

PC8th

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Rin Meng & Noah Stewart

Group #29

University of British Columbia Okanagan

Link to GitHub: <https://github.com/rinmeng/PC8th>

Emails: phurinmeng@gmail.com njstewart22@icloud.com

Mission Statement

At PC8th, our mission is to simplify and elevate the PC-building experience for enthusiasts and beginners alike. Founded on a shared passion for technology and innovation, we aim to provide a seamless platform for discovering, comparing, and acquiring high-quality PC components.

Executive Summary

About the Company

PC8th is a modern e-commerce platform dedicated to serving PC-building enthusiasts with a seamless and intuitive experience. Established by a technical twosome who were born the same day and love building PC's, we strive to bring a personal touch to the world of custom PC components.

At PC8th, we believe that every build tells a story, and we're here to help you craft yours.

Key Highlights

I. Attention to Detail

- A. **Smooth Animations:** Every interaction on the platform is enhanced with fluid and seamless animations, providing a visually appealing and intuitive browsing experience.
- B. **Glass Morphism Design:** The website features a modern glassmorphism aesthetic, combining transparency and depth to create a clean, futuristic interface that stands out.

II. Platform Features

- A. **Dynamic Navigation Bar:** The retractable navigation bar enhances usability by providing uninterrupted access to content as users scroll, ensuring an immersive and distraction-free experience.
- B. **Comprehensive Product Browsing:** Users can explore products effortlessly with advanced filtering options, including categories, price ranges, specifications, and more, allowing them to find exactly what they need.

III. Customer Experience

- A. **User-Centric Design:** Every element of the platform is built to prioritize ease of use, ensuring a straightforward journey from product discovery to checkout.

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- B. **Responsive and Accessible:** The site is fully optimized for all devices, offering a consistent and enjoyable experience whether accessed on desktop, tablet, or mobile.

IV. **Technology Integration**

Admin Dashboard: An exclusive admin view provides tools to monitor monthly sales, manage inventory, and streamline order processing for efficient shipping.

- A. **Admin Dashboard:** An exclusive admin view provides tools to monitor monthly sales, manage inventory, and streamline order processing for efficient shipping.
- B. **Cutting-Edge Tech Stack:** Built with Express.js, Chart.js, Node.js, and Tailwind CSS, the platform offers reliability, scalability, and a sleek, responsive interface tailored for modern users.

AI Sources

- We utilized Claude AI & ChatGPT when it came to facing problems (instead of struggling with google), mainly for some difficult development spots when implementing something we were not familiar with, as well as debugging issues we faced during our development. We were not able to export link for Claude, but here is links to our conversations with ChatGPT:

<https://chatgpt.com/share/67529186-98c0-800c-8516-5ce47cbf51c0>

<https://chatgpt.com/share/6752919d-be40-800c-a7e2-c1e187ab5010>

<https://chatgpt.com/share/675291b1-8208-800c-87cc-04360d4e86a1>

<https://chatgpt.com/share/675291c1-aa34-800c-84e9-ac8206f88d67>

<https://chatgpt.com/share/67529208-c220-800c-9178-2d2d60a4b1fa>

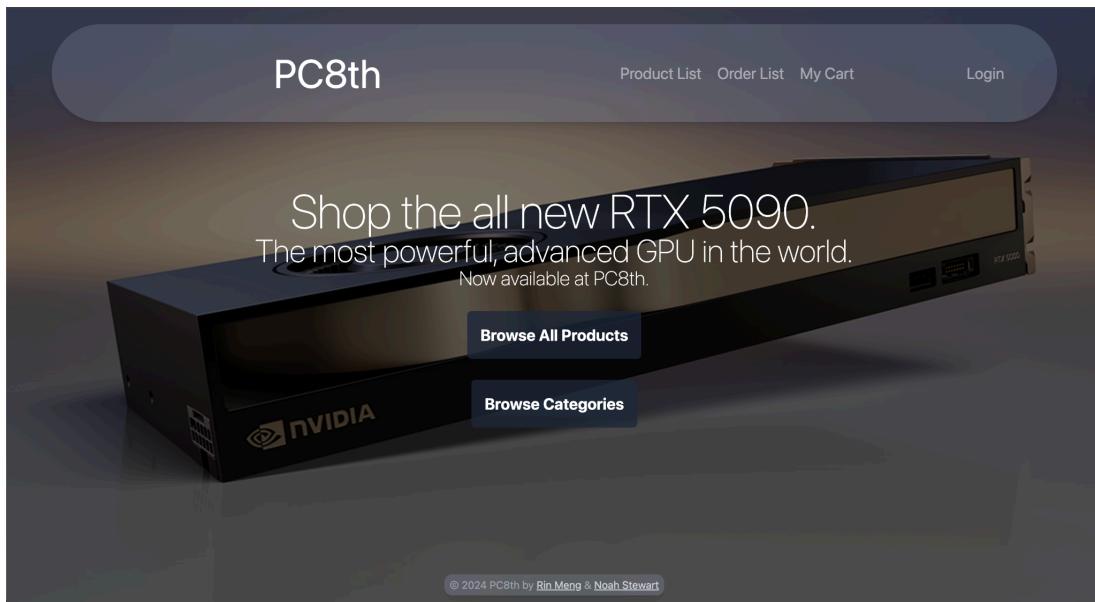
PC8th Walkthrough

How to run (we did on Apple Intel and Apple Silicon):

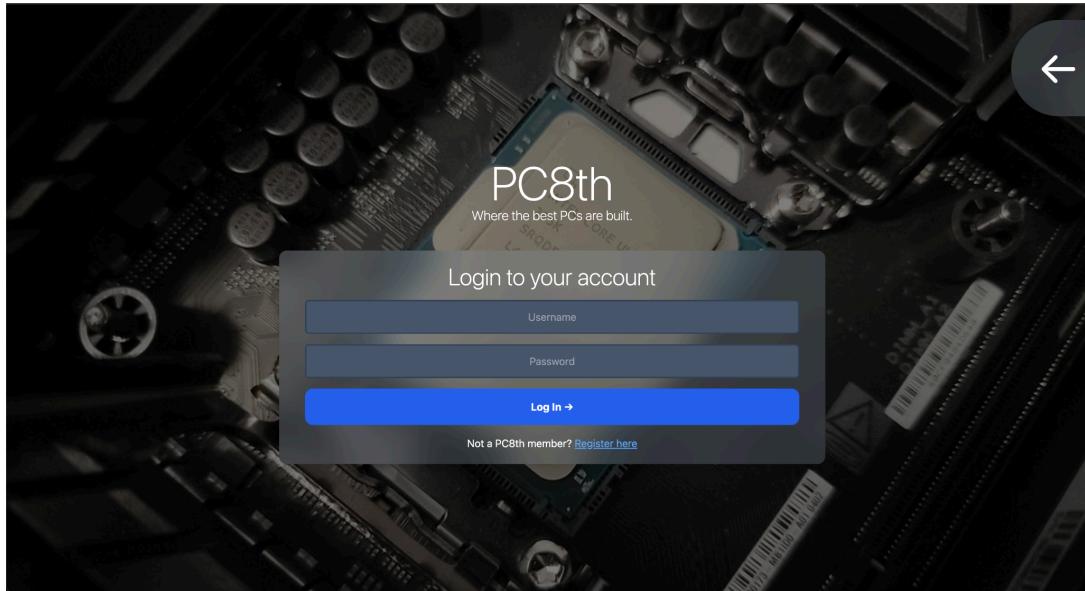
1. Clone github repo from first page
2. Run: "npm i" to install node modules
3. Run "docker-compose up -d" to start docker image with SQLServer
4. In root terminal, run 4.1 and 4.1 found in server.js
5. Visit the localhost:port/loaddata to load data
6. Visit localhost:port and enter our application in walkthrough

