



E-GAMING HUB

Welcome to the E-Gaming Hub, your one-stop destination for an immersive gaming experience.

COHNDSE233F – 025
COHNDSE233F – 027
COHNDSE233F – 048
COHNDSE233F – 084
COHNDSE233F – 092

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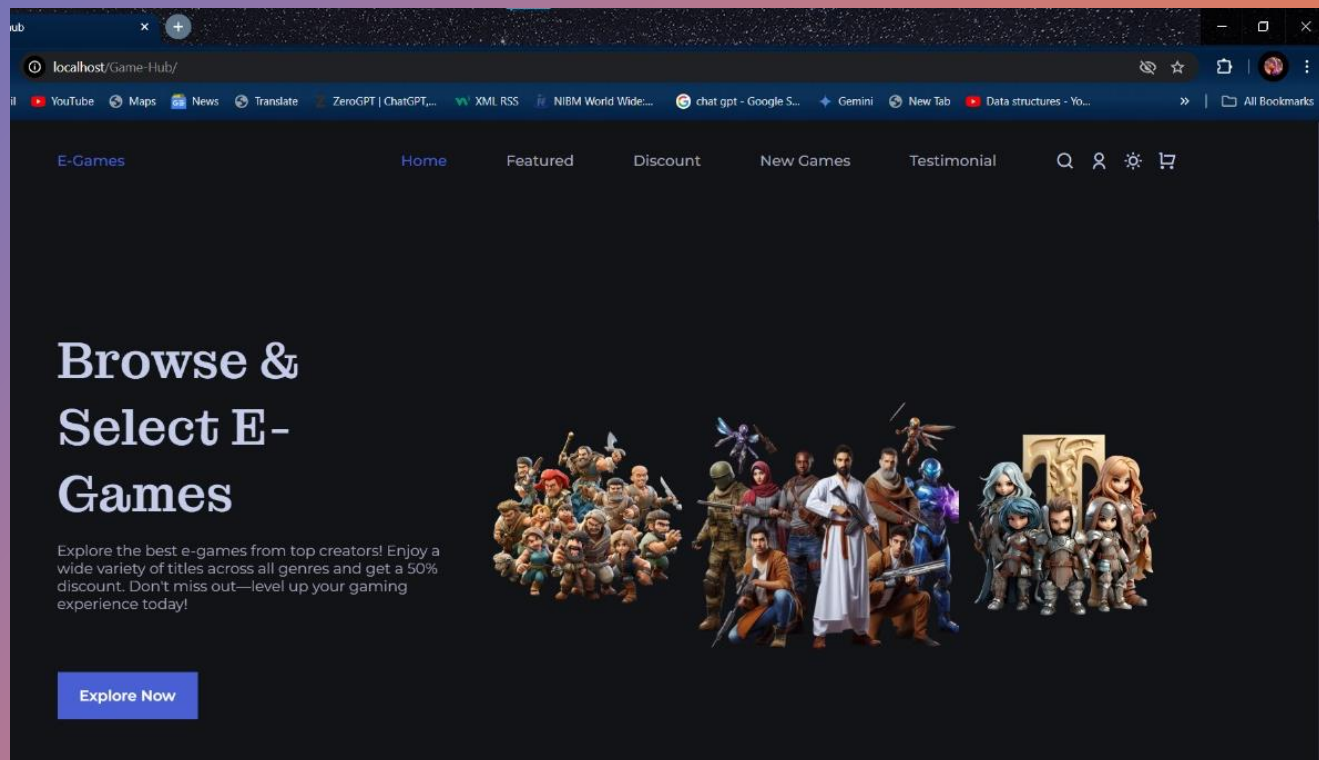


- Introduction.
- Used Technologies.
- Features of the system.
- Security Features.



INTRODUCTION

A Gaming Platform Website is a platform where game developers can list games for customers to browse and buy online. It helps the platform manage sales and track purchases, making the process simple for both developers and gamers.



USED TECHNOLOGIES



PHP powers the backend functionality, handling user interactions and data management.



MySQL serves as the database, securely storing user information and game data.



HTML, JS and CSS create the user interface, ensuring a seamless and visually appealing experience.



Visual Studio Code is the development environment, enhancing productivity and streamlining the coding process.

FEATURES OF THE E-GAMING HUB

Sign Up

Create an account to personalize your gaming experience and access exclusive features.

