Day 4 - Dynamic Frontend Components General E-commerce

Overview:

This document inholds details achievements and struggles of day four . It includes display and explanation of dynamic components, code sinnepts and error handling short explanation and conclusion of the day .

Functional Deliverables:

Key Components built:

The key components I have built are listed as under:
1-Dynamic product listing
2-Dynamic routing for each product
3-Category Filter
4-Add to cart functionality
5-Checkout functionality
6-Price calculations

Dynamic products listing:

Importance

1-This functionality enables the user to view all the products displayed with in one place which creates easy environment for the users to shop

2-Users can have a full view of what they are looking for which makes it a good international approach.

3-Integration of sanity cms makes it very easy for reflection of changes from backend to
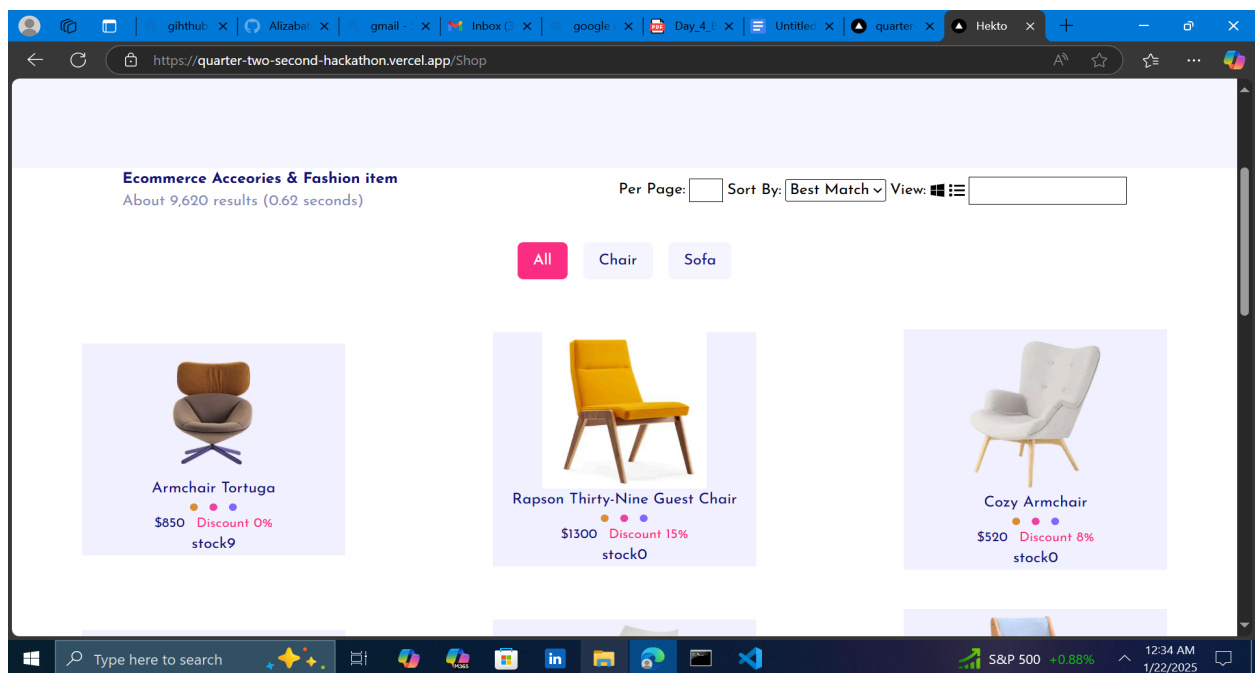
frontend.

4-Seamless design from mobile to large screens.

5-Make the website follow the real world practices.

Challenges:

During the product listing part I did not encounter much challenges as I already have implemented it many times in my project using sanity so I did not encounter problems

Visualization

Dynamic routing for each product:

Importance

1- Dynamic product listing allows feasibility for both users and developers. For developers, they no longer have to create routes manually , For users They can get detailed explanations and knowledge about the product they are interested in buying.

2- It makes websites interactive and is a key component existing is every website,

3-These make the application scalable and improve SEO.

4- It makes a huge impact on making a website scalable.

5- Increases user experience as they get a detail of what they are going to end up with before buying .

Challenges:

The challenges I faced to enable dynamic routes was the condition in which I had to make the Id entering in the params equal to my sanity product Id it took Time to figure out the graq.

AS I have already implemented dynamic routing before I fixed it by rereading each and every line of code and I took a resemblance of my previous code to fix what I was doing wrong.

