

School of Electrical Engineering and Computer Science

COS5019-B Enterprise Pro Acceptance Testing Document

Project: My Supermarket Shop

Team 22

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Introduction

The following document consists mostly of Code Inspection. Due to the nature of the project, most of the testing is done through Code Inspection as the there is no object-oriented code. Unit Testing could have applied to this project as most of the files were the static webpages that encompassed the PHP functions inside to call dynamic functionalities. In the end, the Acceptance Testing document will be provided to further test all the functional requirements.

Code Inspection

The following section will address the Code Inspection done on each webpage the project has present to discuss code writing standards and webpage layout and structure consistency. Every webpage will be brought and examined thoroughly and evaluated for technical review. The "Algorithm Correctness" will explain briefly the logic behind some implementations, the "Layout" will focus on the visual look of the page and the "Links to Other Pages" will focus if all the links present are correctly set.

Project Structure

The project consists of 7 web pages that use HTML and PHP to display dynamic functionality. Each page is dedicated to a specific functionality while some might extend a bit further and implement more complex functionalities within the same page using PHP or JavaScript.

Baseline

There are some common attributes that all pages of the project share. These are:

- Navigation Bar (with different links and buttons but following the same structure).
- Style and Theme (Blue Background / Yellow Navigation Bar with Supermarket Icon next to the Title).
- Links to another website. Depending on the state of the application (ex. If a user is logged in, admin is logged in) some functionalities and links might be available or not. Ex. Logout is only present when a user is logged in.

index.php

Algorithmic Correctness

The following snippet is responsible for getting all the supermarkets and showing them to the UI. For each supermarket of the product, display name of the supermarket and price they sell it for. The code creates unique buttons that when pressed will get the quantity and add it to the cookie "basket".

```
at sells the product, create a card showing supermarket name, price and quantity
foreach ($supermarkets as $supermarket) {
     // the reference to the supermarket information

$supermarket_reference = $database->getReference('/Products/'.$product.'/'.$supermarket.'/');
     $supermarket_name = $supermarket_reference->getChild('/supermarketName/')->getSnapshot()->getValue();
     $supermarket_price = $supermarket_reference->getChild('/priceOfUnit/')->getSnapshot()->getValue();
     if($i==0 || $i==3 || $i==6 ){
         echo '<div class="row justify-content-center">';
     echo //display a card, with supermarket name, price and a functionality to set quantity and add to basket
     '<div class="col text-center">
     <div class="card" style="width: 18em;margin: auto; margin-bottom: 0.5em;">
          .$supermarket_name.
       cli class="list-group-item">Price : f'.$supermarket_price.'
class="list-group-item">Quantity: <input class="w-25" type="number" value="0" id="'.$supermarket.'-quantity" name="quantity" min="1" max:
<li>class="list-group-item">Countity = ".$supermarket.'-button" onclick="addToBasket('."'".$product."' , '".$supermarket."'".') " type="button"
     </div>'.
     //for every third supermarker close the row div
     if($i==2 || $i==5 || $i==8 ){
         echo '</div>';
 echo '</div>';
echo '<a class="btn btn-primary" href="/mysupermarketshopt22/index.php">New Search</a>';
```

Figure 1 Algorithm responsible for laoding all the supermarkerts that have the product.

The layout of the index page has been consistent as the main card style is followed where the user needs to pick the products and afterwards select their desired supermarket.

