JAOR Wallets & Shoes: Shopping Website

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Abstract - *Recently we have been faced with numerous changes in the way we sell and display our products. In the last few years, we have seen that it has become more and more difficult to start a business either because of COVID-19 or the inflation of the economy. We also face that every day it is more difficult to find high-quality shoes and bags and even the waiting time we have to get that product is too long. For this reason, an online store ("JAOR Wallet & Shoe") has been developed. "JAOR Wallet & Shoe" is an online store of high-quality shoes and wallets for men and women that will allow the consumer to buy from the comfort of their home and the administrator to sell these high-quality products. This will be a website where users can see the products with their respective information and add them to the cart.*

__Key Terms__ – Accessibility, High Quality Product, Online Store, Website Interface.

INTRODUCTION

What is an online store? An online store is a website where consumers can view a catalog of products and purchase them online without the need to visit a physical store [1]. The idea of an online store is that a retail store or even a non-physical store can sell its products to a wider audience. The advantage of such a store is that it can sell its products without the need for a physical store. The objective of "JAOR Wallet & Shoe" is to provide accessibility to those merchants who want to start a store related to high-quality shoes and wallets, and to be able to expand their sales internationally without the need of having a physical store. This application is mainly focused on the merchant who wants to set up a physical store and does not have the resources.

Problem Statement

As time goes by, we have been gradually impacted by the economic, natural, and pandemic changes. It is becoming more and more complicated to start a business since things are becoming more expensive and it is costly to start a business from scratch. This is related to the fact that the maintenance of an establishment is very expensive and is not sustainable, the consumer does not have complete access to the business since it cannot be accessed at any time and the situation during the pandemic.

The necessity of having an online store is related to increasing resource costs (rent, water, electricity), providing accessibility to consumers to shop anytime, anywhere, substantially expanding the range of sales reach, and one of the biggest reasons for the increase in online stores is related to the occurrence of the COVID-19 pandemic in the early 2020s to the present. The pandemic caused small and large companies to begin to expand their range of sales through online stores as their products were not selling and they were losing money. A reflection of this increase was seen in 2020, where there was an average 40% increase in online sales in the Latin American market during 2021 and plans to continue increasing over the next 3 years [2].

Project Goal's

To face this problem, we need to develop a website that allows users to shop online from the comfort of their homes or anywhere and provide a tool for small businesses just starting to sell their products. The proposed application/idea will contribute to entrepreneurs who are starting to create an establishment and do not have the resources to carry out a physical store, since with this application

you can sell your products from home without having to rent a place. Additionally, this application will provide accessibility to consumers to carry out their purchases safely and reliably. The objective of "JAOR Wallet & Shoe" is to facilitate access to any user who wants to sell or make online purchases related to high-quality shoes and wallets, reliably and securely. Without the need to set up a physical store or go to one physically.

Relevance and Significance

In the times we are living in today it is increasingly difficult to start a physical business, since the cost of living is more expensive so the rents increase, and the basic costs such as water and electricity also. The people or groups that are affected by this situation are the small businesses that do not have an online store because they do not have a way to expose themselves widely. Bridget Weston Pollack said, "If a company or small business doesn't have an online presence, they are missing out on a large percentage of the population that could be shopping at their store." [3] An online store not only helps businesses promote and sell their products, but also allows them to distinguish themselves from their competitors.

The impact of a small business today that does not have an online page is serious since it will not have a great scope to promote and sell its products. This with the accessibility of an online store does not need a physical place to promote their products and can save the cost of rent as previously mentioned. The benefit of solving this problem will help the user to; have a low financial cost, and potential revenue 24/7, sell the products internationally, it is easier to encourage impulse buying, can scale the business quickly, and grow the business organically [4].

As we mentioned earlier, many companies already have an online website that allows them to provide their products. There are also new or established small businesses that do not have an online store, and this prevents them from being able to promote their products to a wider audience. With the proposed application we hope to achieve two things, which are: First, small businesses already

established take the next step to expand the sale of their products through this application. Secondly, people who are starting a business will be able to do it through this application because the financial cost is lower since there is no additional cost for rent and other expenses of this type.