Walkthrough:

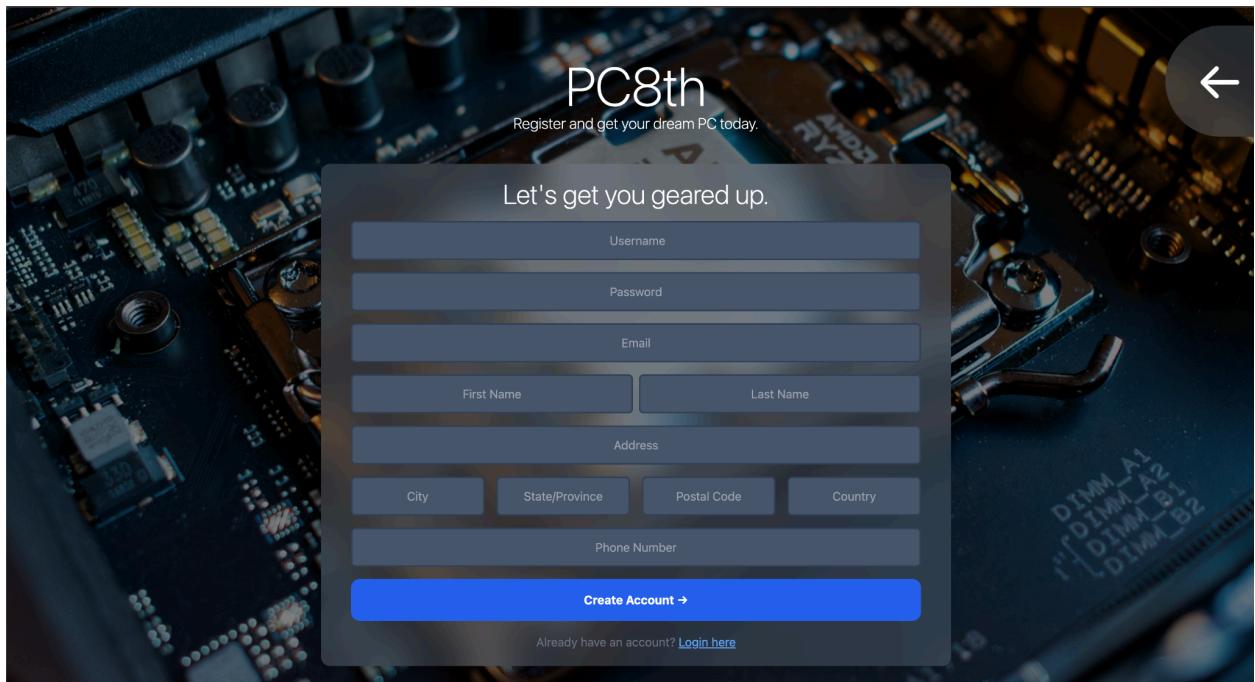
1. Your journey begins on our hero page. Where we feature our new product in store, **NVIDIA RTX 5090**.



2. Login to PC8th, where every build awaits.



3. Or register on PC8th, where your dreams will come true.



4. Browse our product list where prices are unmatched.

The screenshot shows the PC8th website interface. At the top, there is a navigation bar with links for Product List, Order List, My Cart, and Login. Below the navigation bar is a search bar containing the placeholder text "Search for PC parts by name or category...". A message below the search bar states "There are 43 products in the store." The main content area displays a list of products under the heading "Case". The list includes five items, each with a thumbnail, product name, price, and an "Add to Cart" button. The products are:

Category	Product Name	Price	Action
Case	Cooler Master MasterBox TD500 Mesh	\$99.99	Add to Cart
Case	Corsair 4000D Airflow	\$99.99	Add to Cart
Case	Fractal Design Meshify C	\$89.99	Add to Cart
Case	Lian Li Lancool II Mesh	\$119.99	Add to Cart
Case	NZXT H510	\$79.99	Add to Cart

5. Not sure if you are getting the right part? View it by clicking on the product name.

The screenshot shows a detailed product view for a GPU. The product name is "Ramon". Below the name is a thumbnail image of a man in a blue shirt, likely the vendor or representative. The product details are as follows:

Category: GPU
Description: Comes with candy and an amazing 304 course.
Price: \$304.00

At the bottom of the screen, there are two buttons: "← Back" and "Add to Cart →".

6. On a budget? Use these arrows to filter for your preference.

The screenshot shows the PC8th website interface. At the top, there's a navigation bar with the logo "PC8th", "Product List", "Order List", "My Cart", and "Login". Below the navigation is a search bar with the placeholder "Search for PC parts by name or category...". A message indicates "There are 43 products in the store." The main content area displays a table of products under the heading "Case". The columns are "Category ↓↑", "Product Name ↓↑", "Price ↓↑", and "Add to Cart". The products listed are:

Category ↓↑	Product Name ↓↑	Price ↓↑	Add to Cart
Case	Cooler Master MasterBox TD500 Mesh	\$99.99	Add to Cart
Case	Corsair 4000D Airflow	\$99.99	Add to Cart
Case	Fractal Design Meshify C	\$89.99	Add to Cart
Case	Lian Li Lancool II Mesh	\$119.99	Add to Cart
Case	NZXT H510	\$79.99	Add to Cart

7. Looking for that new GPU? Browse by category (on root page) or search by category (on product list page).

The screenshot shows the PC8th website's category selection page. The title "Shop PC8th by category." is at the top. Below it are eight categories arranged in two rows of four: CPU, GPU, RAM, MOBO, PSU, Storage, Cooling, and Case. Each category is represented by a button-like element with rounded corners. In the bottom right corner of the page, there's a small copyright notice: "© 2024 PC8th by Rin Meng & Noah Stewart".

The screenshot shows a dark-themed web page for 'PC8th'. At the top, there's a navigation bar with links for 'Product List', 'Order List', 'My Cart', and 'Login'. Below the navigation is a search bar containing the text 'GPU'. A message below the search bar says 'Found 6 products matching "GPU"'. The main content area displays a table of search results. The columns are 'Category ↓↑', 'Product Name ↓↑', 'Price ↓↑', and 'Add to Cart'. There are six rows, each representing a GPU product:

Category ↓↑	Product Name ↓↑	Price ↓↑	Add to Cart
GPU	AMD Radeon RX 7900 XTX <small>24GB GDDR6, high-performance GPU from AMD</small>	\$999.99	<button>Add to Cart</button>
GPU	ASUS TUF Gaming GeForce RTX 3070 <small>8GB GDDR6 VRAM, NVIDIA Ampere architecture</small>	\$599.99	<button>Add to Cart</button>
GPU	NVIDIA GeForce RTX 3060 Ti <small>8GB GDDR6 VRAM, great for 1440p gaming</small>	\$399.99	<button>Add to Cart</button>
GPU	NVIDIA GeForce RTX 4090 <small>24GB GDDR6X VRAM, the flagship GPU from NVIDIA</small>	\$1599.99	<button>Add to Cart</button>
GPU	NVIDIA GeForce RTX 5090 <small>32GB GDDR6X VRAM, the ultimate GPU for gaming and ...</small>	\$1999.99	<button>Add to Cart</button>