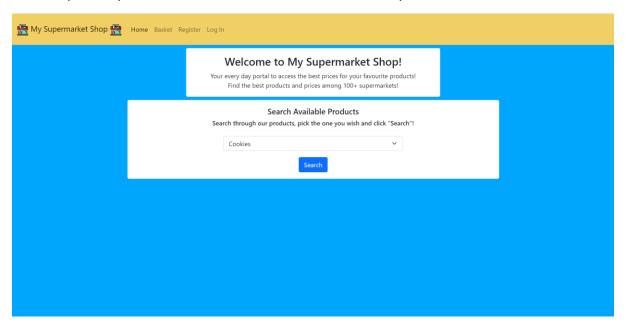


Figure 2 Main Page

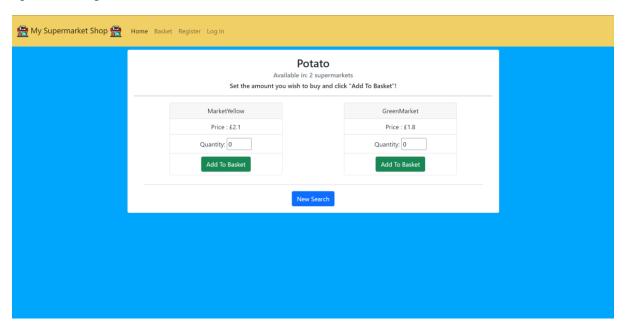


Figure 3 Potato Picked - Supermarkets available

Snippet of redirecting to the pages.

```
<div class="collapse navbar-collapse" id="navbarSupportedContent">
   class="nav-item">
          <a class="nav-link active" aria-current="page" href="/mysupermarketshopt22/index.php">Home</a>
      </1i>
         <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/basket.php">Basket</a>
      <?php
      \ensuremath{//} check from the cookies if there is a user logged in
       // if yes then show profile option (with their name) and logout option
      if (isset($ COOKIE["logged_in"])) {
          if ($ COOKIE["logged_in"] == true) {
             echo '
             <a class="nav-link" href="profile.php">Orders (' . $ COOKIE['logged in username'] . ') </a>
           <button type="button" class="btn btn-link" style="color: red;text-decoration: none !important;"</pre>
           1.5
       // if suer not logged in, then show the register and login options
      else {
          echo '
          <a class="nav-link" href="/mysupermarketshopt22/register.php">Register</a>
       class="nav-item dropdown">
         <a class="nav-link" href="/mysupermarketshopt22/login.php">Log In</a>
        ';
      ?>
   </div>
```

Figure 4 Links to other pages from Login

login.php

Algorithmic Correctness

The following snippet is responsible for checking if the account is an admin account by checking in the Firebase Database for the "username" and "password" attribute of the "Admin" key.

Figure 5 Check if Admin account

The following snippet is responsible for going through all the users. Since the usernames are part of the database structure and they are nodes themselves, checking if the node Users/username node exists is a viable solution. If the password field matches as well, then the log in is correct.

Figure 6 Check User credentials

The layout of the login page is consistent with the fields being present and the login button being available. An alert is shown in case the user inputted invalid values.

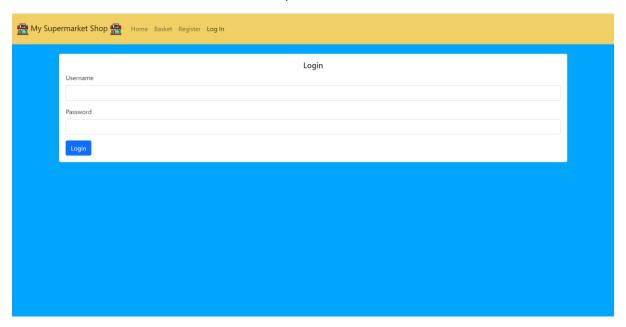


Figure 7 Login Page Default

My Supe	My Supermarket Shop Home Basket Register Log In				
	Login Username				
	Password				
	Login				
	Incorrect Credentials!				

