

University of Messina



WEB PROGRAMMING “IHERB” WEB SITE

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Introduction

In today's digital era, e-commerce has revolutionized the way consumers shop, making it easier and more convenient to purchase products from anywhere in the world. The health and wellness industry has seen significant growth in the online marketplace, with platforms like **iHerb** leading the way in offering a wide range of vitamins, supplements, personal care items, and organic products.

The primary objective of this project is to create an efficient and user-friendly iHerb-style website that allows customers to browse and purchase a variety of health and wellness products online. This project serves multiple purposes:

- Understanding E-Commerce Functionality – By developing this website, we gain practical experience in web development, database management, and payment gateway integration.
- Learning Web Technologies – The project involves using web development technologies such as HTML, CSS, JavaScript, PHP, and MySQL, providing hands-on experience in front-end and back-end development.
- User-Centric Design – A key focus of this project is to ensure that the website provides a smooth and intuitive shopping experience with features such as product selecting product, customer reviews, and login system.

This project serves as a practical implementation of a real-world e-commerce platform with a focus on health and wellness products. By mimicking the functionalities of iHerb, the website demonstrates a fully functional online shopping experience, incorporating essential elements like product management, user interaction, and secure transactions. The successful completion of this project provides valuable insights into web development, digital commerce strategies, and customer engagement in an online marketplace.

Which tools i used

1. PHP
2. HTML
3. CSS
4. BOOTSTRAP
5. SQL
6. Xampp
7. Google Fonts
8. JavaScript

```
<?php
session_start();
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>iHERB</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
    <link href="https://stackpath.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css" rel="stylesheet" >
    <link href='https://fonts.googleapis.com/css?family=Delius+Swash+Caps' rel='stylesheet'>
    <link href='https://fonts.googleapis.com/css?family=Andika' rel='stylesheet'>
    <link rel="stylesheet" href="index.css">
</head>
<body style="margin-bottom:200px">
    <!--Header-->
    <?php
        include 'includes/header_menu.php';
        include 'includes/check-if-added.php';
    ?>
```

Files in a project

>	images
▽	includes
🐘	check-if-added.php
🐘	common.php
🐘	footer.php
🐘	header_menu.php
🐘	about.php
#	aboutfr.css
🐘	brandinfo.php
🐘	cart-add.php
🐘	cart-remove.php
🐘	cart.php
☰	ecommerce.sql
🐘	enzymedica.php
#	index.css
🐘	index.php
🐘	lifeextention.php
🐘	login_script.php
🐘	logout_script.php
🐘	muscletech.php
🐘	naturesway.php
🐘	paymentmethod.php
🐘	products.php
🐘	products2.php
🐘	products3.php
🐘	products4.php
🐘	signup_script.php
#	style11.css
🐘	success.php

index.php



The image shows the homepage of the iHerb website. At the top, there is a navigation bar with links for "iHERB", "Brands", "About Us", and "Brand Information". On the right side of the top bar are "sign In" and "Login" buttons. Below the navigation bar is a large promotional image featuring a smartphone with the "SHOP NOW" button and the "iHerb" logo on its screen. The phone is placed on a yellow surface next to two small cardboard boxes, each with a shopping cart icon. To the right of the phone is a wooden surface with a yellow pushpin and a small shopping cart icon.



A collage of various food items including salmon, eggs, mushrooms, cheese, and avocados, arranged around a small chalkboard sign that reads "Vitamin D".

Our ability to make vitamin D declines in the winter. Anelanda/ Shutterstock Vitamin D supplements can keep bones strong – but they may also have other benefits to your health

[News Link](#)



A collage of food items including almonds, spinach, bananas, avocados, and various grains, arranged on a wooden board.

Magnesium: what you need to know about this important micronutrient

[News Link](#)



A woman with long dark hair is sitting at a kitchen counter, smiling and holding a supplement bottle. There are various fruits and a bowl on the counter.

Vegan and vegetarian diets may lack certain nutrients – here's how to get more of them

[News Link](#)



A wooden spoon filled with colorful vitamins and supplements is resting on a white surface next to various fruits like oranges, grapes, and berries.

New vitamin supplement study finds they may do more harm than good

[News Link](#)

```
<meta charset="UTF-8">
```

Defines UTF-8 character encoding to support a wide range of characters.

