

# **Phase 3: CSC490**

# Football Club Management System



By:

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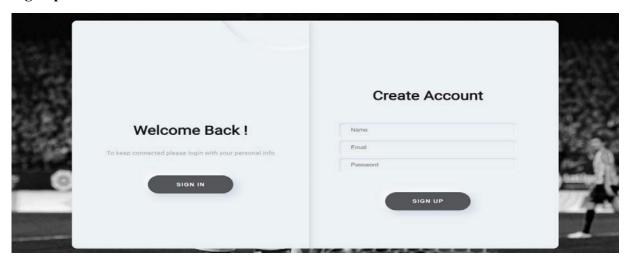
## **Introduction:**

Outside the pitch is a piece of software developed to help football teams run their day-to-day operations more successfully. It provides a variety of functionalities to club administrators, players, and supporters, making it easier to communicate, organize, and execute activities. Club administrators can supervise the club's finances, arrange matches, handle player contracts, and more. Coaches can utilize the software to evaluate game films, design training plans, and track player performance. Players can use the software to monitor their timetables, communicate with coaches and teammates, and track their personal development. Finally, supporters can utilize the software to purchase merchandise, products, and receive match schedule and result updates, and engage with other fans. This software was implemented as a website using HTML, CSS, JavaScript, and PHP to link to a database managed by MySQL. The functionalities that will be shown in this document are the following:

- Sign up
- Log in
- Purchase products and merchandise
- Manager updating player information

# **Functionalities:**

### Sign up:



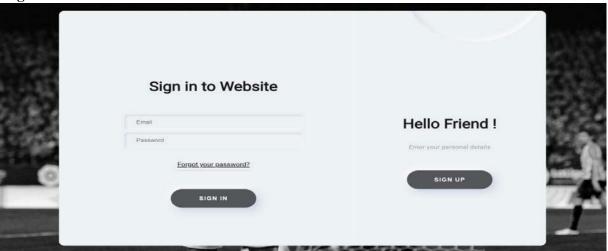
```
| Class rels'-tylesheet | Neeth', (xsx/dymo.csn') | Class'-tylesheet | Neeth', (xsx/dymo.csn') | Class'-tyleshe
```

This provides a form for signing up and a form for logging in. When toggled, the form and the fields the user wants will show. The form for the signup page has a name, email, and password fields. The action taken when signing up will be handled by the file signup.php.

This code takes the email inputted by the user. If mysqli\_num\_rows return greater than 0 for the manager or fans table this means that this email is already used by another person and an

alert will be shown for the person trying to use it. Else, the name, email, and password will be inserted into the fan's table. If the insertion was successful, the user will be directed to the Players page. Otherwise, an alert will be shown and the user will be redirected to the signup page.

Log in:

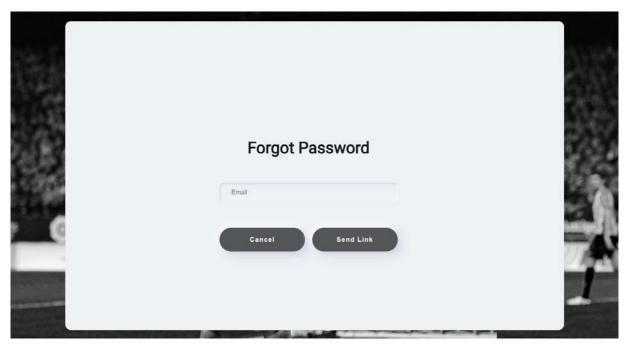


This form is shown when toggled on the first login page as shown in the first HTML, CSS, and JS code. The file responsible for taking action for this form is the login.php.

```
| Source | Table | Tab
```

When the user presses sign in the email and password will be queried to the database to check whether they are present in the fans or manager table. The mysqli\_num\_rows returns

the number of rows in the database. If the number is greater than 0 in the fans table, the user will be directed to the Players.php page. If the number is positive in the manager's table, the user will be directed to the ViewPlayersInfo.php page. Otherwise, an alert will be shown and the user will return to the login page. There is also the forgot password page:



```
| distribution | dist
```

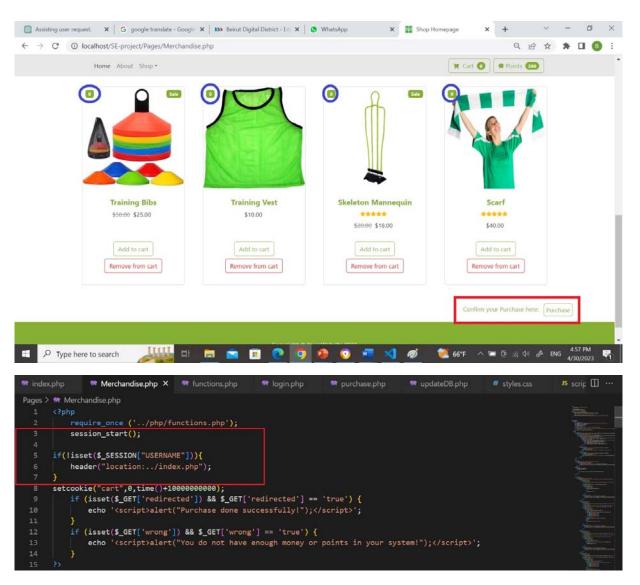
It provides a form with an email field to retrieve the password for the email.