Figure 8 Login page - Incorrect Credentials

```
<body style="background-color: #00A6FB;"></body>
  <nav class="navbar navbar-expand-lg navbar-light" style="background-color: #F0CF65;">
    <div class="container-fluid">
        <a class="navbar-brand" href="#">
           <img src="./res/icons/supermarket.svg" alt="" width="30" height="30">
          My Supermarket Shop
        </button>
        <div class="collapse navbar-collapse" id="navbarSupportedContent">
           class="nav-item">
                <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/index.php">Home</a>
             <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/basket.php">Basket</a>
             class="nav-item";
                <a class="nav-link" href="/mysupermarketshopt22/register.php">Register</a>
             </div>
     </div>
  </nav>
```

Figure 9 Redirecting links from Login.

register.php

Algorithmic Correctness

The following snippet explains the possibility of the user registering with a username that already exists. Since usernames are nodes under the /Users/ tree, checking if the inputted username is a valid node will confirm if the node exists.

```
/ check if all fields have been provided
if (!irNull($_POST['username']) && !ifNull($_POST['email']) && !ifNull($_POST['password']) && !ifNull($_POST['dateofbirth'])) {
     / create variables for all the fields inputted
    $username = $ POST['username'];
   $email = $ POST['email'];
   $password = $ POST['password'];
$dateofbirth = $ POST['dateofbirth'];
    // get all user keys which correspond to users to check if username exists
    $user_keys = $database->getReference('/Users/')->getChildKeys();
    foreach ($user_keys as $user_key) {
           check if the key has a username inside as the one provided
        $usernameFromDatabase = $database->getReference('/Users/'.strval($user_key).'/'.$username.'/')->getSnapshot();
         // if ves, it means a user exists
        if($usernameFromDatabase->exists()){
            echo '<div class="container
                     <div class="row"
                        <div class="col-sm">
                            <br>
                        </div>
                     </div>
                        <div class="col-sm">
                             <div class="alert alert-danger" role="alert">Username already exists!</div>
                    </div>
                </div>';
           exit;
```

Figure 10 Check if username already exists.

The following snippet is responsible for filling a data load that will be sent to the firebase database to create a new node containing the created user. The cookie is then created since the user is logged in immediately.

```
// II HOU, then ye the reference to the users
$reference = $database->getReference('/Users/');
$snapshot = $reference->getSnapshot();
// data to push to the tree holding all the users
$postData = [
   strval($username) => [
        'password' => $password,
        'email' => $email,
        'dateofbirth' => date($dateofbirth),
    ],
1;
//push to the tree holding all the users, this will also create a unique key
$database->getReference('/Users')->push($postData);
// set cookie to show logged in user
setcookie("logged_in", true, time() + (86400 * 30), "/");
setcookie("logged in username", $username, time() + (86400 * 30), "/");
```

Figure 11 Create new user, send to database.

The following displays show that the layout is consisted across different pages states such as when alerting the user that the username already exists.