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

Ensures proper scaling on mobile devices by setting the viewport width to the device width.

```
<meta http-equiv="X-UA-Compatible" content="ie=edge">
```

Forces Internet Explorer to use the latest rendering engine.

```
<link rel="stylesheet"  
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css"  
">
```

Includes Bootstrap 4.1.3 for styling and responsiveness.

```
<link  
href="https://stackpath.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.  
min.css" rel="stylesheet" >
```

Links Font Awesome 4.7.0 for using icon fonts.

```
<link href='https://fonts.googleapis.com/css?family=Delius+Swash+Caps'  
rel='stylesheet'>  
    <link href='https://fonts.googleapis.com/css?family=Andika'  
rel='stylesheet'>
```

Imports Google Fonts ("Delius Swash Caps" and "Andika") for typography.

```
<link rel="stylesheet" href="index.css">
```

Links a custom CSS file ([index.css](#)) for additional styles.

```
</body>  
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>  
<script  
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.6.3/dist/umd/popper.min.js"  
"></script>  
<script  
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"><  
/script>  
<script>
```

Imports jQuery 3.3.1 (slim version), Popper.js, and Bootstrap 4.1.3 JavaScript.

```
$ (document) . ready (function () {
    $ (' [data-toggle="popover"] ') . popover ();
} );
$ (document) . ready (function ()  {

if(window.location.href.indexOf('#login')  != -1)  {
    $('#login') . modal ('show');
}

} );
```

Initializes Bootstrap popovers when the document loads.

Checks if the URL contains `#login`.

If present, automatically opens the login modal.

1. PHP Features & Functions

- `session_start();` → Starts a session to manage user authentication or data persistence.
- `include 'includes/header_menu.php';` → Includes a separate PHP file for the header (code reuse & modularity).
- `include 'includes/check-if-added.php';` → checks if an item is added to the cart or wishlist.
- `include 'includes/footer.php';` → Includes the footer for consistency across pages.
- `isset($_GET['error']) & isset($_GET['error1'])` → Handles GET parameters to check for errors and display messages.

2. Frontend Technologies & Libraries

HTML5

- Used for the structure of the page (`<html>`, `<head>`, `<body>`, `<div>`, etc.).
- Meta tags for character encoding, viewport settings, and compatibility.

CSS and Styling

- Bootstrap 4 (CDN) →
<https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css>
- Font Awesome (CDN) →
<https://stackpath.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css>
(for icons).
- Google Fonts (CDN) → Delius Swash Caps & Andika fonts are used.

- Custom Stylesheet → [index.css](#) (external CSS file for custom styles).

In this PHP file, you have used several tools, libraries, and technologies to build a dynamic web page. Here's a breakdown of what you used:

3. JavaScript & jQuery

- jQuery (CDN) → <https://code.jquery.com/jquery-3.3.1.slim.min.js>
- Popper.js (CDN) → <https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js>
- Bootstrap JS (CDN) → <https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js>

4. Bootstrap Components

- Cards → Used to display news articles (<div class="card">).
- Buttons → Used for "Shop Now" & "News Link" ().
- Grid System → Bootstrap's row/column classes (<div class="row">, <div class="col-md-3 col-6">).
- Modals → Used for login/signup pop-ups (`$('#login').modal('show');`).

common.php

```
<?php  
$con=mysqli_connect("localhost","root","","ecommerce");  
if (!$con) {  
    die("Connection failed: " . mysqli_connect_error());  
}
```

`mysqli_connect()` – This function is used to create a connection to the MySQL database.

Parameters:

"localhost" → The server where the database is hosted. "localhost" means the database is on the same machine as the PHP script.

"root" → The username for connecting to MySQL. By default, it's "root" in a local development environment (like XAMPP, WAMP).

"" (empty string) → The password for the MySQL user. In local environments, the root user often has no password.

"ecommerce" → The database name you want to connect to. In this case, it's "ecommerce".

If the connection is successful, \$con will store the connection object, which can be used for further database operations.

ecommerce.sql

This database schema is designed for an eCommerce system that manages users, products, categories, orders, and payments. Below is a detailed description of each table and its purpose:

1. Categories Table

The `categories` table is responsible for storing different product categories. Each category has a unique ID and a name. This helps in organizing products based on their type.

2. Products Table

The `products` table contains all the available products for sale. Each product has a unique ID, a name, a price, and a category ID that links it to the `categories` table. This allows products to be grouped and filtered based on categories.

3. Users Table

The `users` table stores user information such as email, name, phone number, and registration time. Each user is identified by a unique ID. Additionally, passwords are stored in hashed format for security purposes.