Log In

Log in to your account to access your game library, purchase games, and connect with other gamers.

Edit Account

Manage your profile information, update your preferences, and customize your settings.

Delete Account

Safely and securely delete your account if you no longer wish to use the platform.

Bank Details Verifications

Verify bank details and ensure secure transactions.

SECURITY FEATURES



Bank Details Verifications

Enter Bank Details

Account Number

CVV

Expiry Date

Account Holder Name

Save Details

Enter Bank Details

Account Number

4563477856321579

CVV

Expiry Date

Please fill out this field.

August 2024

Account Holder Name

Randika Gunathilake

Save Details

localhost says

CVV must be 3 digits.

OK

Account Number

2000587692435687

CVV

.

File Edit Selection View Go Run ... Search

Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

bank_details_form.html # styles.css JS validate.js save_bank_details.php

D: > AccDetails > AccDetails > JS validate.js > validateForm

```
1 function validateForm() {
2     const accountNumber = document.getElementById('account_number').value;
3     const cvv = document.getElementById('cvv').value;
4
5     //// Regular expression for validation
6     if (!/^d{16}$/.test(accountNumber)) {
7         alert("Account number must be 16 digits.");
8         return false;
9     }
10    if (!/^d{3}$/.test(cvv)) {
11        alert("CVV must be 3 digits.");
12        return false;
13    }
14    return true;
15 }
16
```



DATABASE & DATABASE CONNECTION

```
File Edit Selection View Go Run ... < >
DBconnection.php X
C: > xampp > htdocs > Game-Hub > shared > DBconnection.php
1  <?php
2  $server = "localhost";
3  $username = "root";
4  $password = "";
5  $database = "E_Game_Hub";
6
7  $connection = new mysqli($server, $username, $password, $database);
8
9  if ($connection->connect_error) {
10     die("Connection failed: " . $connection->connect_error);
11 }
12 ?>
13
```

phpMyAdmin

Recent Favorites

Server: 127.0.0.1 » Database: e_game_hub

Structure SQL Search Query Export Import Operations Privileges Routines Events

Filters

Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> bank_details	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> users	★ Browse Structure Search Insert Empty Drop	16	InnoDB	utf8mb4_general_ci	32.0 KiB	-
2 tables	Sum	16	InnoDB	utf8mb4_general_ci	48.0 KiB	0 B

Secure Authentication and Authorization: password salt, block password

```
register.php X
C: > xampp > htdocs > Game-Hub > actions > register.php
1 <?php
12
13 try{
14     $hashedPassword = password_hash($password, PASSWORD_DEFAULT);
15     $query = "INSERT INTO users (userName, userEmail, userPass) VALUES (?, ?, ?)";
16     $stmt = $connection->prepare($query);
17     $stmt->bind_param("sss", $name, $email, $hashedPassword);
18
19     if($stmt->execute()){
20         $_SESSION["logged"]=$email;
21         header("Location: ../index.php");
22     } else{
23         $_SESSION["logged"]="";
24         echo "Register Failed. <a href='../index.php'>Click</a> to redirect to homepage";
25     }
26 }
27 catch(Exception $e){
28     $_SESSION["logged"]="";
29     echo "<h1>Something went wrong.</h1>Error: {$e->getMessage()}<br /> <br /><a href='../index.php'>Click</a> to redirect to homepage"
30 }
31
32 $stmt->close();
33 $connection->close();
```