8. Decided on that new RTX 5090 and want to checkout? Follow these steps.

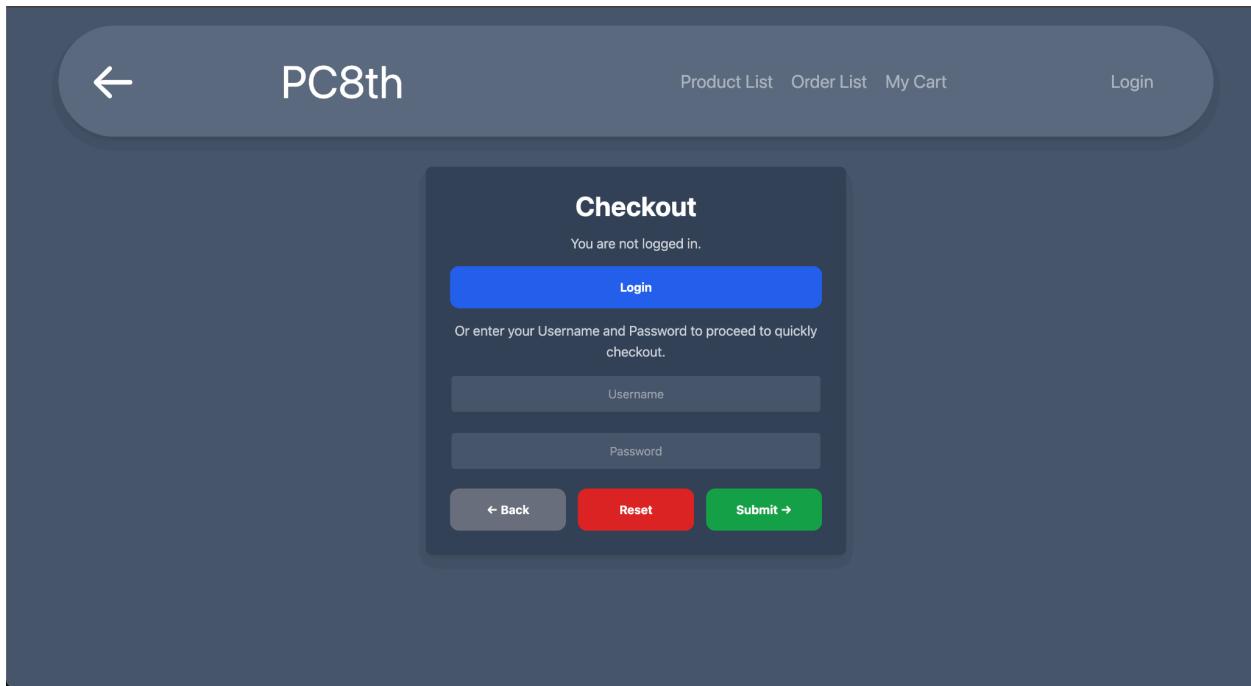
The screenshot shows a dark-themed web page for 'PC8th'. At the top, there's a navigation bar with links for 'Product List', 'Order List', 'My Cart', and 'Login'. Below the navigation is a section titled 'Your Shopping Cart'. The table in the cart shows one item: an NVIDIA GeForce RTX 5090. The table has columns for 'Product ID', 'Product Name', 'Quantity', 'Price', 'Subtotal', and 'Action'. The total order amount is \$1999.99. Below the table are two buttons: 'Proceed to Checkout →' and '← Continue Shopping'.

Product ID	Product Name	Quantity	Price	Subtotal	Action
18	NVIDIA GeForce RTX 5090	1	\$1999.99	\$1999.99	- + ×

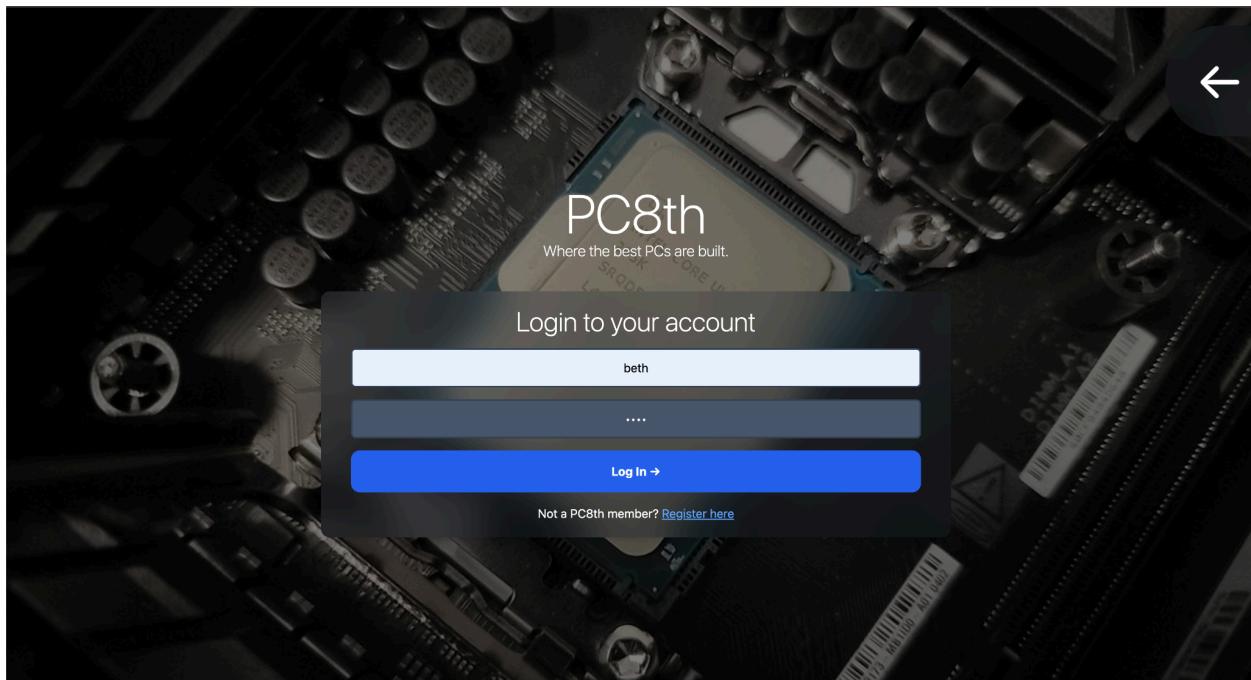
Order Total: **\$1999.99**

[Proceed to Checkout →](#)