Review of the Literature

Today we live in a busy world where people have very little time to waste, waiting in long lines or searching from store to store. Davis and Heineke state that "as the standard of living in developed countries rises, so does the value of customers' time and, consequently, they seek those goods and services that minimize the expenditure of their time" [5]. Today's consumers expect quality and very fast service, with a minimum waiting time.

On the other hand, we have the side of the entrepreneur who has to be patient with the customer at all times regardless of the customer's attitude. As Robert H. Schuller would say, "Never cut down a tree in winter. Never make a negative decision in the low times. Never make your important decisions when you're in a bad mood. Wait. Be patient. The storm will pass. Spring will come." [6] With this, he means that in almost all situations we know that we should not react instantly, but that only those with great patience have the mental strength to delay the fulfillment of a decision. One of the great advantages of having an online business is that you don't have to deal with the different attitudes of customers face to face.

SYSTEM DESCRIPTION

In this section we will be able to understand the infrastructure of the application. In it we will see the system interfaces, the tools that were used to develop the application and the databases with their respective functions and relationships.

System interface

In this subsection, the system interfaces used to develop this project will be mentioned and defined.

Next, we will see the system interface of the project and the communication order of the project. In Figure 1, we can see the communication order of our system, which starts with the connection of the computer to the network (local network or internet, it all depends on the environment in which we are running the application). Then it connects to a browser, where the address of the web page is entered, and a request is made to the server where the web page is located and the web server allows the computer to access the web page.
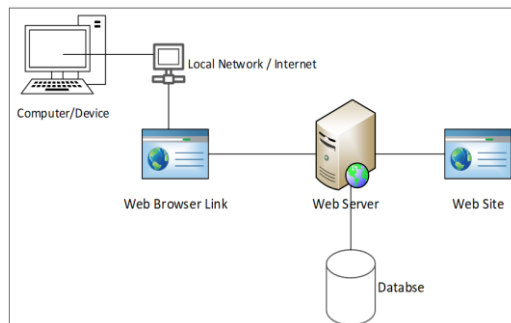
Figure 1
System Interface

Project Software Interface

In this subsection, we will be discussing and describing the interfaces used to develop this application, which we will be looking at in the following table (see Table 1). This table contains the software interfaces for the website and their purpose.

Table 1
Software Interface

Software Interface	Purpose
Web browser	The system we are developing requires a web browser to display the website content to the users, hosted on the server.
Databases System	The website consists of databases to store user information and products to be displayed on the website

Project User Interface

This project consists of two interfaces: the shopping website interface and the administrator interface. The main function of the shopping website (see Figure 2) is to allow the user to make purchases of the products registered on the website, later we will discuss other functions.
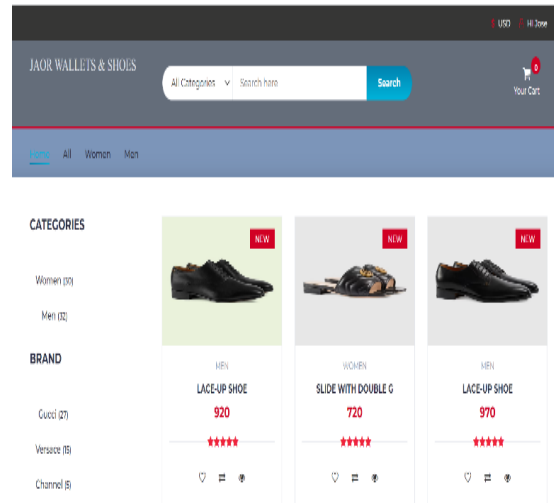
Figure 2
Shopping Website Interface

The main function of the administrator interface (see Figure 3) is to add products that will be reflected in the shopping website interface, later we will see the other functions of the application.
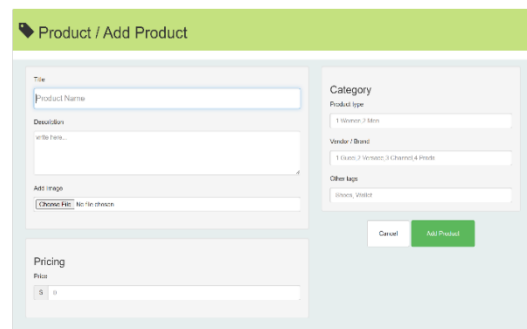

Figure 3
Administrator Interface

Process Development Tool

In the process of the development of the project/website, it was necessary to investigate and make an analysis of the tools that we were going to need for the development and the fulfillment of the proposed objectives. Next, we will be defining the tools that have been used to carry out the development of the project/website.

