinburgh.domains/hanfu/>

DWD Submission 2

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Menu

- Improvement
- Design Motivations
- Methodology
- Execution
- Reflection
- Team Members



Improvement

- Clearer login and signup : based on the feedback, we have improved the signup and login function. After successful signup, Ajax will display a pop-up window to remind users, which is more in line with the perceptibility principle of UX. After successful login, the username will be displayed on the far right of the navbar, which makes the shopping website more realistic.
- More fluent functions : we have improved the suit display function, comment function and purchase function, making the website smoother and running well.
- User guidance : We have added user guidance for the ones who visit the website for the first time to briefly introduce the theme and usage of the website. Of course, users can also skip the guidance and experience directly. This makes users more intuitively understand our website while also provides a certain freedom.



Design Motivation

- As a cultural symbol, traditional clothing like Hanfu has the significance of inheritance and promotion in modern times. Wearing Hanfu is gradually and globally becoming a new fashion. More and more young people want to know about the Hanfu culture of different dynasties in history and hope to be able to purchase favorite clothes. At the same time, they are also eager to share and communicate with each other about this topic. So, our goal is to build a website where users can appreciate, purchase, comment on various ancient Hanfu styles and get to know the cultural background knowledge.

Methodology

Pain Point : At present, Hanfu as a complex system, there is no website that can introduce or sell them by categories, and there is no forum as an independent theme.

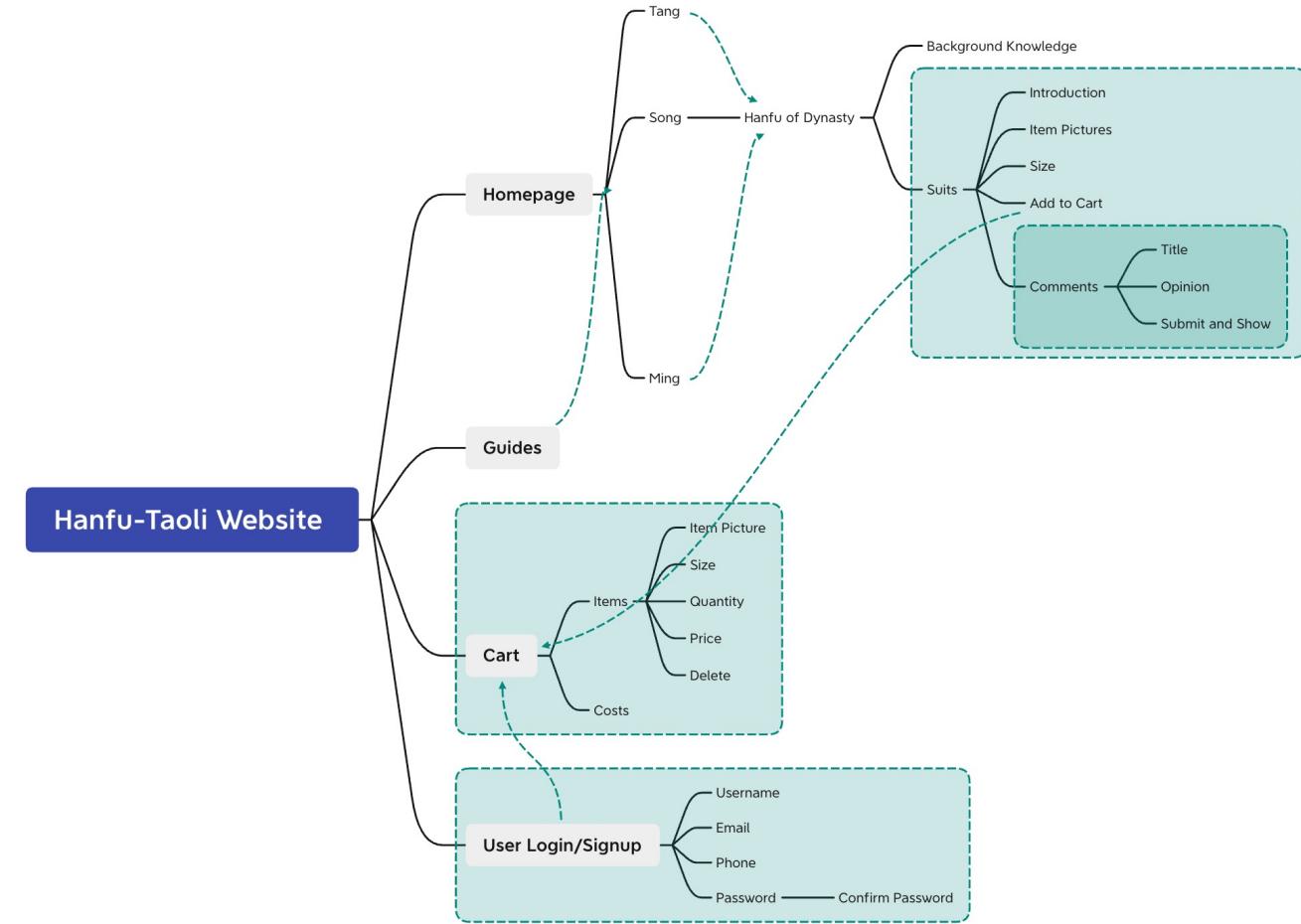
Target users : Young people who are interested in Hanfu culture and seek to purchase and share opinions.

Positioning: Interest based shopping website.

Main Functions : purchase service, discussion functions, background knowledge introduction.

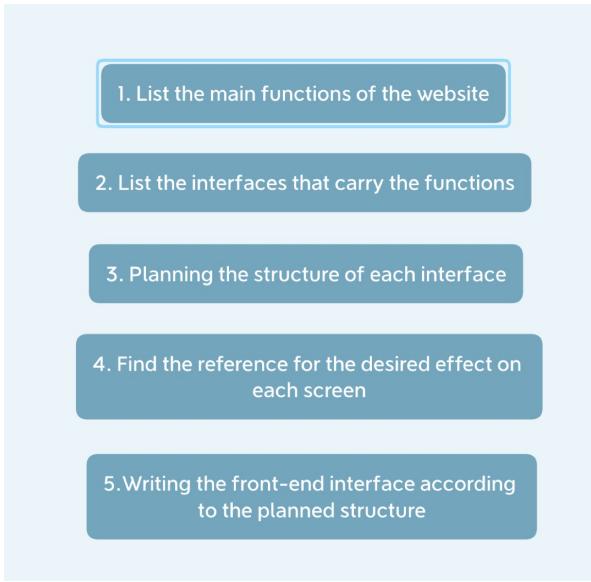
Methodology- Website Structure

- Our website mainly has four sections.
- On the home page, we show the illustrations of three different dynasties. Click the interactive buttons on the illustrations, users can jump to the responding dynasty page.
- Through the Guides button on the navbar, users can also jump to different dynasties pages.
- On the dynasty page, click the signs around the hand-painted figure, some knowledge and historical background of the Dynasty's clothing will be displayed in the left blank. Click the view button lower to jump to the clothing details page. (In this way, users can clearly understand the clothing characteristics of different dynasties. If they want to buy further, they can go to the next level page.)
- On the clothing details page, we make the whole suit into different items and sell them. Users can choose their favorite products and sizes. In the lower part of the page, users can easily post comments and ideas, in this way we aim to create a relaxed and open social environment.
- The cart page will clearly display all items currently added by the user, and the system will help the user calculate the total price.

