

Assessor checklists

HP2T 48— Web Development: Dynamically Generated

Outcomes 3
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Assessment outcome 3
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Task 2 — Implement a dynamic data driven website

Using the completed website specification, you are required to develop a dynamic data driven web application using an appropriate server side language and database.

Learner checklist

The completed website must show evidence of all of the following:

	Completed
Implementation of a database with multiple tables.	
Connection to a data source.	
Development of the structure and content of a dynamic data driven website.	
Development of web applications.	
Database interrogation.	
Implementation of security features.	
Passing and obtaining data from forms.	
Passing and obtaining data via the URL.	
Implementation of SQL queries.	

Implementation of session management.	
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Beihang University (BUAA) Own Work Declaration

Candidate's name	<i>Zhao Shirui</i>	Class	<i>20SD1</i>
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I declare that all submitted work will be my own.

I understand that any false claim for my work will be penalised
in accordance with University regulations and relevant SQA
requirements.

Signature of candidate: Zhao Shirui

Date (M/D/Y) : 11/30/2022

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1.Connection to a data source

```
<?php
header('Content-type:text/html;charset=utf-8');
$server='localhost:3306';
$username='root';
$password='';
$database='sales';
$sql='use sales';
$link=mysqli_connect($server,$username,$password,$database);
$GLOBALS['link']=mysqli_connect($server,$username,$password,$database);
function my_error($sql)
{
    $res=mysqli_query($GLOBALS['link'],$sql);
    if(!$res)
    {
        //echo mysqli_errno();
        '<br>';
        //echo mysqli_error();
        exit;
    }
    return $res;
}
```

2. Development of the structure and content of a dynamic data driven website.

2.1 Dynamic structure to obtain data.

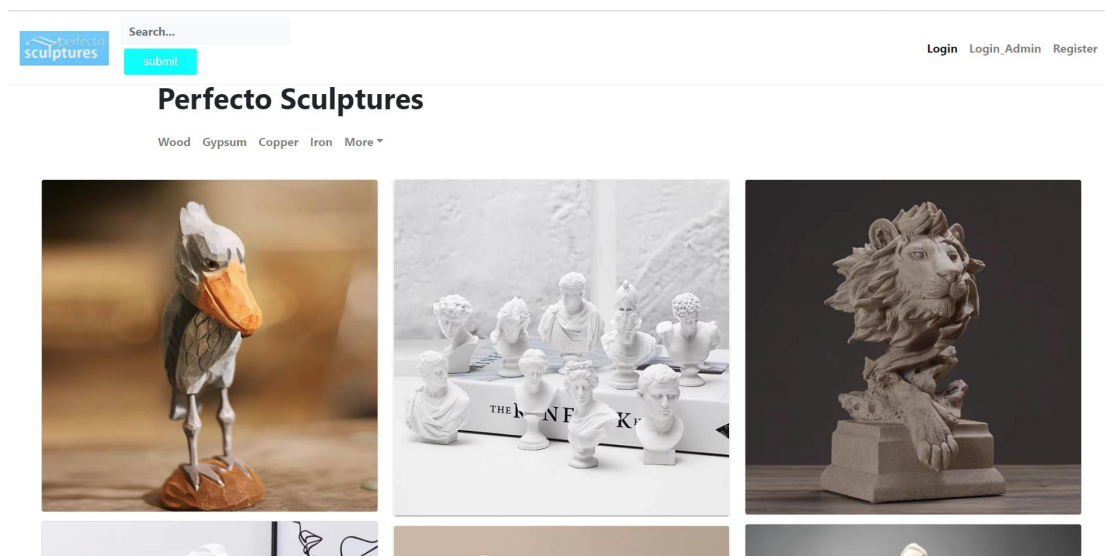
```
<?php
header('Content-type:text/html;charset=utf-8');
include'Connect.php';
$sql='select* from production';
$res=my_error($sql);
$production=array();
while($row=mysqli_fetch_assoc($res))
{
    $production[]=$row;
}
include_once'index.html';
```

2.2 Static page output data.

The product information in the database is output circularly using php language.

```
<div class="container-fluid">
  <div class="row">
    <div class="card-columns">
      <?php foreach($production as $k => $v):?>
        <div class="card card-pin">
          
          <div class="overlay">
            <h2 class="card-title title"><?php echo $v['PName'];?></h2>
            <div class="more">
              <a href="Display.php?id=<?php echo $v['Pno'];?>">
                <i class="fa fa-arrow-circle-o-right" aria-hidden="true"></i> More </a>
              </div>
            </div>
          </div>
        </div>
      <?php endforeach;?>
    </div>
  </div>
</div>
```