Visual Code Text Editor

The text editor used was Visual Code. Visual Code is a simplified code editor with support for development operations such as debugging, task execution, and version control. The goal of this is to

provide only the tools a developer needs for a fast code-build-debug cycle. Through this editor, we sort the files, write the code, modify the Template Electro powered by the yaminncco template and test the code (test and debug).

MySql phpMyAdmin

This website uses a database that was created to store all the data from the interfaces, among these are: the user information, the products in the shopping cart, the purchases, and the products shown in the application to buy. Figure 4 shows a screenshot of phpMyAdmin that was used for the development, creation and management of the project database. In the screenshot, we can see the tables containing the attributes to store the information.

Figure 4
phpMyAdmin Development Tool

XAMP

XAMP is a cross-platform local web server that allows the creation and testing of web pages or other programming elements. This tool allowed us to create a local web server environment, to incorporate the MySQL database management system, and the programming language that this tool uses is PHP which fits our requirements. In Figure 5 we are showing how this application looks like.
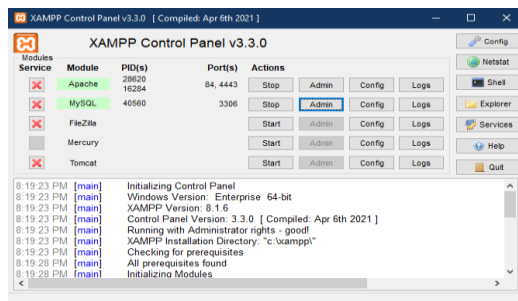
Figure 5
XAMPP Development Tool

Programming Languages

The following languages were used to carry out this project.

- **Front-end**: HTML, CSS, JavaScript, and Bootstrap.
- **Back-end**: PHP and MySQL

METHODOLOGY & DESIGN

Many times, we find ourselves going from store to store looking for high-quality shoes and wallets that in the end we can't find or they are not to our liking. So, for this project, an application will be developed to help users find high-quality men's and women's shoes and wallets in one place. This way the user will have more control of his time and will be able to make better use of it. On the other hand, the application is also focused on merchants and manufacturers who want to display their products from a website, without the need to have a physical store. This will allow them to register their products with photos in a simple way.

Design

In this part of the design, we will discuss the functional development of the websites, which are composed of two environments, the administrator and the shopping store. The administrator website allows the user to be able to view orders, add products, view the list of products (dropdown: male or female) that have been added and also to delete them, and finally the manage user function which allows the administrator to view, edit or delete the user from the shopping environment. In Figure 6 you can see the grammatical flow of how the administrator's website behaves.