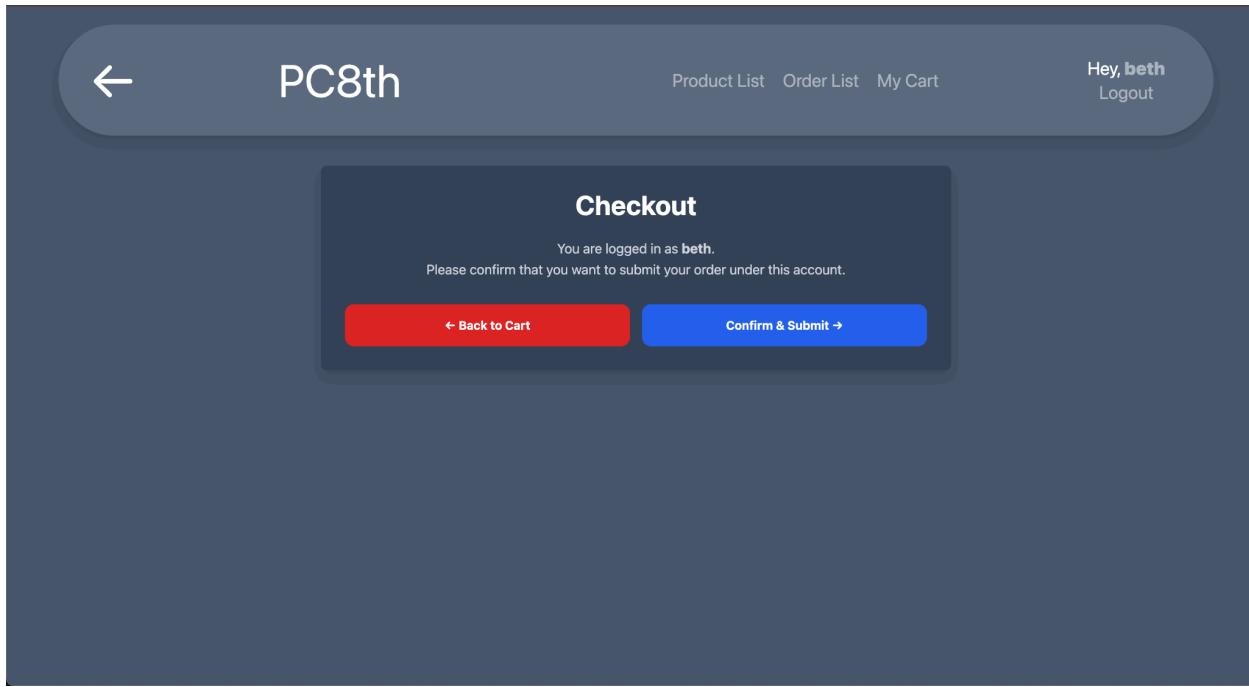
[← Continue Shopping](#)



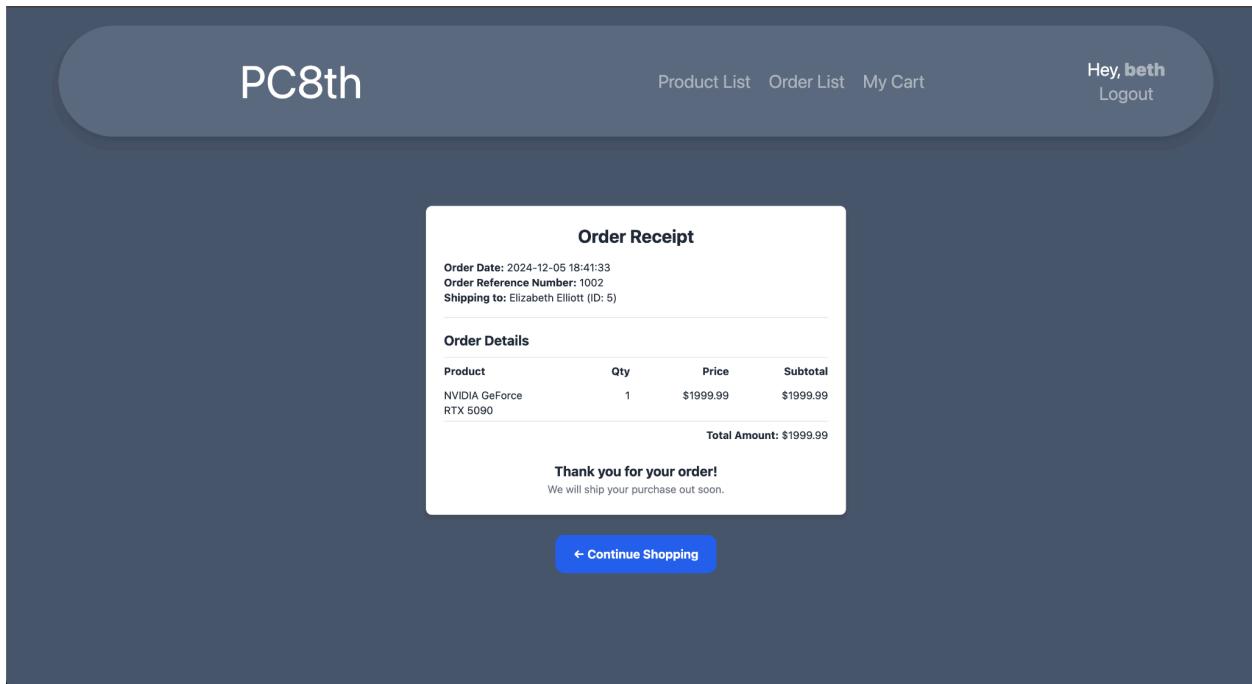
9. Here, you can login or checkout quickly with your username and password. Let's login with the given username **beth**, and the password **test**. Here, we are not using **Customer ID** to check out because it makes more sense to login with your **username** and **password**.



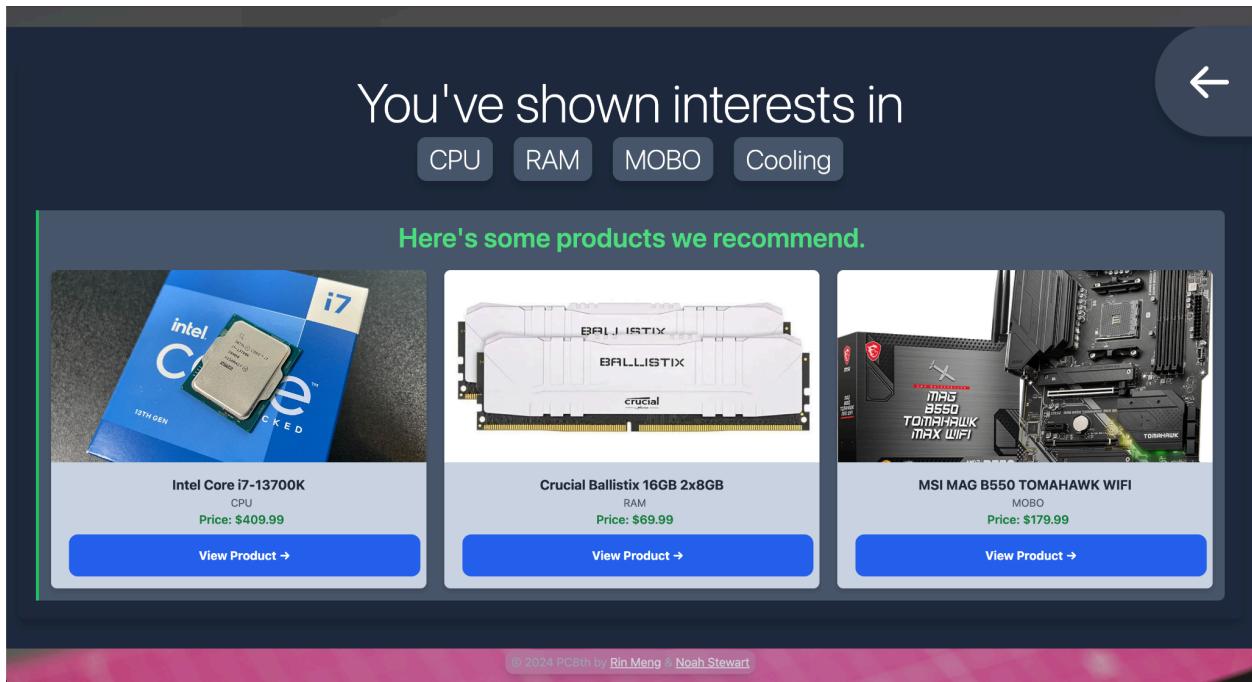
10. Don't worry you are redirected back to where you left off and your cart is still saved and ready to be checked out. You just have to confirm that you want to order under the right user.