The PHP file responsible for taking action for this page is the sendForgotLink.php.

```
$email = $_POST['email'];
     // establish database connection
    $servername = "127.0.0.1";
     $username = "root";
     $password = "root";
     $dbname = "se";
     $conn = mysqli_connect($servername, $username, $password, $dbname);
     if (!$conn) {
         die("Connection failed: " . mysqli_connect_error());
     // check if the email exists in the fans table
    $sql fans = "SELECT * FROM fans WHERE email='$email'";
     $result_fans = mysqli_query($conn, $sql_fans);
    $sql_managers = "SELECT * FROM managers WHERE email='$email'";
     $result_managers = mysqli_query($conn, $sql_managers);
     if (mysqli_num_rows($result_fans) > 0 || mysqli_num_rows($result_managers) > 0) {
         $token = md5(uniqid(rand(), true));
         $to = $email;
         $subject = "Password reset link for your account";
$message = "Click the following link to reset your password: <a href="http://realmadrid.com/reset_password.php?token=$token"";</a>;
         $headers = "From: webmaster@realmadrid.com" . "\r\n" .
                    "Reply-To: webmaster@realmadrid.com" . "\r\n" .
                    "X-Mailer: PHP/" . phpversion();
         mail($to, $subject, $message, $headers);
         header("Location: index.php?msg=" . urlencode("Link has been sent to your email."));
         header("Location: index.php?msg=" . urlencode("Sorry, the email you entered is not registered with us."));
     mysqli_close($conn);
46
47
```

This code will search for the fan or the manager that has the email entered in the form. If \$result\_fans or \$result\_managers are greater than 0, the user's email was found, and he will be sent a link to reset his password. Else an alert will be sent and the user will not be able to reset the password.

### **Purchasing products:**



If the user entering has no valid username, he can't purchase for security reasons.

```
city class-"purchase",

fore action", /php/purchase.php method="post" id="purchase-form")

clabel for="purchase" id="label" style="pointor-events: none;" disabled:Confirm your Purchase here:/label)

clabel for="purchase" id="label" style="pointor-events: none; disabled:Purchase class-"purchase bettor" onclick="checkforPurchase()" style="pointor-events: none; disabled:Purchase/button)

cinput type="hidden" id="hidden" name="hidden" value=")

cinput type="hidden" id="hidden" name="hidden!" value=")

cinput type="hidden" id="hidden!" name="hidden!" value=")

cinput type="hidden!" id="hidden!" name="hidden!" value=")
```

If the user has no items in the cart he can't click on the purchase button. Otherwise, it will be green and clickable.

```
(/div)

(ii- Product actions--)

(div class-'cand-footer p-4 pt-8 border-top-8 bg-transparent")

(div class-'cand-footer p-4 pt-8 border-top-8 bg-transparent")

(div class-'text-center')-duction name-'cart' class-"ten bin-outline-dark st-auto" onclick-'additoCart(()php echo detPrice('Scarf');)), 'Scarf', 'Jump echo detQuantity('Scarf');))"|Add to cart(/button-//div)

(div)

(/div)

(s)
```

This is for the add-to-cart and remove-from-cart functionalities which are then handled using JavaScript and PHP codes.

```
var cart= document.cookie
.split('; ')
.find(row => row.startsWith('cart='))
.split('-')[1];

// function to add to Cart
function addtoCart(price,name,q)(
    //if quantity in the system is not available then no adding done to cart
    if(parseInt(q)==0){
        alert("Apologies, There is no quantity available right now! Try again in another time...");
    //if quantity is available
    else(
        //update the value of the cart var
        var num = parseInt(price);
        cart= Number(cart) +num;
        //change the quantity selected of that item before saving the cart
        addProduct(name,q,num);
}
```

If the quantity of the product purchased is zero the user will be alerted. Otherwise, the money that should be paid will be updated as well as the quantity of the selected item.

```
//function that will save the number of selected items
function addProduct(name,q,num){
  var x=parseInt(document.getElementById(name).innerHTML)+1;
  //if the selected ones become greater than the quantity found in the system it cancels the last addition
  if(x>parseInt(q)){
    alert("The quantity of this product is finished...");
    document.getElementById(name).innerHTML=x-1;
    cart=Number(cart)-num;
}

//if quantity selected is within the available quantity in the system
else{
    document.getElementById(name).innerHTML=x;
    //open the purchase button in order if any purchase the customer likes to do
    document.getElementById("purchase").style.pointerEvents="visible";
    document.getElementById("label").style.pointerEvents="visible";
    document.getElementById("label").disabled=false;
    //save the cart value
    updateCart();
}
```

This is the addProduct function which checks whether the last added product doesn't exceed the quantity of the products available. If it does exceed the user will be alerted. Else the visuals will change to highlight the addition and the cart will be updated. The availability of products will be taken from a PHP file described later.

```
//the function that will save the cart value
function updateCart(){
  document.getElementById("cart").innerHTML=cart;
}
```