The shopping website will have the ability to create an account if it does not have one, register, view the products in the catalog, and add them to the shopping cart. Once these products are added to the shopping cart the user will have the ability to remove any of these products from the cart or proceed to checkout. Once the user clicks on checkout he/she will have to fill in the requested information such as name, address, and credit card. In Figure 7 you can see the flowchart of how the shopping website behaves.
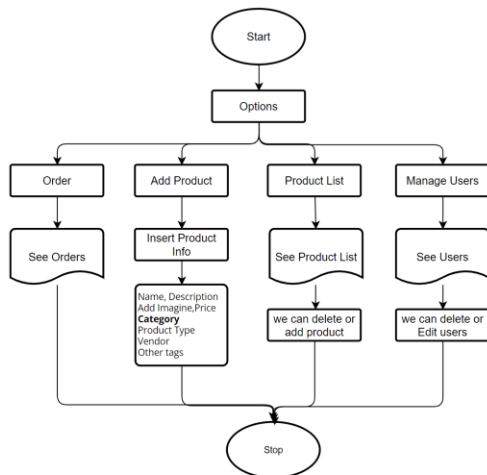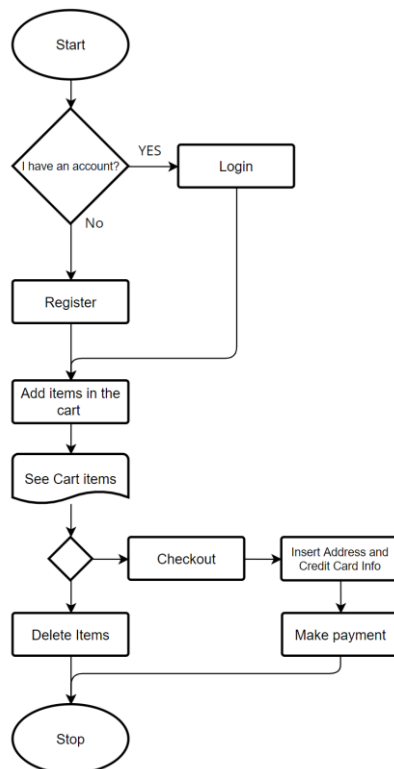
Figure 6
Administrator Website Flowchart

Figure 7
Shopping Website Flowchart

Database

The management system used to create the database is MySQL, as it is the most secure database and compatible with the PHP back-end language, and XAMP. Much of the functionality of the project is due to the databases, which are used for the presentation

of the dynamic menu options ("Home, All, Women, Men"), adding products to the cart and the system, and storing user information and selected products. For this project, we used a single database under the name of online shop, with 8 tables. Next, will describe the function of these 8 tables:

- **user_info** - this table stores user's information, such as: name, email, password, mobile, address
- **orders_info** - this table stores the orders information. That is to which address and user it goes, the total of the purchase and the card with which the purchase was made.
- **order_products** - this table stores the products of the orders, such as: the id of the order, the product and the quantity of the product.
- **products** - to store all the products that are going to be sold on the shopping website.
- **cart** - this table stores the products that the user stores in the cart.
- **brands** - here are stored the brands of shoes and wallets that the application will be offered.
- **categories** - stores the category for the product selection, woman or man.
- **user_info_backup** - this table is a backup of the user info table in case any changes are made unintentionally.

In Figure 8 we can see the tables: user_info_backup, cart, brands, and categories. These are not related to each other but were used for the development of the web site, they were defined previously.

Figure 8
Databases without Relationship

Figure 9 shows the tables that are related to each other. **user_info PK**: user_id -> **orders_info FK**: user_id **orders_info PK**: order_id -> **orders_products FK**: order_id **orders_products FK**: product_id -> **products: PK**: product_id
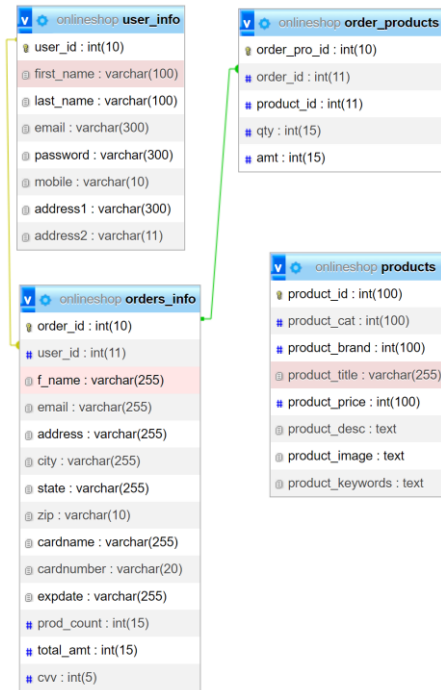

Figure 9
Databases with relationship

RESULTS

In this section explain part by part the results of the realization of this project and how it relates to the initial idea that was proposed in the Idea Paper. This will be divided into two parts since this product is composed of two environments, which are the administrator's website and the shopping website.

Administrator Website

This part show and explain each of the functions the administrator's website will use.