2.3 Interface details.



Perfecto Sculptures



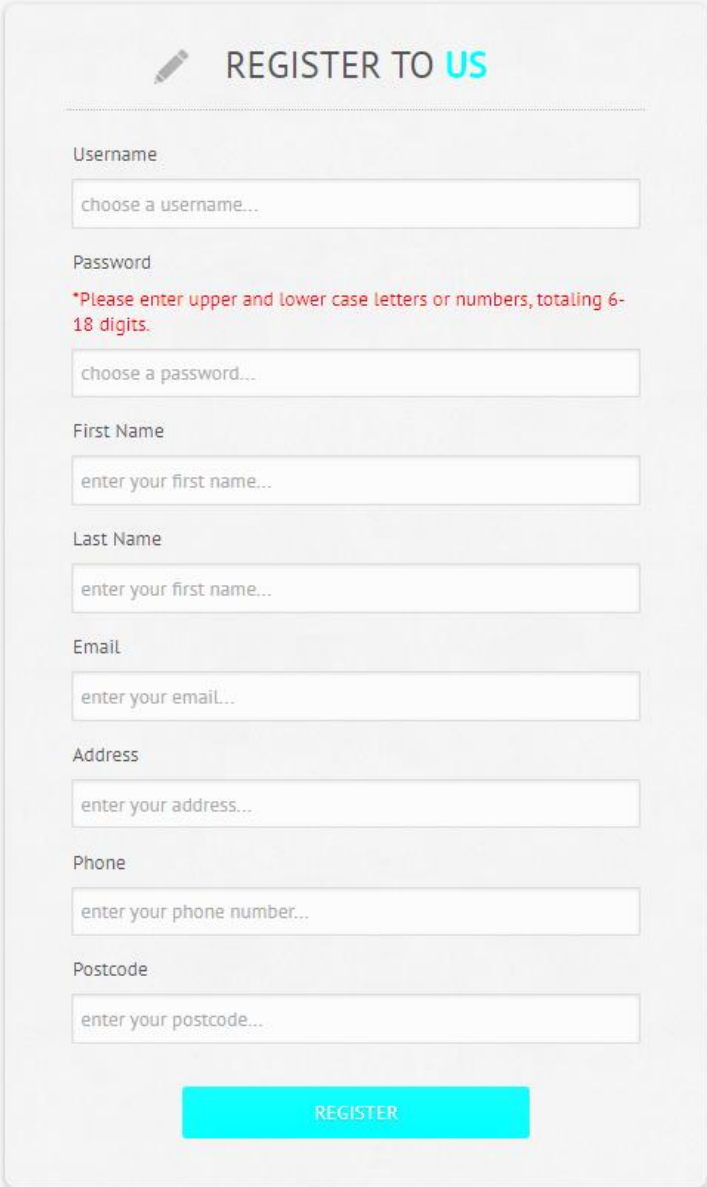
Perfecto Sculptures




3. Development of web applications.

3.1 Register page.

The user fills in the information on the page and transfers it to the data processing page. If the information meets the requirements, it can be inserted into the database.



 REGISTER TO US

Username

Password
*Please enter upper and lower case letters or numbers, totaling 6-18 digits.

First Name

Last Name

Email

Address

Phone

Postcode

```

class="register-container container">
<div class="row">
  <div class="register span6">
    <form action="Register.php" method="post">
      <h2>REGISTER TO <span class="cyan"><strong>US</strong></span></h2>
      <label for="username">Username</label>
      <input type="text" id="username" name="username" placeholder="choose a username...">
      <label for="password">Password</label>
      <label class="note">*Please enter upper and lower case letters or numbers, totaling 6-18 digits.</label>
      <input type="password" id="password" name="password" placeholder="choose a password..." pattern="\b[0-9a-zA-Z]{6,18}\b">
      <label for="firstname">First Name</label>
      <input type="text" id="firstname" name="firstname" placeholder="enter your first name...">
      <label for="lastname">Last Name</label>
      <input type="text" id="lastname" name="lastname" placeholder="enter your first name...">
      <label for="email">Email</label>
      <input type="text" id="email" name="email" placeholder="enter your email...">
      <label for="address">Address</label>
      <input type="text" id="address" name="address" placeholder="enter your address...">
      <label for="phone">Phone</label>
      <input type="text" id="phone" name="phone" placeholder="enter your phone number...">
      <label for="postcode">Postcode</label>
      <input type="text" id="postcode" name="postcode" placeholder="enter your postcode...">
      <button type="submit">REGISTER</button>
    </form>
  </div>
</div>
</div>