11. Viola! You had just placed an order on PC8th. Here's your recipe.



12. We also have a recommendation section for you, just below our hero section.



13. You can also check your profile by clicking on your name on top right, next to the logout text.

The screenshot shows a dark-themed web application interface. At the top, there's a navigation bar with links for "Product List", "Order List", and "My Cart". On the right side of the header, it says "Hey, beth" and has a "Logout" link. The main content area is titled "Customer Information". Below the title is a form containing the following data:

Customer ID:	5	First Name:	Elizabeth
Last Name:	Elliott	Phone:	555-666-7777
Email:	engel@uiowa.edu	Address:	555 Everwood Street
City:	Iowa City	State:	IA
Postal Code:	52241	Country:	United States
User ID:	beth	Password:	test

Below the form is a section titled "Order History" which displays two orders:

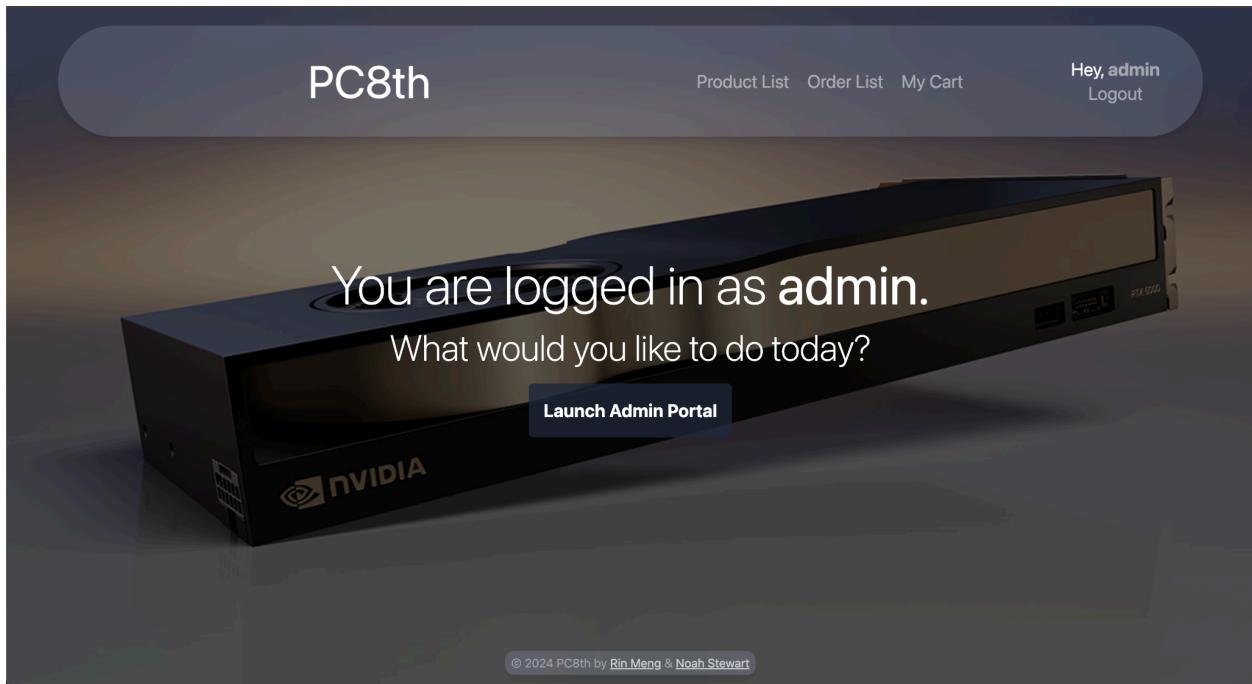
Order ID: #1002	Date: 05-12-2024	Order ID: #40	Date: 12-04-2024
Product	Quantity	Price	Subtotal
NVIDIA GeForce RTX 5090	1	\$2000.00	\$2000.00
			Total: \$2000.00

14. You can view your order history as well by scrolling further down.

The screenshot shows the "Order History" section of the application, displaying five past orders arranged in a grid. Each order card includes the order ID, date, product details, and total price.

Order ID: #1002 Product: NVIDIA GeForce RTX 5090 Quantity: 1 Price: \$2000.00 Subtotal: \$2000.00 Total: \$2000.00	Order ID: #40 Product: Intel Core i7-13700K Quantity: 20 Price: \$599.99 Subtotal: \$11999.80 Total: \$11999.80
Order ID: #36 Product: AMD Ryzen 9 7950X Quantity: 16 Price: \$549.99 Subtotal: \$8799.84 Total: \$8799.85	Order ID: #32 Product: AMD Ryzen 9 7950X Quantity: 12 Price: \$549.99 Subtotal: \$6599.88 Total: \$6599.88
Order ID: #28 Product: (empty) Quantity: (empty) Price: (empty) Subtotal: (empty)	Order ID: #24 Product: (empty) Quantity: (empty) Price: (empty) Subtotal: (empty)

15. Are you an admin? Login using **admin** as **username** and **password** to get access to the **Revenue** tab and to **Ship Orders**.



16. Here, on the landing admin page, you can see how much you've made graphically.



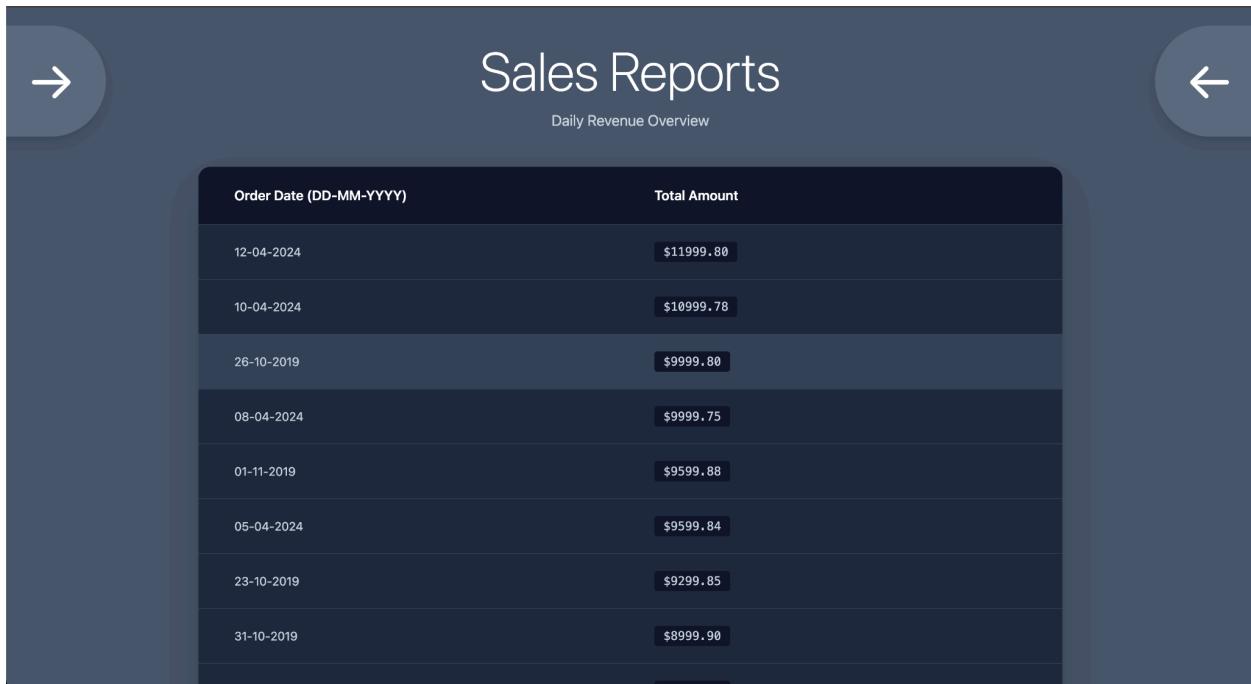
17. Hovering on the left, you will have access to the admin nav bar.