- **Admin Panel Section -** This section is the main part of the administrator's website. This section is the Admin Panel (see Figure 10) of the application which contains a menu of options, which allows users the following functions: see Orders, Add Product, Products Lists and Manage Users.
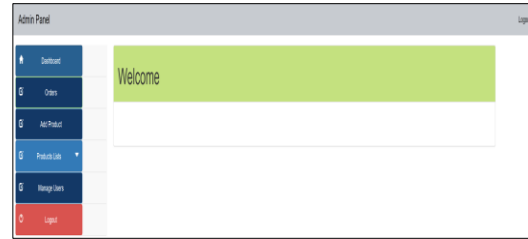
Figure 10
Admin Panel Section

Figure 11
Orders Section

- **Orders Section -** The Orders section (see Figure 11), allows the administrator to view the purchases made by users, the products, quantity, and the address to which they should be shipped.
- **Add Products Section -** The Add Products screen (see Figure 12) allows the administrator to add new products to the database, which will be reflected on the shopping website. This screen must be entered; the product name, description, product image, price, product type (women or men), brand (Gucci, Versace, Channel, Prada), and other tags (Shoes or Wallet).

Figure 12
Add Products Section

- **Products List Section -** This section is composed of the list of products, which is divided into two sections: men's products and women's products. In this screen, the administrator will be able to see the products that were previously added, which are found on the shopping website (see

Figure 13). It also allows you to add or remove some of these products.

Figure 13
Product List Section

- *Manage User Section -* The Manage Users screen (see Figure 14) will allow the administrator to edit or delete users that are registered on the shopping website

Figure 14
Manage Users Section

- *Shopping Website -* This part show and explain each function of the shopping website.
- *Home Page Section -* The Home Page section (see Figure 15) is the main home screen of our shopping site, which will allow the user to make purchases of the available products. This screen will allow the user to log in, register if they are a new user, view the products they have in their cart if they are already logged in, select categories of products they wish to purchase (this consists of a bar that contains the options to view; all products, women's or men's products).
- *Logic Section -* In this section, the user will be able to log in, if he/she already has one. To log in we will first go to the top of the website and click on "My Account" (see Figure 16).

Once we click on "My Account" we will get a dropdown and we will select Login (see Figure 17).

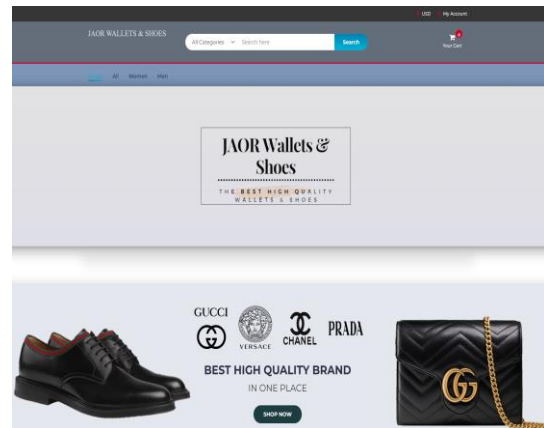After clicking on Login, the login screen will appear and we will proceed to log in (see Figure 18).
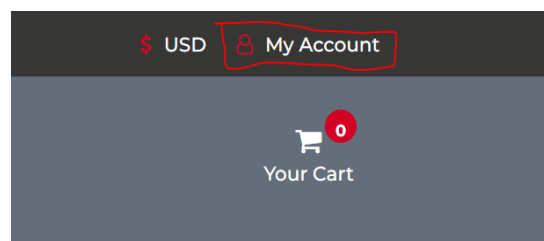

