# David Moore's Website

Author: David Moore Date: 9/7/2024

// FLATIRON SCHOOL

# LAMP Stack

### LAMP STACK Information

### Description:

The LAMP STACK, powerful open-source platform used to build dynamic and interactive web applications. Linux is the core operating system, Apache serves web content, MySQL or MariaDB handle database management, and PHP for processing server-side logic. This toolkit works seamlessly to create a flexible and scalable environment for web developers, providing all the essentials needed to run modern websites for both startups and large enterprises.

### **System Specs:**

- Operating System: Fedora Linux, 40 (Workstation Edition)
- Apache Version: Apache, Version 2.4.62
- Database: MariaDB, Version 10.11.8
- PHP: PHP, Version 8.3.10

Index.php

## Index.php Information

#### Description:

The index page, or homepage, is the primary gateway to the website, offering visitors a 1<sup>st</sup> glance into what the site is all about. Usually containing an introduction, key navigation links, and highlights on important sections to help users find relevant content quickly. The main purpose of an index page is to capture user attention, guide them through the site, and provide a clear sense of the website's identity and structure.

#### Key Points about the Page:

- Simple Design
- Welcome Message and "About Me" section
- Navigation Links

- Session\_start(); This initiates a PHP session and checks if a 'user' session is set, storing the result in \$is\_logged\_in to determine whether the user is logged in or not
- Links to Google Fonts (Roboto and Roboto Mono), which are used for styling the text on the webpage.
- The header is styled with a dark background color (#282828), and its content is aligned using flexbox to center items vertically and distribute them horizontally. Padding is added for spacing.

```
Sep 8 1:45 PM
 •
                                                   flatironstudent@fedora:/war/www/html
c?php
session_start();
$1s_logged_in = isset($_SESSION['user']);
<!DOCTYPE html>
khtml langumen">
<head>
   (meta charset="UTF-8")
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>David Moore's Website</title>
   (style)
      body (
         font-family: 'Roboto', sans-serif;
          margin: 8;
          padding: 0;
          background-color: #f4f4f4;
         color: #333:
          padding-bottom: 188px; /* Ensures space at the bottom */
      header (
          background-color: #282828:
         padding: 18px 8;
          display: flex;
          align-items: center;
          justify-content: space-between;
```

- nav Element Styling: The navigation (nav) section is set to align to the right (marginleft: auto), pushing the navigation elements to the far right of the header
- Navigation List Styling (nav ul)
- List Item (Ii) Styling
- Navigation Link Styling (nav ul li a)

```
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Ċ
•
                                                           flatironstudent@fedora:/var/www/html
          display: flex;
          align-items: center:
          justify-content: space-between;
      nav i
          margin-left: auto;
      may of 4
          list-style-type: none;
          margin: 0;
          padding: 0:
          display: flex;
          align-items: center:
      may ut li (
          margin-right: 20px;
      nav ut ti a (
          color: #fff;
          text-decoration; none;
          font-size: 1.4em;
          font-family: 'Roboto', sans-serif;
          font-weight: 588;
                                                                                                                                       31.1
```

- Hover Effect for Links (nav ul li a:hover)
- Home Button Styling (#homebutton)
- Main Content Styling (main)
- Portrait Image Styling (.portrait):

```
去如应
                                                                      Sep 8 1:47 PM
j
1
                                                            flatironstudent@fedora:/var/www/html
          font-size: 1.4em;
          font-family: 'Roboto', sans-serif;
          font-weight: 588;
      nav ut ti achover t
          color: #56ccf2;
      #home-button (
          background: url('favl.png') no-repeat center;
          border: none;
          cursor: pointer;
          width: ISpx;
          height: 75px;
          background-size: contain;
      main (
          display: flex;
          flex-direction; column;
          align-items: center;
          text-align: center;
          padding: 20px;
          margin-top: 188px; /* Move content down */
       .portrait (
          width: 1994;
                                                                                                                                       73.1
```

- Portrait Styling (.portrait): The portrait image is set to a maximum width of 300px, with a circular shape (border-radius: 50%), and includes margins for spacing. It is aligned to the start of its flex container and is hidden by default (display: none).
- Continued class styling for main homepage components

```
Sep 8 1:48 PM
ď
•
                                                             flatironstudent@fedora:/var/www/html
       .portrait {
          width: 100%:
          max-width: 388px;
          border-radius: 50%;
          margin: 20px; /* Adjusted spacing */
          align-self: start; /* Aligns to the start of the flex container */
          display: none; /* Hidden by default */
       .content /
          display: flex;
          align-items: flex-start;
          width: 100%; /* Ensures the container uses full width */
       welcome /
          flex-grow: 1:
          margin-right: 20px; /* Spacing between text and image */
          font-size: 3em;
          max-width: 50%;
       about {
          width: 60%;
          font-family: 'Roboto Mono', monospace;
          margin-top: 8; /* Aligns with the portrait */
          font-size: 1.2em;
          color: #555;
          text-align: left;
```

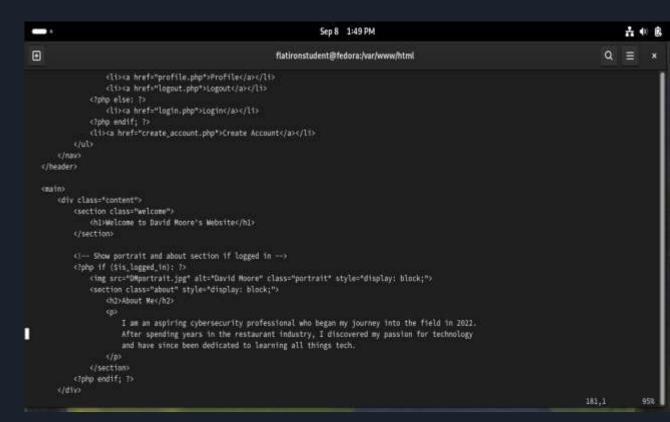
- Footer Styling
- Media Query for Responsive
  Design: This media query is
  activated when the screen width
  is 768px or smaller (@media
  (max-width: 768px)), adjusting the
  layout for smaller devices. It
  changes the navigation list (nav
  ul) to a vertical column layout
  (flex-direction: column) and
  centers its items
- Responsive List Item Styling (nav ul li)
- Responsive Header Layou (header)

```
去 40 愈
                                                                      Sep 8 1:48 PM
0
                                                            flatironstudent@fedora:/var/www/html
          color: #555:
          text-align: left;
          flex-grow: 2;
          display: none; /* Hidden by default */
      footer (
          background-color: #282828;
          color: #fff:
          text-align: center:
          padding: 18px 8;
          position: fixed:
          width: 100%:
          bottom: 0;
          height: 60px;
      Amedia (max-width: 768px) {
          nav ut {
              flex-direction: column;
              align-items: center;
          nav ul li {
              margin: 18px 8;
          header {
              flex-direction: column:
                                                                                                                                        127,1
```