This is just to update the current cart after adding a product.

```
function GetPrice($ProductName){
   $obj=connectToDB();
   Squery = "SELECT 'PRICE' FROM 'products_table' MHERE ('PRODUCT_NAME'='".SProductName."')";
   $stmt=$obj->query($query);
  while($record=$stmt->fetch()){
     $answer= $record["PRICE"];
  $string= strval($answer);
  return $string;
/* GET QUANTITIES OF PRODUCTS*/
function GetQuantity($ProductName){
   Sobj=connectToD8():
   $query = "SELECT `AVAILABLE_QUANTITY' FROM `products_table` WHERE (`PRODUCT_NAME`='".$ProductName."')";
   $stmt=$obj->query($query);
  while($record=$stmt->fetch())
     Sanswer= Srecord["AVAILABLE_QUANTITY"];
  $string= strval($answer);
   return $string;
```

The first method in this PHP file gets searches the database for the product the user wants and returns its price while the second method gets the quantity to ensure that the user can still buy more of this product.

As for the removal from cart:

```
//function to remove from cart
function removefromCart(price,name){
    var num = parseInt(price);

//if there is no items or cart selected then there should not be any removing
    if(cart=0 || document.getElementById(name).innerHTML==0){
        alert("Your are having zero carts, or getting below zero selected items!");
    }

//remove can be done
else{
    //update the value of the cart
    cart= Number(cart) -num;
    //check if the cart will be negative then this signs that the user is removing more than selected
    if(cart0){
        alert("Your removings are greater than the collected ones!");
        window.location.reload();
    }

    //change the quantity selected of that item before saving the cart
    else{
        removeProduct(name);
    }
}
```

If the user presses remove from cart, but he doesn't have any items or a cart an alert message will be shown. Else, the prices of the cart will be updated. If the cart reaches a negative value, the user will be alerted as this means removing more than the selected items. Otherwise, the item will be removed. The function is as follows:

```
//the function that will update the quantity of items selected
function removeProduct(name){
    document.getElementById(name).innerHTML=parseInt(document.getElementById(name).innerHTML)-1;
    //if all items were removed then the purchase button should be closed
    if(document.getElementById(name).innerHTML==0){
        document.getElementById("purchase").style.pointerEvents="none";
        document.getElementById("label").style.pointerEvents="none";
        document.getElementById("label").disabled=true;
    }
    //save the cart value
    updateCart();
}

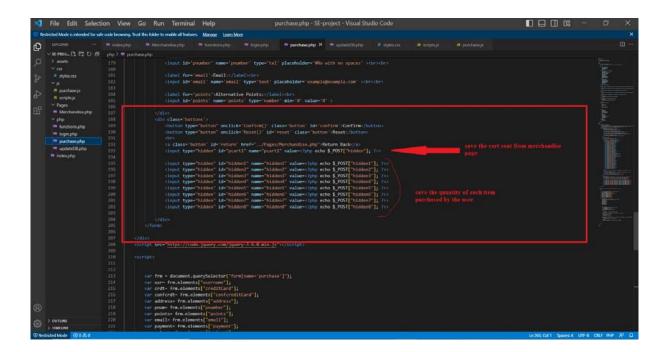
//the function that will save the cart value
function updateCart(){
        document.getElementById("cart").innerHTML=cart;
}
```

This changes the style to show that the item was removed and then updates the cart.

When clicking on the purchase button (which will no longer be disabled after adding items), the action will be handled by the purchase.php and JavaScript method checkForPurchase.

This JavaScript saves the cart purchased by the user. Then it saves the quantity of each item to send to the confirm purchase.php page. Note that this function saves the cart value in a hidden input found on the merchandise page to retrieve it in the purchase page by the \$POST.

If you need points, you can win by expe	ur Purchase: ceting games' result. Click here to expect EQUIVELANT to \$50
UserName:	Address:
bilal delbani	Sour-South Lebanon
Credit-Card Number:	Phone number:
	+961 > 76029305
Confirm Credit-Card Number:	Email: bibodado313@gmail.com
Payment:	Alternative Points:
480	200
Confirm Retur	Reset rn Back

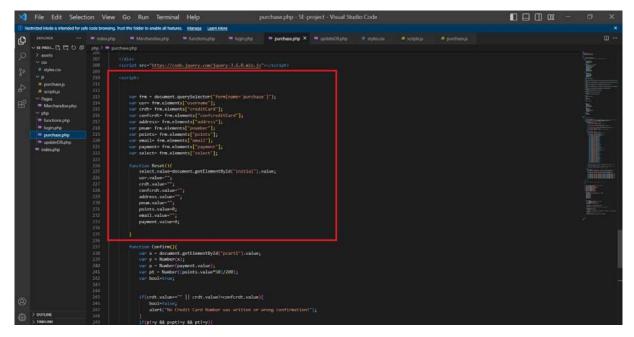


This is the purchase.php file which shows how we save the cart sent from the merchandise page and how we saved the quantity of each item selected by the user.

```
File Edit Selection View Go Run Terminal Help purchase.php.SE-project - Visual Studio Code

***Protection of the Code Studios Studios
```

This method in the purchase.php file calculates the amount of money and points the user has (200 points = 50\$). Then, it checks that the credit card field is filled, otherwise, the user will be alerted. Whether or not the user has enough money to pay will also be checked and the user will be alerted in case he can't. Also, every field is checked to make sure the user is not missing anything to confirm the purchase.



