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Introduction

The main idea of the project is a E-store management system.

Shoppers ('User') can choose a variety of products ('Product') across multiple product categories ('Category') to generate an order ('Order') that is stored within the database.

These operations done by a client server model using DNS

Interaction between the user and the E-store done by a GUI that made using javafx

This project is based on 4 parts:

1- The GUI that interacts and shows the data to the client (user).
2- The DNS that handles the requests from clients and searching for the available servers and choose the server that will send its ip to the requester (client).
3- Server that handles the requests coming and connects to the database to modify or add into it to be updated for every user tries to get into to this data
4- Centralized data Base that contains all users, orders, categories and products

Routes

	Operation Name	Input Parameters	Type
0	addUser	int id String usrname String pword String Fname String Lname String email	void
1	addAdmin	int id String usrname String pword String Fname String Lname String email	void
2	addProduct	int product_id String pname int category_id, double price int stock String status	Void
3	addCategory	int category_id String cname String status	Void
4	addToCart	int product_id int cart_id int quantity	Void
5	addOrder	int order_id int product_id int customer_id String date int quantity	Void
6	count_users	Void	int
7	count_products	Void	int
8	count_categories	Void	int
9	get_user_firstName	int id	String
10	get_user_lastName	int id	String

11	get_user_balance	int id	int
12	get_user_password	int id	String
13	get_user_name	int id	string
14	get_user_email	int id	string
15	get_orderID	int customer_id	int[]
16	get_allUsersID	Void	int[]
17	get_allProductsID	Void	int[]
18	get_allCategoriesID	Void	int[]
19	get_allOrdersID	Void	Int[]
20	get_orderDate	int order_id	string
21	get_orderTotalAmount	int order_id	int
22	get_product_name	int product_id	string
23	get_category_name	int category_id	string
24	get_product_price	int product_id	double
25	get_product_quantity	int product_id	int
26	get_product_status	int product_id	String
27	get_category_status	int category_id	String
28	get_order_product_quantity	int order_id int product_id	int
29	get_orderProducts	int order_id	int[]
30	increase_balance	int customer_id int amount	void
31	decrease_balance	int customer_id int amount	void
32	increase_stock	int product_id int amount	void
33	clear_cart	int cart_id	void
34	get_admin_firstName	int id	String
35	get_admin_lastName	int id	String
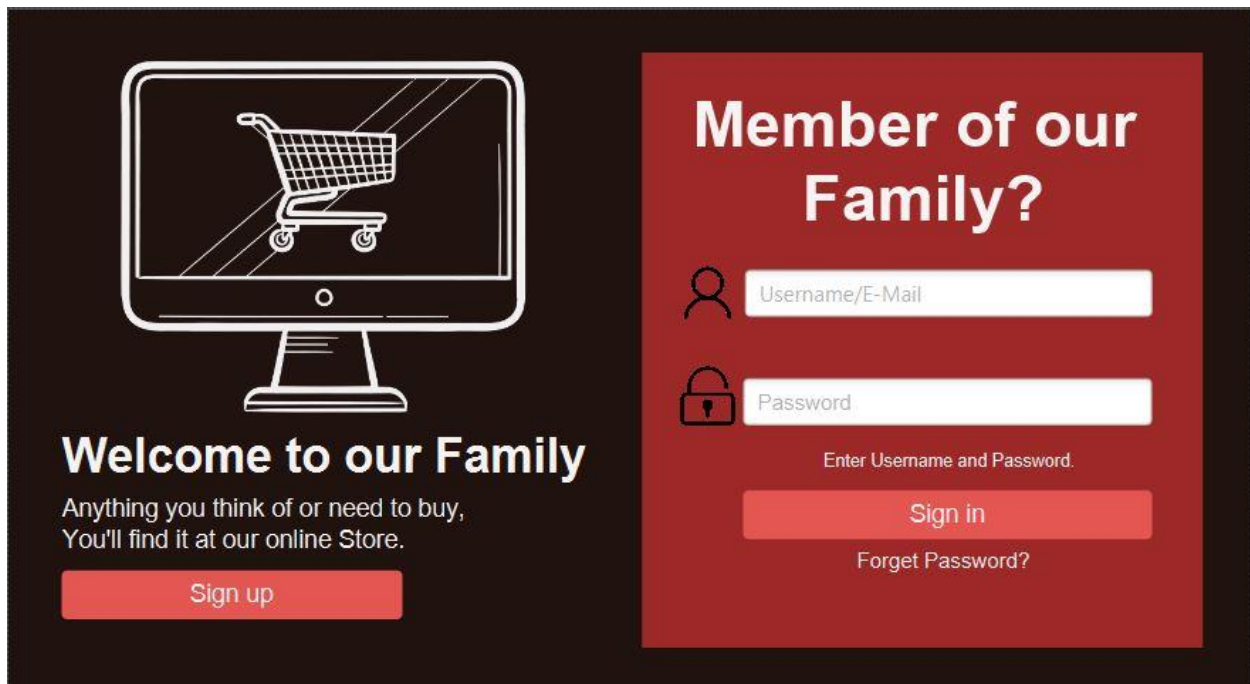
36	get_admin_username	int id	String
37	get_admin_email	int id	String
38	change_password	int id String password	void
39	change_userName	int id String userName	void
40	change_FirstName	int id String Fname	void
41	change_LastName	int id String Lname	void
42	change_CategoryName	int id String category_name	void
43	change_CategoryStatus	int id String status	void
44	delete_user	int id	void
45	delete_from_cart	int product_id int customer_id	void
46	searchByCategory	String category	int[]
47	searchByName	String name	int[]
48	change_ProductName	int id String product_name	void
49	change_ProductPrice	int id double price	void
50	change_ProductCategory	int id String category_name	void
51	change_ProductStatus	int id String status	Void
52	set_static_user_id	void	int
53	set_static_admin_id	void	String
54	set_static_product_id	void	int
55	set_static_category_id	void	int