Visualization
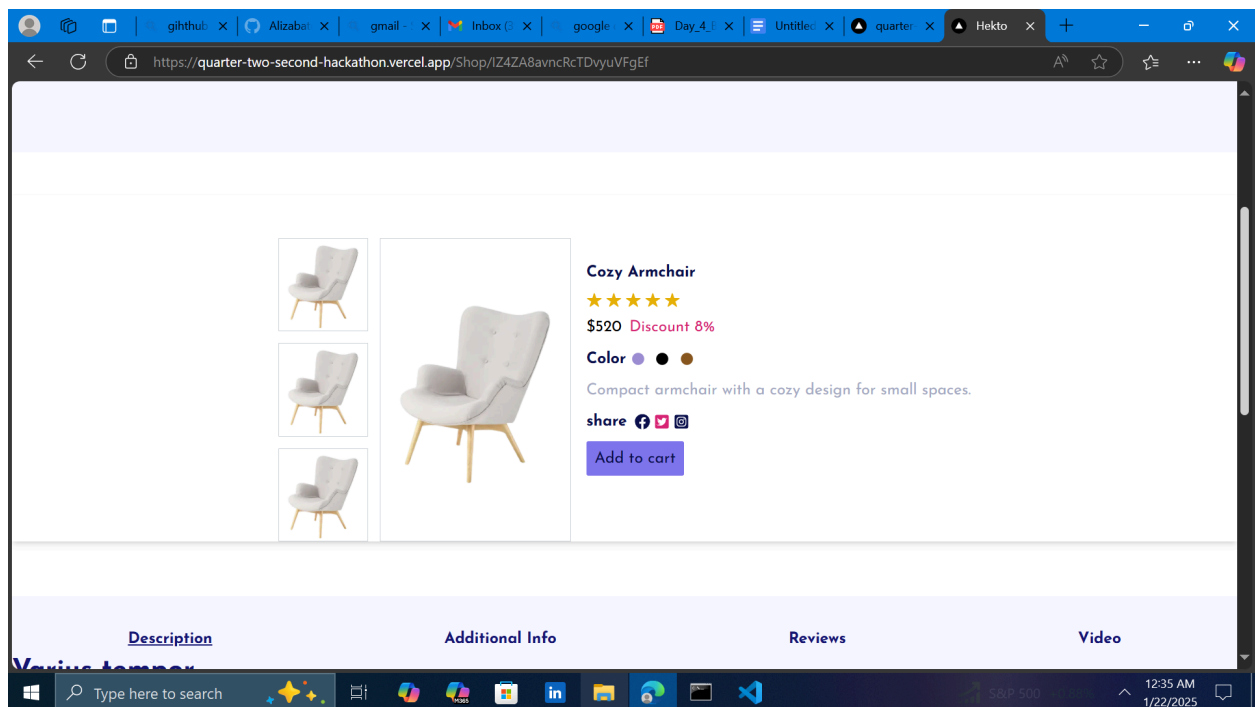
Category Filter

Importance

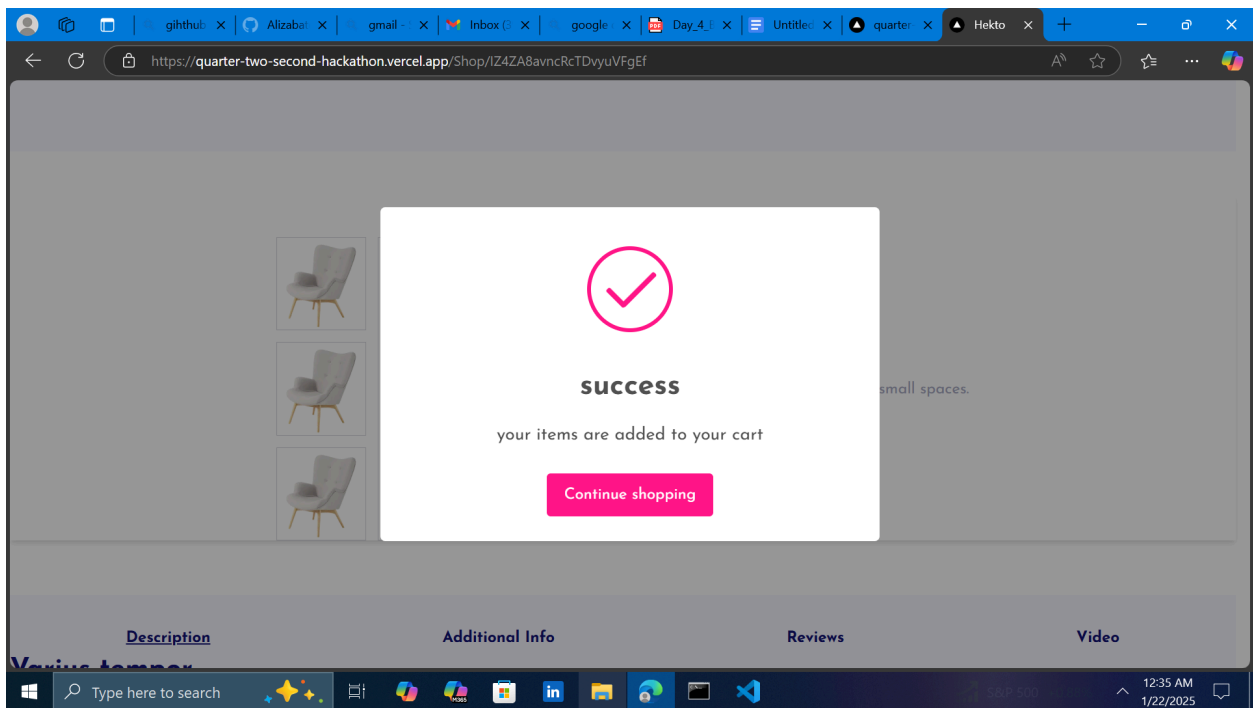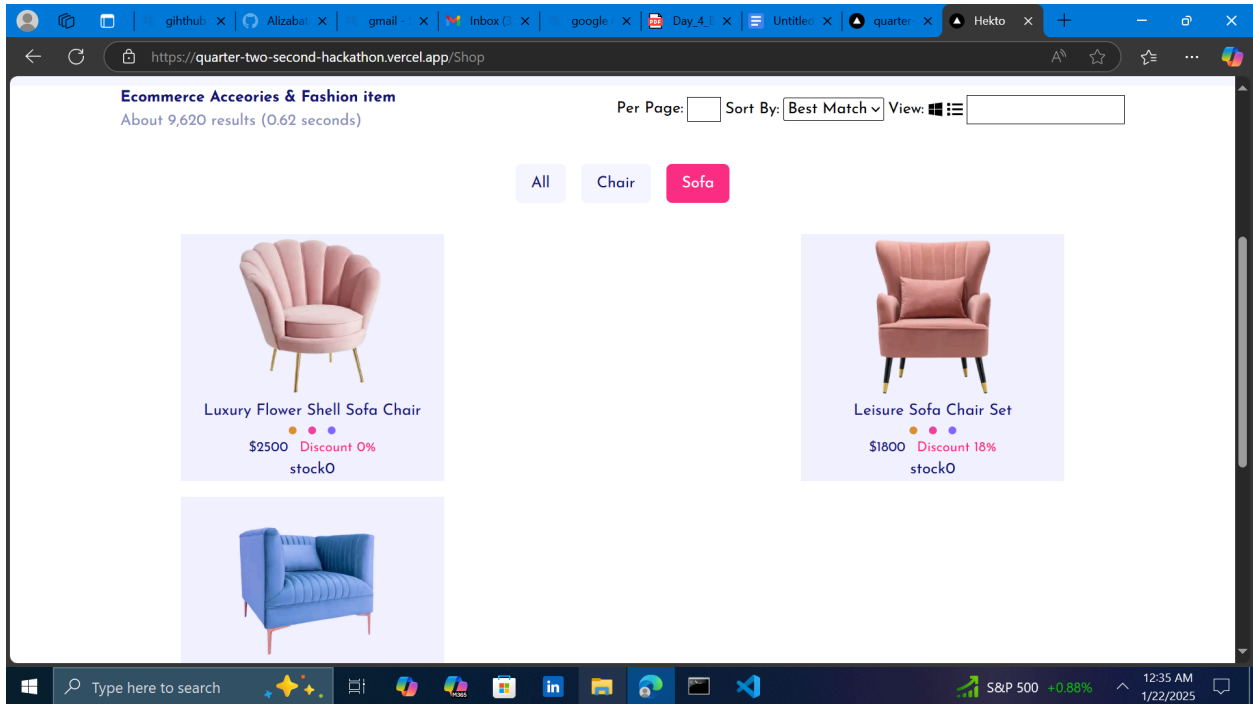Category filters are highly important as they increase good customer experience.

Allows sorting of products related to their categories, prices, sizes etc.

Filtering provides Easy Management for developers and a wide range can be displayed.

Challenges

The challenges I faced during this part was the grid layout as I am used to static layouts of grids. I did not know how I would make the layout responsive and fit all the content so I took help from ChatGPT to figure it out And I learned something new.