- Styling for smaller screens continued.
- Favicon Link: The link> tag defines the favicon of the webpage, linking to the image fav1.png to display in the browse tab.
- Home Button (#home-button): The home button is a clickable button that triggers a JavaScript onclick event, redirecting the user to the index.php page when clicked
- Conditional Profile and Logout Links: PHP conditional statements (<?php if (\$is\_logged\_in): ?>) dynamically generate "Profile" and "Logout" links if the user is logged in, enhancing user experience based on session status.

```
Sep 8 1:49 PM
 \blacksquare
                                                             flatironstudent@fedora:/var/www/html
           header (
               flex-direction: column:
            .content {
               flex-direction: column;
            .about {
               width: 98%;
            .portrait {
               align-self: center; /* Centering the portrait on smaller screens */
   </style>
   <link rel="icon" href="fav1.png">
</head>
<body>
    cheaders
        Knavo
               <button id="home-button" onclick="window.location.href="index.php";"></button>
               <!-- Show "Profile" and "Logout" links if the user is logged in -->
               <?php if ($is_logged_in); ?>
                   <a href="profile.php">Profile</a>
                   <a href="logout.php">Logout</a>
                                                                                                                                        154.1
```

- Profile and Logout Links: If the user is logged in, the "Profile" and "Logout" links are displayed, directing the user to their profile page and allowing them to log out.
- Login Link: If the user is not logged in, the "Login" link is displayed, allowing the user to navigate to the login page.
- Create Account Link: A "Create Account" link is always visible, directing new users to the account creation page.
- Main Welcome Section: Inside the <main> tag, the welcome message ("Welcome to David Moore's Website") is prominently displayed inside the <h1> tag
- Conditional Display of Portrait and About Section: If the user is logged in, their portrait image (DMportrait.jpg) is shown, along with an "About Me" section that provides a very brief "biography" of myself.

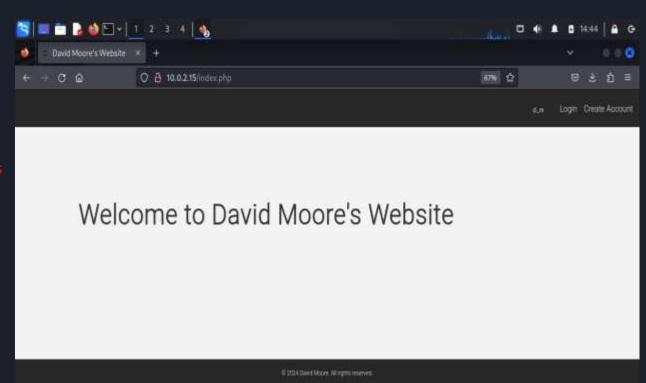


- Main Content Wrapper (<div class="content">): This <div> serves as the container for the main content of the webpage, holding the welcome message and any additional content displayed to the user.
- Footer Section (<footer>)Styling

```
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                                                                       Sep 8 1:50 PM
 0
                                                             flatironstudent@fedora:/var/www/html
   </header>
   <main>
       <div class="content">
           (section class="welcome">
               <h1>Welcome to David Moore's Website</h1>
           </section>
           <!-- Show portrait and about section if logged in -->
           <?php if ($is logged in): ?>
               cing src="DMportrait.jpg" alt="David Moore" class="portrait" style="display; block;">
               <section class="about" style="display: block:">
                    <h2>About Me</h2>
                       I am an aspiring cybersecurity professional who began my journey into the field in 2022.
                       After spending years in the restaurant industry, I discovered my passion for technology
                       and have since been dedicated to learning all things tech.
               </section>
           (?php endif: ?>
       </div
    </ri>
   <fnoter>
       © 2024 David Moore. All rights reserved.
   </footer>
</body>
c/html>
                                                                                                                                         194.0-1
```

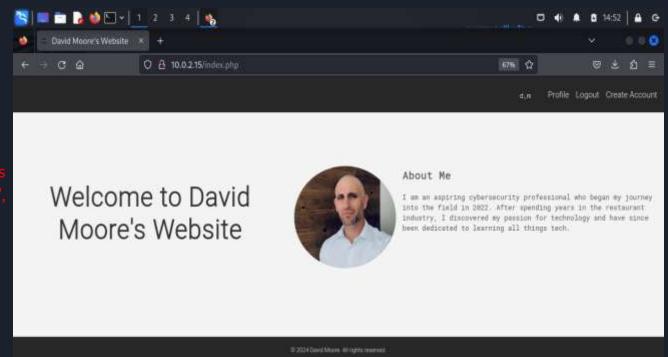
### PHP Webpage Screenshot

- Default display of index.php
- Welcome Message
- Header Bar with navigation links to "Login" and "Create Account"
- Footer Bar with Copyright.



# PHP Webpage Screenshot

- Logged-in display of index.php
- Welcome Message
- Photo and "About Me" Section
- Header Bar with navigation links to "Login" and "Create Account" now includes the "Profile" link.
- Footer Bar with Copyright.



# Database Information

### Database Information

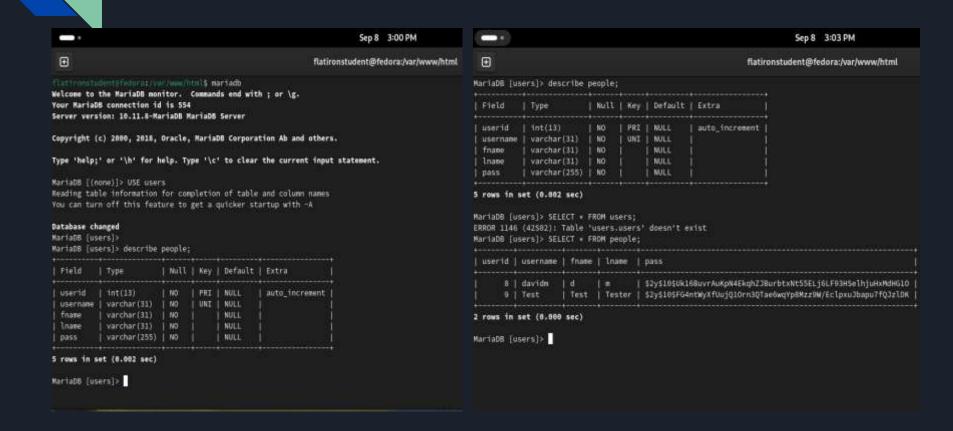
#### **Description:**

The MariaDB database is important for my website because it helps store and manage user data, like account information and login details. By using MariaDB, my website can allow users to create accounts, log in, and access personalized content. It also helps make sure the data is stored securely, which is paramount in cybersecurity. Having a database like MariaDB makes it easier to manage and protect user information, while also making the website more flexible for future updates.