The screenshot shows the PC8th Admin dashboard. At the top, there is a navigation bar with links: Sales, Customers, Ship, Add Products, and Update Products. To the right of the navigation bar is the text "PC8th Admin". Below the navigation bar, there is a message: "Here's a quick view of your sales." followed by a line chart titled "Sales Summary". The chart has "Cash Flow" on the y-axis (ranging from \$0 to \$12,000) and "Date" on the x-axis (showing dates from 14-10-2019 to 04-12-2024). The chart shows a fluctuating trend with a significant peak around late 2019 and another sharp increase starting in early 2024. The chart area has a light gray background with a grid. The overall dashboard has a dark blue header and a white main content area.

18. Hover on the right, then you will have access to the customer nav bar

The screenshot shows the PC8th Customer dashboard. At the top, there is a navigation bar with links: Product List, Order List, and My Cart. To the right of the navigation bar is a greeting "Hey, admin" and a "Logout" link. Below the navigation bar, there is a message: "Here's a quick view of your sales." followed by a line chart titled "Sales Summary". The chart has "Cash Flow" on the y-axis (ranging from \$0 to \$12,000) and "Date" on the x-axis (showing dates from 14-10-2019 to 04-12-2024). The chart shows a similar fluctuating trend to the one in the Admin dashboard, with a peak in late 2019 and a sharp increase in early 2024. The chart area has a light gray background with a grid. The overall dashboard has a dark blue header and a white main content area.

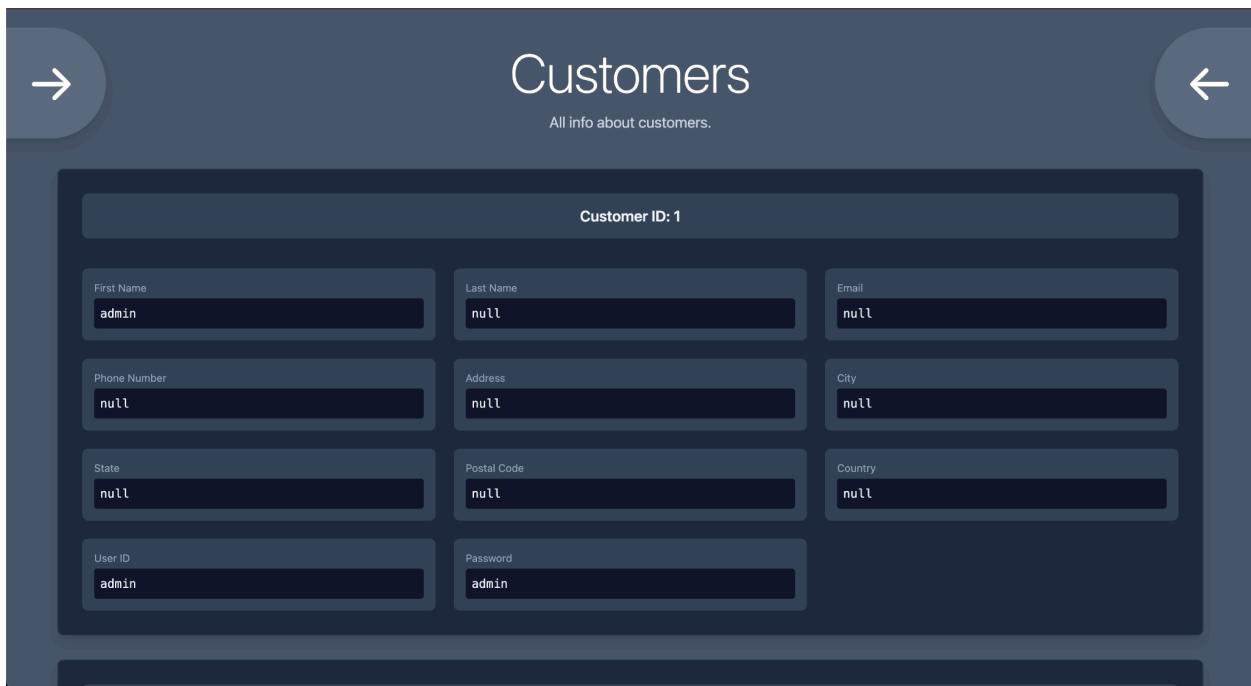
19. **Sales Report** will show you how much PC8th has made, grouped by date



The screenshot shows a dark-themed dashboard titled "Sales Reports". At the top, there is a header "Daily Revenue Overview". Below the header is a table with two columns: "Order Date (DD-MM-YYYY)" and "Total Amount". The table lists eight rows of data:

Order Date (DD-MM-YYYY)	Total Amount
12-04-2024	\$11999.80
10-04-2024	\$10999.78
26-10-2019	\$9999.80
08-04-2024	\$9999.75
01-11-2019	\$9599.88
05-04-2024	\$9599.84
23-10-2019	\$9299.85
31-10-2019	\$8999.90

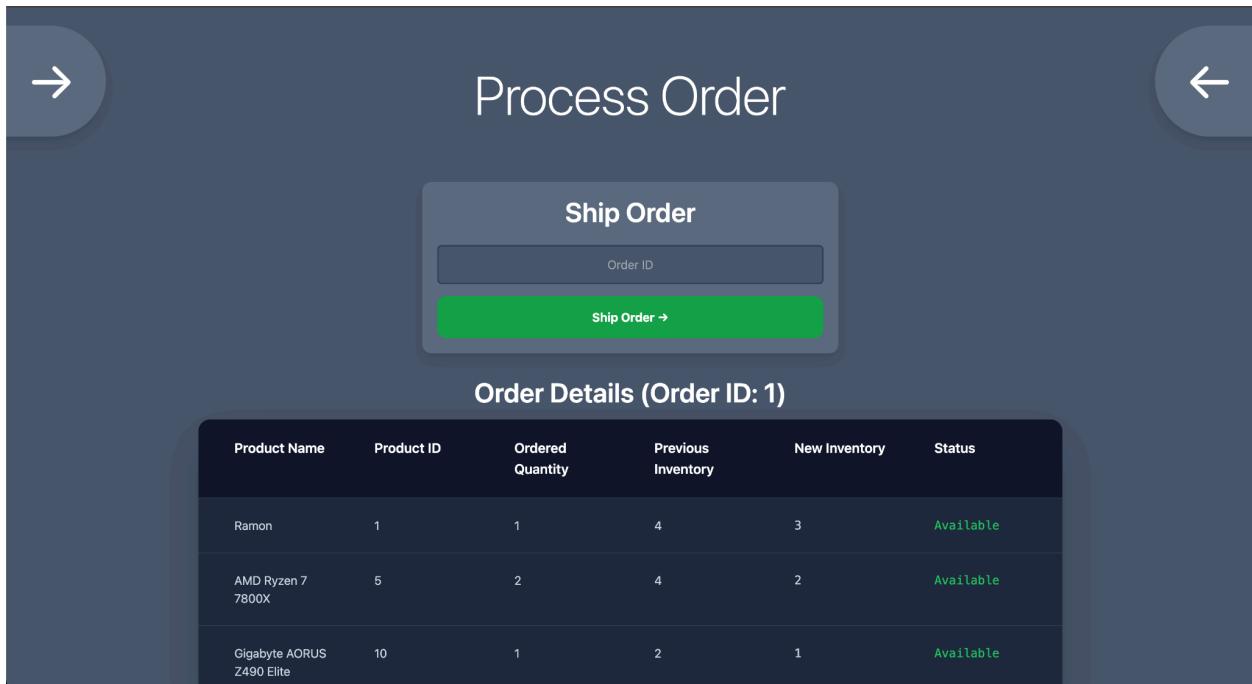
20. The **Customer** tab has a list of all customer details.