This is the function for the reset button which takes the value of each form filled by the user and set it to an empty string making it empty.

```
$offer = intval($user->payment/500);

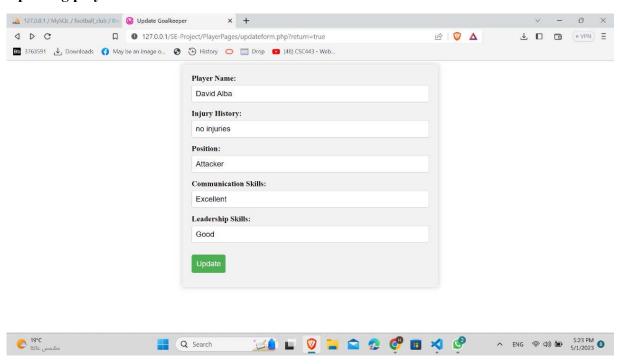
if(GetMoney($user->username,$user->credit)>=$user->payment && GetPoints($user->username)>=$user->points){
    updatePoints($user->username,$user->points);
    updateOffer($user->username,$offer);
    updateMoney($user->username,$user->credit,$user->payment);
    insertToSystem($user);
    updateQuantityofItems($user2);
    header(*location: ../Pages/Merchandise.php?redirected=true");
}
else{
    header(*location: ../Pages/Merchandise.php?wrong=true");
}
```

```
if (isset($_GET['redirected']) && $_GET['redirected'] == 'true') {
    echo '<script>alert("Purchase done successfully!");</script>';
}
if (isset($_GET['wrong']) && $_GET['wrong'] == 'true') {
    echo '<script>alert("You do not have enough money or points in your system!");</script>';
}
```

This code checks for the confirmed purchase and updates the points (for every 500 \$ spent the user gets 50 points), updates the offer, money, inserts to the system and updates the number of items, and then goes back to the merchandise page. These methods will be explained in detail. The php code checks whether the transaction was successful and whether the user has enough money and alerts accordingly.

The update function connects to the database using \$obj = connectToDB(), and performs SQL query to update the money of the user. The second method updates the quantity of the available items in our database after the purchase of the user. Similarly, the third method connects to the database and subtracts the points the user has from the points available in his account. The final method is showing how the offer is updated in the points table.

### **Updating player information:**



```
<!DOCTYPE html>
<head>
<!php
if (isset($_GET["update"]) && $_GET["update"] == true) {
    echo "<script>alert('Congratulations!You have successfully updated your players Data');</script>";
}
if (isset($_GET["return"]) && $_GET["return"] == true) {
    echo "<script>alert('Please enter your valid player name');</script>";
}
if (isset($_GET["non_valid_position"]) && $_GET["non_valid_position"] == true) {
    echo "<script>alert('Please enter a valid position');</script>";
}
if (isset($_GET["non_valid_leadership"]) && $_GET["non_valid_leadership"] == true) {
    echo "<script>alert('Please enter a valid LeaderShip Sklill value');</script>";
}
if (isset($_GET["non_valid_communication"]) && $_GET["non_valid_communication"] == true) {
    echo "<script>alert('Please enter a valid Communication Sklill value');</script>";
}
}
```

This code ensures that every form entered is valid. If everything is successful, the user will be notified. However, if the player's name, position, leadership description, or communication skills is invalid, the manager will be alerted accordingly.

This HTML is for the form that is shown above for the manager to update the player's information.

```
C?php require_once ('.../php/players_retrieval_functions.php'); ?>
c?php
splayer_name = $_POST['player_name'];
$injury_history = $_POST['player_name'];
$injury_history = $_POST['player_name'];
$injury_history = $_POST['player_name'];
$injury_history = $_POST['loguer_name'];
$in
```

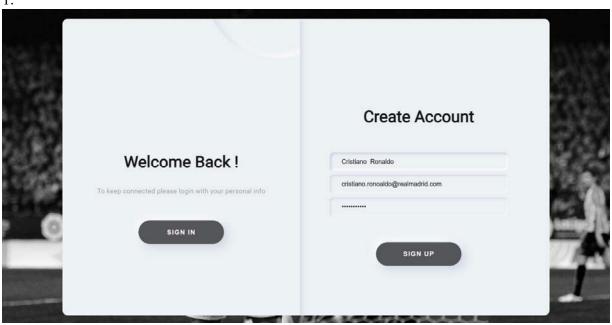
This PHP code sends the result from the queries to find and set the new player's attributes. It connects to the database and queries for the player's name. If rowCount>0 means that there is a record of this player in the database. If the position is not among the valid positions (GoalKeeper, Defender, etc..), the manager will be alerted. The same thing happens with communication and leadership skills. If everything is valid the manager will update successfully. If the rowCount is not positive the manager will be alerted that there is no player in the system's record.