#### Key Points about the Page:

- User Data Management: The MariaDB page is designed to store and manage user information securely, such as usernames, passwords (encrypted), and any other account-related data within the users table.
- Data Retrieval and Interaction: The page integrates with MariaDB to handle dynamic queries, allowing the website to retrieve, update, or delete user data as needed.
- Database Integration for Scalability: By using MariaDB, the page ensures that the website can scale efficiently with more users while maintaining data integrity and security, making it adaptable for future improvements and features

### Database Screenshot



phptest.php

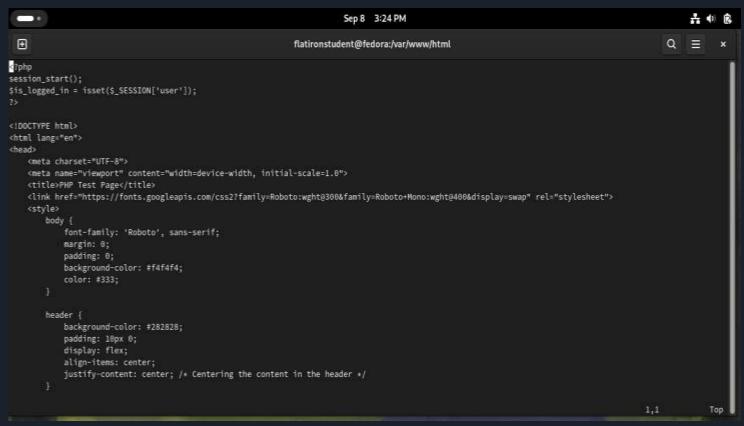
# phptest.php Information

#### Description:

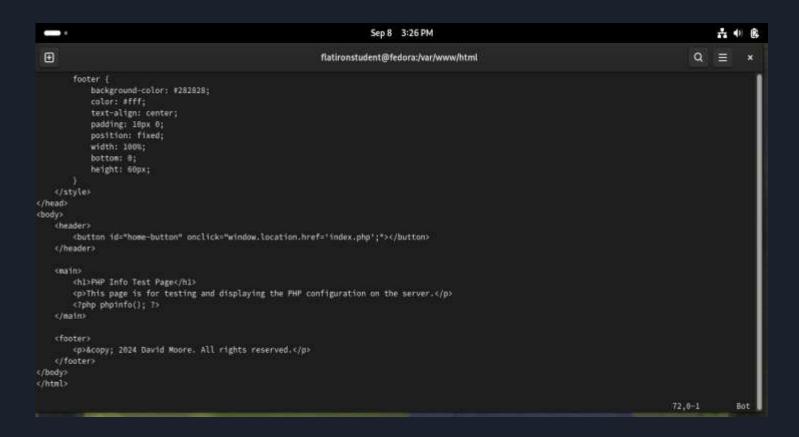
The purpose of a phptest.php page is to display important information about the PHP configuration on your server. When you access this page, it runs the phpinfo() function, which outputs details such as the PHP version, server environment, loaded extensions, and configuration settings. This page is typically used for troubleshooting and verifying that PHP is properly installed and configured, ensuring that your server can support the PHP-based functionality of your website.

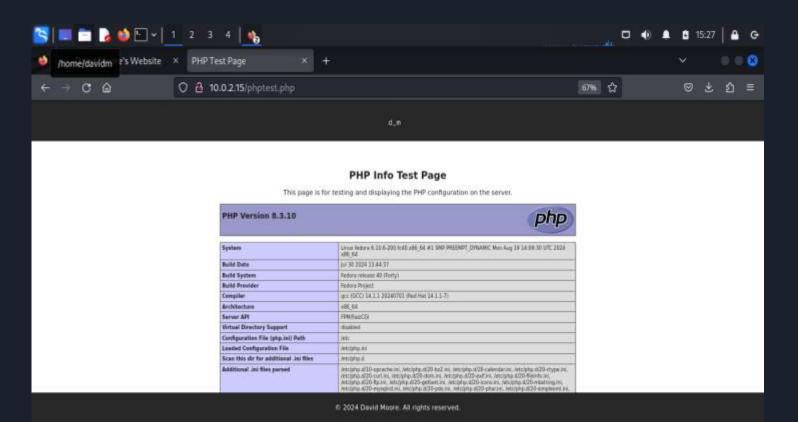
#### Key Points about the Page:

- Troubleshooting Tool: It serves as a useful tool for diagnosing server issues, ensuring that PHP is correctly installed and configured to support your website's functionality.
- Server Environment Information: The page displays essential server environment details, including loaded modules and system paths, which can help in debugging and optimizing the website's performance.



```
Sep 8 3:25 PM
 1
                                                             flatironstudent@fedora:/var/www/html
       #home-button (
           background: url('fav1.png') no-repeat center;
           border: none:
           cursor: pointer;
           width: 75px;
           height: 75px;
           background-size: contain;
       main i
           text-align: center;
           padding: 58px;
       footer [
           background-color: #282828;
           color: #fff;
           text-align: center;
           padding: 18px 6;
           position: fixed;
           width: 100%;
           bottom: 8;
           height: 60px;
   </style>
</head>
<body>
   <header>
                                                                                                                                          52,1
                                                                                                                                                        65%
```





# Connect.php page

# Connect Page Information

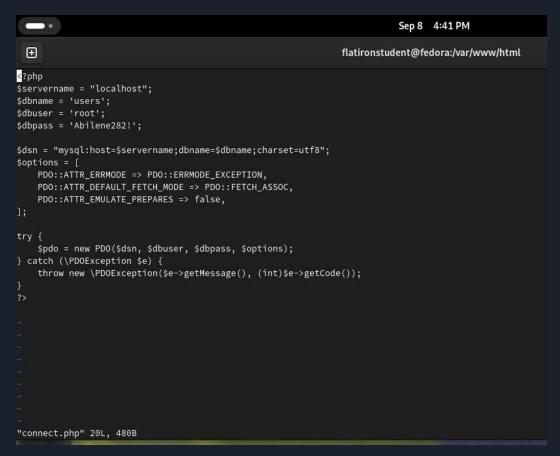
#### Description:

The connect.php page is designed to establish a secure connection to a MariaDB or MySQL database. It defines the necessary credentials such as the server name, database name, username, and password, and then uses PHP Data Objects (PDO) to connect to the database. The page also includes error handling to catch and display connection errors if the connection fails. This setup is important because it allows the website to interact with the database securely and efficiently, enabling features like user authentication or data retrieval.

#### Key Points about the Page:

- Error Handling: It includes robust error handling through PDOException, ensuring that any
  issues during the connection process are caught and can be addressed appropriately.
- Credential Storage: The page stores the server name, database name, username, and password in variables, which are then used to authenticate the connection, allowing the website to communicate with the database.