Figure 15
Home Page Section

Figure 16
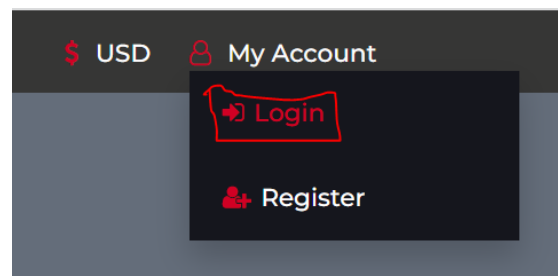**My Account location**

Figure 17
Login Option

Figure 18
Login Section

Once logged in we will be able to carry out our purchases and we will also notice that at the top "My Account" will change to our name (see Figure 19).
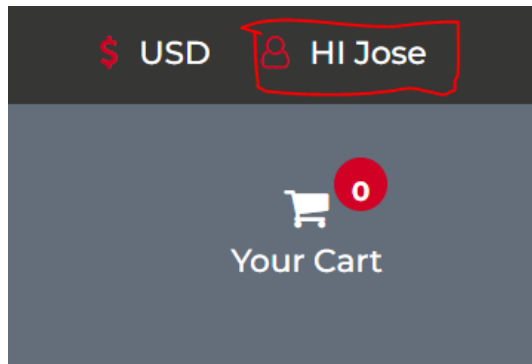

Figure 19
Login Usefully Home Page

If we click on our name, it will show us the Logout option (see Figure 20), in which we will be able to end the session.
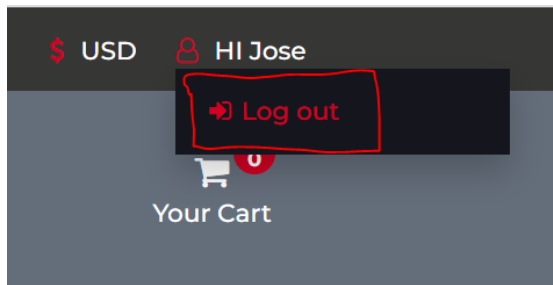

Figure 20
Logout Option

- **Register Section -** In the registration screen, the user will be able to create an account if he/she does not have one. To create an account first go to the top of the website and click on "My Account" (see Figure 16). Once we click on "My Account" we will see a dropdown and we will select Register (see Figure 21).
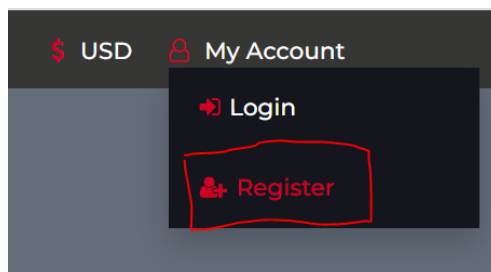

Figure 21
Register Option

After clicking on Register you will see the Register screen and proceed to register (see Figure 22).

Figure 22
Register Section

Once we have registered, we will be able to make our purchases and we will also notice that at the top "My Account" will change to our name (see Figure 23).
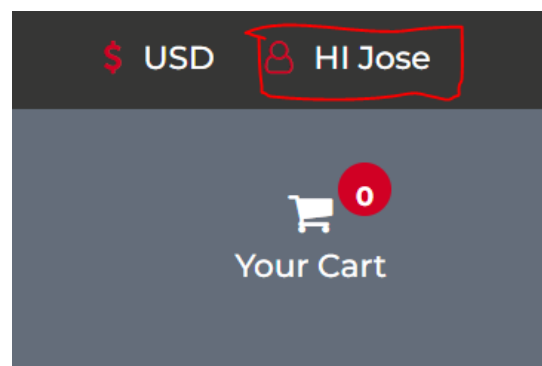

Figure 23
Login Usefully Home Page

- **Products Section -** In this section we will be able to view the products and add them to the shopping cart. The products are divided into the following options: all products, women's products and men's products (see Figure 24).
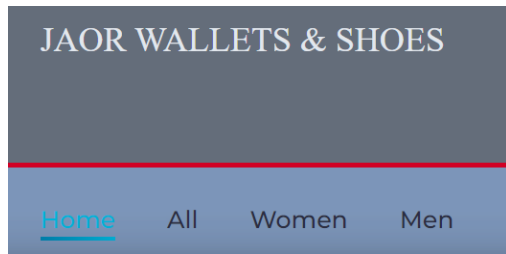
Figure 24
Products Section