User Guide

All scenes are made by javafx

First scene is the gate to login if you are already signed up and it will verify the email and password with the database before logging in into the next page

If you are new to use the application, you can sign in by the sign-up button

In case of already has an account and signed in:

There are two possible ways, first:

Admin
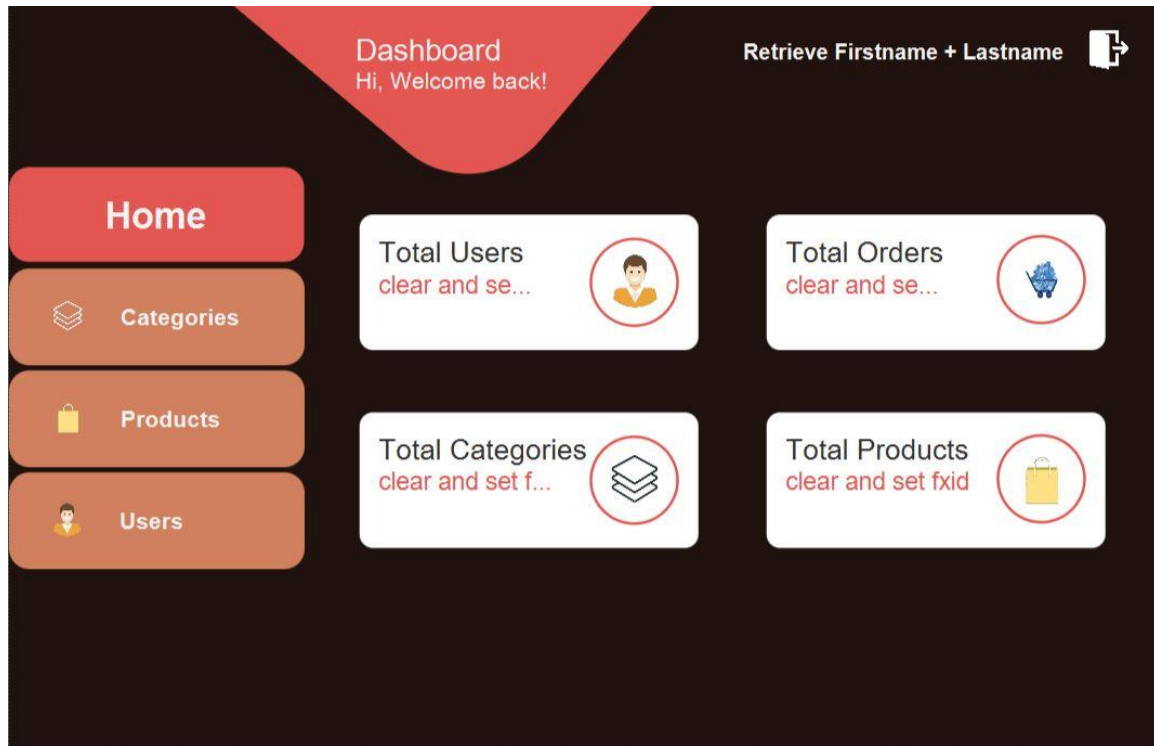
If you are signed in as an admin you can:

1- Add product
2- Add categories
3- Get all users in the system
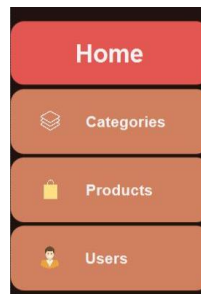
And can see:

1- Show total users

2- Show total orders

3- Show total categories

4- Show total products
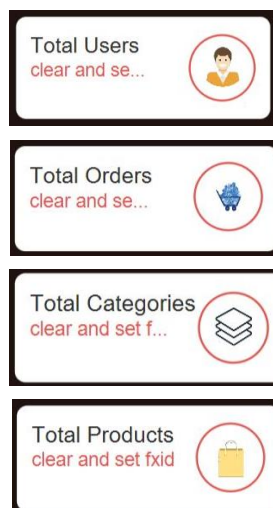
Adding a product by the admin:

Adding a Category by the admin:
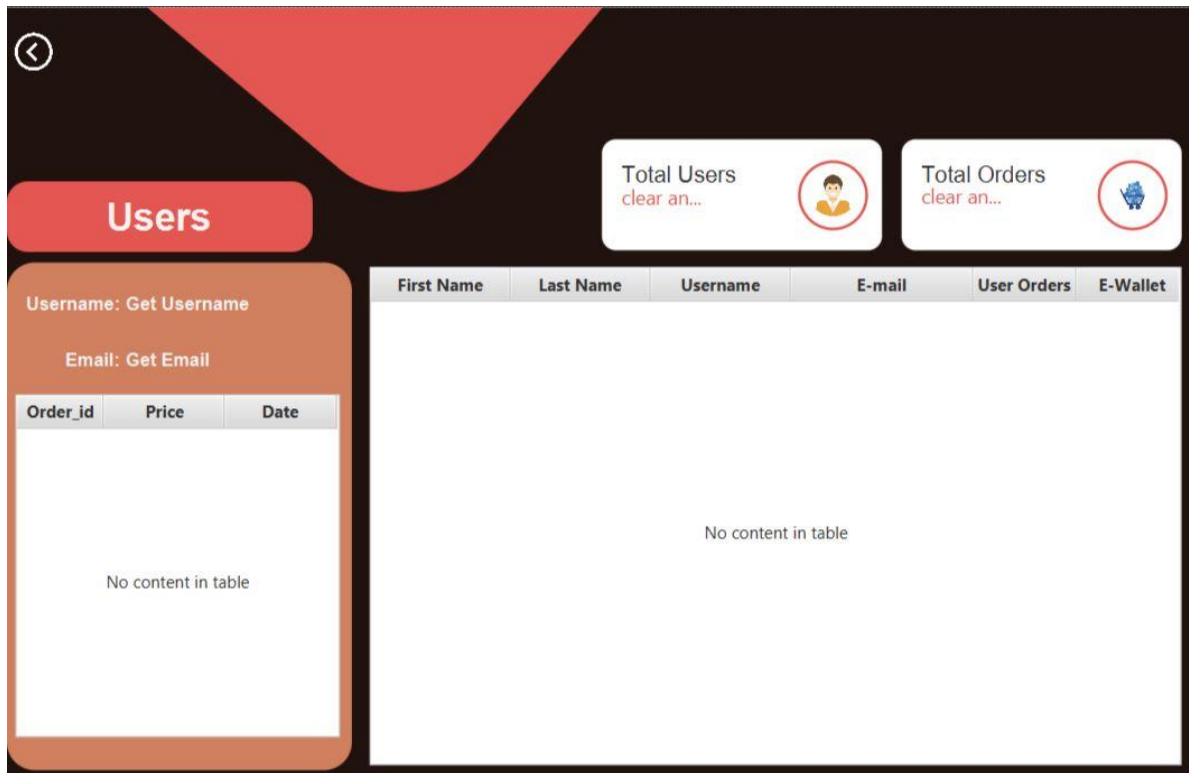
Getting all users in the system:

First Name	Last Name	Username	E-mail	User Orders	E-Wallet
			No content in table		

Total Users
clear an...

Total Orders
clear an...

Users

Username: Get Username

Email: Get Email

Order_id	Price	Date
	No content in table	

In the second case logging in:

User
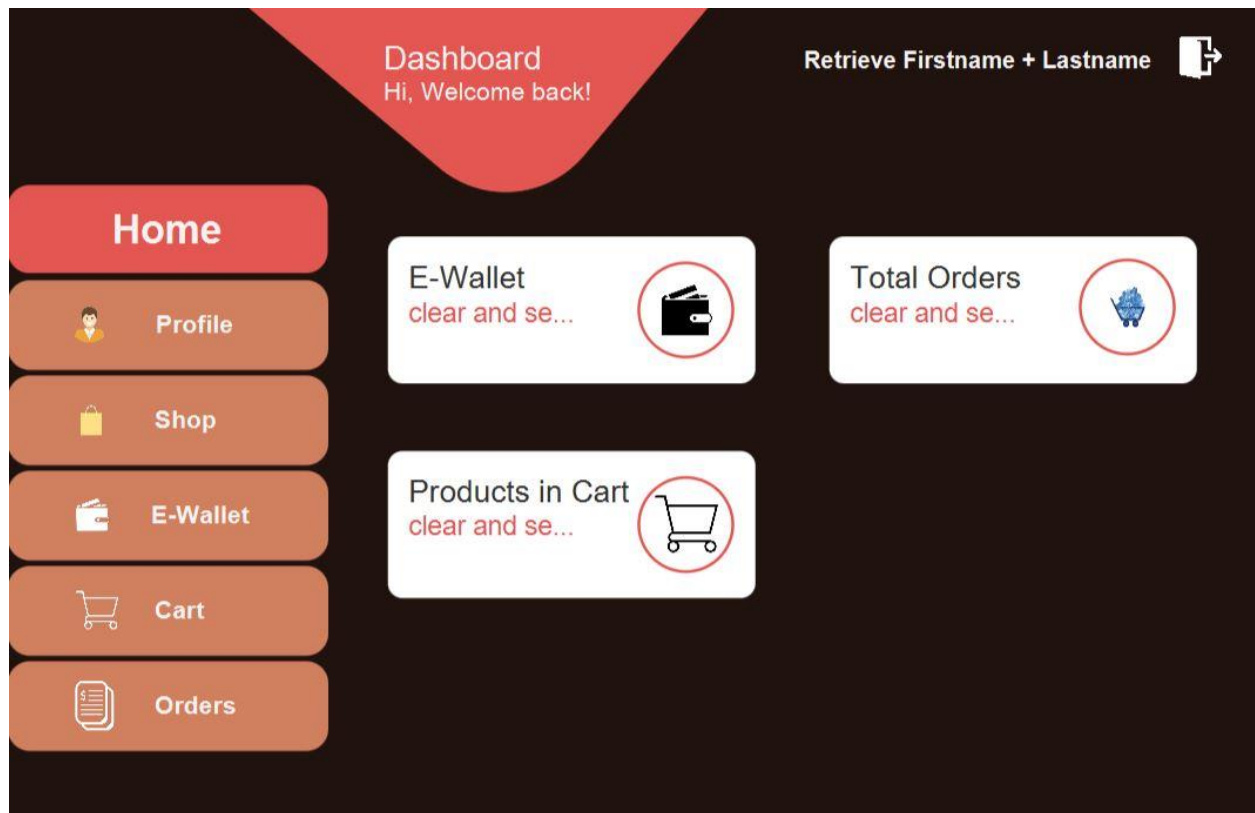
The user can:

1- Show and edit his profile
2- See what is in the shop
3- Check on his wallet
4- See what he added into his cart
5- Get the information of his orders
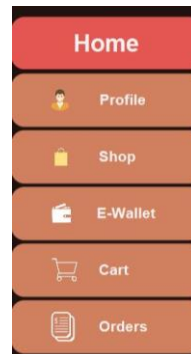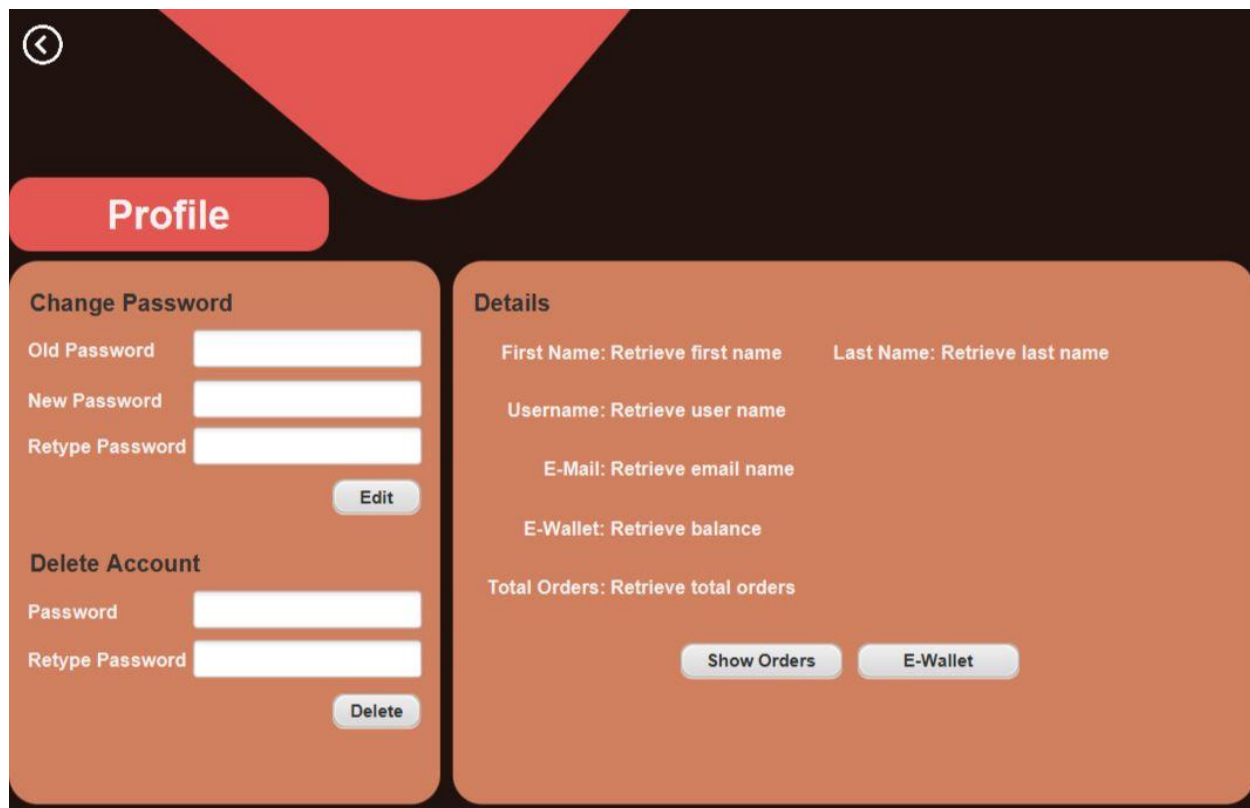
And on his screen he can see:

1- His balance in E-Wallet

2- Total orders

3- Total products in cart

Show and edit Profile

- To change the password, he must write the old one first then type the new one
- User can delete his account but first he must enter the password write first and twice to make sure that the owner didn't choose to delete account by mistake
- In the details part, user can see all his information including the orders and E-wallet
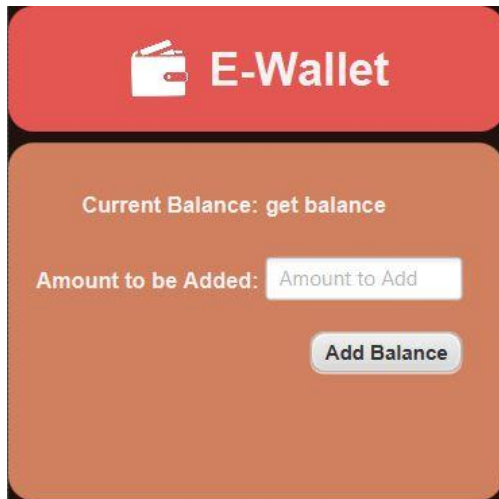- User can get back from the top left button

Shop
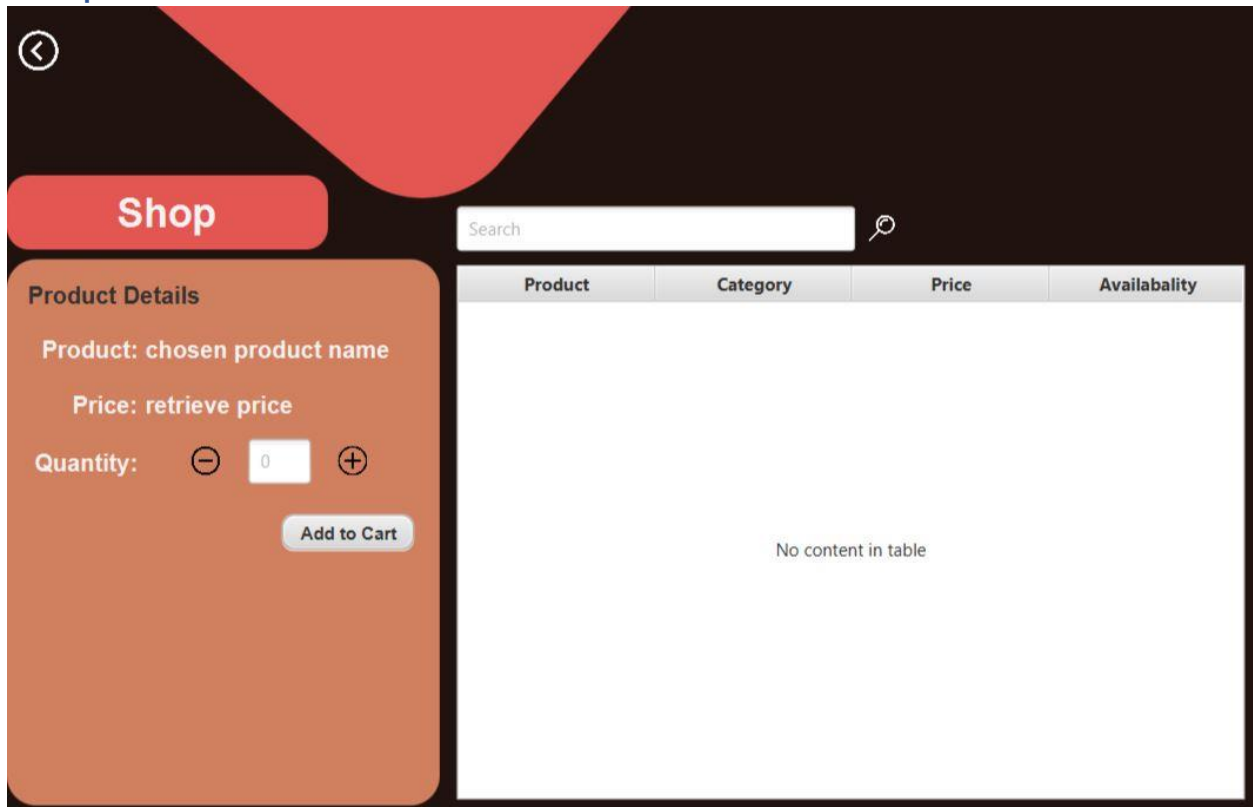
In the shop user can:

1- Search on a certain product name

2- See its details

3- Choose the quantity needed to order

4- Finally add it to cart

5- Or go back to user screen

E-Wallet
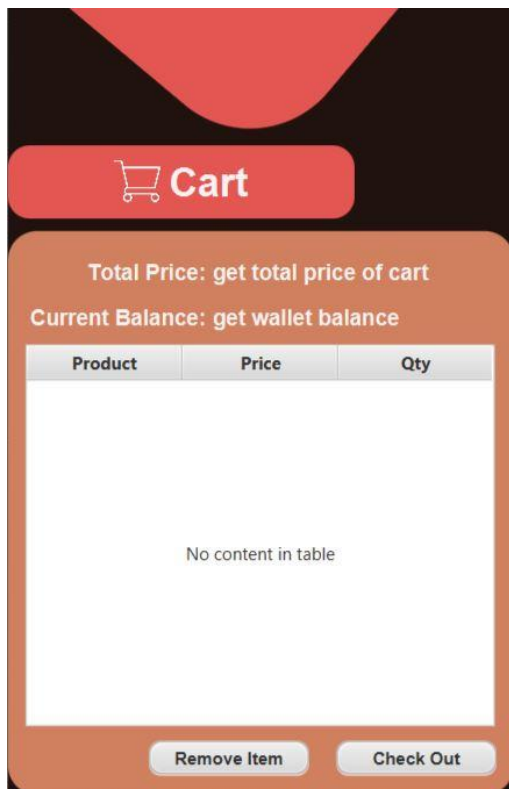
Where you can see your balance

Or: add amount to your Wallet

Cart

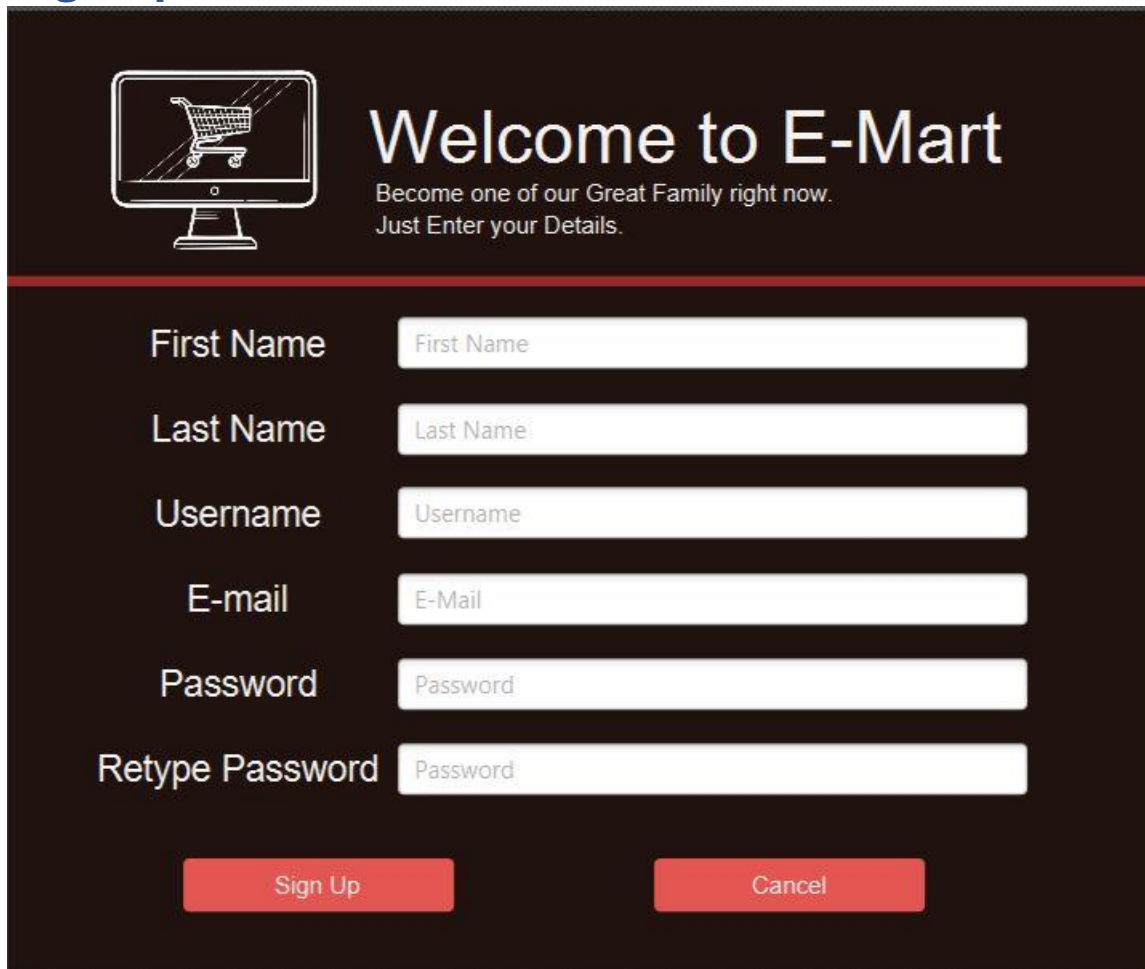Where you can remove items or check out and by your balance