- Variables Initialization. Several variables are initialized to store the database connection parameters.
- The \$dsn variable defines the Data Source Name, which contains the information required to connect to the database.
- Connection Options (\$options)
- Try-Catch Block for Connection Handling



# Account Creation Web Page

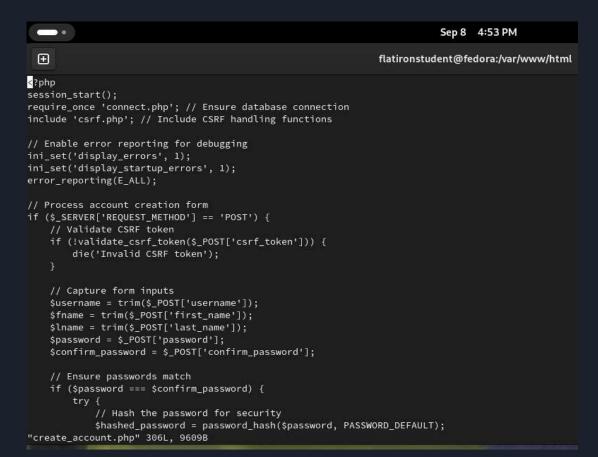
### Account Creation Page Information

#### Description:

The create\_account.php page allows users to create a new account by submitting their username, first name, last name, and password through a form. It includes security features such as CSRF token validation to protect against cross-site request forgery and hashes passwords for secure storage. After successfully creating an account, users are redirected to the login page.

#### Key Points about the Page:

- Account Creation Form
- Security Features: It implements security measures like CSRF token validation and password hashing to protect user data and prevent unauthorized submissions.
- Database Integration: The page interacts with the database, inserting new user information into the people table upon successful form submission.



- Password Hashing (\$hashed\_password = password hash())
- SQL Query Preparation and Execution (\$stmt = \$pdo->prepare(\$query);)
- Success Redirection and Alert (echo "<script>...)
- Error Handling (catch (PDOException \$e))
- Password Mismatch Alert (else { echo "<script>alert(...)

```
Sep 8 4:54 PM
 \blacksquare
                                                              flatironstudent@fedora:/var/www/html
           $hashed_password = password_hash($password, PASSWORD_DEFAULT);
           // Insert new account into the 'people' table
           Squery = "INSERT INTO people (username, fname, lname, pass) VALUES (?, ?, ?, ?)";
           $stmt = Spdo->prepare($query);
            $stmt->execute([$username, $fname, $lname, $hashed password]);
           // Redirect after successful account creation
            echo "(script)
                   alert('Account created successfully!');
                    setTimeout(function(){ window.location.href = 'login.php'; }, 3000);
                  </script>":
        } catch (PDOException Se) {
           echo 'Database error: ' . $e->getMessage();
   } else {
        echo "<script>alert('Passwords do not match'):</script>":
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="HTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Create Account - David Moore's Website</title>
    k rel="icon" href="fav1.png" type="image/png">
    <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&family=Roboto+Mono:wght@400&display=swap" rel="stylesheet">
```

- body Styling
- header Styling
- .website-title Class
- nav ul Styling

```
Sep 8 4:54 PM
\blacksquare
                                                             flatironstudent@fedora:/var/www/html
  k rel="icon" href="fav1.png" type="image/png">
  <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@380&family=Roboto+Mono:wght@408&display=swap" rel="stylesheet">
  <style>
      body {
          font-family: 'Roboto', sans-serif;
          margin: 0;
          padding: 0;
          background-color: #f4f4f4;
          color: #333;
          min-height: 100vh;
      header
          background-color: #282828;
          padding: 18px 20px;
          display: flex;
          justify-content: space-between;
          align-items: center;
      .website-title (
          font-size: 1.8em;
          color: #fff;
      nav ul |
          list-style-type: none;
          margin: 0;
          padding: 0;
```

- nav ul li Styling
- nav ul li a Styling
- nav ul li a:hover Styling
- #home-button Styling
- main Styling

```
\oplus
          align-items: center;
      nav ul li {
          margin-left: 20px;
      nav ul li a {
          color: #fff;
          text-decoration: none;
          font-size: 1.4em;
      nav ul li a:hover {
          color: #56ccf2;
      #home-button {
          background: url('fav1.png') no-repeat center;
          border: none;
          cursor: pointer;
          width: 75px;
          height: 75px;
          background-size: contain;
      main {
          display: flex;
          flex-direction: column;
```

- create-account-container Styling
- h1 Styling
- Input Fields Styling (input[type="text"], input[type="password"])

```
Sep 8 4:55 PM
\oplus
                                                              flatironstudent@fedora:/var/www/html
          display: flex;
          flex-direction: column;
          align-items: center;
          text-align: center;
          padding: 20px;
          margin-top: 50px;
          min-height: calc(100vh - 160px);
      .create-account-container {
          max-width: 500px;
          width: 100%;
          background-color: #fff;
          padding: 20px;
          box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
          border-radius: 8px;
      h1 {
          font-size: 2em;
          margin-bottom: 20px;
      input[type="text"],
      input[type="password"] {
          width: 100%;
          padding: 12px;
          margin: 10px 0;
          font-size: 1em;
```

- Input Fields (input[type="text"]) Styling
- Submit Button (input[type="submit"])
   Styling
- Password Strength Bar (.strength-bar)
   Styling
- Password Strength Bar Divs (.strengthbar div)

```
Sep 8 4:55 PM
\blacksquare
                                                               flatironstudent@fedora:/var/www/html
          margin: 10px 0;
          font-size: lem;
          border: 1px solid #ccc;
          border-radius: 4px;
          box-sizing: border-box;
      input[type="submit"] {
          background-color: #282828;
          color: white;
          padding: 12px;
          border: none;
          border-radius: 4px;
          cursor: pointer;
          width: 100%;
          font-size: 1.2em;
      .strength-bar {
          display: flex;
          margin-bottom: 10px;
          justify-content: flex-start;
          width: 50%:
          margin-left: 12px;
      .strength-bar div {
          flex: 1;
          height: 10px;
```

- Password Strength Indicators (.strength-weak, .strength-fair, .strength-good, .strength-strong)Each class changes the background color of the password strength bar based on the strength of the password, ranging from red (weak) to green (strong).
- Password Criteria (.password-criteria)Styles the password criteria section with leftaligned text, smaller font size (0.9em), and a light color to guide users on password requirements.
- Error Message (.error-message)Styles error messages with a red color and a small top margin to clearly indicate validation issues to the user.
- Footer Styling

```
Sep 8 4:56 PM
\blacksquare
                                                               flatironstudent@fedora:/var/www/html
          background-color: #ddd;
          border-radius: 4px;
      .strength-weak { background-color: red; }
      .strength-fair { background-color: orange; }
      .strength-good { background-color: yellowgreen; }
      .strength-strong { background-color: green; }
      .password-criteria {
          text-align: left;
          font-size: 0.9em;
          color: #555;
          margin-left: 12px;
      .error-message {
          color: red;
          margin-top: 5px;
      footer {
          background-color: #282828;
          color: white;
          text-align: center;
          padding: 10px 0;
          width: 100%;
```