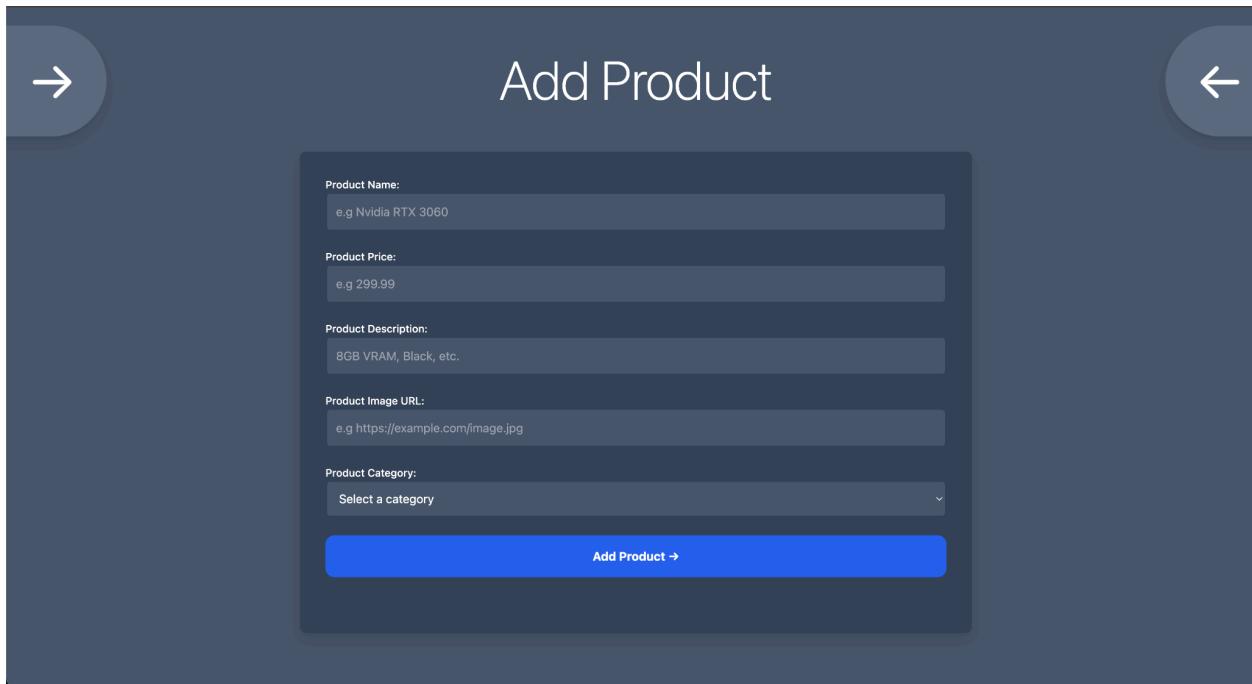
The screenshot shows a dark-themed form titled "Customers". The sub-header says "All info about customers.". The form displays a single customer record with the ID "Customer ID: 1". The fields and their values are:

Customer ID: 1		
First Name <input type="text" value="admin"/>	Last Name <input type="text" value="null"/>	Email <input type="text" value="null"/>
Phone Number <input type="text" value="null"/>	Address <input type="text" value="null"/>	City <input type="text" value="null"/>
State <input type="text" value="null"/>	Postal Code <input type="text" value="null"/>	Country <input type="text" value="null"/>
User ID <input type="text" value="admin"/>	Password <input type="text" value="admin"/>	

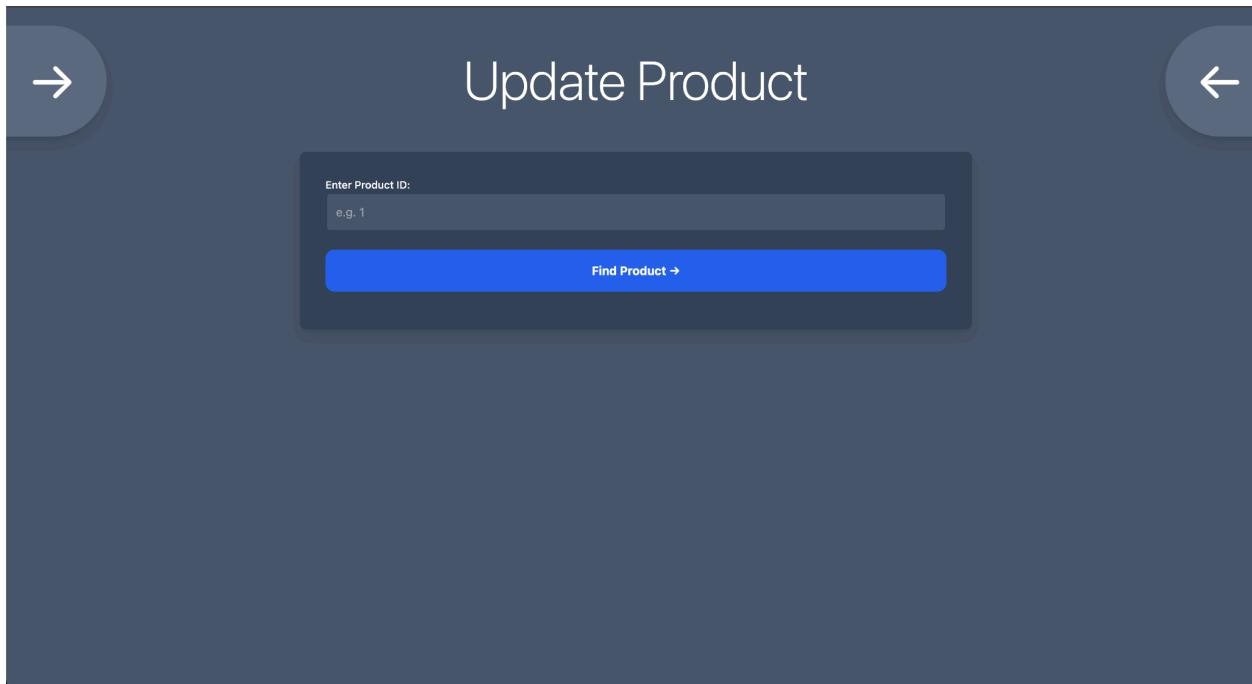
21. Are you **Shipping Orders**? Visit the ship orders route and start shipping by giving an order id. Not enough quantity in the **warehouse**? The order will not be fulfilled.