```

```

<?php
header('Content-type:text/html;charset=utf-8');
include'Connect.php';
$username=isset($_POST['username'])?$_POST['username']:'';
$password=md5(isset($_POST['password'])?$_POST['password']: '');
$firstname=isset($_POST['firstname'])?$_POST['firstname']: '';
$lastname=isset($_POST['lastname'])?$_POST['lastname']: '';
$email=isset($_POST['email'])?$_POST['email']: '';
$address=isset($_POST['address'])?$_POST['address']: '';
$phone=isset($_POST['phone'])?$_POST['phone']: '';
$postcode=isset($_POST['postcode'])?$_POST['postcode']: '';

if(empty($username)||empty($password))
{
  header('Refresh:3;url=Login.html');
  echo'The username or password is incorrect!';
  return;
}

$sql_register="insert into users values('$username','','$firstname'
                                     ,'$lastname','$address','','$postcode','$phone','$email','$password')";

```

```

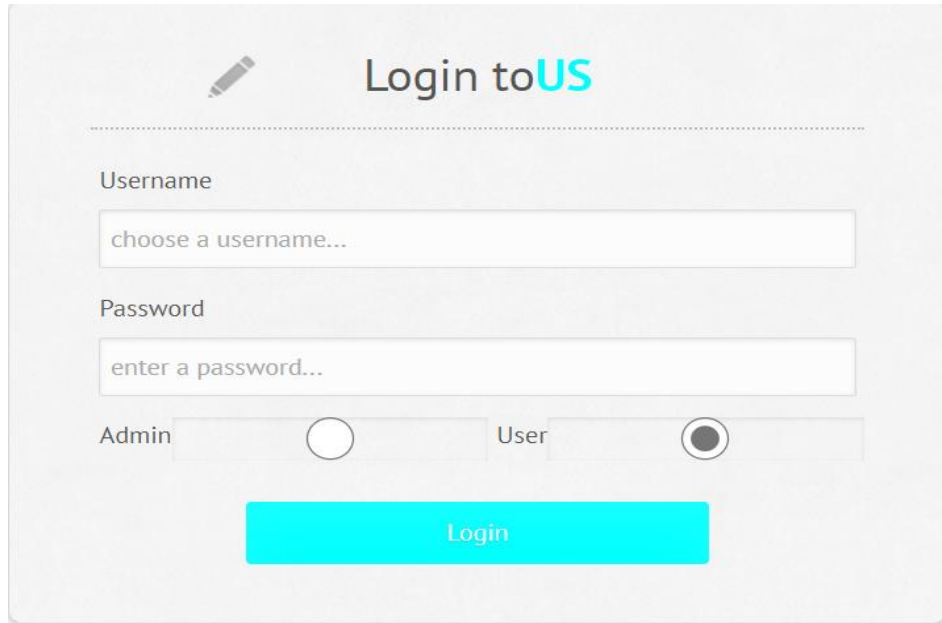
$sql_register="insert into users values('$username','','$firstname'
                                     ,'$lastname','$address','','$postcode','$phone','$email','$password')";

$result=my_error($sql_register);
//user=mysqli_fetch_assoc($result);
if($result)
{
  header('Refresh:3;url=Login.html');
  echo'Register successful!';
}
else
{
  echo'cannot register';
}
//mysqli_query($link,$)
?>