- PHP Session Check (<?php if (isset(\$\_SESSION['user'])): ?>)Checks if a user session is active (i.e., the user is logged in), and if so, displays the "Profile" and "Logout" links.
- Conditional Links (<?php else: ?>)If the user is not logged in, it shows the "Login" link instead of "Profile" and "Logout."
- Navigation List ()Provides a navigation menu with options like "Profile," "Login," "Logout," and "Create Account," depending on the user's session status.

```
Sep 8 4:56 PM
 Œ
                                                          flatironstudent@fedora:/var/www/html
       body, html {
           height: 100%;
   </style>
</head>
<body>
   <header>
       <div class="website-title">David Moore's Website</div>
       <nav>
           <button id="home-button" onclick="window.location.href='index.php';"></button>
               <!-- Profile link appears only if the user is logged in -->
               <?php if (isset($ SESSION['user'])): ?>
                  <a href="profile.php">Profile</a>
                  <a href="logout.php">Logout</a>
               <?php else: ?>
                  <a href="login.php">Login</a>
               <?php endif; ?>
               <a href="create_account.php">Create Account</a>
           </nav>
   </header>
   <main>
       <div class="create-account-container">
           <h1>Create a New Account</h1>
           <form method="POST" id="createAccountForm" autocomplete="off">
```

- Text Input Fields
- Password Input Field (<input type="password" ...>)A password input field that triggers the checkPasswordStrength() function to dynamically evaluate the strength of the entered password, with the required attribute to ensure the field is completed.
- Strength Bar (<div class="strength-bar">)A visual strength bar consisting of multiple divs that update in color based on the password strength, providing real-time feedback to the user.
- Password Criteria (<div class="password-criteria">)Displays a list of password requirements (e.g., minimum length, character types) to guide users in creating a secure password.

```
Sep 8 4:57 PM
\blacksquare
                                                           flatironstudent@fedora:/var/www/html
         <h1>Create a New Account</h1>
         <form method="POST" id="createAccountForm" autocomplete="off">
             <input type="hidden" name="csrf_token" value="<?php echo generate_csrf_token(); ?>">
             <input type="text" name="username" id="username" placeholder="Username" required>
             <input type="text" name="first_name" placeholder="First Name" required>
             <input type="text" name="last_name" placeholder="Last Name" required>
             <input type="password" id="password" name="password" placeholder="Password" required oninput="checkPasswordStrength()">
             <div class="strength-bar">
                 <div id="bar-1"></div>
                 <div id="bar-2"></div>
                 <div id="bar-3"></div>
                 <div id="bar-4"></div>
                 <div id="bar-5"></div>
                 <div id="bar-6"></div>
                 <div id="bar-7"></div>
                 <div id="bar-8"></div>
                 <div id="bar-9"></div>
                 <div id="bar-10"></div>
                 <div id="bar-11"></div>
                 <div id="bar-12"></div>
              </div>
             <div class="password-criteria">
                 <strong>Password must contain:</strong>
                     At least 8 characters
                     One uppercase and one lowercase letter
                     One number
                     One special character
```

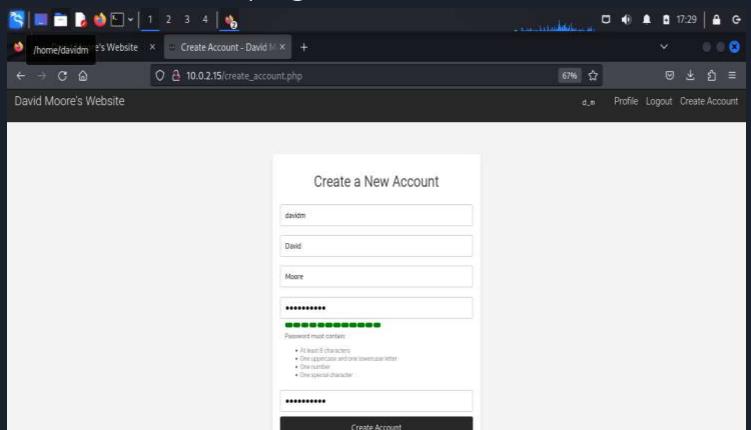
- Password Confirmation Field
- Submit Button
- Footer
- checkPasswordStrength()
   JavaScript Function
- Password Strength Bar ResetResets the background color of all strength bar divs to a neutral color (#ddd) each time the password changes, ensuring the strength indicator is updated in real-time.

```
Sep 8 4:57 PM
.
\blacksquare
                                                          flatironstudent@fedora:/var/www/html
                     One number
                     One special character
                 </div>
             <input type="password" id="confirm_password" name="confirm_password" placeholder="Confirm Password" required>
             <input type="submit" id="create account btn" value="Create Account">
          </form>
     </div>
  </main>
  <footer>
     © 2024 David Moore. All rights reserved.
  </footer>
  <script>
     function checkPasswordStrength() {
         const password = document.getElementById('password').value;
         const bars = document.querySelectorAll('.strength-bar div');
         let strength = 0;
         // Reset all bars
         bars.forEach((bar) => {
             bar.style.backgroundColor = "#ddd";
         const hasUpper = /[A-Z]/.test(password);
         const hasLower = /[a-z]/.test(password);
         const hasNumber = /[0-9]/.test(password);
```

- Password Criteria Checks (const hasUpper hasLower, hasNumber, hasSpecial)
- Password Strength CalculationThe strength of the password is determined by incrementing the strength variable based on whether the password meets certain criteria (length, upper/lower case, numbers, special characters)
- Strength Bar Color Update (Loop)A loop iterates over the strength bar divs and update: their color: red for weak passwords, yellowgreen for moderate strength, and green for strong passwords.
- Additional Green Bars for Strong Passwordshithe password achieves the highest strength score (5), two additional bars in the strength bar are colored green, signaling a very strong password.

```
Sep 8 4:58 PM
 Ŧ
                                                               flatironstudent@fedora:/var/www/html
           const hasLower = /[a-z]/.test(password);
            const hasNumber = /[0-9]/.test(password);
           const hasSpecial = /[!@#$%^&*(),.?":{}|<>]/.test(password);
            if (password.length >= 8) strength++;
           if (hasUpper) strength++;
           if (hasLower) strength++;
           if (hasNumber) strength++;
            if (hasSpecial) strength++;
            for (let i = 0; i < strength * 2; i++) {
               if (strength < 4) {
                   bars[i].style.backgroundColor = "red";
               } else if (strength === 4) {
                   bars[i].style.backgroundColor = "yellowgreen";
               } else if (strength === 5) {
                   bars[i].style.backgroundColor = "green";
            if (strength === 5) {
               bars[10].style.backgroundColor = "green";
               bars[11].style.backgroundColor = "green";
    </script>
</body>
</html>
```

## PHP Webpage Screenshot



- Header
- Account Creation Form
- PasswordStrength Bar
- Password Criteria
- Submit Buttor

# Login Webpage

# Login Page Information

#### Description:

The login.php page is used to let users log in to the website by entering their username and password. It has some security features like a CSRF token to make sure the form submission is safe and checks the password against what's stored in the database. If the user is already logged in, the page will automatically take them to their profile. If the username or password is wrong, an error message will show up. This page helps keep user accounts secure while letting them access their profiles.

