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|  |
| Evolve Ecommerce Project |
| Senior Capstone |

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| Team 3 Mack, Malik, Sal, Sam  8-20-2022 |

Table of Contents

[I. Business Case and Scope Statement 3](#_Toc111912689)

[A. Business Case 3](#_Toc111912690)

[B. Scope Statement 3](#_Toc111912691)

[In Scope 3](#_Toc111912692)

[Out of scope 3](#_Toc111912693)

[II. Project Management Documentation 4](#_Toc111912694)

[C. Work Breakdown Structure 4](#_Toc111912695)

[D. Gantt Chart 5](#_Toc111912696)

[E. Milestones 6](#_Toc111912697)

[F. WBS Dictionary 6](#_Toc111912698)

[III. Financials 8](#_Toc111912699)

[G. Cost of Resources 8](#_Toc111912700)

[H. Net Present Value and Return on Investment 9](#_Toc111912701)

[I. Possible Ongoing Cost 9](#_Toc111912702)

[IV. Risk 10](#_Toc111912703)

[J. Business 10](#_Toc111912704)

[K. Technical 10](#_Toc111912705)

[V. System Documentation: User 10](#_Toc111912706)

[L. Account 10](#_Toc111912707)

[Registering 10](#_Toc111912708)

[Logging In 11](#_Toc111912709)

[Changing Password 11](#_Toc111912710)

[M. Cart/Shopping Bag 11](#_Toc111912711)

[Adding to Cart 11](#_Toc111912712)

[Editing Cart 11](#_Toc111912713)

[Removing From Cart 11](#_Toc111912714)

[N. Checkout Process 12](#_Toc111912715)

[O. Your Orders Report 12](#_Toc111912716)

[VI. System Documentation: Admin 12](#_Toc111912717)

[Admin Account login information: 12](#_Toc111912718)

[P. System Users 13](#_Toc111912719)

[Change Roles 14](#_Toc111912720)

[Edit User 14](#_Toc111912721)

[Delete User 15](#_Toc111912722)

[Adding a new user 16](#_Toc111912723)

[Q. Products 16](#_Toc111912724)

[Edit Product 17](#_Toc111912725)

[Delete Product 17](#_Toc111912726)

[Adding a new Product 18](#_Toc111912727)

[How To Leave Admin Panel 19](#_Toc111912728)

[VII. System Documentation: Technical 20](#_Toc111912729)

[R. Entity Relationship Diagram 20](#_Toc111912730)

[S. Architectural Structure 20](#_Toc111912731)

[T. System code 21](#_Toc111912732)

[U. Backend UML: 21](#_Toc111912733)

[Client-side: 22](#_Toc111912734)

[VIII. Lessons Learned 27](#_Toc111912735)

# Business Case and Scope Statement

## Business Case

Tech is currently a brick-and-mortar business specializing in custom keyboards and mice and other computer peripherals. They currently have no public facing website for customers to browse products, order products and see specials that the business has. This project is to:

* Design and develop an ecommerce website prototype that is fully functional, attractive and user friendly with a UI that is easy to navigate.
* Expand the business to have online ecommerce sales.

## Scope Statement

### In Scope

* User Interface design mockup
* Create an ecommerce website where users can:
  + View featured products
  + View all products
  + Add to cart, remove from cart, and purchase products
  + See order report
  + Find contact information
  + Register and login
  + Change password
  + Database creation
* Public facing for users as well as has have administrative login for admins to modify items and orders.

### Out of scope

* Purchasing of website domain
* Search engine optimization
* SSL Cert indicating the site has a valid certificate, issued by a trusted authority

# Project Management Documentation

## Work Breakdown Structure

## Gantt Chart

Chart, timeline

Description automatically generated

## Milestones

Table

Description automatically generated

## WBS Dictionary

**1 Research**

**1.1 Analysis** - analyze competitor websites and design, current trends, company branding.

**1.2 Research Completed**

**2 Concept**

**2.1 Concept Idea** - Gather information on deliverables and scope and come up with a suitable concept to satisfy client needs.

**2.2 Propose Concept** - Alignment and confirmation of the concept by all parties.

**3 Planning**

**3.1 Delegating duties** – breaking up project activities for better workflow

**3.2 Creating PDM**

**3.2.1 Creating Gant Chart** – Utilizing MS Project for project management and tracking

**3.2.2 Create WBS**- Utilizing MS Project for project workflow

**3.2.3 Cost Estimate**

**3.2.3.1 Estimate Service Cost and ROI** - Cost of project and Cost benefit analysis

**3.2.3.2 Cost Estimate Complete**

**4 Design**

**4.1 Interface Design**

**4.1.1 Low Fidelity Mockup** - Rough sketch of UI

**4.1.2 High Fidelity Design** - utilizing Adobe XD create a clickable realistic concept mockup of the ecommerce website for design and database creation understanding.

**4.1.2.1 Develop Content** - Product information, Logo, Pictures, Text, etc.

**4.1.2.2 Add Content** – Implementing content into the High-fidelity UI Design

**4.1.3 Send for Review** – Client Feedback and approval

**4.1.4 Revise** – Implement changes as requested by client

**4.1.5 UI Design Complete**

**5 System Prototype Implementation**

**5.1 Site Creation**

**5.1.1 Core Web Design/Creation**

**5.1.1.1 Develop Home Page**

**5.1.1.1.1 Home Page Design**

**5.1.1.2 Product Page**

**5.1.1.2.1 Product Page Design**

**5.1.1.3 Create Account Page**

**5.1.1.3.1 Login and Registration Function**

**5.1.1.4 Create Check out Page**

**5.1.1.4.1 Ecommerce Functions**

**5.1.1.5 Create Contact Us Page**

**5.1.1.6 Adding Site Content**

**5.1.1.7 Implementation Complete**

**5.1.1.8 Testing Complete**

- 5.1.1.1 -5.1.1.8 Web design and development using html, CSS, PHP, and other frameworks such as bootstrap and java.

**6 Database Creation**

**6.1 Creating tables** – Database structure creation of tables i.e., order ID, user information, product id

**6.2 Creating table information** – Filling tables with entities and their respective tables

**7 Documentation –** compiling workflow and system information

**7.1Documentation Complete**

# Financials

Based off the Project scope, length, skills needed, team needed, and tools needed for the project the initial cost estimated to be from 12,000 to 15,000 dollars to complete during the consultation. After completing the work breakdown structure, the total project cost is 14,325 based on the hours of work completed and the fixed amount per hour specified by task in an itemized structure as cost of resources.

## Cost of Resources

Graphical user interface, application, table

Description automatically generated with medium confidence

## Net Present Value and Return on Investment

The company currently has a cash flow of 30,000 a year in sales and with the addition of ecommerce website is expected to increase sales by a minimum of %5

Cash Current Cash flow: 30,000/year

Minimum Expected Increase: 5%

Discount rate: 10%

Payback Period: **0.483 years**

Discounted Payback Period: **0.520 years**

Cash Flow Return Rate: **213.54% per year**

Net Present Value by year 5**: $110,192.74**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Cash Flow** | **Net Cash Flow** | **Discounted Cash Flow** | **Net Discounted Cash Flow** |
| Year 0 | $-14,325.00 | $-14,325.00 | $-14,325.00 | $-14,325.00 |
| Year 1 | $30,000.00 | $15,675.00 | $27,272.73 | $12,947.73 |
| Year 2 | $31,500.00 | $47,175.00 | $26,033.06 | $38,980.79 |
| Year 3 | $33,075.00 | $80,250.00 | $24,849.74 | $63,830.52 |
| Year 4 | $34,728.75 | $114,978.75 | $23,720.20 | $87,550.73 |
| Year 5 | $36,465.19 | $151,443.94 | $22,642.01 | $110,192.74 |

## Possible Ongoing Cost

If officially published it is important to understand the cost of upkeep of the website which will have ongoing costs such as:

* SSL Certificate
* Domain name
* Web Hosting
* Email Services
* Updating the database and maintenance
* Support

# Risk

## Business

* + - Scope Creep
    - Increased cost if the project exceeds estimated hours of work
    - Upkeep and future cost