```


3.2 Login page.

After selecting the correct role, the user can log in to view the detailed page by filling in the correct user name and password.



```
<div class="register-container container">
  <div class="row">
    <div class="register span6">
      <form action="Login.php" method="post">
        <h2>Login to<span class="cyan"><strong>US</strong></span></h2>
        <label for="username">Username</label>
        <input type="text" id="username" name="username" placeholder="choose a username...">
        <label for="password">Password</label>
        <input type="password" id="password" name="password" placeholder="enter a password...">

        <div id="Role">
          <label for="Role">Admin</label>
          <input type="radio" id="admin" name="role" value="admin" >
          <label for="Role">User</label>
          <input type="radio" id="user" name="role" value="user" checked="checked">
        </div>
        <button type="submit">Login</button>
      </form>
    </div>
  </div>
</div>
```

```
<?php
header('Content-type:text/html;charset=utf-8');
include "Connect.php";

//var_dump($_POST);
$username=isset($_POST['username'])?$_POST['username']:'';
$password=md5(isset($_POST['password'])?$_POST['password']: '');
$role=isset($_POST['role'])?$_POST['role']: '';

session_start();
if($role=='user')
{
    $sql_user="select Username,Password from users
where Username='$username' and Password='$password'";
}
else{
    $sql_user="select Username,U_Password from admin
where Username='$username' and U_Password='$password'";
}
```

```

$result=my_error($sql_user);
$user=mysqli_fetch_assoc($result);
if($user&&$role=='user')
{
    header('Refresh:3;url=Home.php');
    $_SESSION['username']=$username;
    $_SESSION['role']=$role;
    echo'Login successfull';
}
else if($user&&$role=='admin')
{
    header('Refresh:3;url=Delete.php');
    $_SESSION['username']=$username;
    $_SESSION['role']=$role;
    echo'Login successfull';
}
else{
    header('Refresh:3;url=Login.php');
    echo 'The Username or password is incorrect';
}
?>

```

3.3 Add commodity interface.

```

<div class="register-container container">
    <div class="row">
        <div class="register span6">
            <form action="Upload.php" enctype="multipart/form-data" method="POST">
                <h2><span class="cyan"><strong>Upload</strong></span></h2>
                <label for="picture">Picture</label>
                <input type="file" id="image" name="image" value="choose a image..."/>
                <label for="pnumber">PNumber</label>
                <input type="text" id="Pnumber" name="Pnumber" placeholder="enter the production number...">
                <label for="PName">PName</label>
                <input type="text" id="PName" name="PName" placeholder="enter the production name...">
                <label for="description">Description</label>
                <input type="text" id="description" name="description" placeholder="enter the description...">
                <label for="category">Category</label>
                <input type="text" id="category" name="category" placeholder="choose the category...">
                <label for="price">Price</label>
                <input type="text" id="price" name="price" placeholder="enter the price...">
                <label for="height">Height</label>
                <input type="text" id="height" name="height" placeholder="enter the height...">
                <label for="quantity">Quantity</label>
                <input type="text" id="quantity" name="quantity" placeholder="enter the quantity...">
                <button type="submit">Submit</button>
            </form>
        </div>
    </div>
</div>

```

```

<?php
    header('Content-type:text/html;charset=utf-8');
    include_once'Connect.php';
    $P_Img=isisset($_POST['image'])?$_POST['image']:'';
    $PNumber=isisset($_POST['Pnumber'])?$_POST['Pnumber']:'';
    $PName=isisset($_POST['PName'])?$_POST['PName']:'';
    $Description=isisset($_POST['description'])?$_POST['description']:'';
    $Category=isisset($_POST['category'])?$_POST['category']:'';
    $Price=isisset($_POST['price'])?$_POST['price']:'';
    $Height=isisset($_POST['height'])?$_POST['height']:'';
    $Quantity=isisset($_POST['quantity'])?$_POST['quantity']:'';

    $file=$_FILES['image'];
    $name=isisset($file['name'])?$_POST['name']:'';
    $type=isisset($file['type'])?$_POST['type']:'';
    $error=isisset($file['error'])?$_POST['error']:'';
    $size=isisset($file['size'])?$_POST['size']:'';
    $s=(explode('/',$_POST['type']));

```

```

if($s[0]=='image')
{
    if(is_uploaded_file($file['tmp_name']))
    {
        if(move_uploaded_file($file['tmp_name'], '../img/'.$file['name']))
        {
            $path="../img/$file[name]";
        }
        $sql_insert="insert into production values('$PNumber','$PName','$Description','$Category'
            ,'$Price','$Height','$Quantity','$name'
            ,'$type','$path','$error','$size')";
        $result= my_error($sql_insert);
        if($result)
        {
            header('Refresh:3;url=Upload.html');
            echo'Add successful!';
        }
        else
        {
            echo'cannot add goods';
        }
    }
}

```

Detailed interface display.

