E-commerce Project - Coding Documentation

- MOHAMED MOSSAD
- KEROLLOS HASSIB
- KARIM EBRAHIM
- AHMED SHERIF
- ABDELRAHMAN MOKHTAR

E-commerce Project - Coding Documentation

Introduction

This documentation explains the technical details of our e-commerce project. We developed the project using **HTML**, **CSS**, **JavaScript**, **and Bootstrap** for front-end development. The following sections cover the main components, challenges faced, and the solutions implemented in the project.

Project Structure

The project consists of several key files and directories:

- index.html: The homepage of the e-commerce site.
- products.html: Displays the available products.
- **product-details.html**: Displays the details of a selected product.
- cart.html: Shows the items added to the shopping cart.
- scripts.js: Contains all JavaScript logic.
- styles.css: Contains all custom styling.
- Bootstrap: We used Bootstrap for responsive design.

HTML and CSS

We used **HTML** to build the basic structure of the pages, including the product listings, product details, and shopping cart. **CSS** was used to style these components and ensure the design was consistent throughout the site.

Challenges and Solutions: Navbar Responsiveness

One of the challenges we faced was making the **navbar responsive**. We wanted to ensure it would look good on all devices, from desktop to mobile.

Solution:

We used **Bootstrap's navbar component**, which allowed us to create a responsive navbar that automatically collapses into a hamburger menu on smaller screens. We customized the appearance using CSS to ensure it aligned with the overall website design.

^{```}html

```
@media (max-width: 725px) {
  header .container-nav .middle-nav {
   display: flex;
   flex-direction: column;
   justify-content: space-evenly;
   align-items: center;
   border-bottom: 5px solid var(--main-color);
  header .container-nav .middle-nav a p {
   border: none;
@media (max-width: 870px) {
  .logo {
   margin-bottom:7px;
   padding-top: 10px;
@media (max-width:337px){
   header .container-nav .middle-nav .search button{
   position: absolute;
   top: 0;
   right: 0;
   outline: none;
   border: none;
   width: 50px;
   height: 100%;
   color: ■#ffffff;
   font-size: 18px;
    font-weight: 600;
   cursor: pointer;
   border-top-right-radius: 10px;
   border-bottom-right-radius: 10px;
  header .container-nav .middle-nav .search {
```

```
border-top-right-radius: 10px;
   border-bottom-right-radius: 10px;
 header .container-nav .middle-nav .search {
   width: 200px;
   height: 30px;
   /* border: 2px solid rgb(8, 195, 252); */
   position: relative;
   border-radius: 10px;
 header .container-nav .middle-nav .search input {
  padding: Opx 20px Opx 20px;
   border-radius: 10px;
   outline: none;
   border: 1px solid □#1c1c50;
   width: 200px;
   height: 30px;
         ----*/
header .container-nav .end-nav {
 display: flex;
 justify-content: space-between;
 align-items: center;
header .container-nav .end-nav ul {
display: flex;
 gap: 70px;
 margin: auto;
 justify-content: space-between;
 align-items: center;
header .container-nav .end-nav ul li a {
 color: white;
 text-transform: uppercase;
 font-size: 15px;
font-weight: 500;
```

```
-----Responsive End Nav------
@media (max-width: 889px) /*for tablets*/ {
 header .end-nav {
   padding: 0px 0;
   /* background: white !important; */
 header .end-nav ul {
   display: flex;
   padding-top: 50px;
   flex-direction: column;
   justify-content: center;
   align-items: center;
   position: fixed;
   top: 0;
   left: -420px;
   bottom: 0px;
   width: 400px;
   border-right: 2px solid ■rgb(98, 108, 255);
   background-color: ■rgb(98, 108, 255);
   background-color: □#1c1c50;
   gap: 20px;
   transition: 0.3s ease-in-out;
   text-align: center;
   overflow-y: scroll;
 header .end-nav ul::-webkit-scrollbar {
   width: 5px;
 header .end-nav ul::-webkit-scrollbar-thumb {
   background-color: ☐rgba(98, 108, 255, 0.473);
   border-radius: 10px;
 header .end-nav ul::-webkit-scrollbar-track {
   border-radius: 10px;
   background-color:  rgba(233, 233, 233, 0.918);
 header .end-nav ul .logo_nav {
 width: 200px;
```

```
header .end-nav ul .btn_close_menu {
  position: absolute;
 top: 20px;
 right: 20px;
 font-size: 25px;
 color:  rgb(255, 255, 255);
 display: block;
 cursor: pointer;
header .end-nav ul.active {
 left: 0;
header .end-nav ul .bg-overlay {
 display: block;
 position: fixed;
 top: 0;
 right: -100%;
 height: 100%;
 width: calc(100vw - 400px);
 transition: 0.3s ease-in-out;
header .end-nav ul.active .bg-overlay {
 right: 0%;
header .middle-nav .icons #box-menu-icon {
 color: □rgb(255, 255, 255);
 padding: 10px;
 border: 1px solid;
 border-radius: 10px;
 background-color: □rgb(14, 54, 99);
 color: ■white;
 cursor: pointer;
 margin: 0 5px;
 display: block;
header .container-nav .middle-nav .icons #box-menu:hover {
```

```
border: 1px solid;
  border-radius: 10px;
  background-color: □rgb(14, 54, 99);
  color: white;
  cursor: pointer;
  margin: 0 5px;
  display: block;
header .container-nav .middle-nav .icons #box-menu:hover {
 background-color: ■rgb(98, 108, 255);
  color: ■white;
  cursor: pointer;
  transform: scale(1.2);
  transition: 0.3s ease-in-out;
header .end-nav #login_icon_nav_bar,
header .end-nav #sign_up_icon_nav_bar {
 display: block;
 color: white;
 margin: 5px;
  padding: 5px;
header .end-nav #login_icon,
header .end-nav #sign_up_icon {
 display: none;
header .container-nav .middle-nav .icons {
  display: flex;
  gap: 10px;
  margin: 10px;
  flex-wrap: wrap;
  justify-content: center;
  align-items: center;
nedia (max-width: 400px) {
header .end-nav ul {
  width: 100%;
```