#### Key Points about the Page:

- User Authentication
- Security Measures
- Error Handling

- Error Reporting Configuration (ini\_set() and error reporting())
- Session Check and Redirect (if (isset(\$\_SESSION['user'])))Checks if a user is already logged in by verifying the session and redirects them to the profile page if true.
- Form Submission Handling (if (\$\_SERVER['REQUEST\_METHOD'] == 'POST'))Handles the login form submission and processes user credentials for authentication if the form is submitted via POST.
- CSRF Token Validation
- User Input Capture (\$username and \$password)
- Database Query for CredentialsPrepares and executes a query to check the entered username in the database, ensuring the user's credentials are valid.

```
Sep 8 5:33 PM
                                                               flatironstudent@fedora:/var/www/html
<?php
session_start();
require_once 'connect.php'; // Ensure database connection
include 'csrf.php'; // Include CSRF handling functions
// Enable error reporting for debugging
ini_set('display_errors', 1);
ini_set('display_startup_errors', 1);
error_reporting(E_ALL);
// If the user is already logged in, redirect to profile.php
if (isset($_SESSION['user']) && !empty($_SESSION['user'])) {
    header("Location: profile.php");
    exit;
if (s SERVER['REQUEST METHOD'] == 'POST') {
    // Validate CSRF token
    if (!validate_csrf_token($_POST['csrf_token'])) {
        die('Invalid CSRF token');
    $username = trim($ POST['username']);
    $password = trim($_POST['password']);
    // Query to check the user's credentials
        $query = "SELECT userid, username, pass FROM people WHERE username = ?";
        $stmt = $pdo->prepare($query);
```

- Database Query Execution (\$stmt->execute([\$username]);)
- Fetch User Data (\$row = \$stmt->fetch(PDO::FETCH\_ASSOC);)
- Password Verification (if (password\_verify(\$password, \$row['pass'])))
- Session Setup and Redirection (\$\_SESSION['user'] = \$row['userid'];)
- Error Handling (\$error\_message = "Incorrect username or password.")
- Exception Handling (catch (PDOException \$e))

```
Sep 8 5:34 PM
                                                              flatironstudent@fedora:/var/www/html
       $stmt = $pdo->prepare($query);
       $stmt->execute([$username]):
       $row = $stmt->fetch(PDO::FETCH ASSOC);
       if (srow) {
           // Verify the password using password verify()
           if (password_verify($password, $row['pass'])) {
               // If credentials are correct, store user ID in session and redirect to profile.php
               $_SESSION['user'] = $row['userid'];
               header("Location: profile.php"); // Redirect to profile.php after successful login
                exit;
            } else {
               $error_message = "Incorrect username or password.";
        } else {
           $error_message = "Incorrect username or password.";
    } catch (PDOException $e) {
       echo 'Database error: ' , $e->getMessage();
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login - David Moore's Website</title>
```

- Meta Viewport Tag (<meta name="viewport">)Ensures the page is responsive by setting the viewport width to match the device's width and scaling it properly for mobile devices.
- Favicon (<link rel="icon">)
- Body Styling
- Header Styling
- Website Title Styling
- Navigation List Styling

```
Sep 8 5:34 PM
⊞
                                                flatironstudent@fedora:/var/www/html
 <meta name="viewport" content="width=device-width. initial-scale=1.0">
 <title>Login - David Moore's Website</title>
 <!-- Add favicon here -->
 k rel="icon" href="favl.png" type="image/png">
 <style>
    body 4
        font-family: 'Roboto', sans-serif;
        margin: 0;
       padding: 0;
        background-color: #f4f4f4;
        color: #333:
        padding-bottom: 100px;
    header
       background-color: #282828;
        padding: 10px 20px;
        display: flex:
        justify-content: space-between;
        align-items: center:
     .website-title {
        font-size: 1.8em;
        color: #fff;
    nav ul (
```

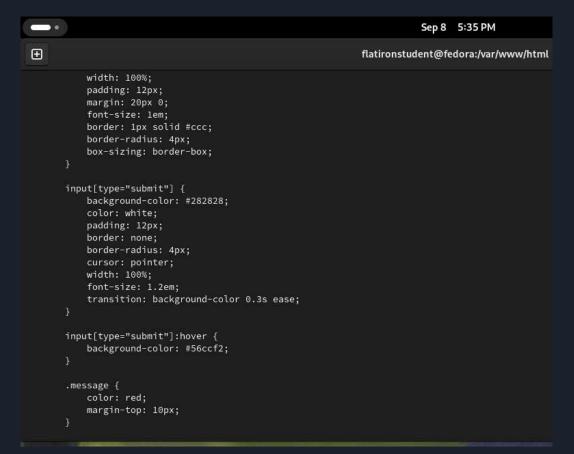
- Nav link Styling
- Home Button Styling

```
Sep 8 5:35 PM
\oplus
                                                             flatironstudent@fedora:/var/www/html
      nav ul {
          list-style-type: none;
          margin: 0;
          padding: 0;
          display: flex;
          align-items: center;
      nav ul li {
          margin-left: 20px;
      nav ul li a {
          color: #fff;
          text-decoration: none;
          font-size: 1.4em;
      nav ul li a:hover {
          color: #56ccf2;
      #home-button {
          background: url('fav1.png') no-repeat center;
          border: none;
          cursor: pointer;
          width: 75px;
          height: 75px;
```

#### Class Styling continued

```
Sep 8 5:35 PM
\oplus
                                                             flatironstudent@fedora:/var/www/html
      main {
          display: flex;
          flex-direction: column;
          align-items: center;
          text-align: center;
          padding: 20px;
          margin-top: 100px;
      .login-container {
          max-width: 400px;
          width: 100%;
          background-color: #fff;
          padding: 20px;
          box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
          border-radius: 8px;
      h1 {
          font-size: 2em;
          margin-bottom: 20px;
      input[type="text"],
      input[type="password"] {
          width: 100%;
          padding: 12px:
```

- Text Input Fields Styling
- Submit Button Styling
- Submit Button Hover Effect
- Error Message Styling



- Website Title
- Navigation Menu
- Home Buttor
- Login Container (<div class="logincontainer">)A container that holds the login form elements, styled for a clean and organized appearance.