## Technical

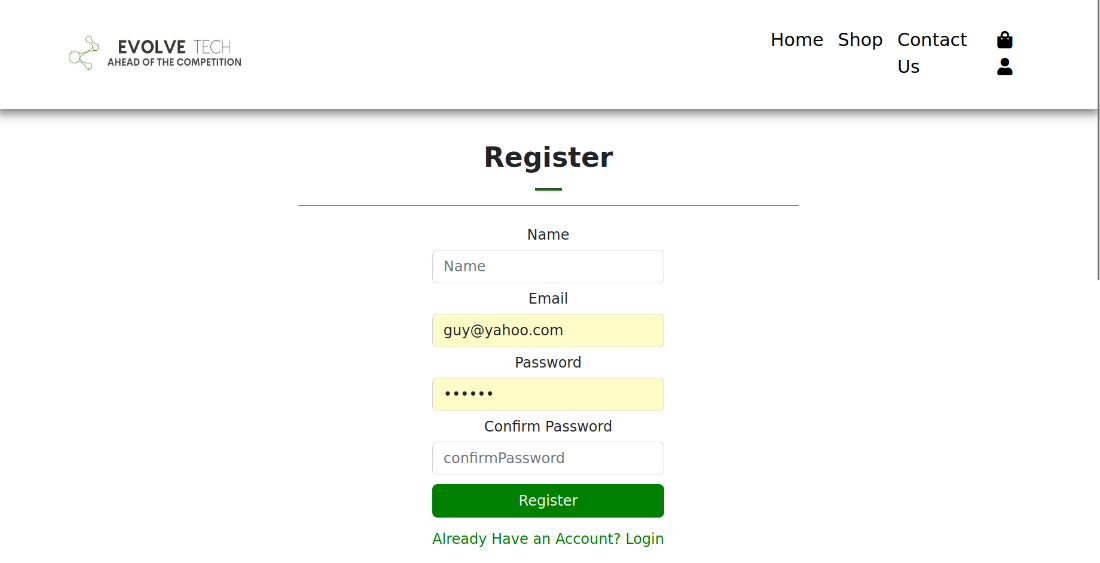
* + - Integration with future or existing systems I.e., legacy systems, cloud systems, future system states.
    - Cross- platform compatibility regarding functionality, look and feel being the same across different browsers, operating systems, screen sizes.
    - Cyber-attacks such as Cross Site Scripting and SQL Injections.

# System Documentation: User

## Account

### Registering

Click on the person icon in the upper right corner. This will take you to the main login page. Click on “Don’t Have Account? Register” and then fill out the registration form and click on the “Register” button. You will be asked for your name, email, and a password. Password must be at least 6 characters.

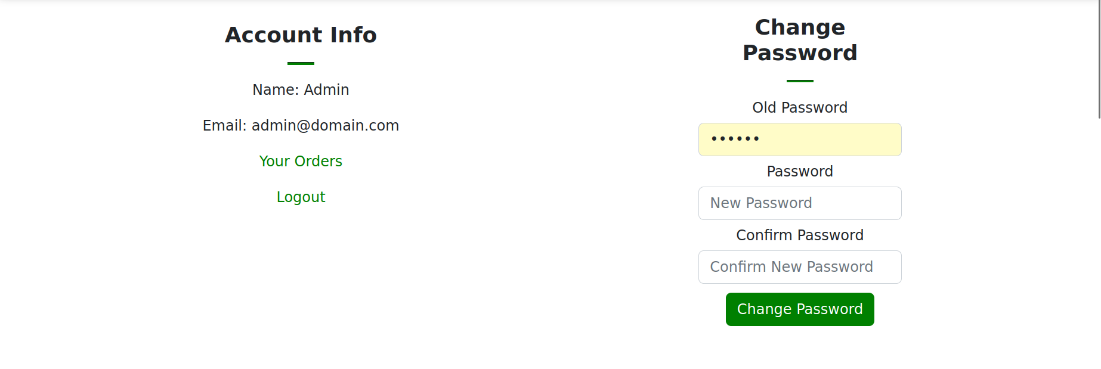


### Logging In

Click on the person icon in the upper right corner. This will bring you to the main login page. Enter your email and password and then click on the “Login” button.

### Changing Password

A logged in user may change their password by clicking on the person icon in the upper right corner and then filling out the change password form and clicking on the “Change Password” button. Password must be at least 6 characters long.



## Cart/Shopping Bag

### Adding to Cart

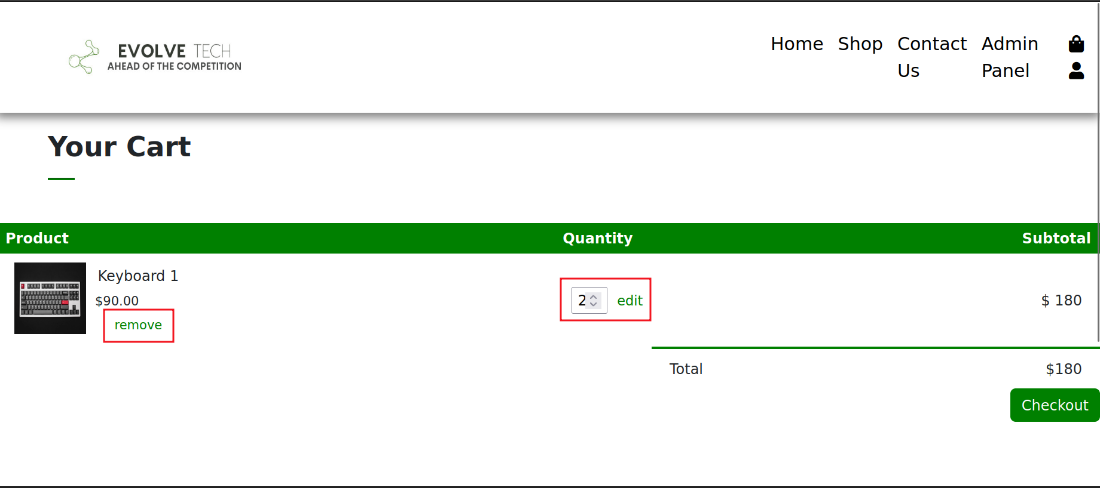
On each product page there is a form box where the desired quantity can be entered. After selecting your desired quantity click on the “Add to Cart” button.

### Editing Cart

To edit your cart, click on the shopping cart icon near the upper right corner of the site. This will display what is currently in your shopping cart. On this page you can change the quantities of each product in your cart and click on “edit” to see the changes reflected in the checkout total.

### Removing From Cart

To remove an item from your cart first click on the shopping cart icon near the upper right corner of the site. This will display what is currently in your shopping cart. To remove a product from your cart, click on “remove” under the product that you want removed.



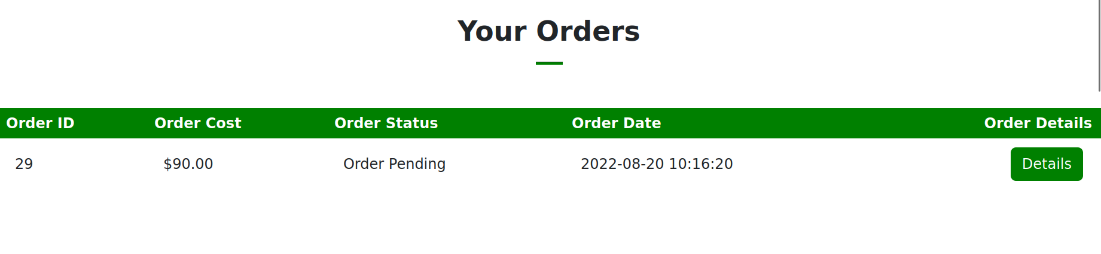
## Checkout Process

Note: You will only be able to check out if you are logged in

From the shopping cart screen click on the “Checkout” button and then fill out the checkout form. You will need a name, email, phone number, and address. The total payment will be displayed, and you can click on the “Pay Now” button to complete the checkout process.

## Your Orders Report

Logged in users will be able to view an order report on the account page. To access this, click on the person icon in the upper right-hand corner of the site. At the bottom of the page will be a list of your orders. The order id, order cost, order status and order date will be displayed. In the rightmost column will be a “Details” button. Clicking on this button will display a list of order items and their prices. If the order has not yet been paid for there will be a “Pay Now” button on the details page. Click on this button to complete your order payment.