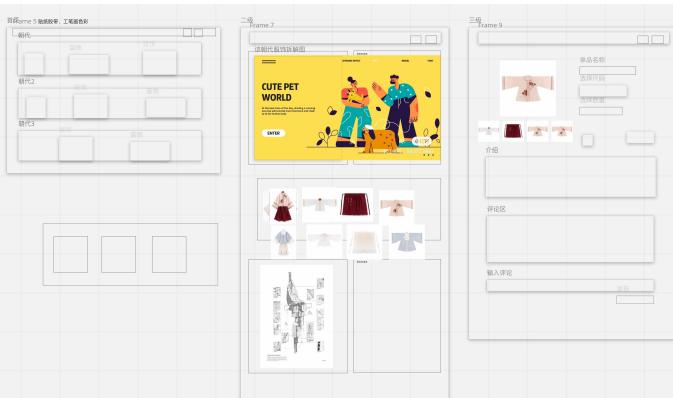


Execution- Discussion

- Once we decided the theme and general structure, we made a research on the interface design.
- Considering that the core of a website is user experience, in order to design clear interaction process and visual enjoyment, we collaborated to discuss them in the Miro board.



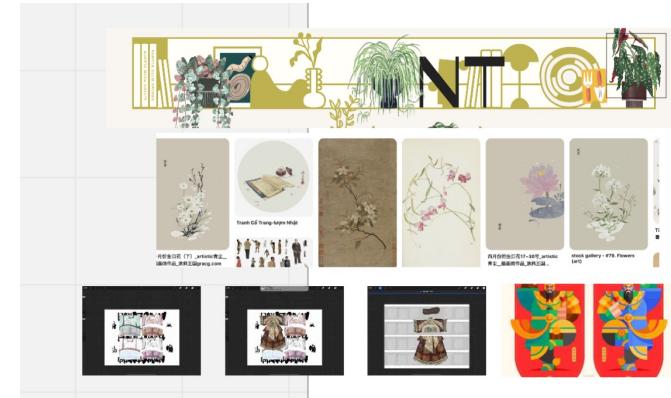
Process of front-end design



Interactive design

The screenshots show a product detail page for a 'Carte Postal Clock' with a price of \$122.00. The shopping cart contains one item, the 'Carte Postal Clock', with a total price of \$122.00. The shipping cart section shows a weight of 1.00KG and a unit price of \$122.00.

Research



Research

Execution- Page Design

- The introduction page is an opening ancient scroll which explains our website in detail.
- The inspiration of the illustration on the home page is paper tape. on the paper tape there are characteristic clothes of each dynasty. " I use the method of geometric segmentation to draw them. I try to summarize them and paste some ancient Chinese textures. The flowers behind are also with classical significance with Chinese characteristics." -Zixue He
- The theme of Song Dynasty is fan, Tang Dynasty is river, Song Dynasty is umbrella.



Taoli Hanfu website

Ming·Horse face skirt

Tang·Ru skirt

Tang·Vest

Song·Big sleeve



Cats Eye

Tang
唐

Ru skirt

襦裙

Song

宋

Big sleeve

大袖



Ming
明

Horse face skirt

马面

Tang
唐

Vest

褙子



Song
宋

Vest

褙子

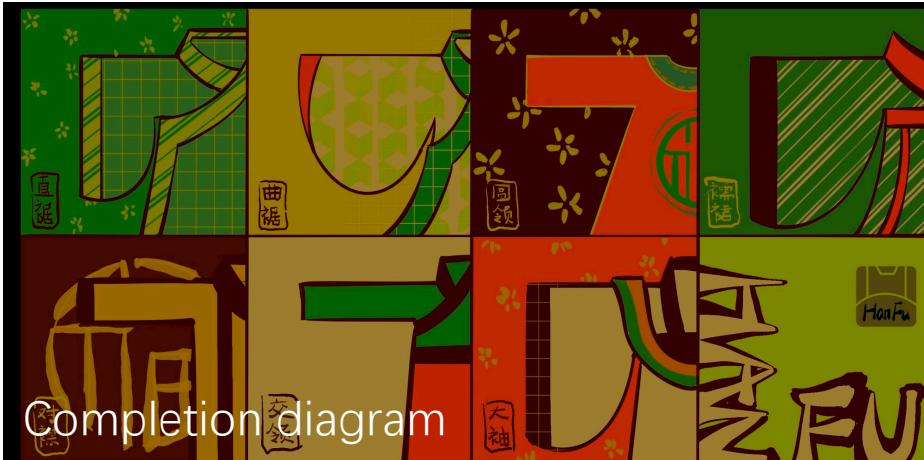
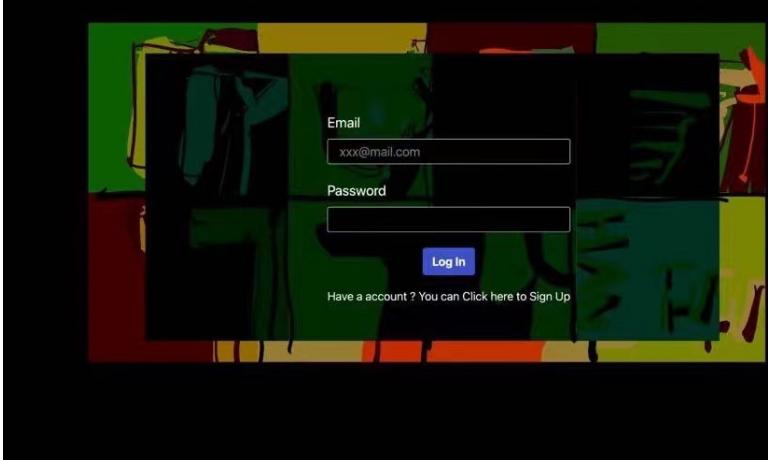


Execution- Page Design

- Login page: The background picture of the login interface is a collage of clothes of various dynasties.