# **Unit Testing:**

### Sign up:

- 1. Successful sign-up
- 2. Email already exists (Unsuccessful)

1.

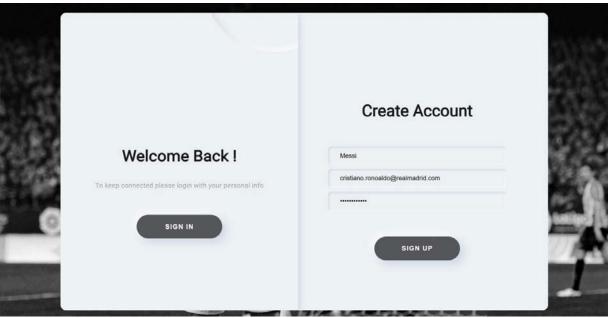


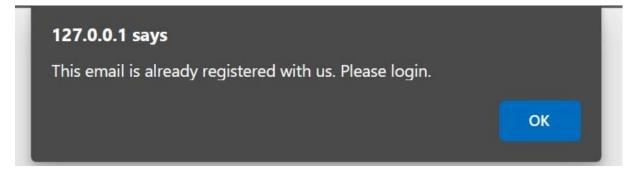
### Before:



### After:







### **Test results:**

If the email is not already in use successful sign-up and data are added to the database.

If the email is in use the form is not submitted and an alert is sent for the user to change his email.

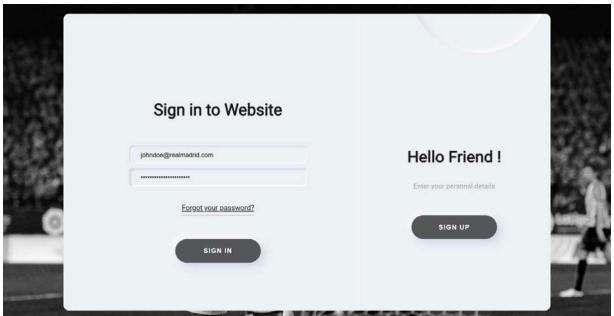
# Logging in:

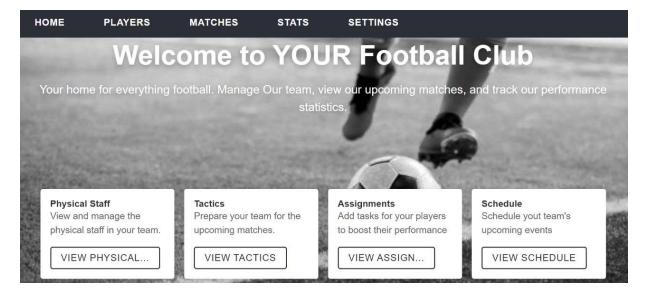
- 1. Successful login
- 2. Invalid email or username

Current database:

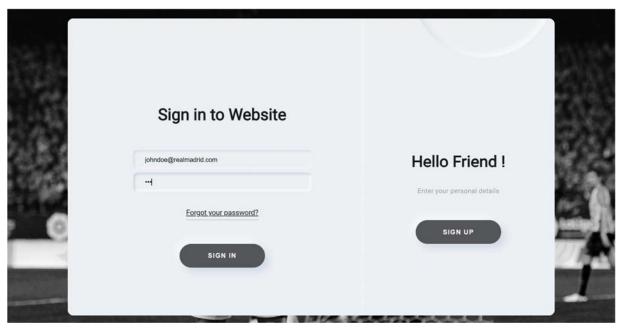


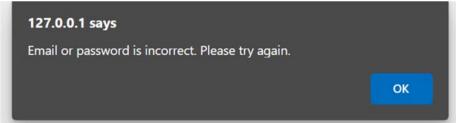
1.





3. Invalid username or password:





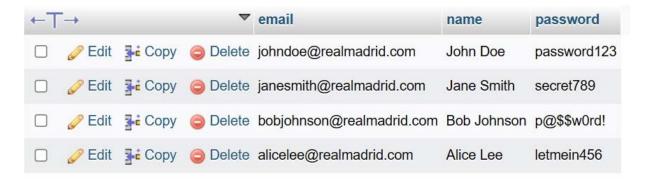
#### **Test results:**

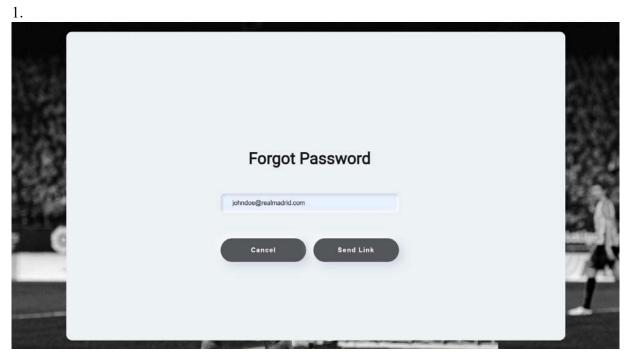
When the email and password were valid, the user was able to successfully log in and view the other page. When the email or password was invalid, an alert was sent for the user to try again.