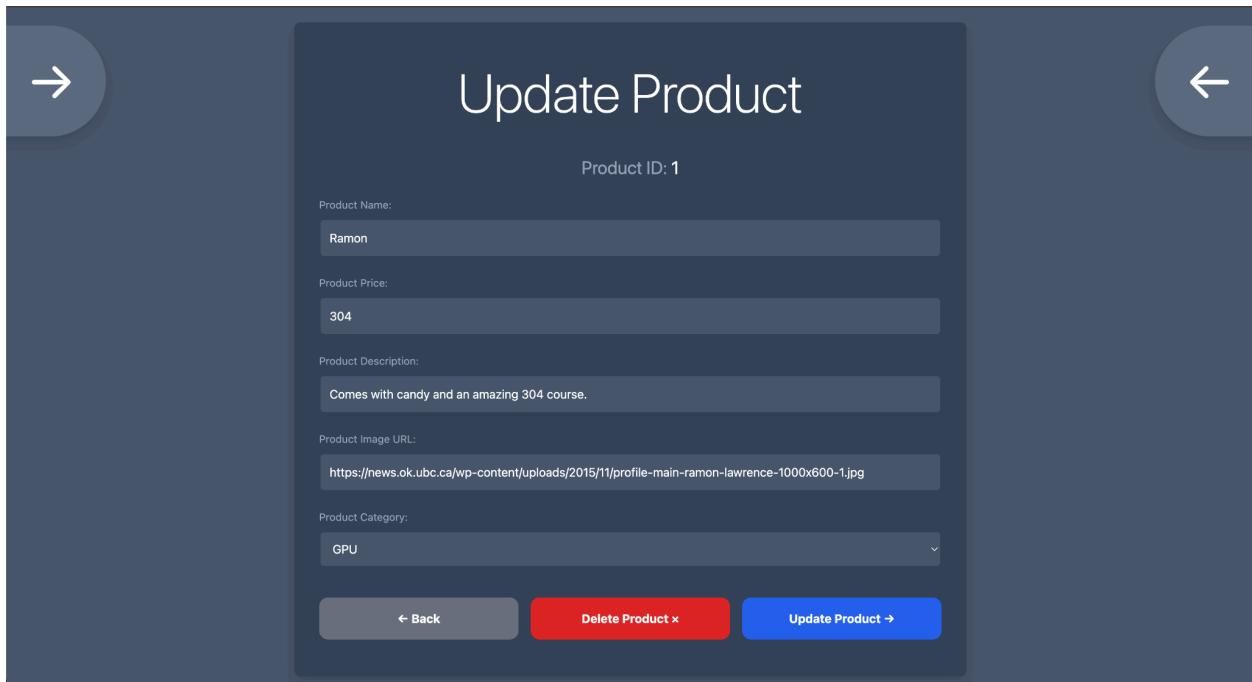
22. You can also add products on the **Add Product** page..



23. As well as updating products, in the **Update Product** page.



24. Entering a valid ID, will give you the option to update, or delete it.



Feature Lists

Final Overall System Features	Category	Possible Points	Points	Comments / Code Files
Documentation (15 total points)				
Executive Summary (up to 1 page)	Core	2	2 (2)	In this document above
System Features (2 pages)	Core	2	2 (4)	In this document (this table)
List of Web and AI sources used	Core	3	3 (7)	In this document above
Walkthrough with screenshots (up to 15 pages)	Core	8	8 (15)	Starts on Page 3
Hosting (10 total points)				
Running on cloud server	Advanced	10		
Main/Home Page (up to 14 total points)				
Search for a product by name	Core	1	1 (1)	listprod.js
Browse products by category	Core	1	1 (2)	listprod.js
List products (by search/browse)	Core	1	1 (3)	listprod.js
List products with image	Core	1	1 (4)	listprod.js, product.js
Page header with menu	Basic	1	1 (5)	index.handlebars
Page header shows current logged in user	Basic	1	1 (6)	index.handlebars
Dynamic products on page based on sales	Basic	2		
Improved UI (user-friendly, images, etc.)	Basic	2	2 (8)	index.handlebars
Product recommendation based on user	Advanced	4	4 (12)	Index.handlebars index.js Recommended based on category bought, that implies that they have to buy something first.
Shopping Cart (up to 8 total points)				
Add to shopping cart	Core	1	1 (1)	addcart.js
View shopping cart	Core	1	1 (2)	showcart.js
Update quantity (with data validation)	Basic	1	1 (3)	showcart.js
Remove item from shopping cart	Basic	1	1 (4)	removeallcart.js
Improved formatting/UI (e.g. in header bar)	Basic	1	1 (5)	showcart.js



Cart stored in database between sessions	Basic	3	3 (8)	showcart.js
Checkout (up to 9 total points)				
Checkout with customer id	Core	1	1 (9)	(we used userid/username instead, because it made more sense to checkout with username and password instead of customer id and password) checkout.js
Checkout with payment/shipment info	Basic	2	-	
Checkout with data validation	Basic	2	2 (11)	checkout.js
Multiple shipments per order supported	Advanced	2		Note: Requires DB change.
Calculate taxes/shipping (by items/state)	Advanced	2		Note: Requires DB change.
Product Detail Page (up to 2 total points)				
Product detail page and item description	Core	1	1 (1)	product.js
Product detail has an image from database	Core	1	1 (2)	product.js
User Accounts/Login (up to 12 total points)				
Create user account page	Basic	2	2 (2)	Register.handlebars, register.js
Create account with data validation	Basic	2	2 (4)	validateRegister.js
Edit user account info (address, password)	Basic	2		
Login/logout	Core	1	1 (5)	register.handlebars
Register user/Forgot password email	Advanced	4		
Page listing all orders for user	Core	1	1 (6)	customer.js
Product Reviews (up to 5 total points)				
Ability to enter a review on a product	Basic	2		
Display product review on product detail page	Basic	1		

Restrict to one review per user on item purchased	Advanced	2		-
Warehouses/Inventory (up to 5 total points)				
Display item inventory by store/warehouse	Basic	2		
Edit item inventory by store/warehouse	Advanced	3		
Administrator Portal (up to 19 total points)				
Secured by login	Core	1	1 (1)	admin.js
List all customers	Core	1	1 (2)	admin.js, express route "orders"
List report showing total sales/orders	Core	1	1 (3)	admin.js, express route "customers"
Report with a graph	Advanced	3	3 (6)	admin.js, express route "/" (root) chart.js was used
Add new product	Basic	2	2 (8)	admin.js, express route GET/POST "/addProduct"
Update/delete product	Basic	2	2 (10)	admin.js, express route GET/POST "/updateProduct"
Change order status/ship order	Basic	1	1 (11)	admin.js express route "ship"
Upload a photo to file system for product	Advanced	2	2 (13)	admin.js express route "addProduct" (by URL)
OR: Upload a photo to database for product	Advanced	4		
Database restore with SQL script	Basic	2	2 (15)	admin.js express "/" root route It redirects to loaddata.js and loaddata.js redirects back after it is loaded
Add/update warehouse, customer	Basic	2		
Database System/General				
Implement some validation using triggers	Advanced	2		
Use AJAX for some pages	Advanced	4		
User interface and navigation/usability		Up to 5	5 (5)	On most .js files, we implemented minimalistic, glass morphism design, as well as a retractable nav bar if the user is scrolling past a



				certain point, allowing them to see more without blocking. Also aesthetically and visually pleasing UI with intuitive usability
<i>Others (your suggestions)</i>		Up to 5	5 (10)	Styling using utility-first fundamentals/frameworks (TailwindCSS), outside of course teachings. Utilized animation consistent across the entire website, redirects to login if the user is not permitted to enter a restricted page (admin) instead of just a 404 or blank page.
Total: (out of 50 with maximum of 10 bonus marks. i.e. 60 points out of 50 is max.)				Between all marks total = 71. Rounded down to 60 (Max Marks) + 5 (Presenting to class) = 65