Sketch



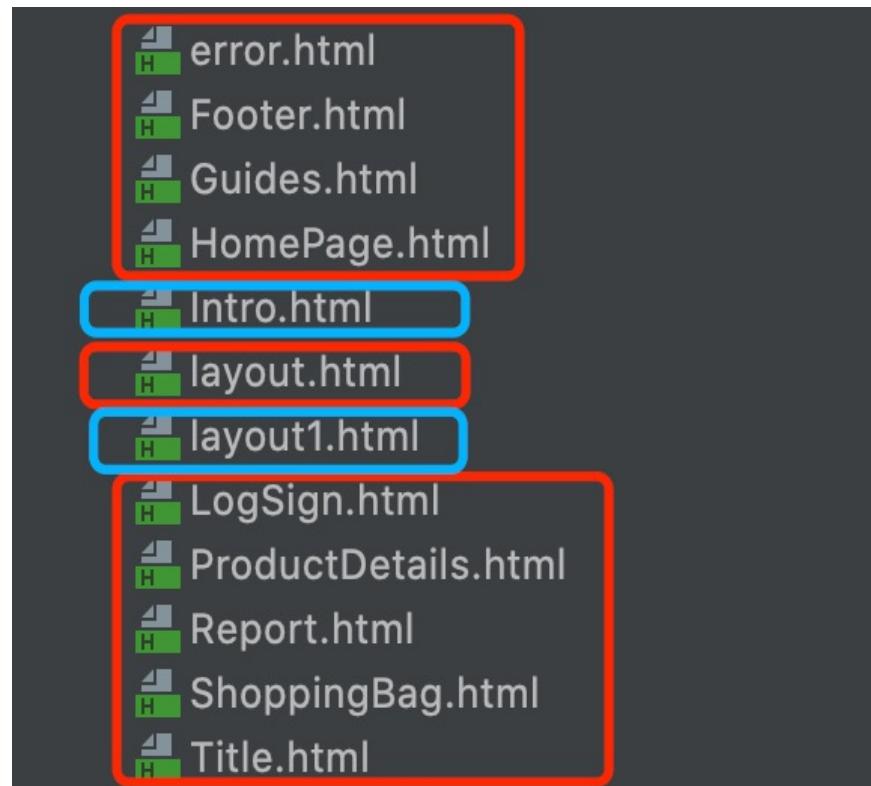
Completion diagram

Execution-Icon Design

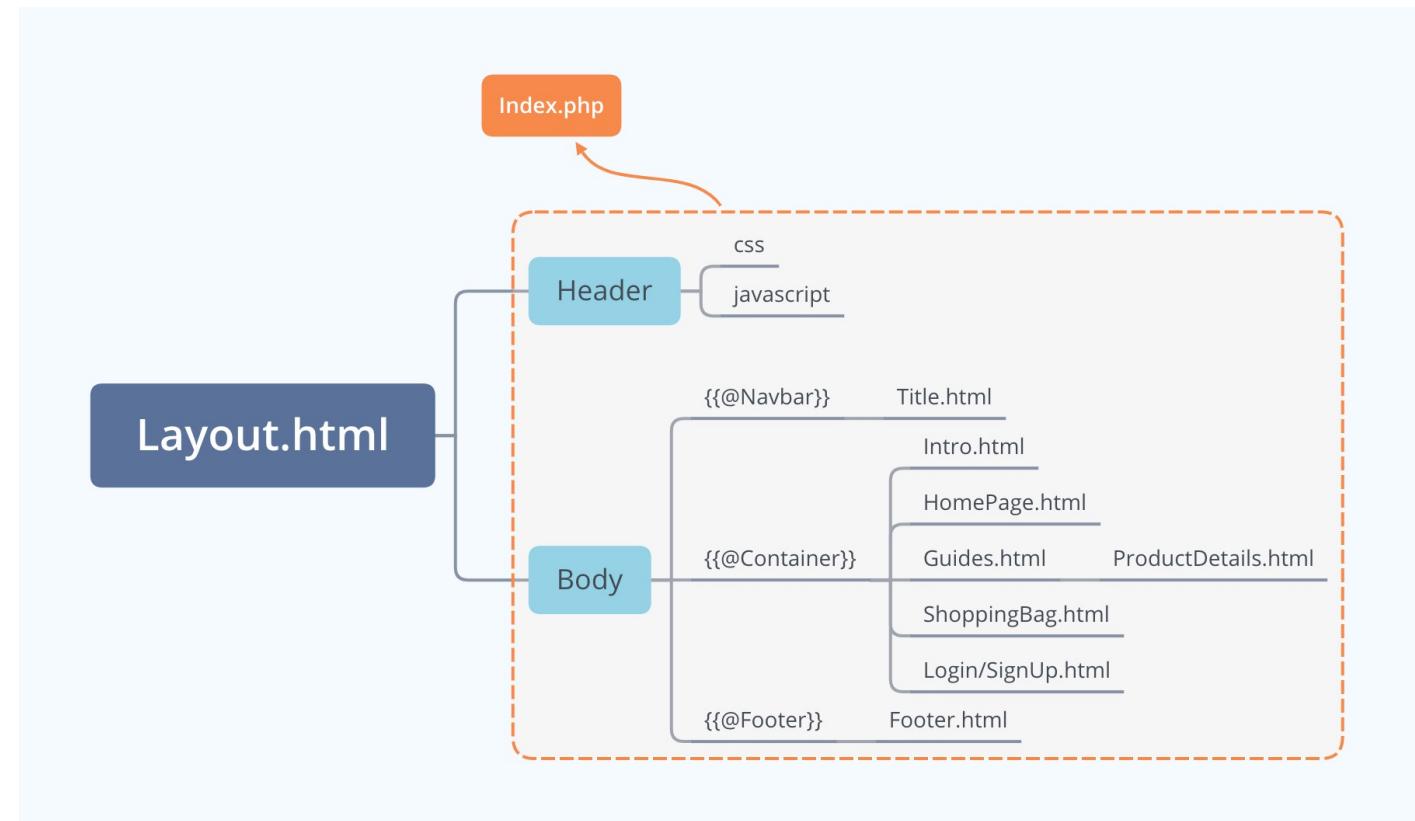
- The first sketch of the website logo was designed based on Chinese clothes. Later, when we determined that the website name was Taoli (Chinese refers to peach and palm, also refers to the girls' 20s), it was changed to the peach image.
- The icons on the navbar are the heads of little girls with ancient Chinese hairstyles. When the mouse moves over the icon, it becomes larger. The mouse is displayed as a closed fan. When it moves to an interactive picture, it will become open and larger.
- Each dynasty has different styles, so the clothing collocation and color are different.