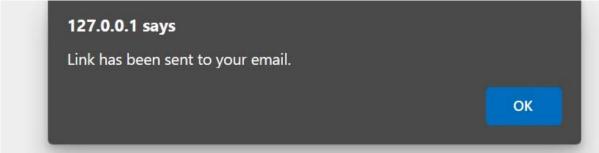
# **Forgot Password:**

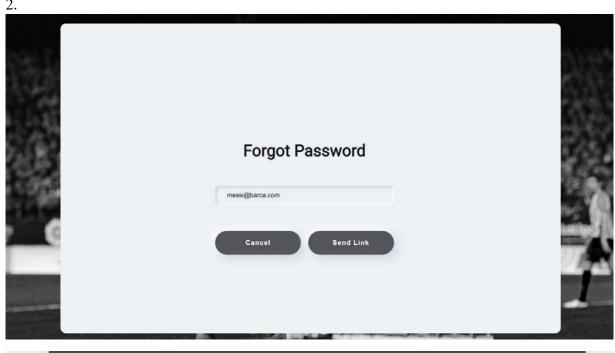
- 1. Email exists
- 2. Email doesn't exist

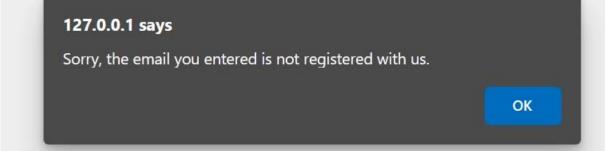
Current database:











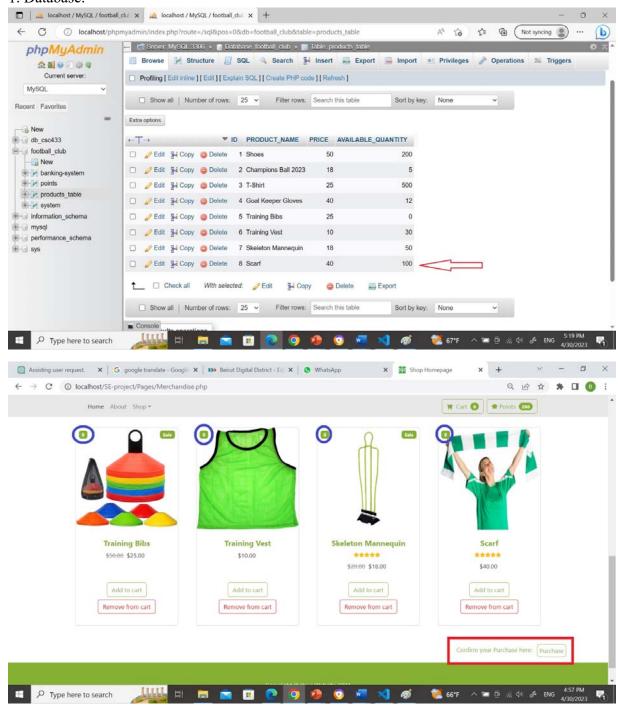
#### **Test results:**

When the email was found in the database, the link was sent to the user. Otherwise, an alert showing that the email is not registered was shown to inform the user.

### 3. Purchasing Merchandise:

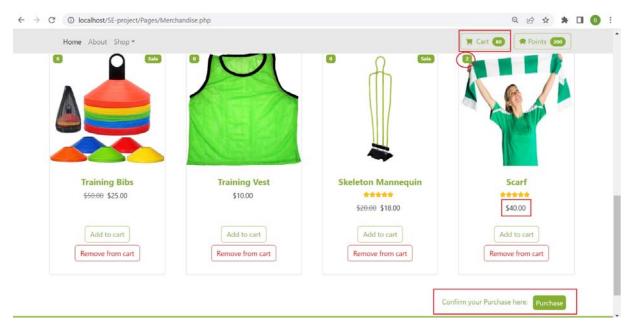
- 1. Disabled purchase button when no items are selected.
- 2. Purchase button available when items available in the database are selected.
- 3. Alert the user when removing the final item from his cart.
- 4. Unsuccessful purchase (item not available in the database).
- 5. Fields missing on the purchase page.
- 6. Credit card information missing.
- 7. User pays less than the amount he should.

- 8. Reset button check.
- 9. Successful purchase.
- 10. User doesn't have enough money to pay.
- 1. Database:



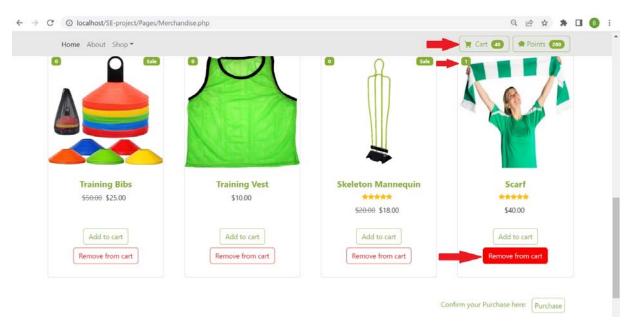
When no items are selected the purchase button is disabled.