Picture

选择文件

黑白.png

PNumber

P0016

PName

hei

Description

12313

Category

4213

Price

123

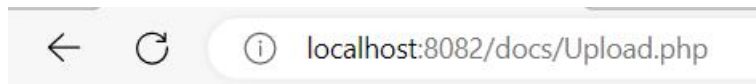
Height

123

Quantity

123

Submit



Add successful!

The database contains the data of p0016.

p0015	Gloomy Bear	Modern sculpture	plastic	299.99	150	10	s15.jpg	image/jpeg	../img/s15.jpg	0	115221
P0016	hei	12313	4213	123	123	123	黑白.png	image/png	../img/黑白....	0	22991

The display page already contains this image, and you can delete this product.



3.4 Delete goods Interface

After the administrator clicks Delete Commodity, the system will delete this record from the database.

```

header('Content-type:text/html;charset=utf-8');
include_once'Connect.php';
$good=$_GET['id'];
$sql_delete="delete from production where Pno='$good'";

$result=mysqli_query($sql_delete);
if($result)
{
    header('Refresh:3;url=Delete.php');
    echo'Delete successful!';
}
else{
    header('Refresh:3;url=Delete.php');
    echo'Fail to Delete!';
}

```

After the administrator logs in, he/she can delete the goods.



Delete successful!

The database no longer contains the data of p0016.

p0014	Silence	Gypsum sculpture	Gypsum	99.99	50	20	s14.jpg	image/jpeg	../img/s14.jpg	0	274353
p0015	Gloomy Bear	Modern sculpture	plastic	299.99	150	10	s15.jpg	image/jpeg	../img/s15.jpg	0	115221


3.5 Update goods Interface

Click Update to enter the data interface, where the administrator can update the commodity data.

```
<?php
header('Content-type:text/html;charset=utf-8');
include_once('Connect.php');
$PNumber=isset($_POST['id'])?$_POST['id']:'';
$PName=isset($_POST['name'])?$_POST['name']:'';
$Description=isset($_POST['description'])?$_POST['description']:'';
$Category=isset($_POST['category'])?$_POST['category']:'';
$Price=isset($_POST['price'])?double($_POST['price']):'';
$Height=isset($_POST['height'])?intval($_POST['height']):'';
$Quantity=isset($_POST['quantity'])?floatval($_POST['quantity']):'';

if(empty($PName)||empty($Description)||empty($Category)||empty($Price)
||empty($Height)||empty($Quantity))
{
    header('Refresh:3;url=Alter1.php');
    exit('The data is incorrect. Please fill in the data completely.');
```

Detail interface display



Farfetch

Name:	<input type="text" value="Farfetch"/>
Description:	<input type="text" value="Modern sculpture"/>
Category:	<input type="text" value="Plastic"/>
Price:	<input type="text" value="99.99"/>
Height:	<input type="text" value="60"/>
Quantity:	<input type="text" value="20"/>

☒

Inside the database.

p0001	Farfetch	Modern sculpture	Plastic	99.99	60	20	s1.jpg	image/jpeg	../img/s1.jpg	0	215624
-------	----------	------------------	---------	-------	----	----	--------	------------	---------------	---	--------

After modifying the data information, click OK.

Farfetch

Name:

Description:

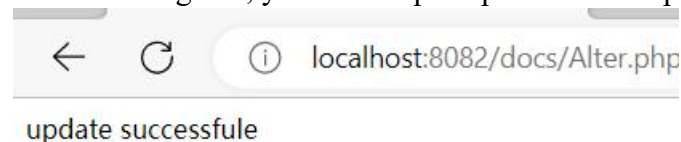
Category:

Price:

Height:

Quantity:

After clicking OK, you will be prompted that the update is successful.



Database internal update succeeded.

Pno	PName	Description	Category	Price	Height	Quantity	Filename	Type	P_Img_Path	Error	Size
p0001	Farfetch	Modern sculpture	Plastic	99.99	80	20	s1.jpg	image/jpeg	../img/s1.jpg	0	215624

4. Implementation of security features.

4.1 Md5 encryption

Users will perform md5 encryption on their passwords during data login and registration. Prevent people other than users from directly accessing the password.

```
header('Content-type:text/html;charset=utf-8');
include 'Connect.php';
$username=isset($_POST['username'])?$_POST['username']:'';
$password=md5(isset($_POST['password'])?$_POST['password']: '');
$firstname=isset($_POST['firstname'])?$_POST['firstname']: '';
$lastname=isset($_POST['lastname'])?$_POST['lastname']: '';
$email=isset($_POST['email'])?$_POST['email']: '';
$address=isset($_POST['address'])?$_POST['address']: '';
$phone=isset($_POST['phone'])?$_POST['phone']: '';
$postcode=isset($_POST['postcode'])?$_POST['postcode']: '';
```

```
$username=isset($_POST['username'])?$_POST['username']:'';
$password=md5(isset($_POST['password'])?$_POST['password']: '');
$role=isset($_POST['role'])?$_POST['role']:'';
```