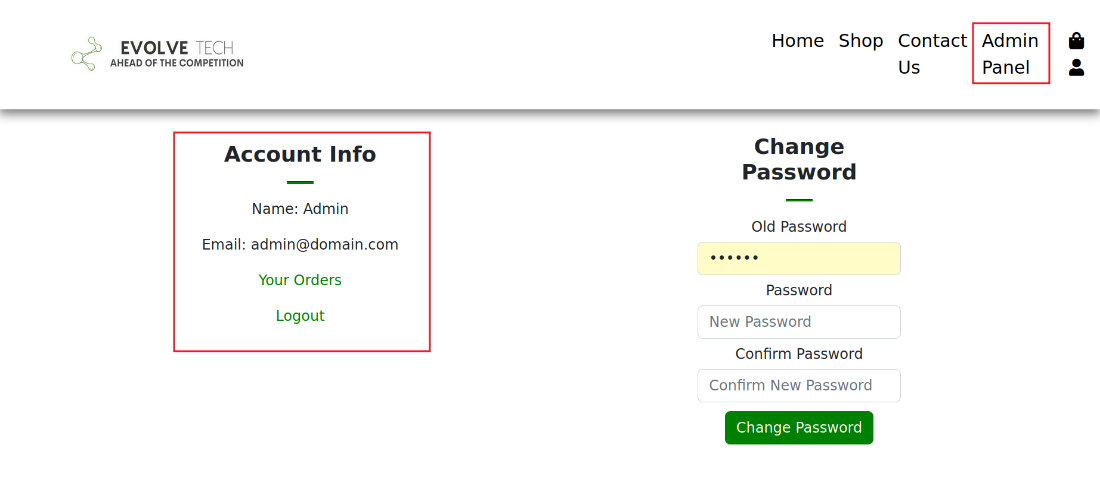
# System Documentation: Admin

### Admin Account login information:

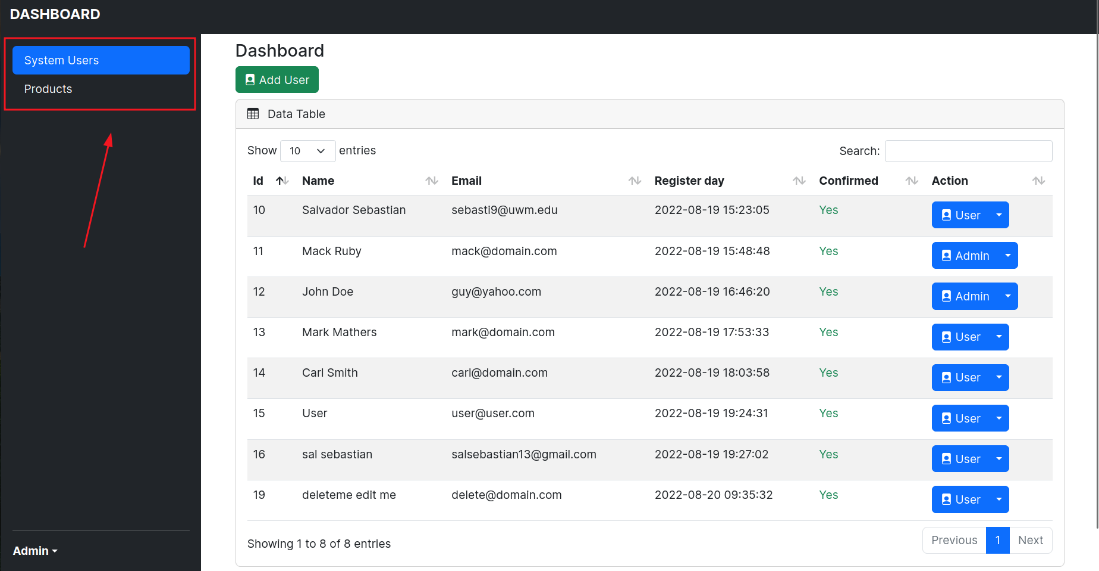
admin@domain.com

Password: P@$$w0rd

To access the admin features login with an administrative account. A new “Admin Panel” option will be available in the nav bar. Click on this to do administrative tasks.



After entering the admin panel, you will see the main dashboard from which all administrative tasks can be performed. On the left is the dashboard navigation. It is divided into two sections. There is one tab for managing system users and one tab for managing products.

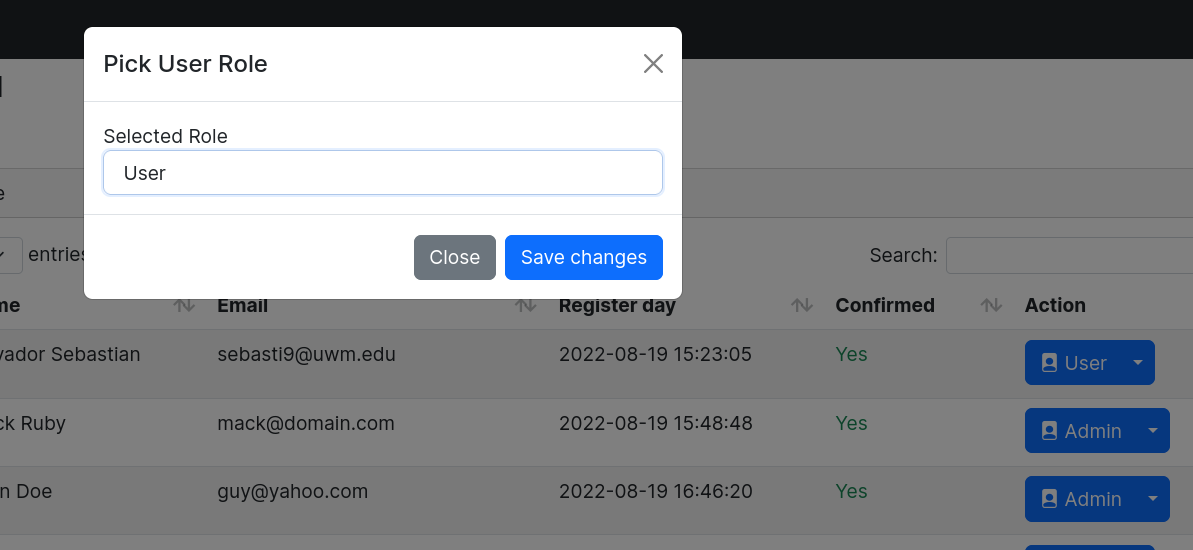


## System Users

A table containing all system users is displayed. There are columns containing each user’s name, email address, registration date, confirmation status, and role (user/admin). The Action column is the column from which changes to system users can be done.

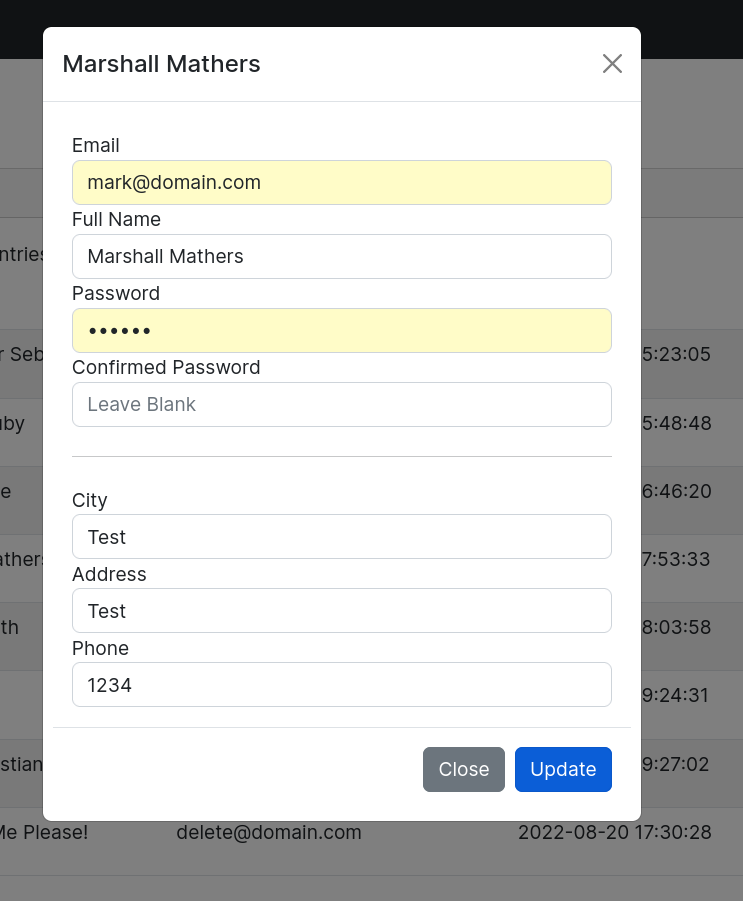
### Change Roles

To change a user’s role, click on the action column button where it will either say “User” or “Admin”. NOTE: do not click on the drop-down arrow to the right, click on the icon. You will be presented with a form. Click on the “Selected Role” form box and a drop-down menu will appear where you can select the desired role for this user. Click on the “Save Changes” button to make these changes permanent.