JavaScript was essential for handling the interactivity of the website. Below are some of the key functions we implemented.

Add to Cart Functionality

One of the primary tasks was creating a dynamic **Add to Cart** feature where products could be added to the cart and updated instantly.

Challenge:

We faced difficulty linking the "Add to Cart" button to dynamically update the cart.

Solution:

We created a function that listens for clicks on the "Add to Cart" button, retrieves the product information, and updates the cart dynamically in local storage.

```
| Solution | Solution
```

```
g clothe.html
                all products.js
                                   product_details.js ×
m product_details.js
      //! adding logic to cart
      var items_in_cart = document.querySelector(".items-in-cart");
      let product_cart = JSON.parse(localStorage.getItem("product_cart")) || [];
      let price_cart_head = document.querySelector(".cost");
      let count_item = document.querySelector(".count_item");
       let count_item_cart = document.querySelector(".count_item_cart");
       let price_cart_total = document.querySelector(".price-cart-total");
       let id_Array = [];
       let id_pointer = 0;
      function addToCard(id, btn) {
 154 > for (let i = 0; i < id_Array.length; i++) { ...
         id_Array[id_pointer] = id;
         id_pointer++;
         product_cart.push(productsArray[id]);
         btn.classList.add("active");
         localStorage.setItem("product_cart", JSON.stringify(product_cart));
         getCartItems();
       function getCartItems() {
         let total_price = 0;
         let items_c = "";
171 > for (let i = 0; i < product_cart.length; i++) {...</pre>
         items_in_cart.innerHTML = items_c;
         price_cart_head.innerHTML = "$" + total_price;
         count_item.innerHTML = product_cart.length;
         price_cart_total.innerHTML = "$" + total_price;
         count_item_cart.innerHTML = `${product_cart.length}(Item in Cart)`;
       }
       function remove_from_cart(index) {
         id_pointer--;
         id_Array.splice(index, 1);
         product_cart.splice(index, 1);
         localStorage.setItem("product_cart", JSON.stringify(product_cart));
```

Data Persistence (Retaining Cart After Refresh)

And Product Details Page

Challenge:

When refreshing the page or navigating to another page, the cart data was being lost.

Challenge:

We needed to dynamically link the Product Details page to show the correct product based on the user's selection.

Solution:

```
clothe.html
               all_products.js
                                ■ product_details.js ×
product_details.js
      window.onload = function () {
       const productId = sessionStorage.getItem("selectedProductId");
        if (productId) {
        set_details(productId);
        } else {
          console.error("No product ID found in sessionStorage.");
      };
      function set_details(id) {
        products_details = all_products_details[id];
        if (products_details) {
          product_Js.innerHTML +=
             <div class="row pt-3" style="margin-top: 220px;" >
               <div class="col product_imagee d-flex justify-content-center align-items-center">
                 <a href="5{products_details.img}" data-lightbox="models">
                   <img id="bag_img" src="5{products_details.img}" />
               <div class="product_details col d-flex flex-column gap-2">
                 ${products_details.name}
                 $${products_details.price}
                 <div class="d-flex product_stars"</pre>
                   <i class="fa-solid fa-star"></i></i></or>
                   Lorem ipsum dolor sit amet consectetur adipisicing elit. Unde
                   aperiam aut laboriosam qui ea, quam impedit officiis dignissimos
                   odio possimus autem reiciendis quasi, error voluptate ratione
                   perspiciatis facilis iste? Labore.
                 select size:
```

We stored the cart data in **local Storage**, allowing it to persist across page reloads and navigation. This way, the cart content would remain intact.

This function is called every time the cart page is loaded to ensure the cart data is retained.

Bootstrap Integration

We used **Bootstrap** for the layout grid system and responsiveness, making the development process smoother. The **grid system** allowed us to align products, create consistent layouts, and ensure the site worked well on all devices without needing to write extensive media queries manually.

Conclusion

Throughout the development of this project, we encountered various challenges, particularly with JavaScript functionality and responsiveness. However, by leveraging local Storage, Bootstrap, and dynamic URL handling, we were able to create a functioning, dynamic e-commerce site. This documentation serves as a guide to understanding the structure and core logic behind our code.