- *All Product Option -* In this option, the user will be able to see the products for women and men (see Figure 25).
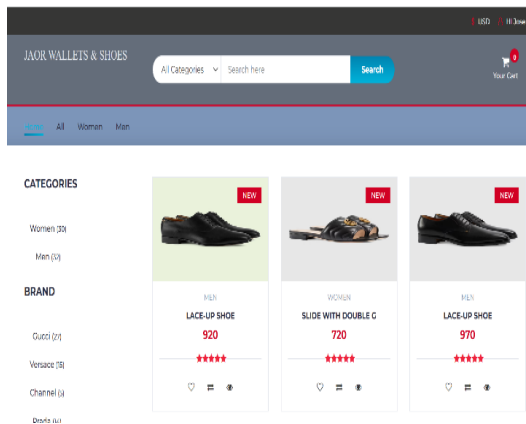

Figure 25
All Products Option

- *Women Product Option -* This option will allow the user to see only women's products (see Figure 26).
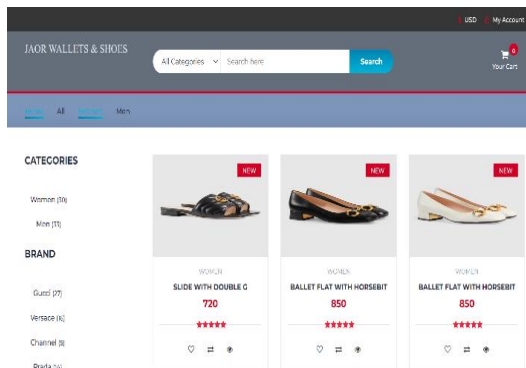

Figure 26
Women Products Option

- *Men Product Option -* This option will allow the user to see only men's products (see Figure 27).
- *Car Section -* In this section, the user will be able to see the products added to the shopping cart.

Before moving on to this figure let's add some products (see Figure 28).
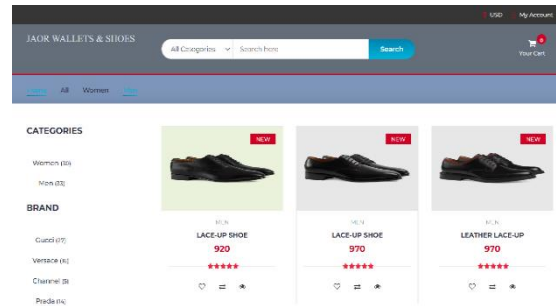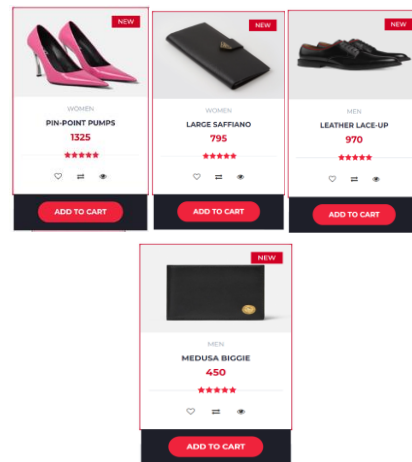

Figure 27
Men Products Option

Figure 28
Added Products

Once these products have been added, we will be able to see the shopping cart icon with the number of products added (see Figure 29).
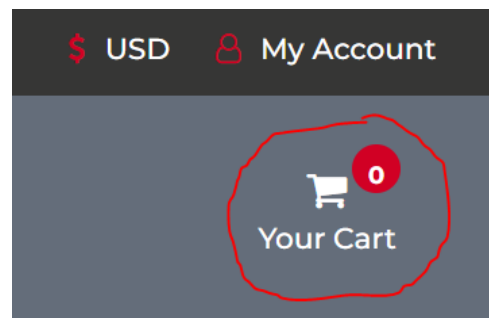