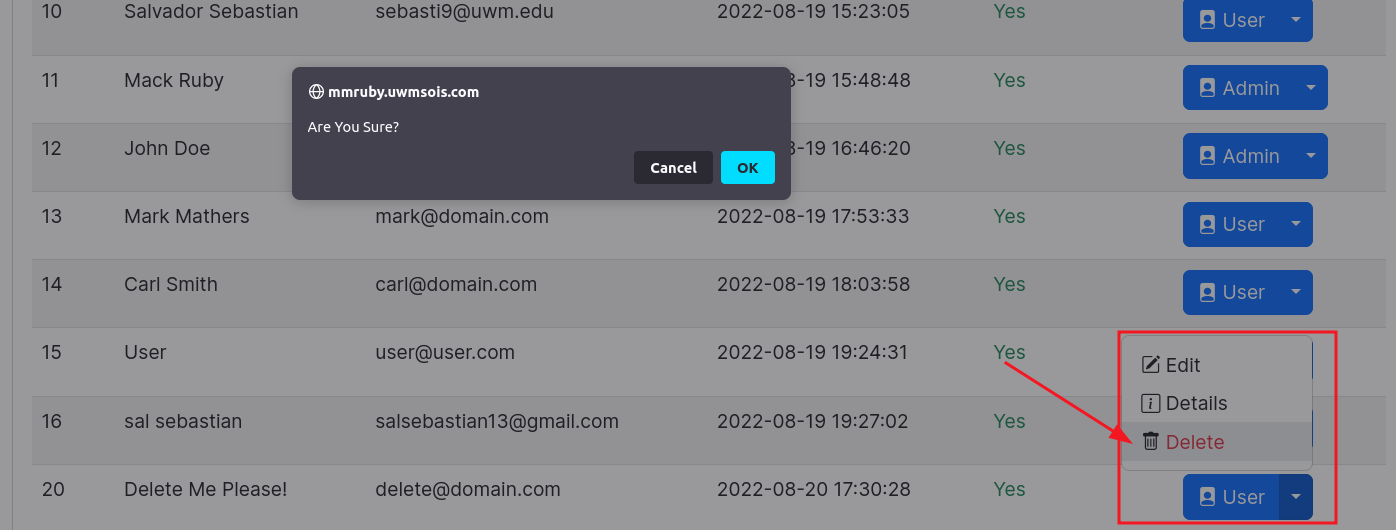
### Edit User

Click on the drop-down arrow in the Action column and then click on “Edit”. You will be presented with a form where changes can be made to user information. Click “Update” to make these changes permanent.



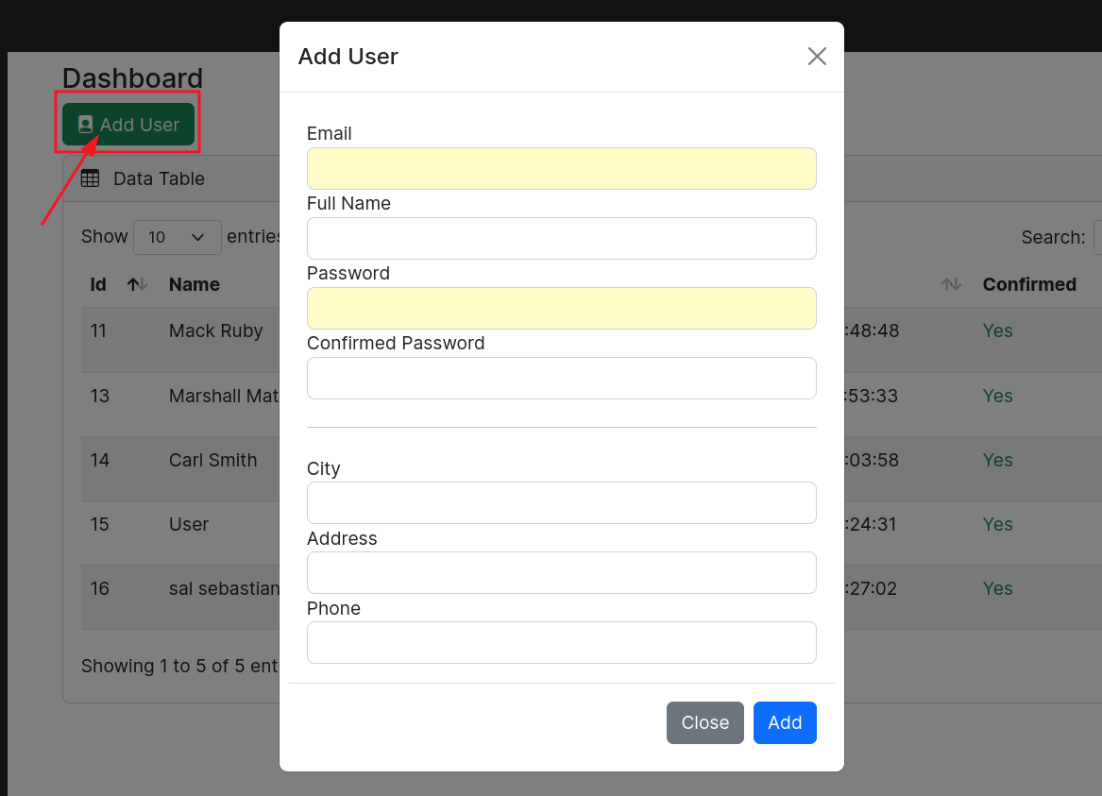
### Delete User

Click on the drop-down arrow in the action column and then click on “Delete”. An alert box will appear on the screen asking you if you are sure that you want to delete this user. Click “OK” to confirm and complete deletion of the user.



### Adding a new user

Click on the green “Add User” button just above the table in the upper left corner. Fill out the Add User form and click on the “Add” button to add this new user to the table.