Orders
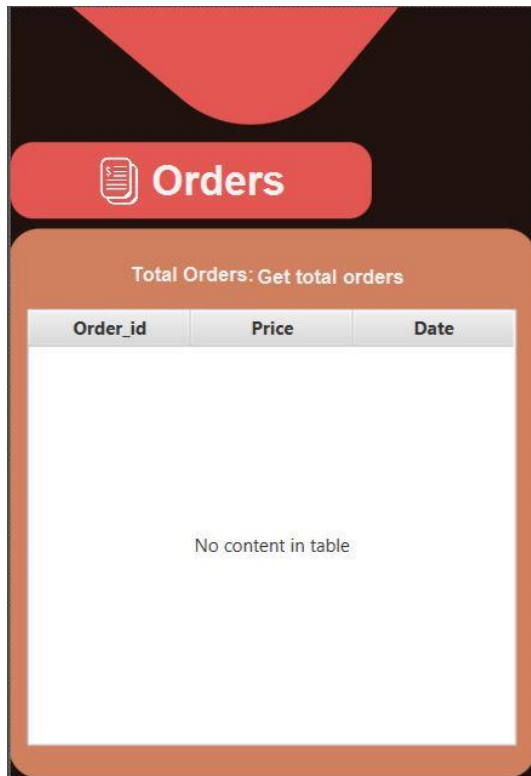
Here you can see your orders history

1- Order Id
2- Price
3- Date

If you are not logged in before you can:

Sign up
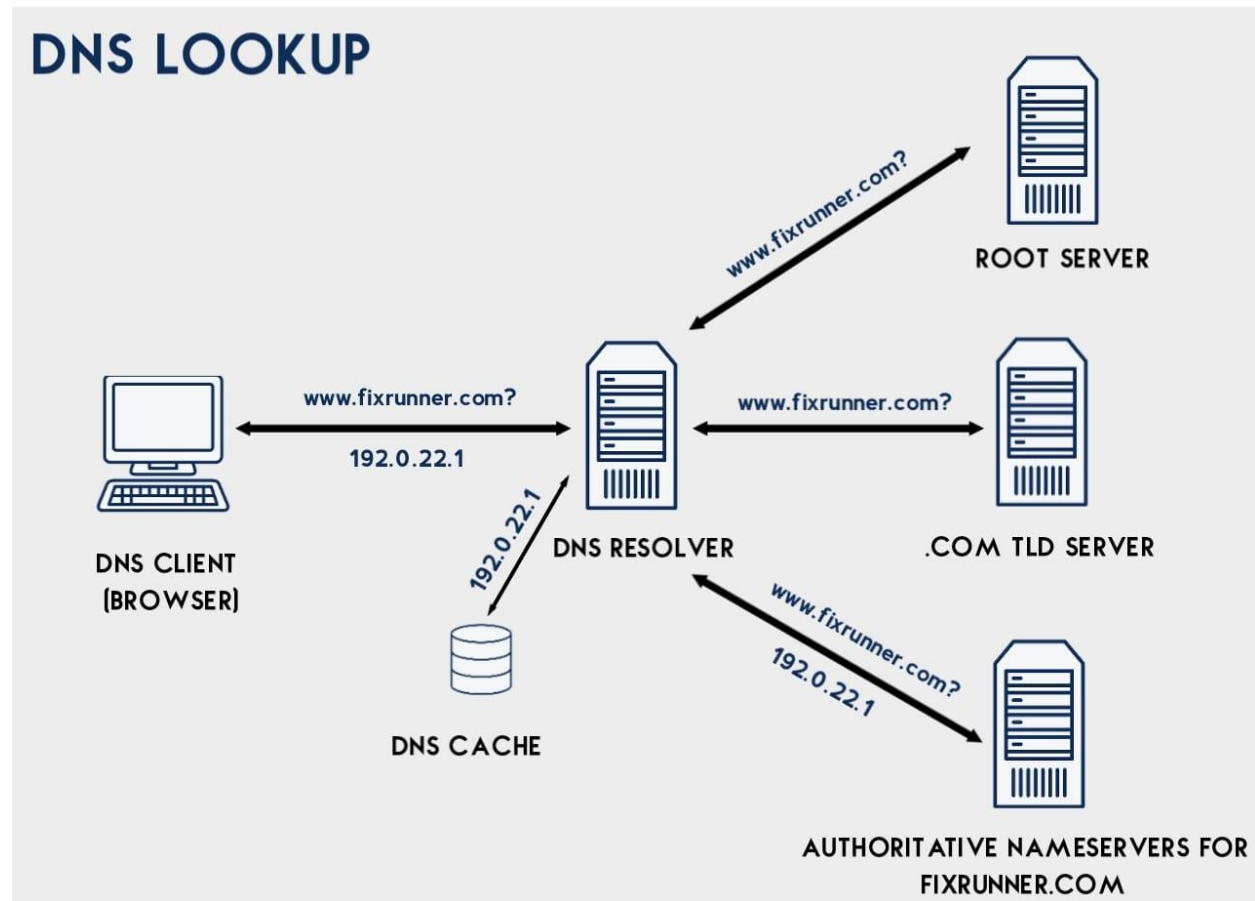

Here you have to enter:

1- First name
2- Last name
3- Username
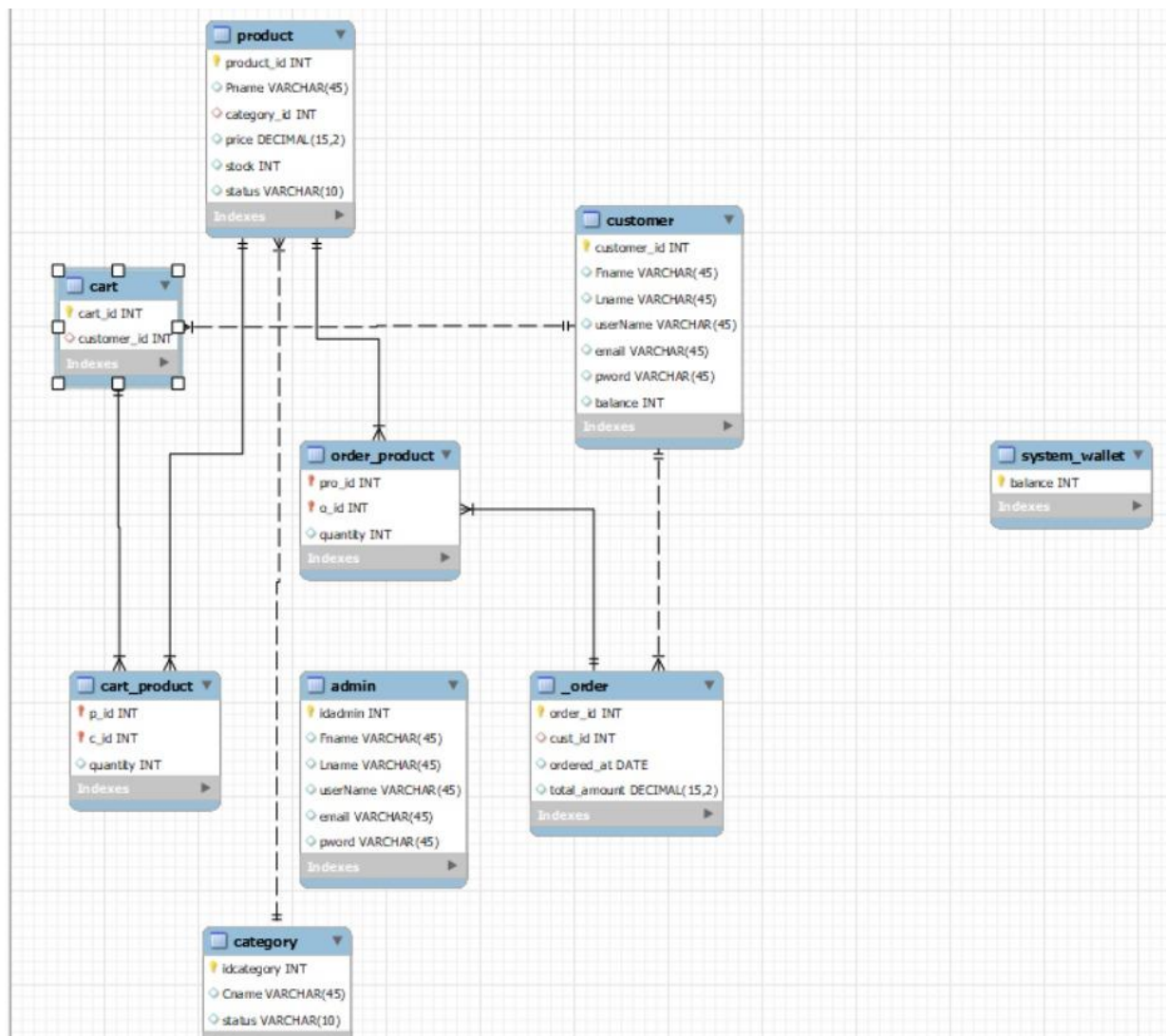4- E-mail
5- Password
6- Retype Password

Main Concept of DNS :

If a client sends a request and find that the server is down, it requests another server from DNS, then:

If another server is available, the client connects to the new server and resend the last request

Schema of the data base

Links:

GitHub
https://github.com/iMegz/e-store.git

Drive
https://drive.google.com/drive/folders/1EzLzUW6DlH2JqBfu-2xPOw11rVc-Ctcp

Contribution

Name	ID	Contribution
Ahmed Magdi Mostafa Hosni	1808714	DNS,C/S implementation and connection
Ahmed Magdy Fahmy Mohamed Ahmed	1805862	DNS,C/S implementation and connection
Ahmed Khaled Mohamed Esmail	1805106	Server/DB integration,Client/GUI Integration
Ahmed Mohamed Ahmed Sayed	1804904	Server/DB integration,Client/GUI Integration
Ahmed Fakhreldin Sayed	1809285	Server/DB integration,Client/GUI Integration
Mohamed Khaled Mohamed Ahmed Ghoz	1802656	DATABASE
Ali Abdelfattah Shehata Ibrahim	1803168	DATABASE
Omar Mohamed Diaa Eldin	1802932	GUI
Ahmed Abdallah Mansour	1809252	GUI
Yousef Adel Ismail Shalaby	1802267	GUI