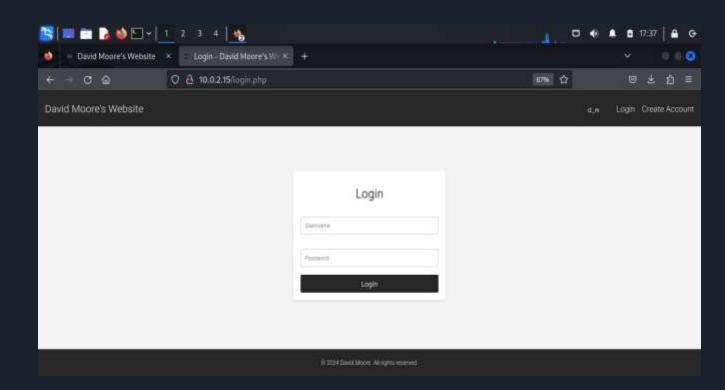
```
Sep 8 5:36 PM
 \blacksquare
                                                            flatironstudent@fedora:/var/www/html
           margin-top: 10px;
       footer {
           background-color: #282828;
           color: #fff;
           text-align: center;
           padding: 10px 0;
           position: fixed;
           width: 100%;
           bottom: 0;
   </style>
</head>
<body>
    <header>
       <!-- Added website title to the left side of the header -->
       <div class="website-title">David Moore's Website</div>
       <nav>
           <l
               <button id="home-button" onclick="window.location.href='index.php';"></button>
               <a href="login.php">Login</a>
               <a href="create account.php">Create Account</a>
           </nav>
    </header>
    <main>
       <div class="login-container">
```

- Error Message Handling (<?php if (isset(\$error message)): ?>)
- Login Form (<form action="login.php" method="POST">)
- CSRF Token (<input type="hidden" name="csrf\_token" ...>)
- Input Fields for Username and Password
- Submit Buttor

```
Sep 8 5:36 PM
 \blacksquare
                                                           flatironstudent@fedora:/var/www/html
               <a href="login.php">Login</a>
               <a href="create_account.php">Create Account</a>
           </nav>
    </header>
    <main>
       <div class="login-container">
           <h1>Login</h1>
           <!-- Display any error messages -->
           <?php if (isset($error_message)): ?>
               <?php echo $error_message; ?>
           <?php endif; ?>
           <form action="login.php" method="POST">
               <input type="hidden" name="csrf token" value="<?php echo generate csrf token(); ?>">
               <input type="text" name="username" placeholder="Username" required>
               <input type="password" name="password" placeholder="Password" required>
               <input type="submit" name="login" value="Login">
           </form>
       </div>
    </main>
    <footer>
       © 2024 David Moore. All rights reserved.
   </footer>
</body>
</html>
```

# PHP Webpage Screenshot

- Login container with input fields
- Header Bar with navigation links to keep the display uniform with the other pages



Profile.php page

# Profile Page Information

#### Description:

The profile.php page displays a user's profile information after they have logged in. It checks if a user session exists, and if not, redirects them to the login page. Once verified, the page retrieves and displays the user's first name, last name, and username from the database. The purpose of the page is to provide users with a personalized view of their profile and allow them to log out or navigate back to the homepage. Additionally, it includes security features like session regeneration to protect the user's session.

#### Key Points about the Page:

- User Authentication: The page checks if a user is logged in by verifying the session, and redirects to the login page if no session exists.
- Profile Information Display: It retrieves and displays the logged-in user's profile details, such as their username, first name, and last name, from the database.
- Security Measures: The page includes session security by regenerating the session ID upon loading to prevent session hijacking.

- Session Check (if (!isset(\$\_SESSION['user']))), checks if a user session exists; if not, the user is redirected to the login page to prevent unauthorized access.
- Session Regeneration (session\_regenerate\_id(true);), regenerates the session ID to provide additional security by mitigating session fixation attacks.
- Fetching User Profile Information, prepares and executes an SQL query to fetch the logged-in user's profile information (username first name, and last name) from the database using their session ID.
- User Validation (if (!\$userRow)), if no user data
  is found in the database, the user is logged out
  which helps handle cases where the user
  session might be invalid.

```
Sep 8 5:33 PM
 lacktriangledown
                                                               flatironstudent@fedora:/var/www/html
<?php
session_start();
require_once 'connect.php'; // Ensure database connection
include 'csrf.php'; // Include CSRF handling functions
// Enable error reporting for debugging
ini_set('display_errors', 1);
ini_set('display_startup_errors', 1);
error_reporting(E_ALL);
// If the user is already logged in, redirect to profile.php
if (isset($ SESSION['user']) && !empty($ SESSION['user'])) {
   header("Location: profile.php");
   exit;
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
   // Validate CSRF token
    if (!validate csrf token($ POST['csrf token'])) {
       die('Invalid CSRF token');
    $username = trim($ POST['username']);
    $password = trim($_POST['password']);
   // Query to check the user's credentials
    trv {
        $query = "SELECT userid, username, pass FROM people WHERE username = ?";
        $stmt = $pdo->prepare($query);
```

- Meta Viewport Tag to ensure
  responsiveness
- CSS continued

```
Sep 8 6:07 PM
\blacksquare
                                                            flatironstudent@fedora:/var/www/html
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Profile Page - David Moore's Website</title>
  k href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&family=Roboto+Mono:wght@400&display=swap" rel="stylesheet">
  <link rel="icon" href="fav1.png"> <!-- Added the favicon link -->
  <style>
      body {
          font-family: 'Roboto', sans-serif;
          margin: 0;
         padding: 0;
          background-color: #f4f4f4;
          color: #333;
          padding-bottom: 180px;
      header {
          background-color: #282828;
          padding: 10px 20px;
          display: flex;
          justify-content: flex-end;
          align-items: center;
      nav ul {
          list-style-type: none;
          margin: 0;
         padding: 0;
         display: flex;
          align-items: center;
```

- Navigation Styling
- Home Button Styling
- Main Section Styling

```
Sep 8 6:07 PM
\oplus
                                                             flatironstudent@fedora:/var/www/html
          display: flex;
          align-items: center;
      nav ul li {
          margin-left: 20px;
      nav ul li a {
          color: #fff;
          text-decoration: none;
          font-size: 1.4em;
      nav ul li a:hover {
          color: #56ccf2;
      #home-button {
          background: url('fav1.png') no-repeat center;
          border: none;
          cursor: pointer;
          width: 75px;
          height: 75px;
          background-size: contain;
      main {
          display: flex;
```

- Profile Container Styling
- Buttons Container Styling
- Heading Styling

```
Sep 8 6:08 PM
\oplus
                                                             flatironstudent@fedora:/var/www/html
      main {
          display: flex;
          flex-direction: column;
          align-items: center;
          text-align: center;
          padding: 20px;
          margin-top: 100px;
      .profile-container {
          max-width: 500px;
          width: 100%;
          background-color: #fff;
          padding: 20px;
          box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
          border-radius: 8px;
      .buttons-container {
          display: flex;
          justify-content: center;
          gap: 20px;
          margin-top: 20px;
      h1 {
          font-size: 2em;
          margin-bottom: 20px;
```