Execution- Front End Structure



- Develop tools: html\ css\ javascript\ jQuery.js\ bootstrap framework.
- The main structure and style of the front end is achieved by bootstrap framework, html and css.
- Animation is implemented by jQuery.js.
- Data interaction and other functions are implemented by javascript.



Execution- Front End Page

Intro.html is developed for helping users get to know how to use the website.

Interaction:

1. Skip button: jump to the HomePage.html.
2. Next button: go to the next introduction page.

Development:

```
<a onclick= "window.location.href= '{@BASE}'}/HomePage'.>  
//////  
var introNum=0;  
.click(function(){  
    introNum++;  
    if(introNum==1){  
        $("#Intro_Pics").attr("src", "https://s2.loli.net/2022/04/05/m578gvU4nJBhzjl.png")  
        $("#Intro_Details").attr("src", "https://s2.loli.net/2022/04/05/bsHjMXzOuKiFnTg.png");  
    }  
})
```



Execution- Front End Page

HomePage.html is developed for user to choose which dynasty's clothes to know about.

Interaction:

1. Mouse over some pics of this page, they will show bigger. Mouse leave the pics, they will shrink back.
2. Click the pics or click the Know More button to redirect to the corresponded introduction pages.

Development:

```
$("#ming").mouseenter(function(){  
    var width = $(this).width(); $("#ming").animate({width:width*1.1},500,function(){  
        $("#ming").css("width","33%");});  
}).mouseleave(function (){  
    var width = $(this).width();  
    $("#ming").animate({width:width*0.91},500,function(){ $("#ming").css("width","30%");});});  
//////  
  
<div class="animate" onclick="window.location.href='{{@BASE}}/Guides#Ming'">  
      
</div>  
//////  
  
<a class="More" onclick="window.location.href='{{@BASE}}/Guides#Ming'">Know More</a>
```



Execution- Front End Page

Guides.html is about details in difference dynasties' s clothes in ancient China && Link to the shopping page.

Interaction:

1. Mouse over labels shown on the illustration, the corresponded words will be shown on the other side.
2. Click the View button, redirect to the ProductDetail.html.

Development:

```
$("#label1_s_3").mouseenter(function(){  
    $("#label1_s_3 img").attr("src",  
    "https://s2.loli.net/2022/03/07/dyRUZ25HLgjpJiO.png");  
  
    $("#Ming_Intro_Title").text('History');  
  
    $("#Ming_Intro_Content").text("");  
}).mouseleave(function (){  
    $("#label1_s_3 img").attr("src",  
    "https://s2.loli.net/2022/03/07/WiNvjIDTda7IpGx.png");  
});  
//////  
<a href="{{@BASE}}/Details" class="btn btn-primary">Know More</a>
```





This image shows a comment section from a product detail page. At the top left is the heading "Share your opinion here" and a placeholder "Enter your title and comment:". Below this are two input fields: "Title" and "Comment", both with placeholder text. A yellow "Submit" button is located below the "Comment" field. To the right, under the heading "Comments List", there are three entries: 1 (2022-03-01 01:49:42): "abc (2022-03-01 12:42:44): abc" and 123 (2022-03-22 15:11:08): "123".

This image shows a login and sign-up page. It features a decorative background with traditional Chinese patterns and characters. On the left, there are fields for "Email" (containing "xxx@mail.com") and "Password". Below these is a blue "Login" button. At the bottom left, there is a link: "Have a account ? You can Click here to Sign Up".

Execution- Front End Page

Detail.html is for users to purchase their favorite clothes to cart.

Interaction:

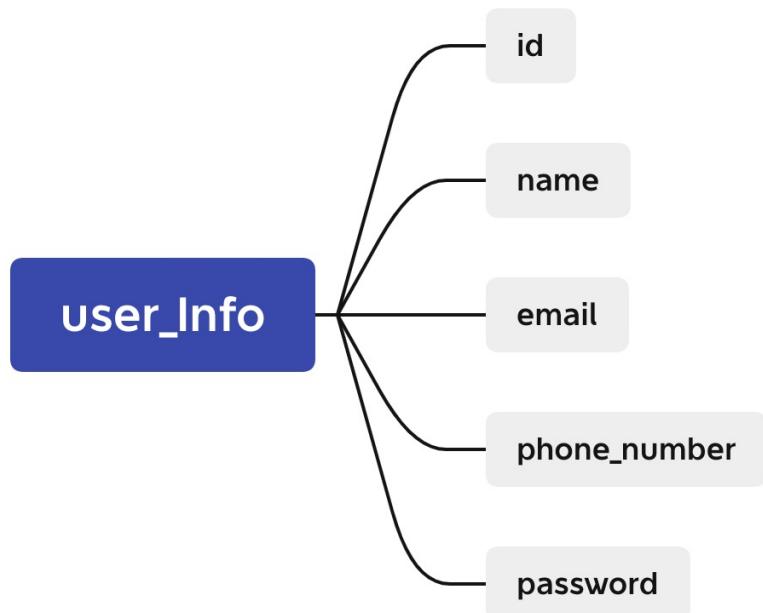
1. Click the small pics below to know details of each item.
2. Click add-to-cart button, add the clothes to the cart.
3. Users can submit their comments and read them on the page below.

Login&SignUp.html is for users to sign up/Login the website.

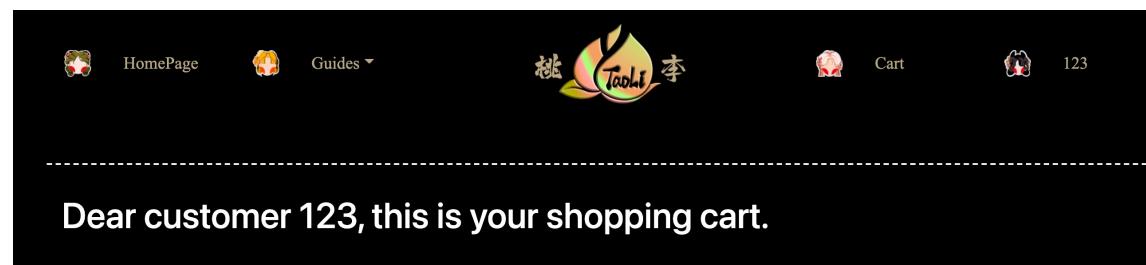
Interaction:

1. Click Signup button, users can submit registration information into our database.
2. Click Login button to link to personal account.