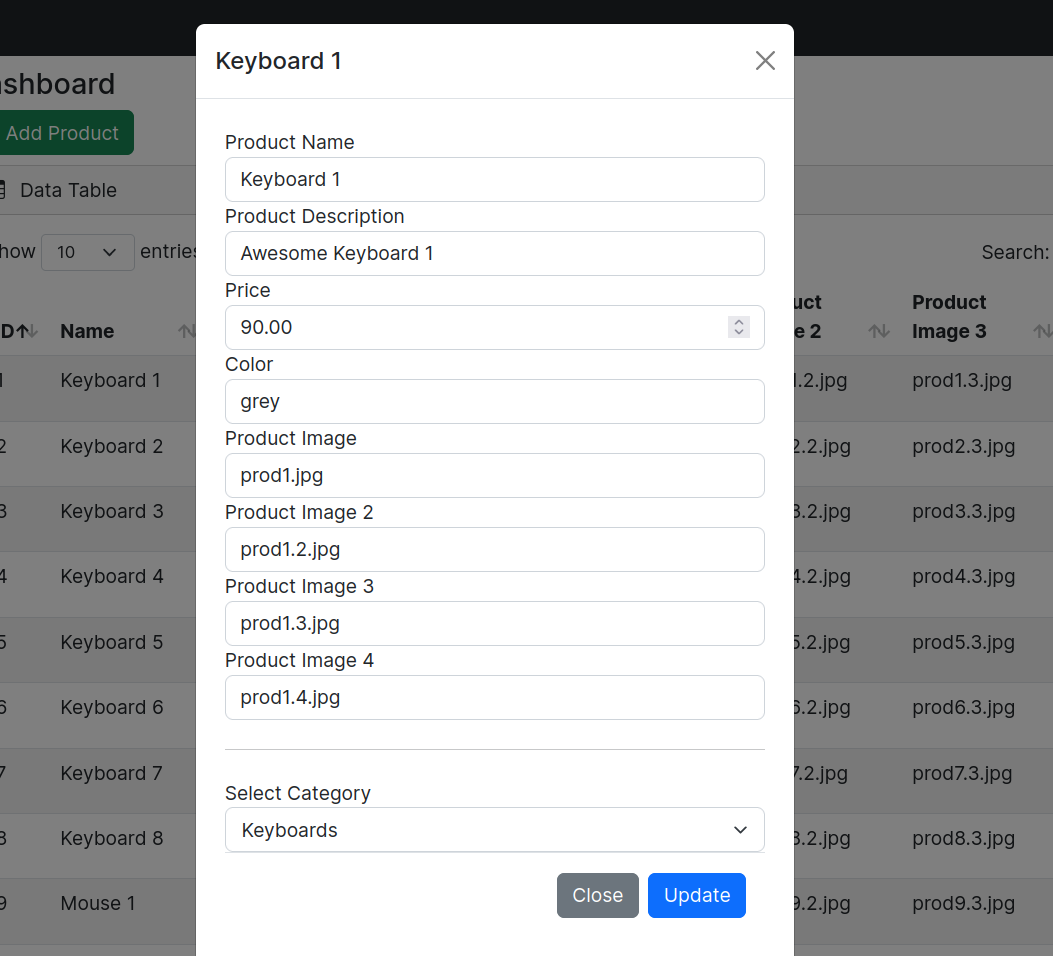


## Products

A table containing all the products is displayed. There are columns displaying the product id, name, product category, price, color and product images. The Action column is the column from which administrative tasks can be done on products.

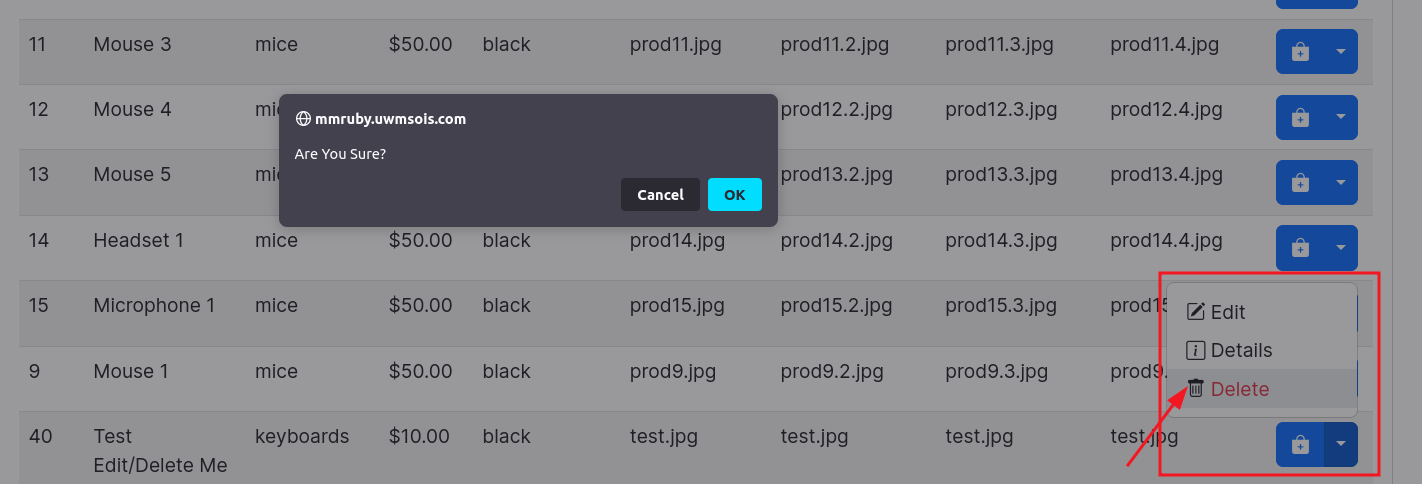
### Edit Product

Click on the drop-down arrow in the Action column and then click on “Edit”. A form will appear where you can edit all product details. After making changes in the form click on the “Update” button to save these changes and make them permanent.



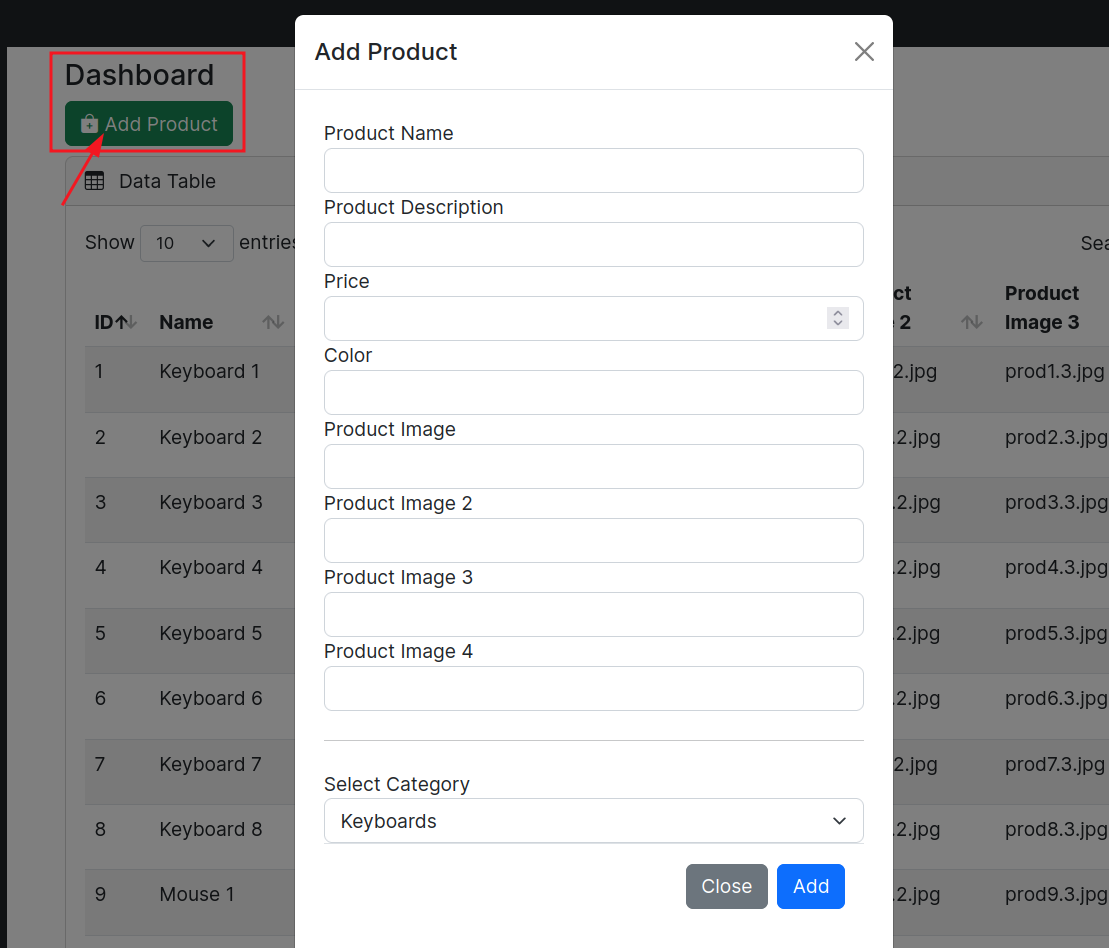
### Delete Product

Click on the drop-down arrow in the action column and then click on “Delete”. An alert box will appear on the screen asking you if you are sure that you want to delete this product. Click “OK” to confirm and complete deletion of the product.