4. Users_Products Table

The `users_products` table tracks the relationship between users and the products they have added to their cart or purchased. It contains a user ID, product ID, and a status field that indicates whether the product was simply added to the cart or the purchase was confirmed.

5. Payment Table

The `payment` table records payment transactions made by users. It contains payment details such as the payment ID, user ID, payment date, card number (masked for security), expiry date, and CVV code. This table ensures that payments are properly recorded and linked to the correct user.

Relationships and Constraints

- Products are linked to categories through the `category_id` field.
- Users and products are connected through the `users_products` table.
- Payments are linked to users through the `user_id` field.
- Primary keys are used to uniquely identify records, while foreign keys ensure data integrity.

login_script.php

Login

Email address:

Password:

Check me out

Login

[forgot password ?](#)

New User? [signup](#)

Close

```
<!--Login trigger Modal-->

```

login_script.php(DataBase checking)

```
<?php
require ("includes/common.php");
session_start();

$email=$_POST['lemail'];
$email=mysqli_real_escape_string($con,$email);

$password=$_POST['lpassword'];
$password=mysqli_real_escape_string($con,$password);
$password=md5($password);

$query="SELECT id,email_id,password from users where email_id='".$email."' and
password='".$password."'";
$result=mysqli_query($con,$query);
$num=mysqli_num_rows($result);
if($num==0){
    $m = "Please enter correct E-mail id and Password";
    header('location: index.php?errorl='.$m);
} else{
    $row = mysqli_fetch_array($result);
    $_SESSION['email'] = $row['email_id'];
    $_SESSION['user_id'] = $row['id'];
    header('location:products.php');
}
?>
```

This line includes an external PHP file, `common.php`, which contains database connection settings.

This ensures that session variables can be used to store user login data.

Retrieves the email input from the login form (`lemail`).

Uses `mysqli_real_escape_string()` to sanitize the input and prevent SQL injection.

Retrieves the password input from the login form (`lpassword`).

Uses `mysqli_real_escape_string()` to prevent SQL injection.

Constructs a SQL query to check if the provided email and password exist in the `users` table.

Executes the query using `mysqli_query()`.

Counts the number of rows returned using `mysqli_num_rows()`.

If `num==0`, it means no matching user was found.

Redirects the user back to `index.php` with an error message.

Fetches user data using `mysqli_fetch_array()`.

Stores the user's email and ID in the session so they remain logged in.

Redirects the user to `products.php`.

signup_script.php

Sign Up

Email address:

Password:

First Name Last Name

Agree terms and Condition

Sign Up

Already Registered? [Login](#)

Close

```

<!--Signup model start-->

```

```
    </div>
    </div>
    </div>
</div>
```

signup_script.php(DataBase adding)

```
<?php
require "includes/common.php";
session_start();

$email = $_POST['eMail'];
$email = mysqli_real_escape_string($con, $email);

$pass = $_POST['password'];
$pass = mysqli_real_escape_string($con, $pass);
$pass = md5($pass);

$first = $_POST['firstName'];
$first = mysqli_real_escape_string($con, $first);

$last = $_POST['lastName'];
$last = mysqli_real_escape_string($con, $last);

$query = "SELECT * from users where email_id='$email'";
$result = mysqli_query($con, $query);
$num = mysqli_num_rows($result);
if ($num != 0) {

    $m = "Email Already Exists";
    header('location: index.php?error=' . $m);

} else {
    $quer = "INSERT INTO users(email_id,first_name,last_name,password)
values('$email','$first','$last','$pass')";
    mysqli_query($con, $quer);

    echo "New record has id: " . mysqli_insert_id($con);
    $user_id = mysqli_insert_id($con);
    $_SESSION['email'] = $email;
    $_SESSION['user_id'] = $user_id;
    header('location:products.php');
}
?>
```

- Session Start: The script starts by initiating a session to store user data across different pages.
- User Input: The script collects input from the user via the `$_POST` method:
 - Email (`eMail`)
 - Password (`password`)
 - First Name (`firstName`)
 - Last Name (`lastName`)
- Sanitizing Input: The inputs are sanitized using `mysqli_real_escape_string` to prevent SQL injection..
- Checking for Existing Email: The script queries the database (`users` table) to check if the entered email already exists. If it does, the user is redirected to the `index.php` page with an error message ("Email Already Exists").
- Inserting New User: If the email doesn't exist, a new record is inserted into the database with the provided user details.
- Session Variables: The user's email and the newly inserted user ID are stored in session variables to maintain their login state.
- Redirect to Products Page: After the new user is successfully inserted, the script redirects the user to the `products.php` page.

brandinfo.php

iHERB Brands About Us Brand Information [sign In](#) [Login](#)

“Health is not valued till sickness comes.”