Execution-Database

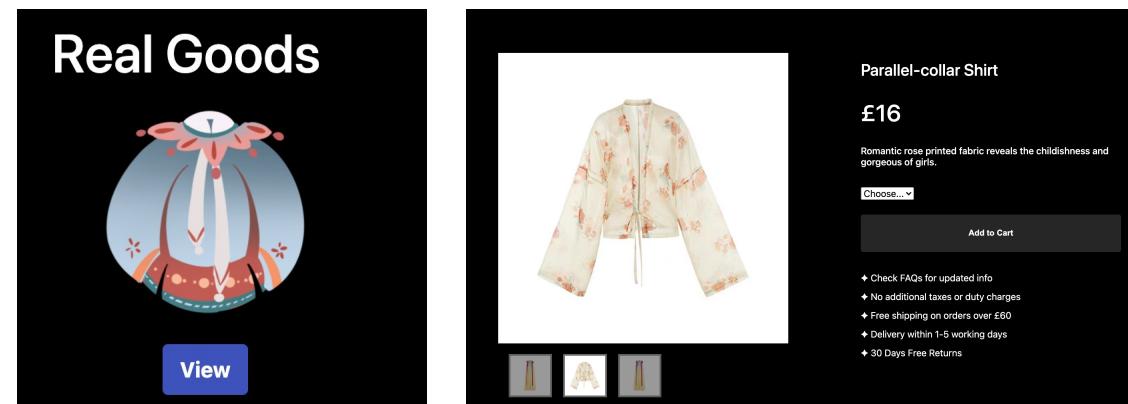
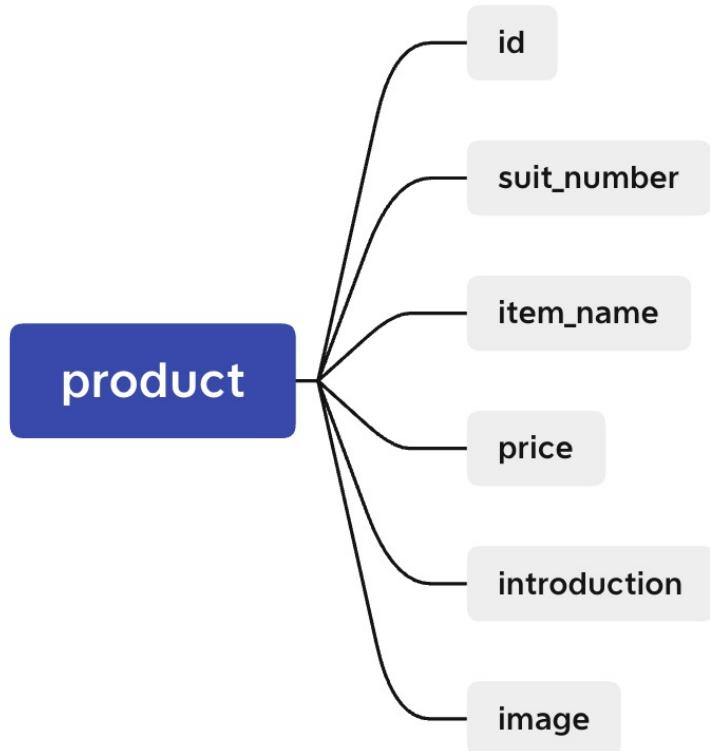


- In the `user_Info` database, we will store the information of registered users to facilitate their later login and other actions on the website. When a user signs up for the first time, the database stores the information from the front end. When the user logs in for the second time, the database obtains the information from the front end, and searches and compares whether it is consistent with the information stored during registration.
- After login successfully, the username will appear on the right navbar. After login, the user information will be bound with the shopping cart.



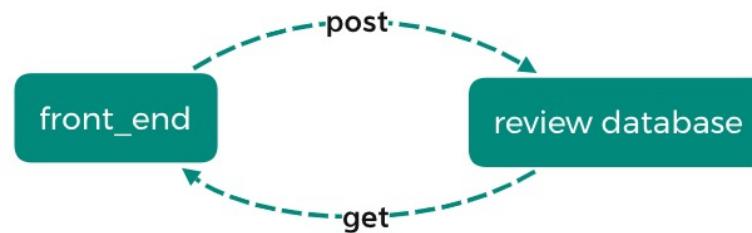
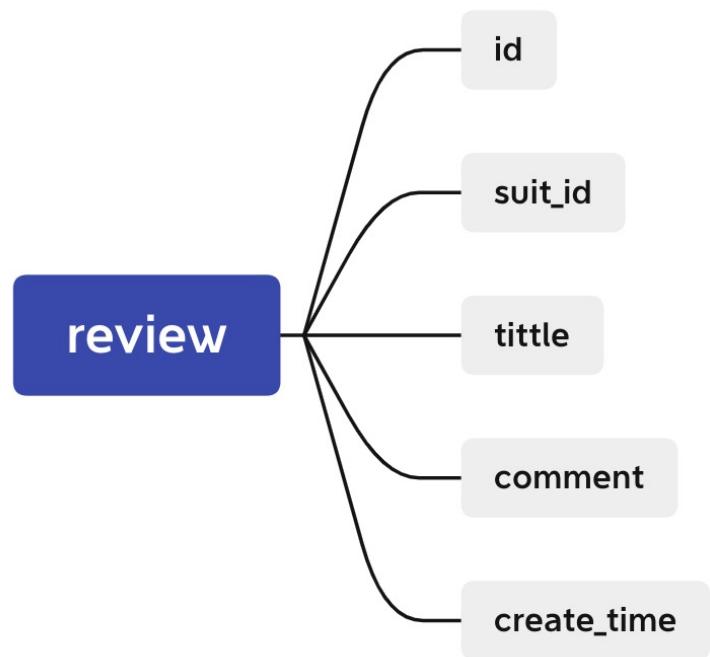
Execution-Database

- In the product database, we stored different suits' information. When the user clicks the View button of different suits, the information on the product details page will be updated accordingly.
- When the user click on different single product's picture, database will get the corresponding information of its name, price and introduction, then display them on the right.



Execution-Database

- By the review database, users can post a title and comment under a suit, then we will get the post time and store the comments information in the database. At the same time, the comment area will be displayed synchronously on that suit's details page.