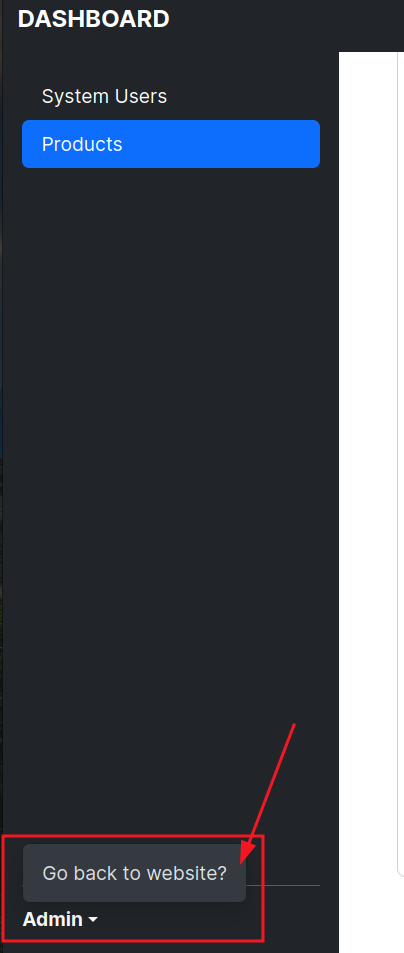
### Adding a new Product

Click on the green “Add Product” button just above the table in the upper left corner. Fill out the Add Product form and click on the “Add” button to add this new Product to the table.



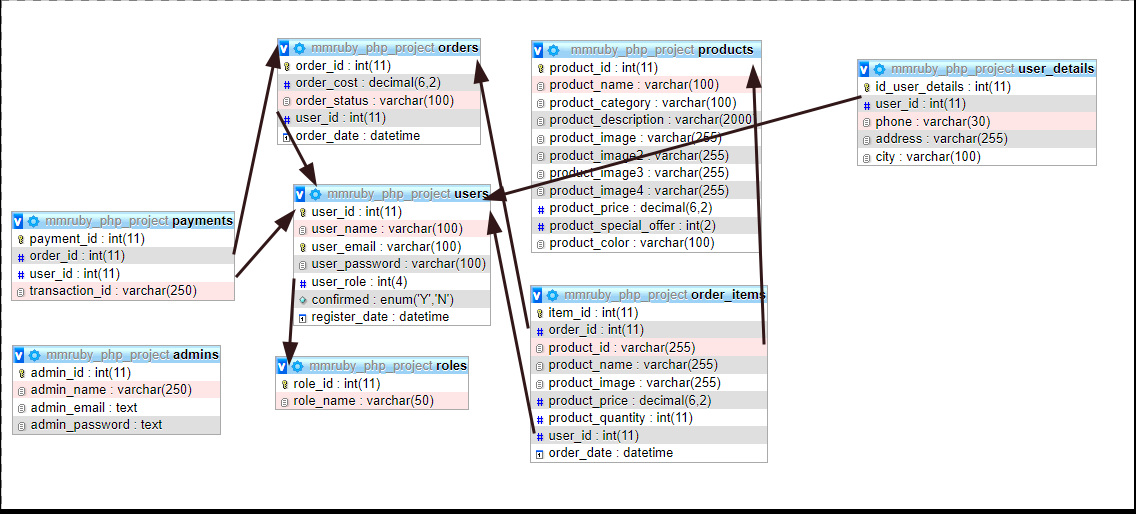
### How To Leave Admin Panel

Click on the Admin drop down in the left corner of the page within the dashboard side panel. A box asking, “Go back to website?” will appear. Click on this and you will be redirected back to the home page of the site.