[SHOP NOW](#)

BE A HEALTHY PERSON
Brands



LIFE EXTENSION



MUSCLETECH



NATURE'S WAY



ENZYMEDICA

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CSS code of brandinfo.php

```
body {  
    margin: 0;  
    padding: 0;  
    font-family: 'Andika', sans-serif;  
    background-color: #f4f4f9;  
    color: #333;  
}  
  
#header_menu {  
    background-color: #4CAF50;  
    padding: 1rem;  
    color: white;  
    text-align: center;  
    font-size: 1.2rem;  
    box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);  
}
```

```
#header_menu a {
    color: white;
    text-decoration: none;
    margin: 0 10px;
    transition: color 0.3s ease;
}
#header_menu a:hover {
    color: #ffa500;
}

/* Background Section */
#bg {
    background-image: url('images/banner.jpg');
    background-size: cover;
    background-position: center;
    min-height: 500px;
    display: flex;
    align-items: center;
    justify-content: center;
    color: white;
    text-align: center;
    box-shadow: inset 0 0 10px rgba(0, 0, 0, 0.5);
}

/* Banner Content */
#banner_content {
    background-color: rgba(0, 128, 0, 0.7);
    border-radius: 10px;
    padding: 2rem;
    box-shadow: 0 4px 10px rgba(0, 0, 0, 0.3);
    max-width: 600px;
}
#banner_content h1 {
    font-size: 2.5rem;
    margin-bottom: 1.5rem;
}
#banner_content .btn {
    font-size: 1.2rem;
    padding: 0.8rem 2rem;
    border: none;
    border-radius: 5px;
    background-color: #ffa500;
    color: white;
    text-transform: uppercase;
    transition: background-color 0.3s ease, transform 0.2s ease;
}
#banner_content .btn:hover {
    background-color: #e59400;
    transform: scale(1.05);
}

/* Text Center Section */
.text-center.pt-4.h3 {
    font-size: 1.8rem;
    color: #4CAF50;
    margin: 2rem 0 1rem;
    font-family: 'Delius Swash Caps', cursive;
```

```
}

/* Brand Section */
.container .row .col-6 img {
    border-radius: 10px;
    transition: transform 0.3s ease, box-shadow 0.3s ease;
    box-shadow: 0 4px 10px rgba(0, 0, 0, 0.1);
}
.container .row .col-6 img:hover {
    transform: scale(1.05);
    box-shadow: 0 6px 15px rgba(0, 0, 0, 0.2);
}
.container .row .h5 {
    font-size: 1.1rem;
    font-weight: bold;
    text-transform: uppercase;
    margin-top: 0.5rem;
    color: #333;
}

/* Footer Section */
.footer {
    background-color: #4CAF50;
    color: white;
    text-align: center;
    padding: 1rem 0;
    font-size: 0.9rem;
    position: fixed;
    bottom: 0;
    width: 100%;
}
.footer a {
    color: #ffa500;
    text-decoration: none;
    font-weight: bold;
}
.footer a:hover {
    text-decoration: underline;
}

/* Responsive Adjustments */
@media (max-width: 768px) {
    #banner_content h1 {
        font-size: 1.8rem;
    }
    #banner_content .btn {
        font-size: 1rem;
    }
    .text-center.pt-4.h3 {
        font-size: 1.5rem;
    }
    .container .row .col-6 img {
        width: 100%;
    }
}
```

phpMyAdmin

phpMyAdmin

Server: 127.0.0.1 » Database: ecommerce

Structure SQL Search Query Export Import Operations Privileges Routines Events Trips

Recent Favourites

New citizens ecommerce New categories payment products users users_products information_schema itproger messina

Filters Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead
categories	Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16.0 Kib	-
payment	Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	32.0 Kib	-
products	Browse Structure Search Insert Empty Drop	32	InnoDB	latin1_swedish_ci	32.0 Kib	-
users	Browse Structure Search Insert Empty Drop	16	InnoDB	latin1_swedish_ci	16.0 Kib	-
users_products	Browse Structure Search Insert Empty Drop	22	InnoDB	latin1_swedish_ci	48.0 Kib	-
5 tables	Sum	78	InnoDB	utf8mb4_general_ci	144.0 Kib	0 B