Share your opinion here
Enter your title and comment:

Title

Comment

Submit

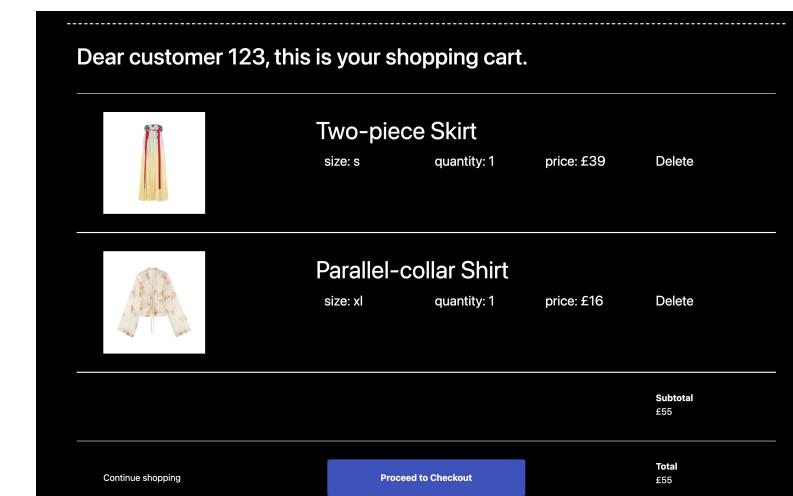
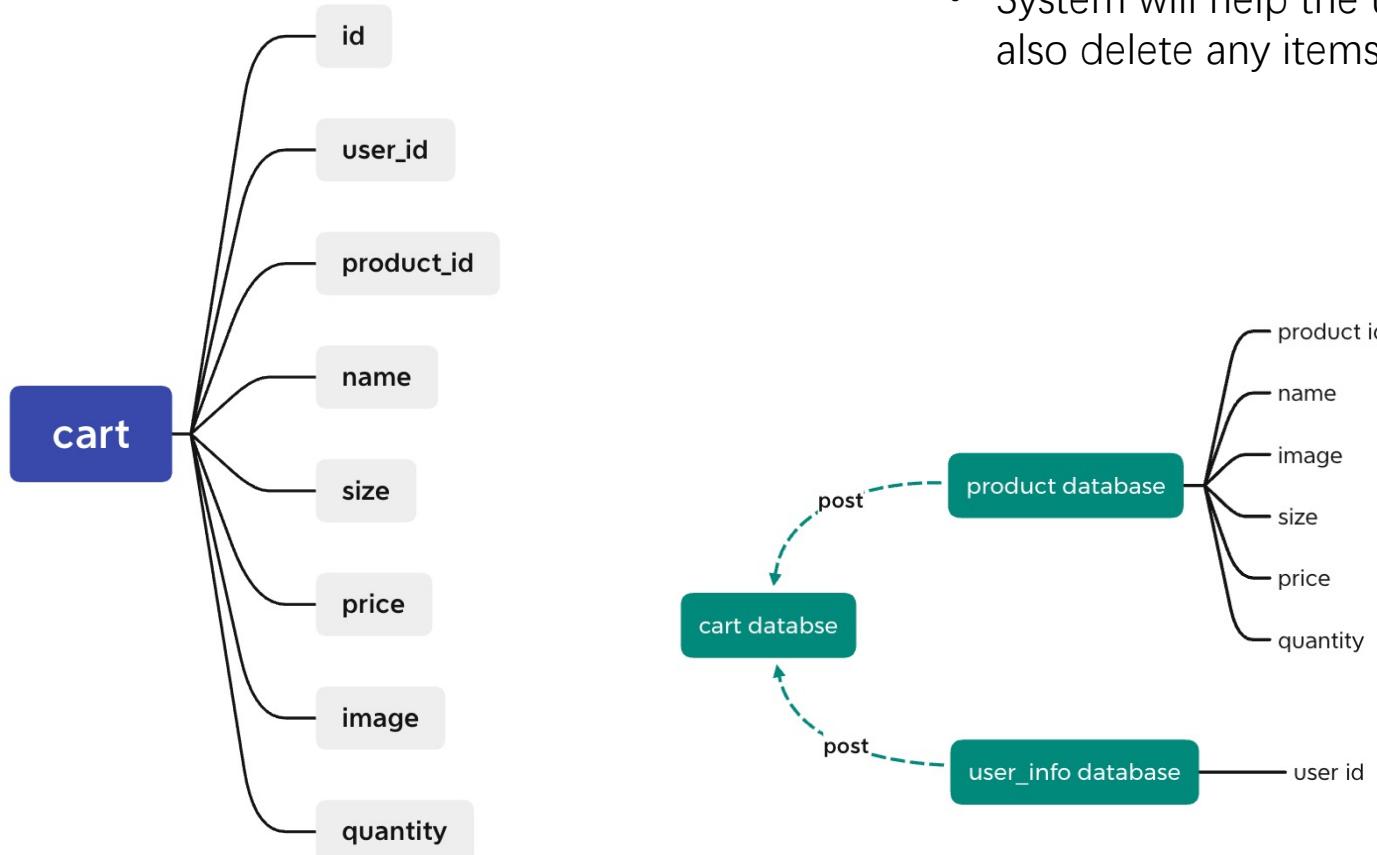
Comments List

1 (2022-03-30 17:43:38):

2

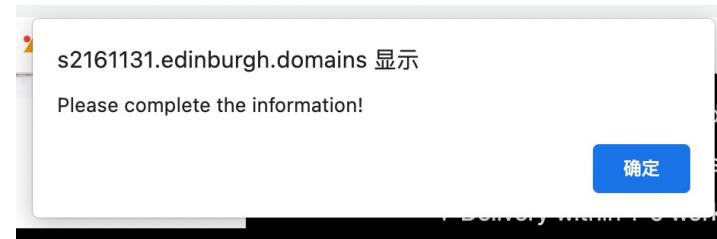
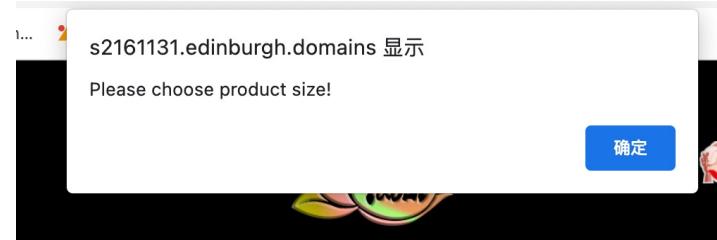
Execution-Database

- In the cart database, when the user adds a product, the server will post the product information, then we will get his/her personal information and the product information, and display them on the shopping cart page.
- System will help the user calculate the total price. User can also delete any items he/she doesn't want.