id	userName	userEmail	userPass
1	John Doe	john.doe@example.com	\$2y\$10\$WjwG..EwZbYJPsfYGH/L8vV2l.k9m1jX6qgUtlRtZ9o...
4	ima	ima@gmail.com	\$2y\$10\$uLe/ESQfZz/Mp/r70FyV/uu9HGj6xy/lhpB2cseqMc...
5	John Doe	john.doe@gmail.com	\$2y\$10\$E1R9uJLm1y3P7IWWh10IM0ehLX/jPsHODcmZPI61s.bq...
6	Jane Smith	jane.smith@gmail.com	\$2y\$10\$U.e1R9uJLm1y3P7IWWh10IM0ejPsHODcmZPI61s.bqBR...
7	Alice Johnson	alice.j@gmail.com	\$2y\$10\$wBqE1R9uJLm1y3P7IWWh10IM0ejPsHODcmZPI61s.bqB...
8	Bob Brown	bob.brown@gmail.com	\$2y\$10\$PLm1y3P7IWWh10IM0ehLX/jPsHODcmZPI61s.bqBRen...
9	Charlie Green	charlie.g@gmail.com	\$2y\$10\$ZpYx1E1R9uJLm1y3P7IWWh10IM0ejPsHODcmZPI61s.b...
10	Diana Miller	diana.m@gmail.com	\$2y\$10\$.bqReEnrCQJW3R9uJLm1y3P7IWWh10IM0ehLX/jPsHOD...
11	Ethan Clark	ethan.c@gmail.com	\$2y\$10\$10IM0ehLX/jPsHODcmZPI61s.bqBRenrCQJW3R9uJL...
12	Fiona White	fiona.w@gmail.com	\$2y\$10\$HODcmZPI61s.bqBRenrCQJW3R9uJLm1y3P7IWWh10IM...
13	George Black	george.b@gmail.com	\$2y\$10\$I61s.bqBRenrCQJW3R9uJLm1y3P7IWWh10IM0ehLX/j...
14	Hannah Gray	hannah.g@gmail.com	\$2y\$10\$3R9uJLm1y3P7IWWh10IM0ehLX/jPsHODcmZPI61s.bqB...
15	Ishini	ishu@gmail.com	ishu1
17	Dilnuka	dil@gmail.com	dil
18	Anne	anne@gmail.com	\$2y\$10\$FISlquecrEbPGK1NRS1U8OzKO.Swzni/NnjUVx4VtUl...

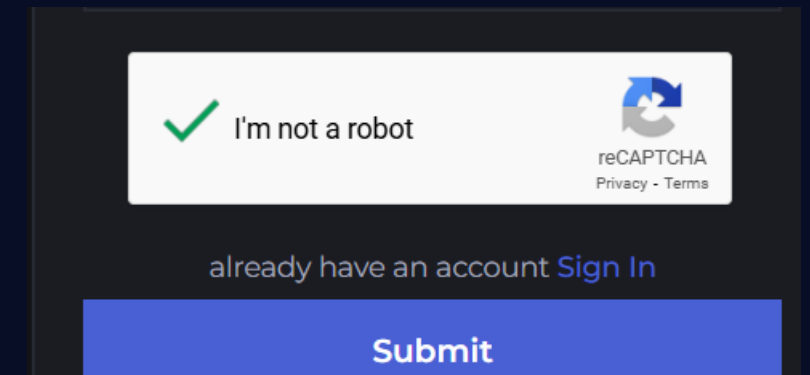
```
C: > xampp > htdocs > Game-Hub > actions > register.php
1 <?php
8
9     $name = $_POST["SignUp-Name"];
10    $email = $_POST["SignUp-email"];
11    $password = $_POST["SignUp-pass"];
12
13    try{
14        $hashedPassword = password_hash($password, PASSWORD_DEFAULT);
15        $query = "INSERT INTO users (userName, userEmail, userPass) VALUES (?, ?
16        $stmt = $connection->prepare($query);
17        $stmt->bind_param("sss", $name, $email, $hashedPassword);
18
19        if($stmt->execute()){
20            $_SESSION["logged"]=$email;
21            header("Location: ../index.php");
22        } else{
23            $_SESSION["logged"]="";
24            echo "Register Failed. <a href='../index.php'>Click</a> to redirect
25        }
26    }
27    catch(Exception $e){
28        $_SESSION["logged"]="";
29        echo "<h1>Something went wrong.</h1>Error: {$e->getMessage()}<br /> <br
30    }
31
```