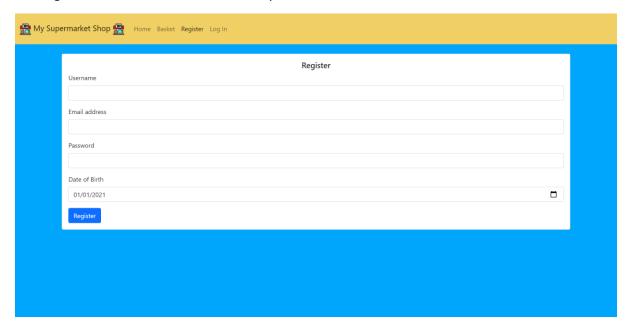


Figure 12 Register – Default

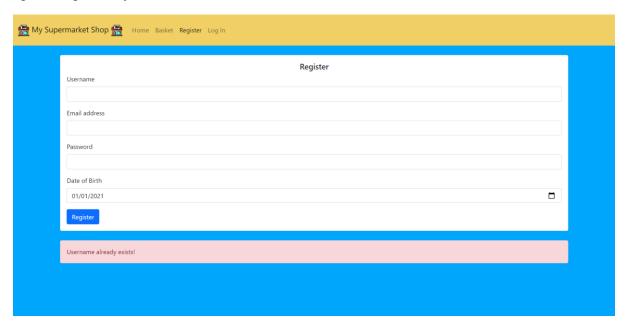


Figure 13 Register - Username Already Exists

Snippet of redirecting to the pages.

```
<nav class="navbar navbar-expand-lg navbar-light" style="background-color: #F0CF65;">
   <div class="container-fluid">
       <a class="navbar-brand" href="#">
          <img src="./res/icons/supermarket.svg" alt="" width="30" height="30">
          My Supermarket Shop
          <img src="./res/icons/supermarket.svg" alt="" width="30" height="30"></a>
      <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarSupportedContent" aria-controls="navbarSt
<span class="navbar-toggler-icon"></span>
       </button>
       <div class="collapse navbar-collapse" id="navbarSupportedContent">
          class="nav-item">
                  <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/index.php">Home</a>
              class="nav-item"
                  <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/basket.php">Basket</a>
              class="nav-item"
                  <a class="nav-link active" href="/mysupermarketshopt22/register.php">Register</a>
              </div>
   </div>
```

Figure 14 Redirect Links

basket.php

Algorithmic Correctness

The following snippet is responsible for getting the basket cookie and reading it to create a table which will display the list of items and quantity of each items that has been selected for purchase.

```
// since all orders are concatinated and seperated by a comma (.)
$orders = explode("!", strval($basket));
echo '
         <thead>
             #
             Product
             Supermarket
             Quantity
             Price
             Total
         </thead>
$i = 0;
// for each order in the orders array
foreach (Sorders as Sorder) {
   // order format = product-supermarket-quantity-price!
// spplit the string to get each value
   $words = explode("-", strval($order));
    if(isset($words)&&!empty($words)&&isset($words[1])){
                ' . $i . '
                '.$words[0].'
                '.$words[1].'
                '.$words[3].'
                '.$words[2]*(float)$words[3][0].'
       Si = Si + 1:
echo '';
<button type="button" id="emptyBasket" onclick="emptyBasket()" class="btn btn-danger">Empty Basket</button>
<button type="button" id="orderBtn" onclick="order()" class="btn btn-success">Order</button>
```

The layout of the basket page is consistent as the table created from the "basket" cookie correctly displays all the items selected, the quantity preferred and the total sum cost.

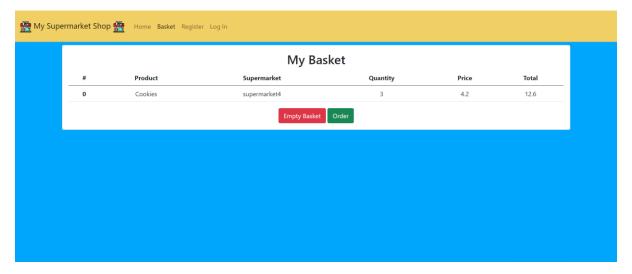


Figure 15 Basket will items



Figure 16 Empty Basket

Links to other pages

Figure 17 Redirect Links

profile.php (orders)

Algorithmic Correctness

The following snippet is like the basket functionality but now the orders are drawn from the database and the formatted order (same as cookie format) is displayed to the user in a table format. For each order in the orders where the order has the username logged in, display it.

```
$order_reference = $database->getReference('/Orders/'.$order);
$user from order = $order reference->getChild('/user/')->getSnapshot()->getValue();
if($user_from_order==$_COOKIE['logged_in_username']){
   $found_an_order = true;
   $items_from_order = $order_reference->getChild('/items/')->getSnapshot()->getValue();
   $items = explode("!", strval($items_from_order));
   <div class="card">
                 <div class="card-body text-center">';
   echo '<h4>Order ID: '.$order.'</h4>';
echo '
            <thead>
                 #
                 Product
                 Quantity
                 Total
            </thead>
            ';
   Si = 0:
   foreach ($items as $item) {
      (vitems as %item) {
  // order format = product-supermarket-quantity-price!
  // spplit the string to get each value
  $words = explode("-", strval($item));
       if(isset($words)&&!empty($words)&&isset($words[1])){
                   '.$words[0].'
                   '.$words[3].'
                   '. (float) $words[2].'
                   '.$words[2]*(float)$words[3][0].'
                  ';
           $i = $i + 1;
```

Figure 18 Get Orders for user from database

Layout

The layout is consisted when orders are present as well as when there are no orders pending, correctly displaying the ordered items, quantities and total, as well as showing the order id.