4.2 For user information, use the post method.

Using post method has some privacy.

```
<form action="Register.php" method="post">
  <h2>REGISTER TO <span class="cyan"><strong>US</strong></span></h2>
  <label for="username">Username</label>
  <input type="text" id="username" name="username" placeholder="choose a username...">
  <label for="password">Password</label>
  <label class="note">*Please enter upper and lower case letters or numbers, totaling 6
  <input type="password" id="password" name="password" placeholder="choose a password...">
  <label for="firstname">First Name</label>

<div class="register-container container">
  <div class="row">
    <div class="register span6">
      <form action="Login.php" method="post">
        <h2>Login to<span class="cyan"><strong>US</strong></span></h2>
        <label for="username">Username</label>
        <input type="text" id="username" name="username" placeholder="choose a username...">
        <label for="password">Password</label>
        <input type="password" id="password" name="password" placeholder="enter a password...">
```

5. Passing and obtaining data from forms.

5.1 Use the post method to pass the goods to be searched to the dynamic interface.

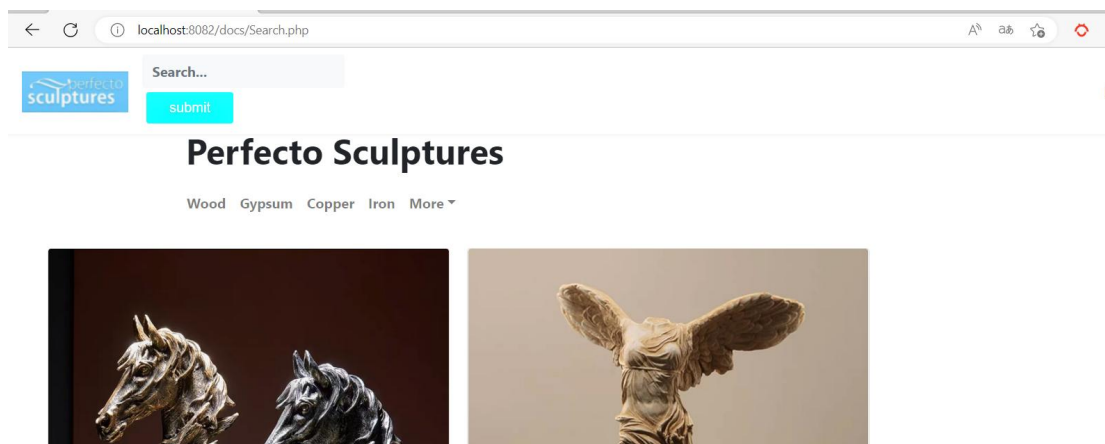
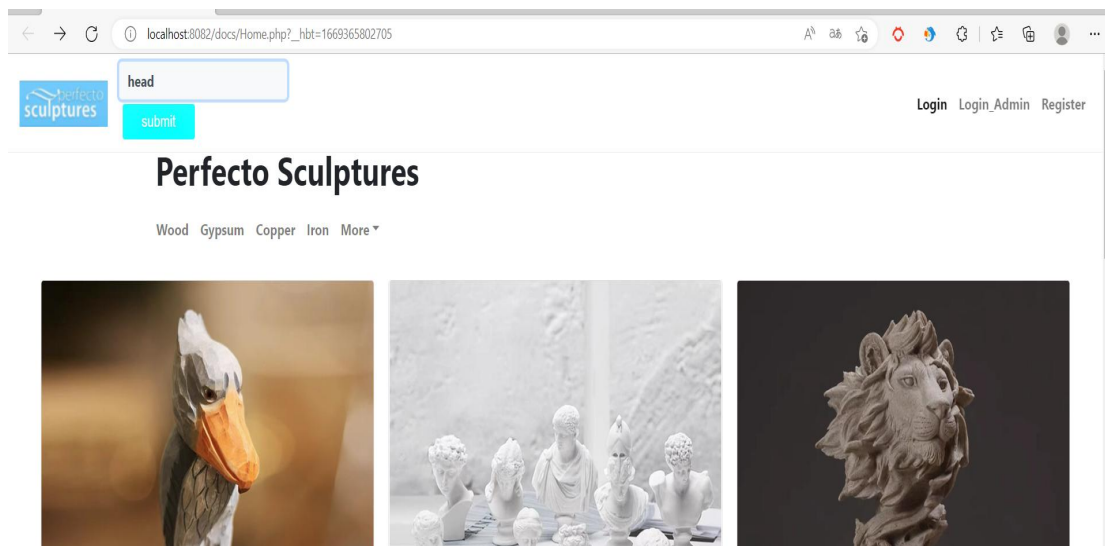
```
</button>
<div class="collapse navbar-collapse" id="navbarsDefault">
  <ul class="navbar-nav mr-auto align-items-center">
    <form class="bd-search hidden-sm-down"
      action="Search.php" method="post" enctype="multipart/form-data">
      <input type="text" name="search" class="form-control bg-graylight border-0 font-weight-bold" id="search-input">
      <button type="submit" id="submit">submit</button>
      <div class="dropdown-menu bd-search-results" id="search-results">
      </div>
    </form>
  </ul>
```

```

<?php
header('Content-type:text/html;charset=utf-8');
include'Connect.php';
$picture=isset($_POST['search'])?$_POST['search']:'';
if($picture=='')
{
    $sql_search="select * from production ";
}
else{
    $sql_search="select * from production where PName like '%$picture%'
or Description like '%$picture%' or Category like '%$picture%'
or Price= '$picture'";
}

$res=mysqli_query($sql_search);
$production=array();
while($row=mysqli_fetch_assoc($res))
{
    $production[]=$row;
}
include_once'index.html';
?>