Execution- Ajax and UX Visibility of System Status

- When the user status is not logged in, he/she cannot use the purchase function: in this situation, when he/she click the cart icon on the navbar, the website will automatically jump to the login/signup page; when the user clicks the add-to-cart button, a pop-up window will show up to remind the user to log in first.
- Through Ajax, a pop-up window will be displayed after the user signup successfully.
- If the user clicks the add-to-cart button without selecting the size, a pop-up window will remind the user to choose size first.
- If the user clicks the submit button without entering the comment content, a pop-up window will remind the user to complete the information first.



```
// submit to cart
$( "#product_Submit" ).click(function () {
    // get product id
    var id = $( "#product_id" ).val();
    // get product size
    var size = $( "#size" ).val();
    if (!size) {
        alert( "Please choose product size!");
        return ;
    }
    $.post( "/hanfu/submitCart" , {id: id, size: size}, function (data) {
        if (data == -1) {
            alert("Please login first!");
            location.href = "/hanfu/Signup";
        } else {
            if (data) {
                location.href = "/hanfu/Cart";
            } else {
                alert("Add error!");
            }
        }
    });
});
```

```
$r3->route('GET /Cart', 
    function ($r3) {
        if (!isset($_SESSION['user_id'])) {
            echo <script>alert('Please login first!');location.href='/hanfu/Signup';</script>;
            // header('Location: /hanfu/Signup');
            exit;
        }
    }
);
```

```
// remark submit
$( "#remarkSubmit" ).click(function () {
    var title = $( "#title" ).val();
    var comment = $( "#comment" ).val();
    var suit_id = $( "#suit_id" ).val();
    if (!title || !comment) {
        alert("Please complete the information!");
        return ;
    }
    $.post( "/hanfu/reviews" , {title: title, comment: comment, suit_id: suit_id}, function (data) {
        if (data == 1) {
            alert('success!');
            location.reload();
        } else {
            alert('error!');
        }
    });
});
```

Execution- PHP

```
$f3->route('GET /Details',
    function($f3)
    {
        global $db;

        $suit = 0;

        if ($_GET['suit']) {
            $suit = $_GET['suit'];
        } else if ($_GET['product_id']) {
            $product = $db->exec( cmd: "SELECT * FROM product WHERE id={$_GET['product_id']}");
            if ($product) {
                $suit = $product[0]['suit_number'];
            }
        } else {
            $product = $db->exec( cmd: "SELECT * FROM product LIMIT 1,1");
            if ($product) {
                $suit = $product[0]['suit_number'];
            }
        }
    });

$f3->route('POST /submitCart',
    function($f3)
    {
        if (!isset($_SESSION['user_id'])) {
            echo -1;
            exit;
        }

        try {
            global $db;
            $id = $f3->get('POST.id');
            $size = $f3->get('POST.size');

            // select cart if exist
            $exist = $db->exec( cmd: "SELECT * FROM cart WHERE `product_id` = {$id} AND `size` = {$size}");
            if ($exist) {
                // number + 1
                $cart_id = $exist[0]['id'];
                $number = $exist[0]['number'] + 1;
                $res = $db->exec( cmd: "UPDATE cart SET `number` = {$number} WHERE id = {$cart_id}");
                if ($res) {
                    echo 1;
                } else {
                    echo 0;
                }
            } else {
                // insert
                $product = $db->exec( cmd: "SELECT * FROM product WHERE `id` = {$id}"); // select product information
                $res = $db->exec( cmd: "INSERT INTO cart (`user_id`, `product_id`, `size`, `price`, `name`, `image`, `number`) VALUES
                if ($res) {
                    echo 1;
                } else {
                    echo 0;
                }
            }
        } catch (\Exception $e) {
            echo 0;
        }
    });

$f3->route('GET /Cart',
    function($f3)
    {
        if (!isset($_SESSION['user_id'])) {
            header( header: 'Location: /hanfu/SignUp');
            exit;
        }

        global $db;
        // select cart
        $cart = $db->exec( cmd: "SELECT * FROM cart WHERE user_id = {$_SESSION['user_id']}");
        $f3->set('cart', $cart);

        // total price
        $total_price = 0;
        if ($cart) {
            foreach ($cart as $k => $v) {
                $total_price += ($v['price'] * $v['number']);
            }
        }
    });

$f3->route('GET /Login',
    function($f3)
    {
        global $db;
        $email = $_GET['email'];
        $password=array();
        console_log($email);
        $password = $db->exec( cmd: "SELECT * FROM user_info WHERE Email = {$email}");
        console_log($password);

        if ($password[0]['Password'] == $_GET['password']) {
            // login success
            $_SESSION['user_id'] = $password[0]['id'];
            $_SESSION['name'] = $password[0]['Name'];
            header( header: 'Location: /hanfu/');
            exit;
        } else {
            // login error
        }
    });

$f3->route('POST /SignUp',
    function($f3)
    {
        $formdata = array(); // array to pass on the entire
        $formdata["Name"] = $f3->get('POST.name'); // whatever
        $formdata["Email"] = $f3->get('POST.email'); // whatever
        $formdata["PhoneNumber"] = $f3->get('POST.phoneNum');
        $formdata["Password"] = $f3->get('POST.password');

        $controller = new SimpleController('user_info');
        $controller->putIntoDatabase($formdata);

        $f3->set('html_title', 'Logsign');
        $f3->set('head', 'Title.html');
        $f3->set('content', 'LogSign.html');
        $f3->set('footer', 'Footer.html');
    });

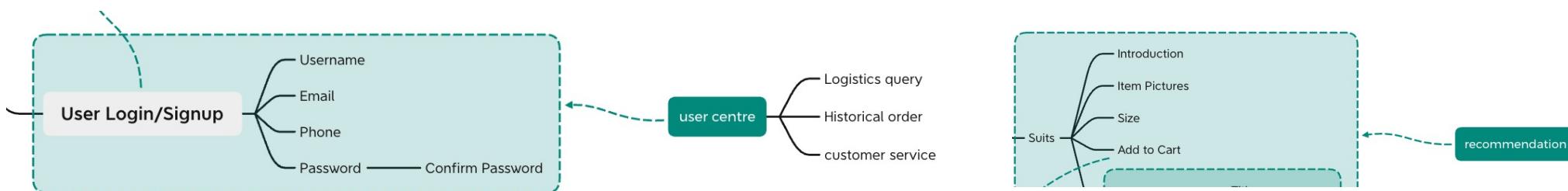
$f3->route('POST /review',
    function($f3)
    {
        try {
            $formdata = array(); // array to pass on the entire
            $formdata["title"] = $f3->get('POST.title');
            $formdata["comment"] = $f3->get('POST.comment');
            $formdata["suit_id"] = $f3->get('POST.suit_id');

            $controller = new SimpleController('review');
            $controller->putIntoReviewDatabase($formdata);

            echo 1;
        } catch (\Exception $e) {
            echo 0;
        }
    });
}
```