Figure 19 Ordes

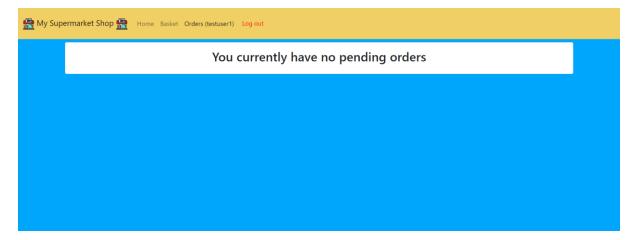


Figure 20 No Orders present for user.

```
<div class="collapse navbar-collapse" id="navbarSupportedContent">
 class="nav-item">
    <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/index.php">Home</a>
   class="nav-item">
      <a class="nav-link" aria-current="page" href="/mysupermarketshopt22/basket.php">Basket</a>
   <?php
   if (isset($ COOKIE["logged in"])) {
      if ($ COOKIE["logged_in"] == true) {
   echo '
               <a class="nav-link active" href="/mysupermarketshopt22/profile.php">Orders ('.$_COOKIE['logged_in_username'].') <</pre>
             } else {
      echo '
            <a class="nav-link" href="/mysupermarketshopt22/register.php">Register</a>
         class="nav-item dropdown">
            <a class="nav-link" href="/mysupermarketshopt22/login.php">Log In</a>
      echo '<script type="text/javascript">location.href = "/mysupermarketshopt22/login.php";</script>';
 ?>
```

Figure 21 Links

order.php

Algorithmic Correctness

The following snippet is responsible for registering the order and alerting the user of the correct order submission.

```
if ($ SERVER['REQUEST_METHOD'] == 'POST') {
    // check if all fields have been provided
   if (!ifNull($ POST['address1']) && !ifNull($ POST['address2']) && !ifNull($ POST['postcode'])
       // create variables for all the fields inputted
       $address1 = $ POST['address1'];
       $address2 = $ POST['address2'];
       $postcode = $ POST['postcode'];
       $phone = $ POST['phone'];
       // if not, then ge the reference to the users
       $reference = $database->getReference('/Users/');
       $snapshot = $reference->getSnapshot();
       // data to push to the tree holding all the users
       $postData = [
               'addressl' => $addressl,
               'address2' => $address2,
               'postcode' => $postcode,
               'phone' => $phone,
               'user' =>$ COOKIE['logged in username'],
               'items' =>$ COOKIE['basket']
       1:
       //push to the tree holding all the users, this will also create a unique key
       $database->getReference('/Orders')->push($postData);
      // clear basket
       setcookie("basket", "", time() - 3600);
       echo '<h2>Congratulations, your order was successful.</h2>';
       echo '<h3>Order Details</h3>':
       echo 'Address 1: ' . $address1 . '';
       echo 'Address 2: ' . $address2 . '';
       echo 'Postcode: ' . $postcode . '';
       echo 'Phone: ' . $phone . '';
   } else { // if data sent is corrupted
       echo '<h2>Something went wrong, please try again.</h2>';
```

Figure 22 Order Submission.

Layout

The layout is consistent when the order has been submitted displaying properly all the details provided for the order.

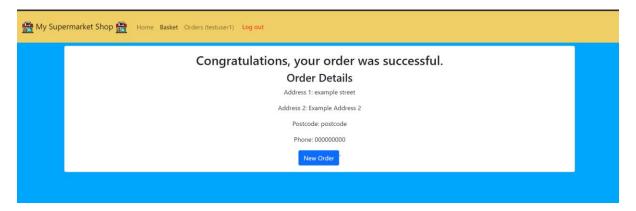


Figure 23 Order Submission Confirm

Snippet of redirecting to the pages.