CAPTCHA

C: > xampp > htdocs > Game-Hub > components > 🐼 registerForm.php

```
1  <form action="./actions/register.php" method="post" class="login__form grid" onSubmit="return registerValidate();" id
3  <div class="SignUp__group grid">

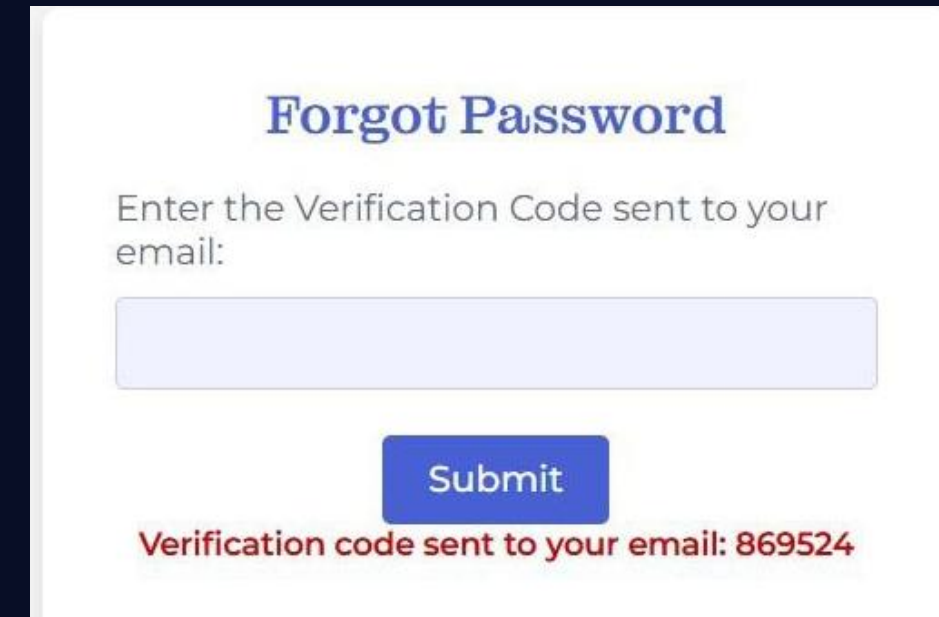
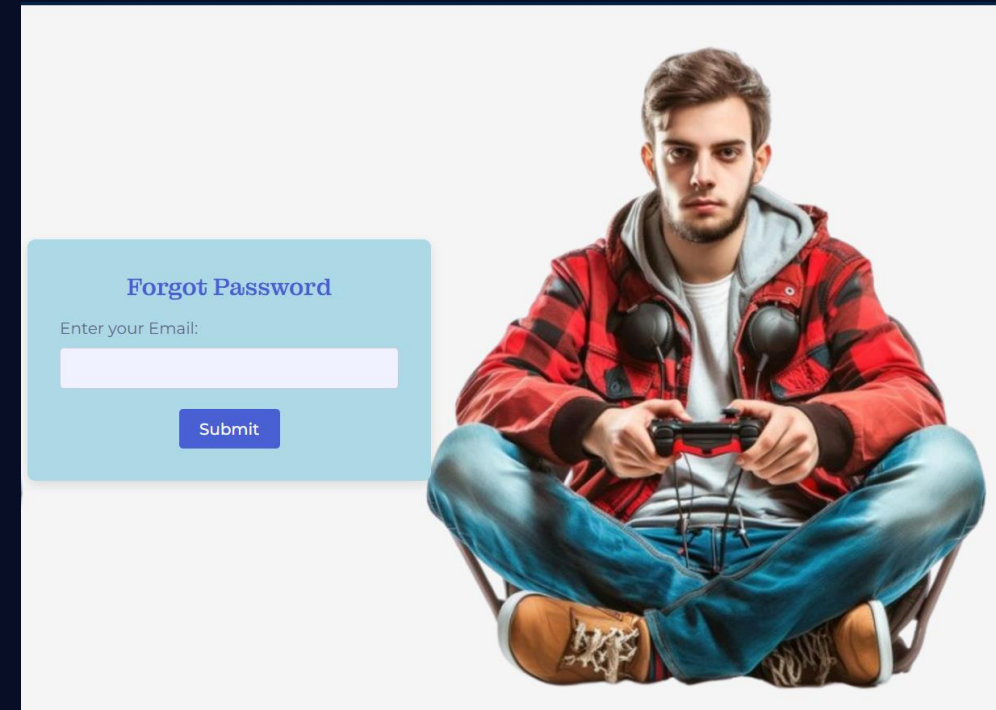
32  <script src="https://www.google.com/recaptcha/api.js" async defer></script>
33  <script>
34      function onSubmit(token) {
35          if (token) {
36              // reCAPTCHA was verified successfully
37              const submitButton = document.getElementById("loginsubmit");
38              submitButton.disabled = false;
39              return true;
40          } else {
41              // reCAPTCHA verification failed, prevent form submission
42              alert("Captcha failed");
43              return false; // Explicitly return false to prevent form submission
44          }
45      }
46  </script>
47  <div class="g-recaptcha"
48      data-sitekey="6LfP0FwqAAAAAPD9IMCmikdzqEU_weMi_c6-z0wD"
49      data-callback="onSubmit"
50      data-size="normal"
51      style="margin-inline: auto;"></div>
52
53 </div>
54 <div>
55     <span class="SignUp__signIn">
56         already have an account <a href="#" onClick="authChange('login');">Sign In</a>
57     </span>
58     <button type="submit" id="loginsubmit" class="SignUp__button button" name="submit" disabled>Submit</button>
59 </div>
```