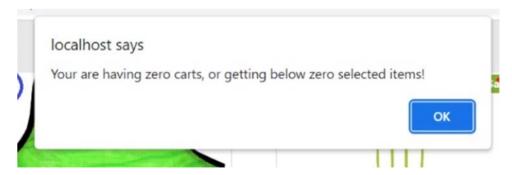
2.



When we selected items available in the database, the purchase button becomes available.

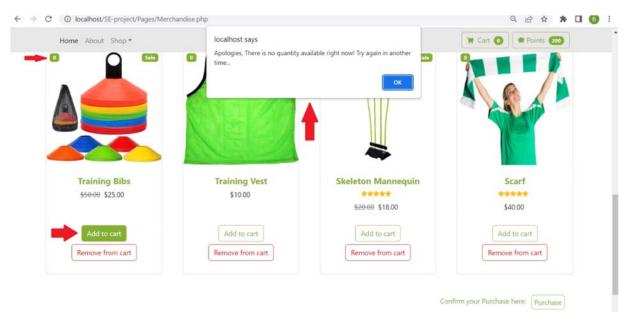
3.





If we remove the final product selected an alert will be sent to the user.

4.



Alert was sent in case the user wants to purchase training bibs because as shown in the above database there are 0 of its quantity.

### User Databases:

-Τ	_→		~	ID	USERNAME	CARD_NUMBER	MONEY
	Edit	<b>≩</b> сору	Delete	1	bilal delbani	202104998	1000
	Edit	<b>≩</b> € Сору	Delete	2	hussien ali ahmad	202104969	500
	Edit	<b>≩</b> сору	Delete	3	mohammad al-fallah	202105098	0
	Edit	<b>≩</b> сору	Delete	4	mohammad al-ezzy	202104769	300

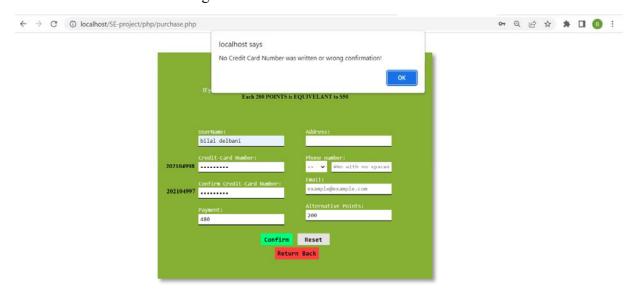
Points:



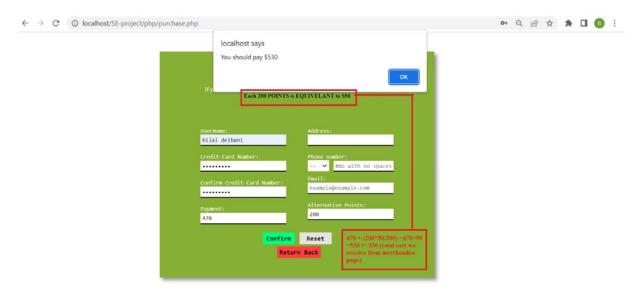
### The selected items are worth the following:



In case some fields are missing the user was alerted.



In case the credit card info was missing the user was alerted successfully and no transactions were made.



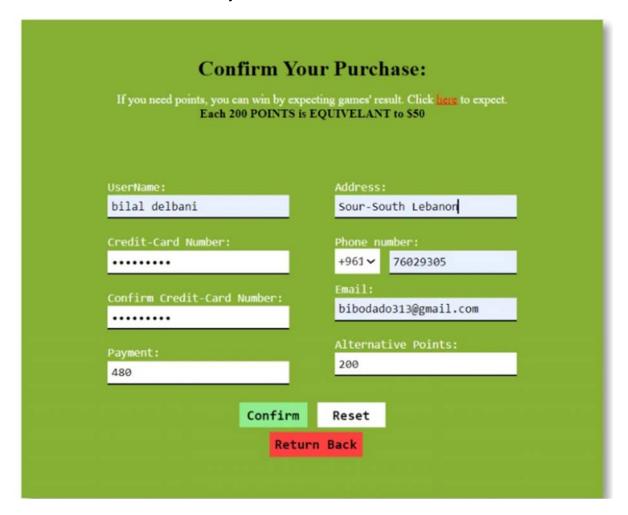
This page shows that when the user pays less than the amount needed he will be alerted because 470 + 50 is less than 530.

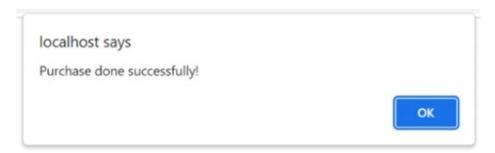
Confirm Reset

or Q 日 ☆ \* □ · ·

The reset button works successfully.

 $\leftarrow$   $\rightarrow$   $\mathbf{C}$   $\odot$  localhost/SE-project/php/purchase.php





In case of a successful purchase, the user will be notified. The changes in the database are as follows:



Initially, everyone has 200 points. Since Bilal purchased with 200 points, but he purchased with a price above 500\$ his points were recovered.



Money was removed successfully.



His purchases are shown and added to the database.



The purchased items were removed from the available quantities in the merchandise database.