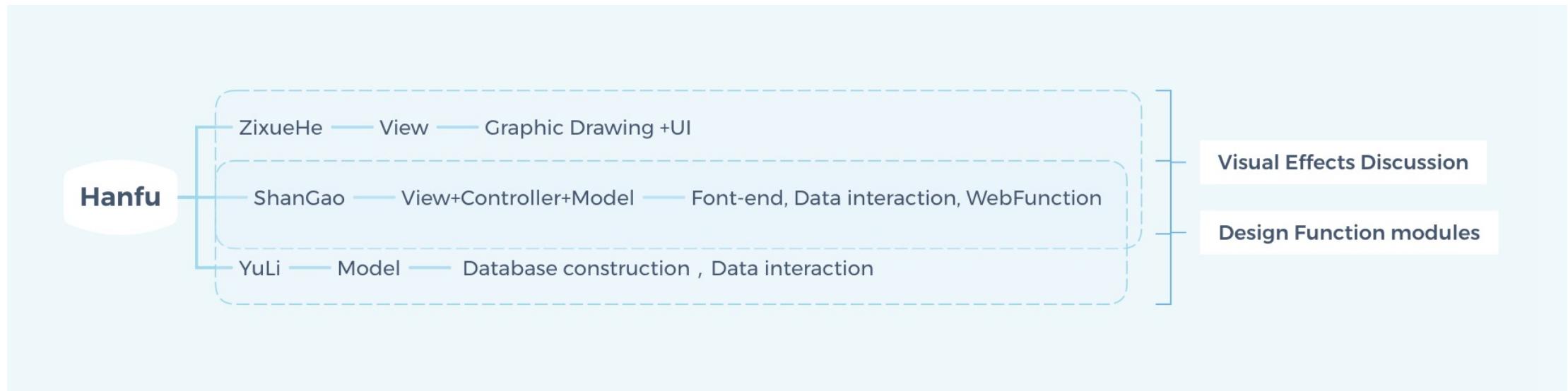
Reflection

- Although we encountered many problems in the first submission, such as unclear website structure, unfamiliar PHP coding, blocked data transmission, etc., after a whole semester of study, we finally solved the above problems before the second submission, and completed our initial ideal state: distinctive theme, stylized design, smooth user experience and fluent basic functions of a shopping website.
- Our website still has many possibilities worthy of iteration. For example, We can develop the function of personal center to provide users with return and exchange, historical order query and logistics query services. Next, we can further learn the code of intelligent recommendation in the future to recommend similar products that users may like at the bottom of product details pages, so as to provide users with more shopping choices, finally to promote the visiting rate of the website. In addition, we can improve the code structure to make the front-end smoother and make the data storage safer. We can also develop some animations on the website to make it more attractive to users.
- In summary, this course is a very worthwhile experience. All the three of our group have learned a lot and improved our computer skills and design skills.



Team Members

- Three of us participated in the discussion of the website theme, research and front-end structure design.
- Zixue He designed the images totally and originally. Shan Gao and Yu Li discussed the function module together. Shan Gao connected the graphic design and front-end construction. Yu Li built databases and coded f3 php functions.
- Three of us described our work, Yu Li integrated and made this report.





INTRODUCING
HOME PAGE

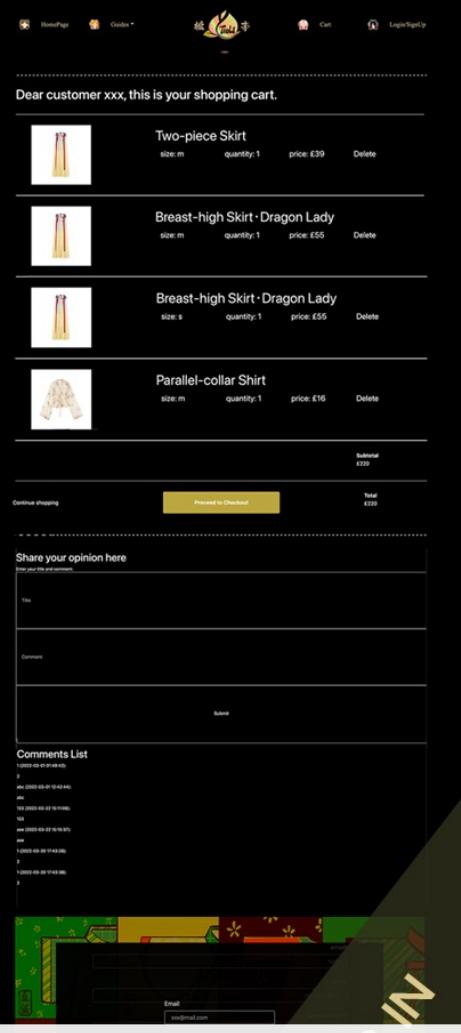
Now let's explore our website



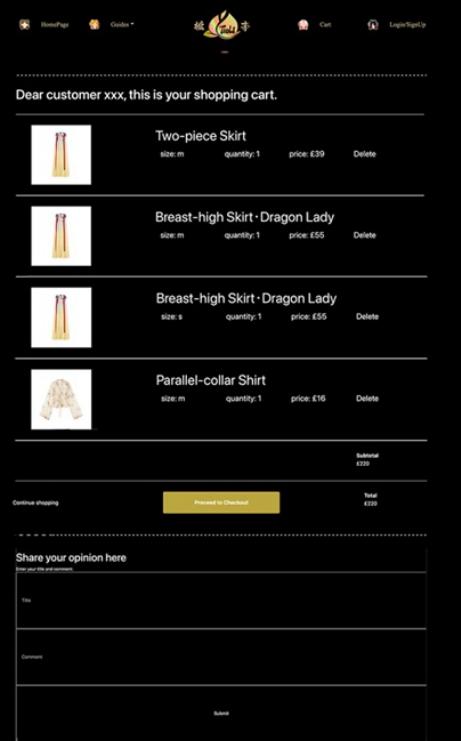
HOME PAGE
INTRODUCING



Product
Detail
Page



CART & LOGIN



Comments List

1. 2022-03-01 10:40:40
2. 2022-03-01 10:40:40
3. 2022-03-01 10:40:40
4. 2022-03-01 10:40:40
5. 2022-03-01 10:40:40
6. 2022-03-01 10:40:40
7. 2022-03-01 10:40:40
8. 2022-03-01 10:40:40
9. 2022-03-01 10:40:40
10. 2022-03-01 10:40:40



Thanks for watching