- Button Styling
- Footer Styling

```
Sep 8 6:08 PM
\oplus
                                                             flatironstudent@fedora:/var/www/html
          margin-bottom: 20px;
      .button-style {
          background-color: #282828;
          color: white;
          padding: 5px 20px;
          border: none;
          border-radius: 4px;
          cursor: pointer;
          font-size: 1.2em;
          height: 40px;
          line-height: 40px;
          text-decoration: none;
          text-align: center;
          transition: background-color 0.3s ease, color 0.3s ease;
          width: 150px;
          margin-top: 15px; /* Resetting the margin to its original value */
      .button-style:hover {
          background-color: #56ccf2;
          color: white;
      footer {
          background-color: #282828;
          color: #fff;
          text-align: center;
```

- Home Button Styling
- Logout Link (<a href="logout.php">Logout</a>), A clickable link that allows the user to log out of their account, ensuring easy navigation and session management.

```
Sep 8 6:09 PM
 \blacksquare
                                                             flatironstudent@fedora:/var/www/html
           color: #fff;
           text-align: center;
           padding: 10px 0;
           position: fixed;
           width: 100%;
           bottom: 0;
        .home-button-style {
           background: url('fav1.png') no-repeat center;
           border: none;
           cursor: pointer;
           width: 75px;
           height: 75px;
           background-size: contain;
   </style>
</head>
<body>
    <header>
       <nav>
           <l
               <button id="home-button" onclick="window.location.href='index.php';"></button>
               <a href="logout.php">Logout</a>
           </nav>
    </header>
    <main>
```

- Header and Navigation
- Profile Container
- Greeting Heading (<h1>Welcome, <?php echo htmlspecialchars(\$userRow['fname'] ?>, outputs a personalized greeting with the user's first name, securely rendering the value to prevent XSS attacks using htmlspecialchars()
- User Information Display
- Buttons Container
- Footer

```
Sep 8 6:09 PM
 \blacksquare
                                                           flatironstudent@fedora:/var/www/html
    <header>
       <nav>
           <button id="home-button" onclick="window.location.href='index.php';"></button>
               <a href="logout.php">Logout</a>
           </nav>
    </header>
    <main>
       <div class="profile-container">
           <h1>Welcome, <?php echo htmlspecialchars($userRow['fname']); ?>!</h1>
           Username: <?php echo htmlspecialchars($userRow['username']); ?>
           First Name: <?php echo htmlspecialchars($userRow['fname']); ?>
           Last Name: <?php echo htmlspecialchars($userRow['lname']); ?>
           <div class="buttons-container">
               <button class="home-button-style" onclick="window.location.href='index.php';"></button>
               <a href="logout.php" class="button-style">Logout</a>
           </div>
       </div>
    </main>
    <footer>
       © 2024 David Moore. All rights reserved.
   </footer>
</body>
</html>
```

# Logout.php page

# Logout Page Information

#### **Description:**

The logout.php page is responsible for securely logging the user out of their session. It begins by starting the session to ensure session data is accessible, then destroys all session data using session\_destroy(). After clearing the session, it redirects the user to the login page (login.php) to allow them to log back in or remain logged out. This script ensures that all user data is properly cleared, and the user is redirected to a secure state after logging out.

#### Key Points about the Page:

- Session Termination: The page uses session\_destroy() to completely terminate the user's session, ensuring all session data is removed.
- Redirection to Login: After destroying the session, the user is immediately redirected to the login page, guiding them to a secure login state.
- Security: The page ensures that once the session is destroyed, the script execution stops, preventing any further actions after logging out.

- session\_start(); Initiates or resumes the current session, ensuring session data is accessible before proceeding with the logout process.
- session\_unset(); Unsets all session variables clearing any data stored in the session without destroying the session itself.
- session\_destroy(); Destroys the session, completely removing any session data, and ending the session for the user.
- header('Location: login.php'); Redirects the user to the login page after the session is destroyed, ensuring they cannot access restricted pages without logging back in.
- exit();Stops the script execution immediately after the redirection to ensure no further code is run after the session is destroyed.



# 404 Error Page

## 404 Error Page Page Information

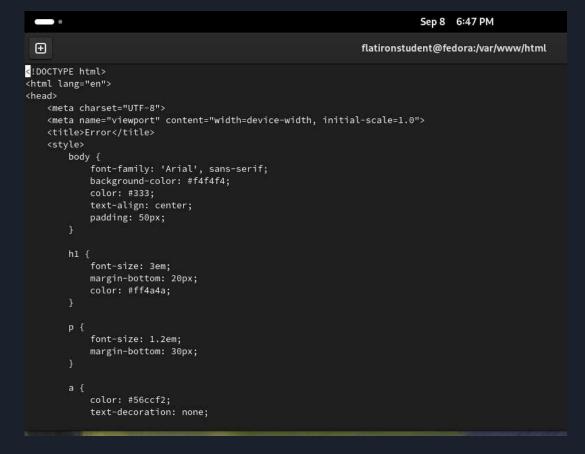
#### Description:

The 404.php page is a custom error page designed to handle "Page Not Found" (404) errors when users try to access a page that doesn't exist. It displays a clear "Error 404" message and provides a link for users to return to the homepage. The page is styled with a clean and simple design, using a light background and a red error message to signal the issue. The purpose of the page is to guide users back to the main site gracefully when they encounter an error, rather than displaying a generic server error message.

#### Key Points about the Page:

- Error Handling
- User Navigation
- Simple and Clean Design

- Meta Viewport Tag
- Title Tag
- Body Styling
- Heading
- Paragraph Styling
- Link Styling



- Link
- Link Hover Effect
- Footer Styling
- Error Message (<h1>Error 404</h1>), Displays a large, bold "Error 404" message at the top of the page, making it clear that the requested page was not found.
- Back to Homepage Link (<a href="index.php">...),
   Provides a clickable link that redirects the user back to the homepage, allowing them to navigate away from the error page.
- Dynamic Copyright in Footer (<?php echo date('Y'):</li>?>)

```
Sep 8 6:47 PM
 \oplus
                                                            flatironstudent@fedora:/var/www/html
       a {
           color: #56ccf2;
           text-decoration: none;
           font-size: 1.1em;
       a:hover {
           text-decoration: underline;
       footer {
           margin-top: 40px;
           font-size: 0.9em;
           color: #666;
   </style>
</head>
<body>
   <h1>Error 404</h1>
   <a href="index.php">Go back to the homepage</a>
   <footer>
       © <?php echo date('Y'); ?> David Moore's Website. All rights reserved.
   </footer>
</body>
</html>
```

# PHP Webpage Screenshot

- Frror message
- Link back to homepage