Figure 24 Redirects

admin.php

Algorithmic Correctness

Layout

The layout is consistent where the admin can see all the order from all the users and the details for each order as well as provide the button to mark the order as completed.

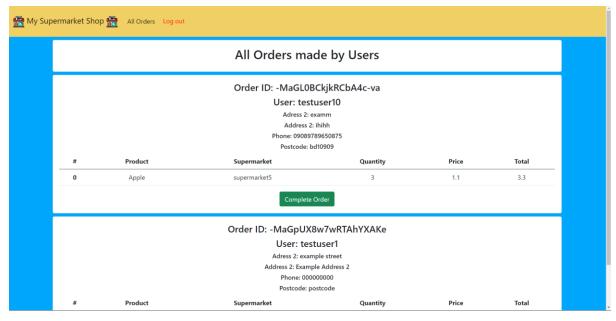


Figure 25 Admin View Orders

Links to other pages

Figure 26 Redirects

Acceptance Testing

In this section all the functional requirements from the story cards will be tested and examined.

Login

Login			
Input	Expected Result	Current Output	Comments
"testuser1,"password"	Login Successful	Login Successful	Passed
"ihihihi","password"	Wrong Credentials	Wrong Credentials	Passed
"testuser1","ojajj"	Wrong Credentials	Wrong Credentials	Passed
"ihihihi","ninini"	Wrong Credentials	Wrong Credentials	Passed

Admin

Admin Login			
Input	Expected Result	Current Output	Comments
"admin","password"	Login Successful	Login Successful	Passed
"huhuh","password"	Wrong Credentials	Wrong Credentials	Passed
"admin","jiijijij"	Wrong Credentials	Wrong Credentials	Passed
"Ihihiih","Nininin"	Wrong Credentials	Wrong Credentials	Passed

Logout

Logout				
Input Expected Result Current Output Comments				
User is logged in and	Logout	Logout	Passed	
presses Logout Button				

Register

Register			
Input Expected Result Current Output Comments			
"testuser2","password", "mail@mail.com",	Register Successful	Register Successful	Passed

"979899898"			
"testuser1","password",	Username already	Username already	Passed
"mail@mail.com",	exists!	exists!	
"979899898"			
"testuser1","",	Missing fields	Missing fields	Passed
""			
nn			

View Products

View Products			
Input Expected Result Current Output Comments			
User sees list of	Correct list of all	Correct list of all	Passed
products in Main Page	products	products	

View Supermarkets

View Supermarkets			
Input	Expected Result	Current Output	Comments
User sees list of	Correct list of all	Correct list of all	Passed
supermarkets that	products	products	
offer the product in			
Main Page			
User has not selected	Please select a	Please select a	Passed
a product beforehand	product	product	

Add To Basket

Add To Basket			
Input	Expected Result	Current Output	Comments
User sets the desired quantity and pressed "Added to Basket"	Item and Quantity added to basket	Item and Quantity added to basket	Passed
User sets desired quantity to 0.	No Items added to the basket	No Items added to the basket	Passed

Order from Basket

Order from Basket				
Input	Expected Result	Current Output	Comments	
User clicks "order" and fills all fields in	Order Successful	Order Successful	Passed	
personal information.				
User clicks "order" and does not fill all fields in personal information.	Please fill all fields	Please fill all fields	Passed	
User has no items in basket.	Ordering is not available	Ordering is not available	Passed	

Empty Basket

Empty Basket					
Input	Expected Result	Current Output	Comments		

User has items in the	Basket emptied	Basket emptied	Passed
Basket and presses			
respective button.			
User does not have	Basket not emptied	Basket not emptied	Passed
items in the Basket			
and presses respective			
button.			