```





6. Passing and obtaining data via the URL.

6.1 Pass the product number through the url, so that the user can see the product detail page.

```
<div class="more">
  <a href="Display.php?id=<?php echo $v['Pno'];?>">
    <i class="fa fa-arrow-circle-o-right" aria-hidden="true"></i> More </a>
  </div>
```

```
<?php
header('Content-type:text/html;charset=utf-8');
include'Connect.php';
$id=isset($_GET['id'])?$_GET['id']:"";
$sql="select * from production where Pno='$id'";
$res=mysqli_query($conn,$sql);
$production=mysqli_fetch_assoc($res);
include'post.html';
?>
```

```
<h1 class="card-title display-4">
<?php echo $production['PName'] ?> </h1>
<ul>
  <li>Description: <?php echo $production['Description'] ?></li>
  <li>Category: <?php echo $production['Category'] ?></li>
  <li>Price: <?php echo $production['Price'] ?></li>
  <li>Height: <?php echo $production['Height'] ?></li>
  <li>Quantity: <?php echo $production['Quantity'] ?></li>
</ul>

<small class="d-block"><a class="btn btn-sm btn-gray200" href="#"><i class="fa fa-external-link"></i> Purchase it!</a>
```



localhost:8082/docs/Display.php?id=p0001

Search...

submit



Farfetch'd

- Description: Modern sculpture
- Category: plastic
- Price: 99.99
- Height: 50
- Quantity: 20

[Purchase it!](#)

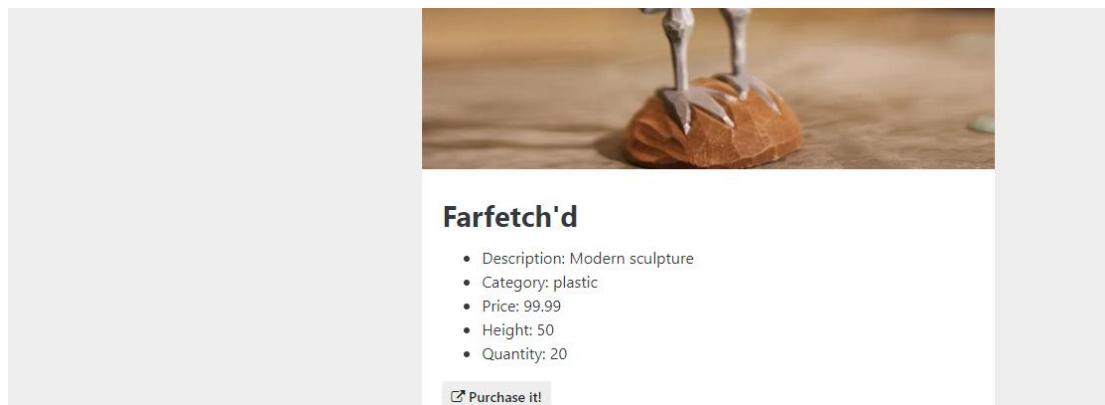
7. Implementation of SQL queries.