# System Documentation: Technical

## Entity Relationship Diagram



## Architectural Structure

Diagram

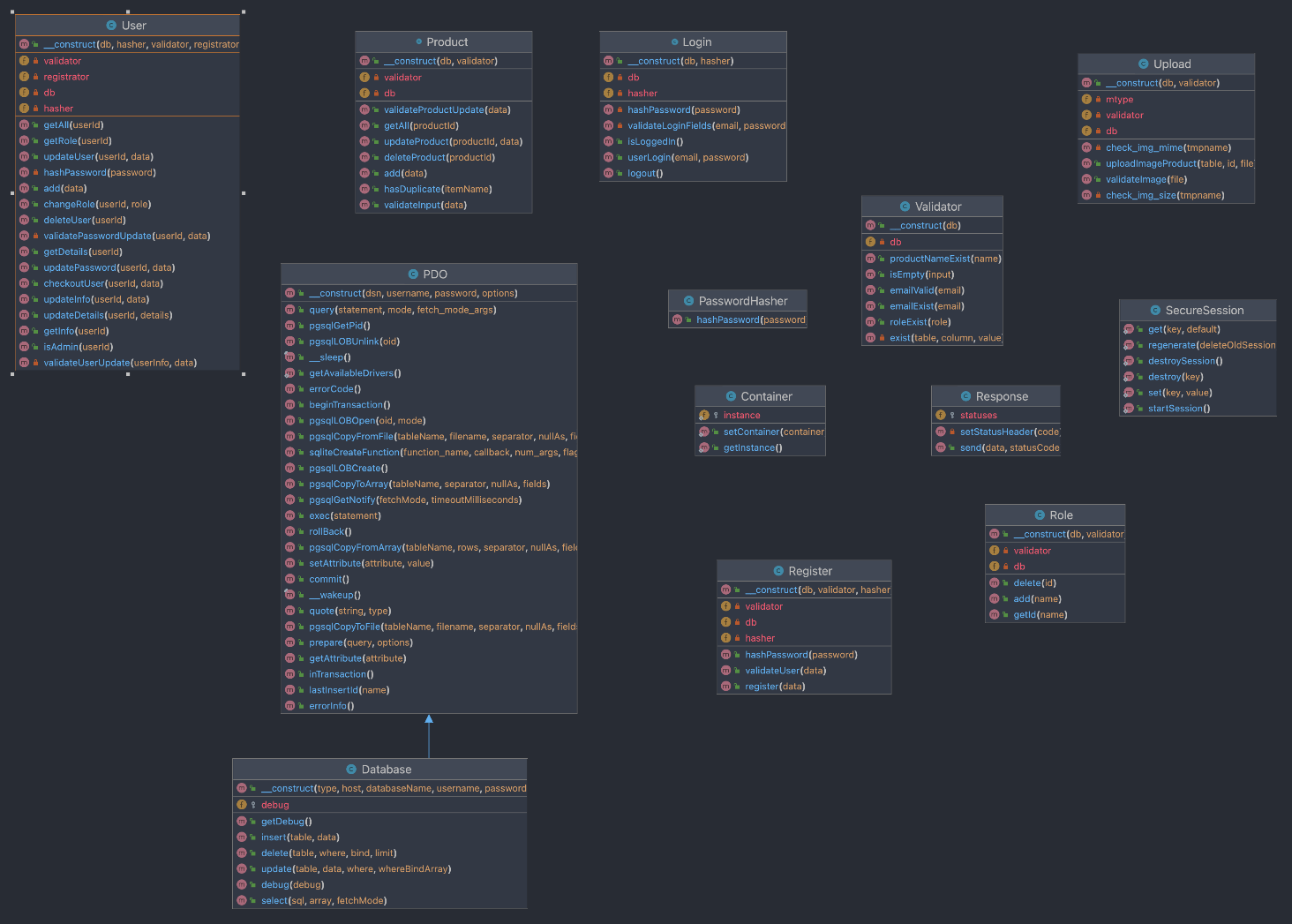
Description automatically generated

## System code

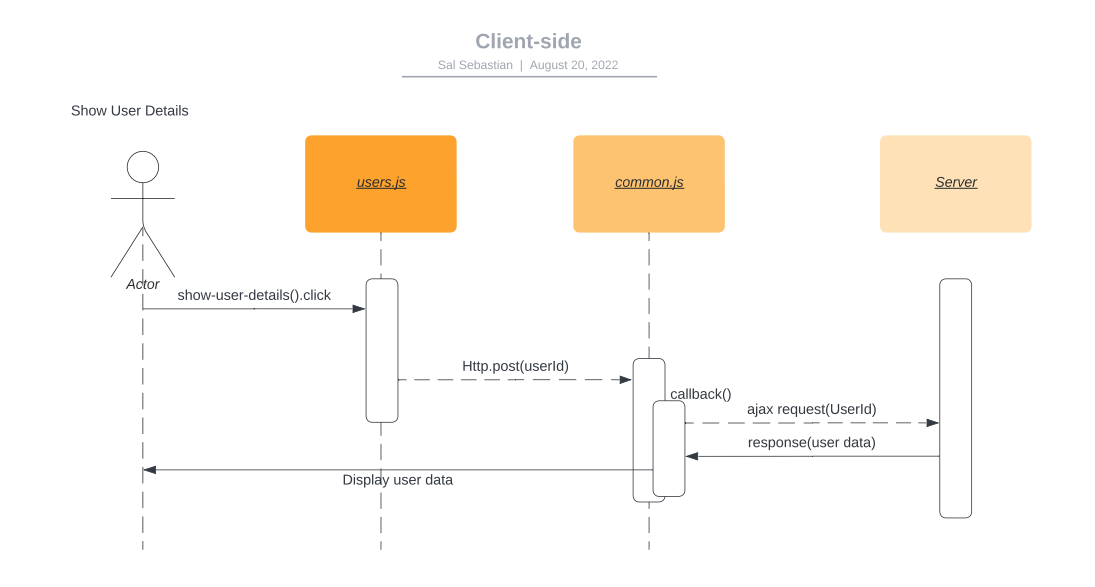
You can find all the system code here at this link:

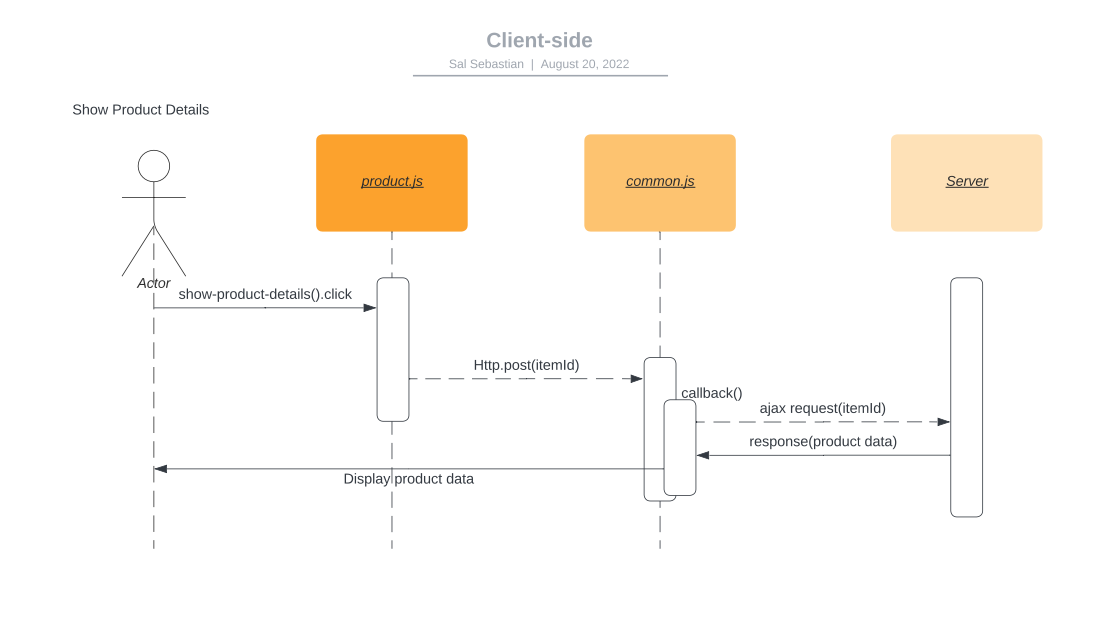
<https://panthers.sharepoint.com/:u:/s/SOIS490Capstone-Group/EZvAdPa2fTdNlhw5DyFBa7YBKCT6WhdZEpV3OQD0MyKdVA?e=Yu9VhA>

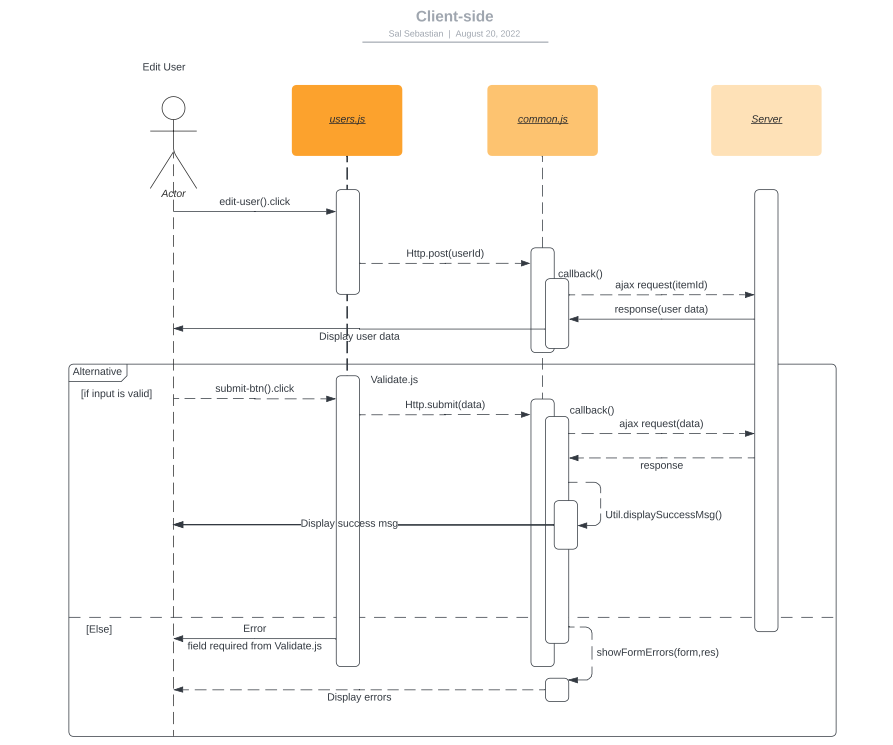
## Backend UML:

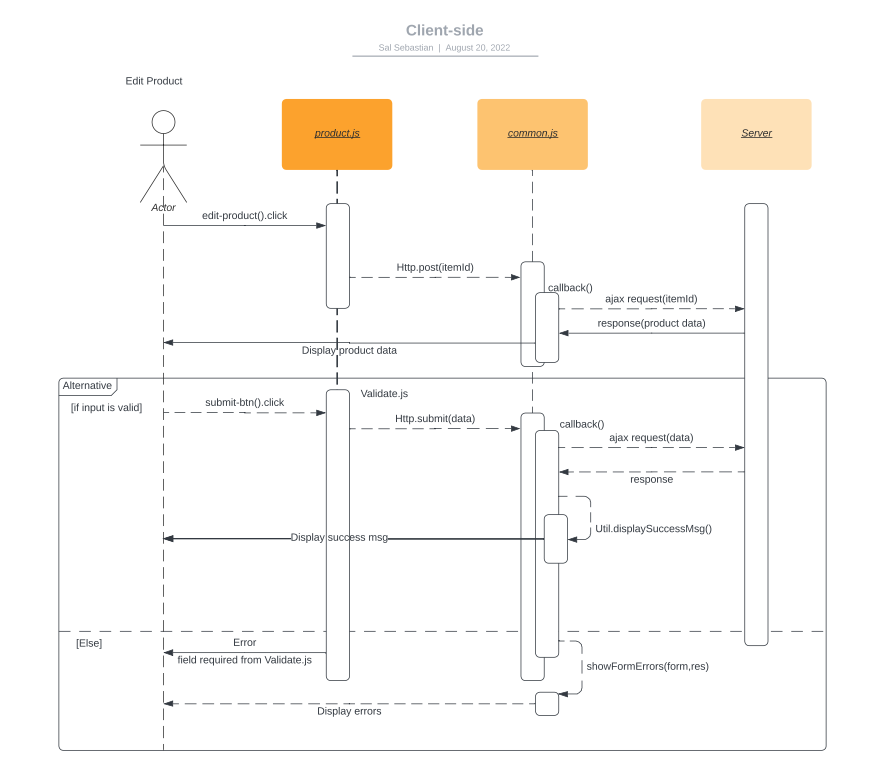


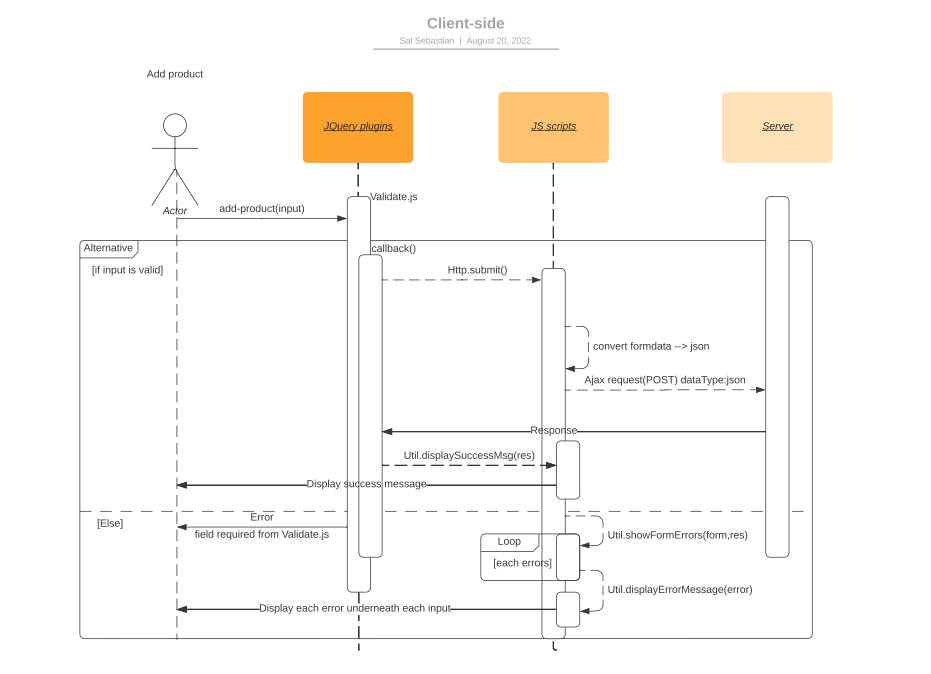
### Client-side:

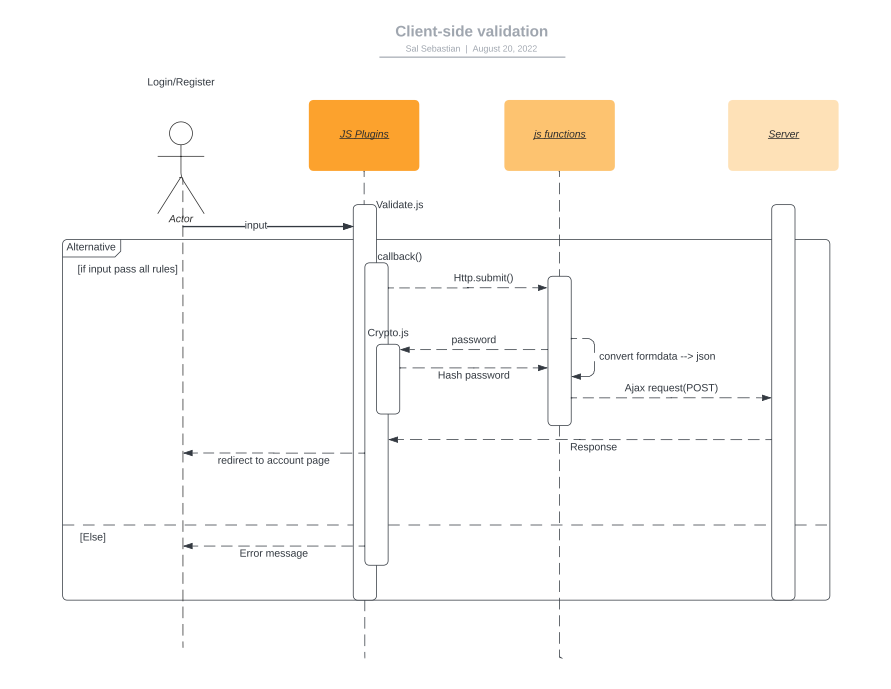


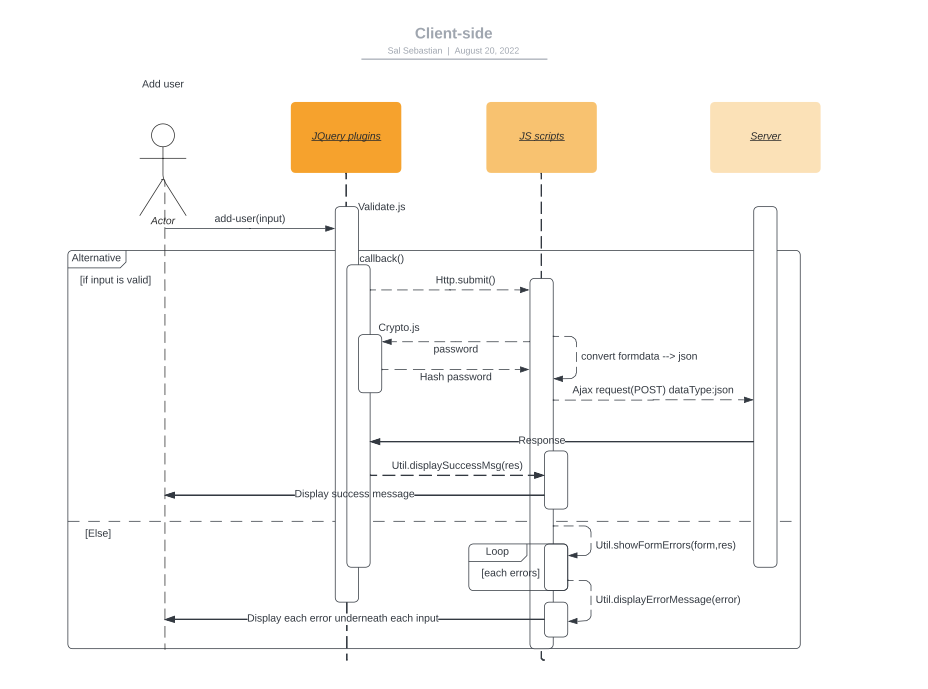
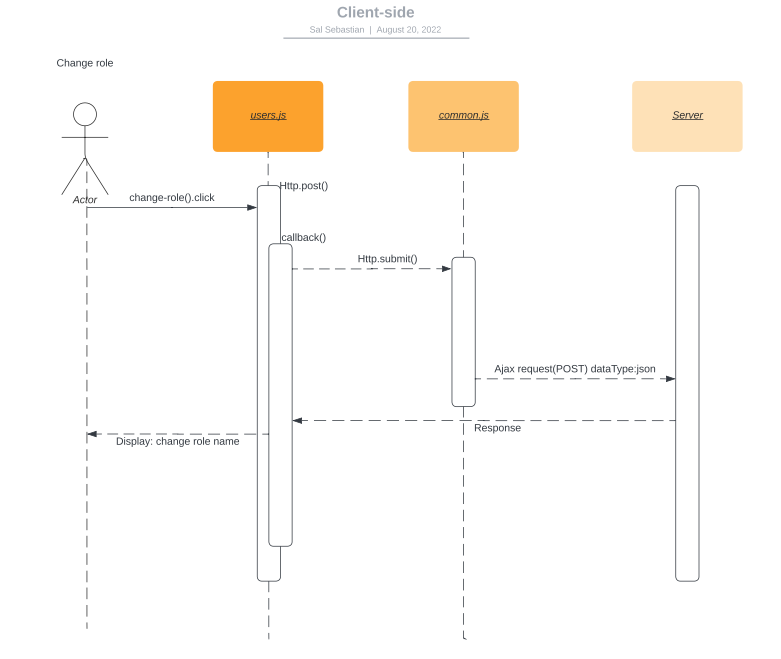












# Lessons Learned

Time management – Learning time management skills dividing larger projects into smaller task and delegating as appropriate.

Communication – Working together as a team to better understand and vocalize the tasks that are being worked on to reach deadlines and prevent delays.

Project planning – Better understanding and knowledge of PDM tools and project/system development life cycle.