Testing on a new database:



If you need points, you can win by exp	our Purchase: ecting games' result. Click here to expect. EQUIVELANT to \$50
UserName:	Address:
mohammad al-fallah	Los Angelos
Credit-Card Number:	Phone number:
	+1 > 563944327
Confirm Condit Cond Burbana	Email:
Confirm Credit-Card Number:	mohammad.fallah@gmail.com
	Alternative Points:
Payment:	0
50	
Confirm	Reset
Dotu	rn Back



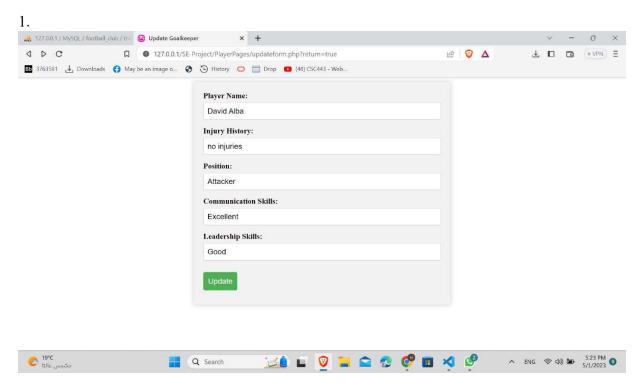
If the user doesn't have enough money, he was alerted successfully and no transactions were made.

### **Update player's information:**

#### Database:



- 1. Invalid player name.
- 2. Invalid position value.
- 3. Invalid communication skill value.
- 4. Invalid leadership value.
- 5. Successful player's information update.

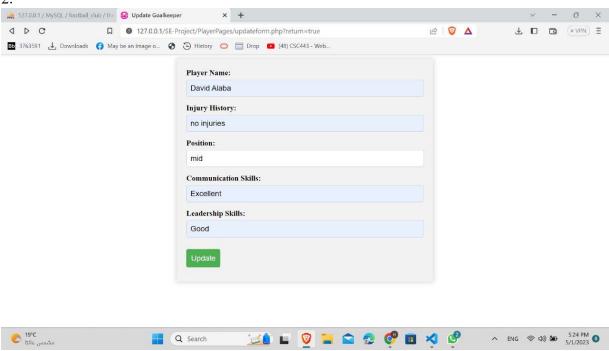






The player name David Alba doesn't exist, so the manager was alerted successfully.

2.







The position mid is invalid, and the manager was prevented from updating the database by being alerted successfully.

127.0.0.1 / MySQL / football\_club / the Update Goalkeeper × + - 0 ■ 127.0.0.1/SE-Project/PlayerPages/updateform.php?return=true B 0 A ± □ □ •VPN ∃ Bb 3763591 🚣 Downloads 😝 May be an image o... 😵 🔁 History 🔘 📋 Drop 🔼 (48) CSC443 - Web. Player Name: David Alaba Injury History: no injuries Position: Attacker Communication Skills: Leadership Skills: Good Update 19°C التا <u>✓</u> **i v v** ENG **a c v b** 5.25 PM **o c v c v c v c v d v b** 5.71/2023 **o** Q Search





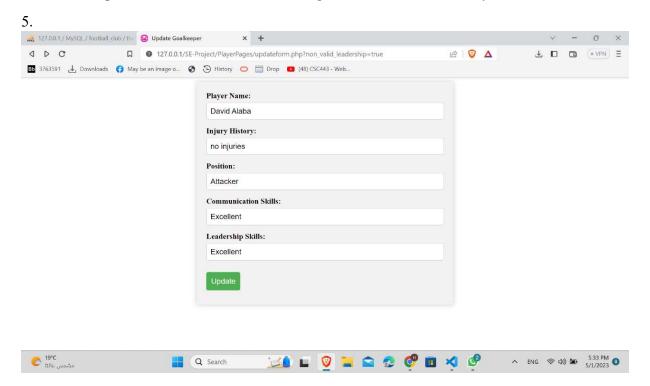
The communication skill value mid is invalid, and the manager was prevented from updating the database by being alerted successfully.

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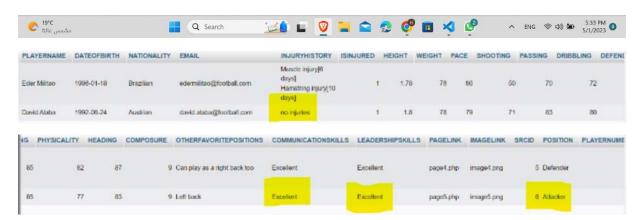




The leadership skill mid is invalid, so the manager was alerted successfully.







When every condition was met successfully, the database was updated accordingly. David Alba recovered from his injury, developed excellent communication and leadership skills, and the manager appointed him as an attacker.

# **Conclusion:**

Finally, the web-based application helps the football club manage a lot of functionalities that are related to its administrators, players, and fans. The implemented functionalities that we provided for this document were signing up, logging in, purchasing merchandise, and updating player information. The use of web technologies and a strong database management system assures that the system is efficient, secure, and user-friendly. Because of its ability to streamline many aspects of a football club's operations, the system is a valuable tool for boosting the club's overall performance.