7.1 Production display page

On the product display page, users can find the basic information of the product through the product number.

```
<?php
    header('Content-type:text/html;charset=utf-8');
    include 'Connect.php';
    $id=isset($_GET['id'])?$_GET['id']:"";
    $sql="select * from production where Pno='$id'";
    $res=mysqli_query($conn,$sql);
    $production=mysqli_fetch_assoc($res);
    include 'post.html';
?>


<div class="card-body">
    <h1 class="card-title display-4">
    <?php echo $production['PName'] ?> </h1>
    <ul>
        <li>Description: <?php echo $production['Description'] ?></li>
        <li>Category: <?php echo $production['Category'] ?></li>
        <li>Price: <?php echo $production['Price'] ?></li>
        <li>Height: <?php echo $production['Height'] ?></li>
        <li>Quantity: <?php echo $production['Quantity'] ?></li>
    </ul>
    <small class="d-block"><a class="btn btn-sm btn-gray200" href="#"><i class="fa fa-external-link">
```



7.2 login interface

After entering the correct username and password, users can view the details of the product.

```
<?php
header('Content-type:text/html;charset=utf-8');
include"Connect.php";

//var_dump($_POST);
$username=isset($_POST['username'])?$_POST['username']:'';
$password=md5(isset($_POST['password'])?$_POST['password']: '');
$role=isset($_POST['role'])?$_POST['role']: '';

session_start();
if($role=='user')
{
    $sql_user="select Username,Password from users
    where Username='$username' and Password='$password'";
}
else{
    $sql_user="select Username,U_Password from admin
    where Username='$username' and U_Password='$password'";
}

$result=my_error($sql_user);
$user=mysqli_fetch_assoc($result);
if($user&&$role=='user')
{
    header('Refresh:3;url=Home.php');
    $_SESSION['username']=$username;
    $_SESSION['role']=$role;
    echo'Login successful!';
}
else if($user&&$role=='admin')
{
    header('Refresh:3;url=Delete.php');
    $_SESSION['username']=$username;
    $_SESSION['role']=$role;
    echo'Login successful!';
}
else{
    header('Refresh:3;url=Login.php');
    echo 'The Username or password is incorrect';
}

?>
```

7.2.1 Detailed interface display.

Username

Anmoli

Password

.....

Admin ☐ User ☒

Login

← ↻ ⓘ localhost:8082/docs/Login.php

Login successful!

Perfecto Sculptures

8. Implementation of session management.

On the login dynamic page, open the session.

```
session_start();
```

Record the user name of the login.

```

if($user&&$role=='user')
{
    header('Refresh:3;url=Home.php');
    $_SESSION['username']="$username";
    $_SESSION['role']="$role";
    echo'Login successful!';
}
else if($user&&$role=='admin')
{
    header('Refresh:3;url=Delete.php');
    $_SESSION['username']="$username";
    $_SESSION['role']="$role";
    echo'Login successful!';
}

```

After logging in, the user name will be displayed in the upper right corner of the website. If an administrator logs in, the admin can also check whether to add or delete goods.

```

<?php session_start() ;
    if(isset($_SESSION['username']))
    {
        if($_SESSION['role']=='admin')
        {
            print<<<EOT
            <li class="nav-item">
            <a class="nav-link " href="Upload.html"><img class="rounded-circle mr-2"
            </li>
EOT;
        }
        else
        {
            print<<<EOT
            <li class="nav-item">
            <a class="nav-link " href="#"><img class="rounded-circle mr-2" src="asse
            </li>
EOT;
        }
    }

```

Detailed interface display.

The image shows a web login form with the following elements:

- Username:** A text input field containing the text "admin123".
- Password:** A password input field with three dots indicating masked text.
- Role Selection:** Two radio buttons labeled "Admin" and "User". The "Admin" radio button is selected.
- Login Button:** A red button labeled "Login".
- Browser Address Bar:** Shows the URL "localhost:8082/docs/Login.php".
- Message:** Below the browser address bar, the text "Login successful!" is displayed.