Figure 29
Added Products Cart

If we click on the shopping cart icon a dropdown will open with the products added (Figure 30) and the option "edit cart" we will be able to see the products

added and the amount to pay, in addition, we will have the checkout option (see Figure 31).
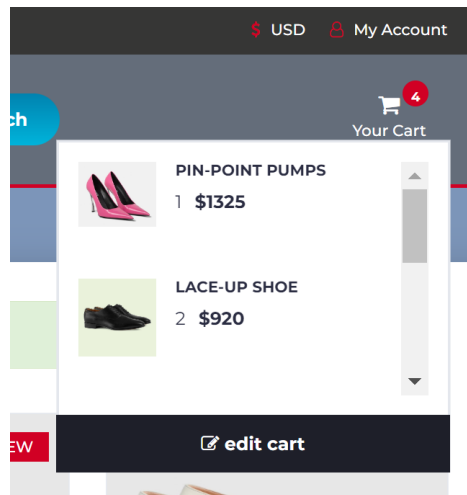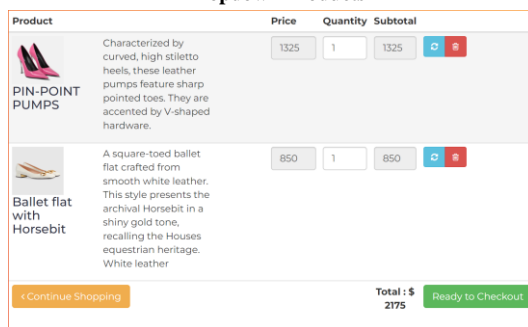

Figure 30
Dropdown Products

Figure 31
Edit Cart & Checkout Option

- *Checkout Section -*In this section, we will be able to see the amount to pay and we will complete the billing address information, which will be the same as the shipping address. We will also enter the payment method which will be by credit card. Then proceed to checkout (see Figure 32).
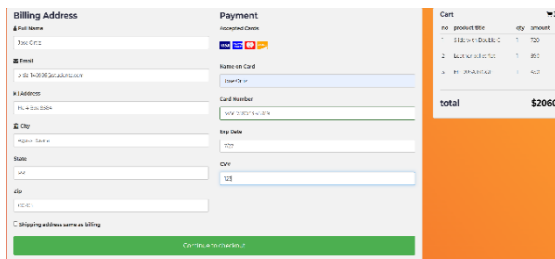

Figure 32
Checkout Section

After making the purchase this order will be reflected on the administrator's website in the Orders option (see Figure 33).

Figure 33
Checkout Order (Administrator Website)

DISCUSSION

The process of developing and creating this project has resulted in a website (JAOR Wallets & Shoes) that contains several tools that allow the user to make online purchases in an easy and reliable way. The website will allow the user to register, log in, view the products available, add them to the shopping cart and purchase the products. An additional website was also created for use by the administrator, which will allow him to view orders, add or remove products, and manage user profiles. The performance of these websites was evaluated in several tests to verify that it was excellent. The focus of this project is to provide users with a secure and accessible environment.

FUTURE WORK

The realization of the website meets the initial objectives and is also suitable for implementing future improvements. The improvements that we could bring in the future for online shopping sites would be:

- Account verification email
- More payment alternatives, such as: PayPal, Shop, etc.
- Integrate a chatbot, which can answer the user's questions.

These would be some of the future works that could be developed to continue improving the quality of the shopping website.

CONCLUSION

The main objective of carrying out the project of an online shopping site is to provide the user with a better alternative to make their purchases without the need to visit a physical store and waste time waiting. This project will allow the user to find a variety of shoes and wallet products for men and women. For this project, we had to analyze which programming languages would be the most appropriate for this type of scenario, which was to create a responsive website. It was also investigated and analyzed how high is the use of online shopping pages, to determine if it was worth the effort to develop one. It was also necessary to research which brands of high-quality shoes and wallets are currently the most popular.

For the creation of each section of the website to be created, relevant research and analysis of the information to be provided on the website were conducted. The information considered most relevant for each section was chosen. Tables and flow charts were used to facilitate the organization of the website content.

Finally, the development of this work helped me to acquire new skills and abilities when developing a website. The process of developing the application was challenging, arduous, and sacrificial. I mean, developing an application while studying and working takes a lot of effort and loss of sleep, but without effort, there is no success. I am super satisfied with the work I have done since I managed to accomplish the main objectives. The experience of carrying out this project will be very useful for me in the future in the work and professional environment.

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