MULTI-FACTOR AUTHENTICATION

C: > xampp > htdocs > Game-Hub > forgotPassword.php

```
9
10 $step = $_SESSION['step']; // Get the current step from session
11 $message = "";
12
13 if (isset($_POST['submit'])) {
14     if ($step == 1 && isset($_POST['email'])) {
15         $email = $_POST['email'];
16
17         // Check if the email exists in the database
18         $query = "SELECT * FROM users WHERE userEmail = '$email'";
19         $result = $connection->query($query);
20
21         if ($result->num_rows > 0) {
22             $verificationCode = rand(100000, 999999); // Generate verification code
23             $_SESSION['verificationCode'] = $verificationCode;
24             $_SESSION['resetEmail'] = $email;
25
26             // For demo purposes, display the code (replace with email logic)
27             $message = "Verification code sent to your email: $verificationCode";
28             $_SESSION['step'] = 2; // Move to Step 2 (Verification Code)
29         } else {
30             $message = "Email not found!";
31         }
32     } elseif ($step == 2 && isset($_POST['code'])) {
33         $enteredCode = $_POST['code'];
34         if ($enteredCode == $_SESSION['verificationCode']) {
35             // Verification successful, redirect to updatePassword.php
36             header("Location: updatePassword.php");
37             exit();
38         } else {
```




Validate inputs in both frontend and backend, use regex

```
registerForm.php login.php JS validations.js X register.php
C: > xampp > htdocs > Game-Hub > assets > js > JS validations.js > ...


20 // JavaScript for password validation and strength check
21 function checkPasswordStrength() {
22     const password = document.getElementById("SignUp-pass").value;
23     const strengthText = document.getElementById("passwordHelp");
24     let strength = 0;
25
26     // Check for minimum length first
27     if (password.length < 8) {
28         strengthText.style.color = "red";
29         strengthText.textContent = "Error: Password must be at least 8 characters long.";
30         return; // Exit the function early if the password is too short
31     }
32
33     // Additional regex validation for password complexity
34     const regexPattern = /^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!%*?&]{8,}$/;
35
36     // Check the regex for complexity
37     if (!regexPattern.test(password)) {
38         strengthText.style.color = "red";
39         strengthText.textContent = "Error: Password must include uppercase, lowercase, digit, and special character.";
40         return; // Exit if regex does not match
41     }
42
43     // Check for different criteria
44     if (/[A-Z]/.test(password)) strength += 1; // At least one uppercase letter
45     if (/[a-z]/.test(password)) strength += 1; // At least one lowercase letter
46     if (/\\d/.test(password)) strength += 1; // At least one digit
47     if (/\\W_/.test(password)) strength += 1; // At least one special character
48 }
```



Password



Error: Password must include uppercase, lowercase, digit, and special character.

Confirm Password



 I'm not a robot 
reCAPTCHA
Privacy - Terms

already have an account [Sign In](#)

Submit

Log all events (errors, information) into a logfile

```
≡ custom-log.txt  ≡ php_errors.log X
C: > xampp > htdocs > Game-Hub > logs > ≡ php_errors.log
1  [30-Nov-2024 00:22:31 Asia/Colombo] PHP Deprecated:  strtotime(): Passing null to parameter #1 ($datetime) of type string is deprecated in
2  [30-Nov-2024 00:23:39 Asia/Colombo] PHP Notice:  session_start(): Ignoring session_start() because a session is already active in C:\xampp\
3  [30-Nov-2024 13:54:40 Asia/Colombo] PHP Deprecated:  strtotime(): Passing null to parameter #1 ($datetime) of type string is deprecated in
4  [30-Nov-2024 13:54:40 Asia/Colombo] PHP Notice:  session_start(): Ignoring session_start() because a session is already active in C:\xampp\
5  [30-Nov-2024 14:06:00 Asia/Colombo] PHP Deprecated:  strtotime(): Passing null to parameter #1 ($datetime) of type string is deprecated in
6  [30-Nov-2024 14:06:00 Asia/Colombo] PHP Notice:  session_start(): Ignoring session_start() because a session is already active in C:\xampp\
7
```

```
≡ custom-log.txt  ≡ php_errors.log  🐞 login.php X
C: > xampp > htdocs > Game-Hub > actions > 🐞 login.php
6  // Custom logging function
7  function customLog($message) {
8      $logFilePath = '../logs/custom-log.txt'; // Make sure the 'logs' directory is writable
9      $timeStamp = date('Y-m-d H:i:s'); // Add a timestamp to each log
10     $logMessage = "[" . $timeStamp . " ] " . $message . PHP_EOL;
11     file_put_contents($logFilePath, $logMessage, FILE_APPEND); // Append the log
12 }
13
14 // Error logging setup
15 error_reporting(E_ALL);
16 ini_set('log_errors', 'On');
17 ini_set('error_log', '../logs/php_errors.log'); // Set the path for error logs
18
```

```
1  [2024-11-29 01:03:35] Direct access attempt to login.php
2  [2024-11-29 01:04:26] Login attempt for email: ishu@gmail.com
3  [2024-11-29 01:04:26] User not found: ishu@gmail.com.
4  [2024-11-29 01:12:33] Direct access attempt to login.php
5  [2024-11-29 01:27:59] Direct access attempt to login.php
6  [2024-11-29 01:37:24] Login attempt for email: seni@gmail.com
7  [2024-11-29 01:37:24] Invalid login attempt for email: seni@gmail.com. Remaining attempts: 4.
8  [2024-11-29 01:38:53] Login attempt for email: Seni@gmail.com
9  [2024-11-29 01:38:53] Successful login for email: Seni@gmail.com.
10 [2024-11-29 20:41:22] Direct access attempt to login.php
11 [2024-11-29 20:42:17] Login attempt for email: ishu@gmail.com
```

Secure Coding Practices for Session Management

common.php X

C: > xampp > htdocs > Game-Hub > shared > common.php

```
1  <?php
2  session_start();
3  if (session_status() === PHP_SESSION_NONE) {
4      session_start();
5  }
6
7  // Set session lifetime (15 minutes)
8  $sessionLifetime = 1 * 60; // 15 minutes in seconds
9
10 // Check if session variable 'LAST_ACTIVITY' is set
11 if (isset($_SESSION['LAST_ACTIVITY'])) {
12     // Calculate session duration
13     if (time() - $_SESSION['LAST_ACTIVITY'] > $sessionLifetime) {
14         // Last activity was more than 15 minutes ago, destroy the session
15         session_unset(); // Remove all session variables
16         session_destroy(); // Destroy the session
17         header("Location: login.php"); // Redirect to the login page
18         exit();
19     }
20 }
21
22 // Update last activity time
23 $_SESSION['LAST_ACTIVITY'] = time(); // Update last activity timestamp
24 ?>
```


SQL injection preventor

```
1 <?php
12
13 try{
14     $hashedPassword = password_hash($password, PASSWORD_DEFAULT);
15     $query = "INSERT INTO users (userName, userEmail, userPass) VALUES (?, ?, ?)";
16     $stmt = $connection->prepare($query);
17     $stmt->bind_param("sss", $name, $email, $hashedPassword);
18
19     if($stmt->execute()){
20         $_SESSION["logged"]=$email;
21         header("Location: ../index.php");
22     } else{
23         $_SESSION["logged"]="";
24         echo "Register Failed. <a href='../index.php'>Click</a> to redirect to homepage";
25     }
26 }
27 catch(Exception $e){
28     $_SESSION["logged"]="";
29     echo "<h1>Something went wrong.</h1>Error: {$e->getMessage()}<br /> <br /><a href='../index.php'>Click</a> to redirect to homepage"
30 }
31
32 $stmt->close();
33 $connection->close();
```

login.php

C: > xampp > htdocs > Game-Hub > actions > login.php

```
35
36 // Fetch user data using prepared statement
37 $query = "SELECT * FROM users WHERE userEmail = ?";
38 $stmt = $connection->prepare($query);
39 $stmt->bind_param("s", $email);
40 $stmt->execute();
41 $result = $stmt->get_result();
42
```

Brute Force Attack



```
31
32 // Anti-brute-force setup
33 $max_failed_attempts = 5;
34 $lockout_duration = 15 * 60; // 15 minutes
35
```


THANK
YOU!