Visualition:

Ecommerce Acceories & Fashion item
About 9,620 results (0.62 seconds)

Per Page: Sort By: Best Match   View:

All   Chair   Sofa

Luxury Flower Shell Sofa Chair
$2500   Discount 0%
stock0

Leisure Sofa Chair Set
$1800   Discount 18%
stock0

✓

success

your items are added to your cart

Continue shopping

small spaces.

Description   Additional Info   Reviews   Video

Various tempor

Add to cart functionality

Importance

Cart functionality manages user selected items and allows users to manage products they want to purchase.

Cart functionality is necessary in every E-commerce platform

I added this functionality using react hooks like usestate ,useeffect, usecontext.

Users can add the item in the cart directly from the product page.

Users can increase and decrease the quantity of products easily.

The user will also see notification of the amount of items in cart

Challenges

This was the toughest part of the whole market place. Here I used a powerful react hook react context to manage the cart. As react context is globally available just by a simple import statement It was very handy.

The challenge I faced was In the logic building as it was an advanced logic. To be more specific let me share a problem I had:

As I was trying to manage the cart I had to also manage the stock I had a problem, When I was decrementing the product quantity the products were still adding in the stock even after the quantity was down to one So, I used various resources to debug my code like chatgpt, google ,youtube etc..
It turned out that the condition I set was constantly returning false due to which the amount was increasing so now I knew the root cause. Then i simply fixed it by improving the condition

Visualization:
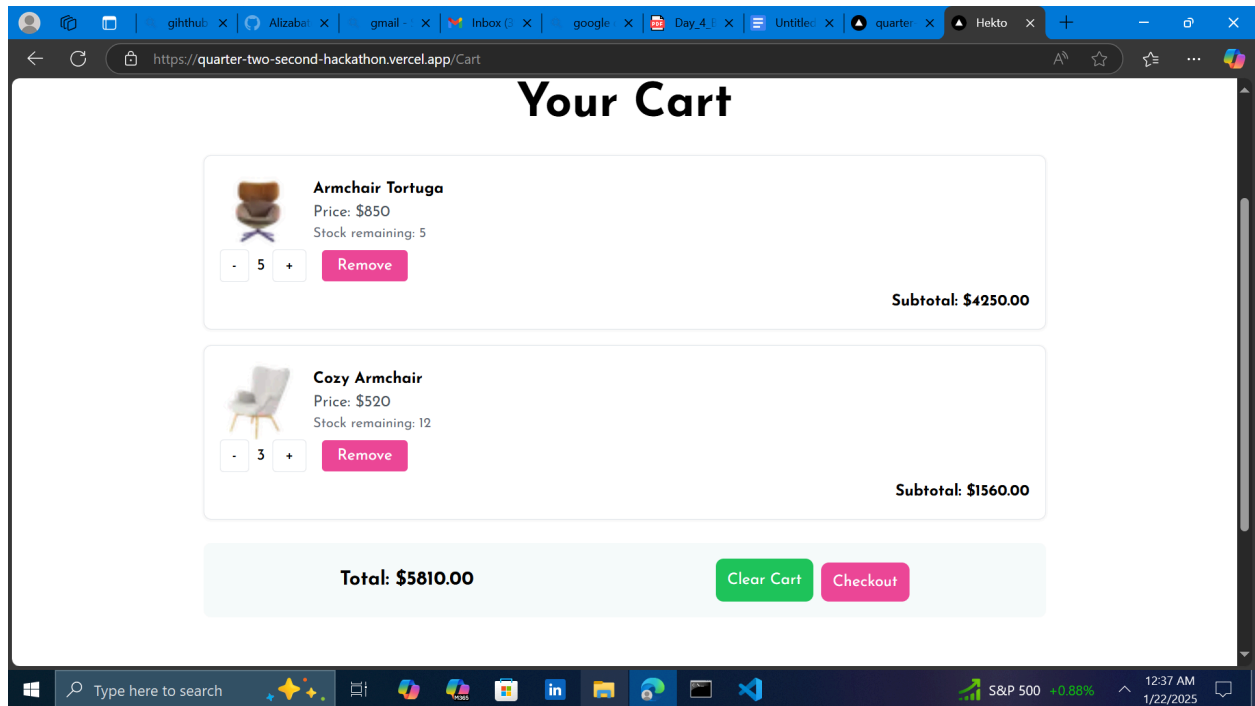
Checkout functionality

Importance

Checkout functionality marks the end of the purchase .

The check out functionality I have Added includes state management by react hooks.

On the checkout page the users can easily view which products they have added in their cart.

There will be a (shipping) form which does not yet manage delivery of the products but the ui of the form is present .
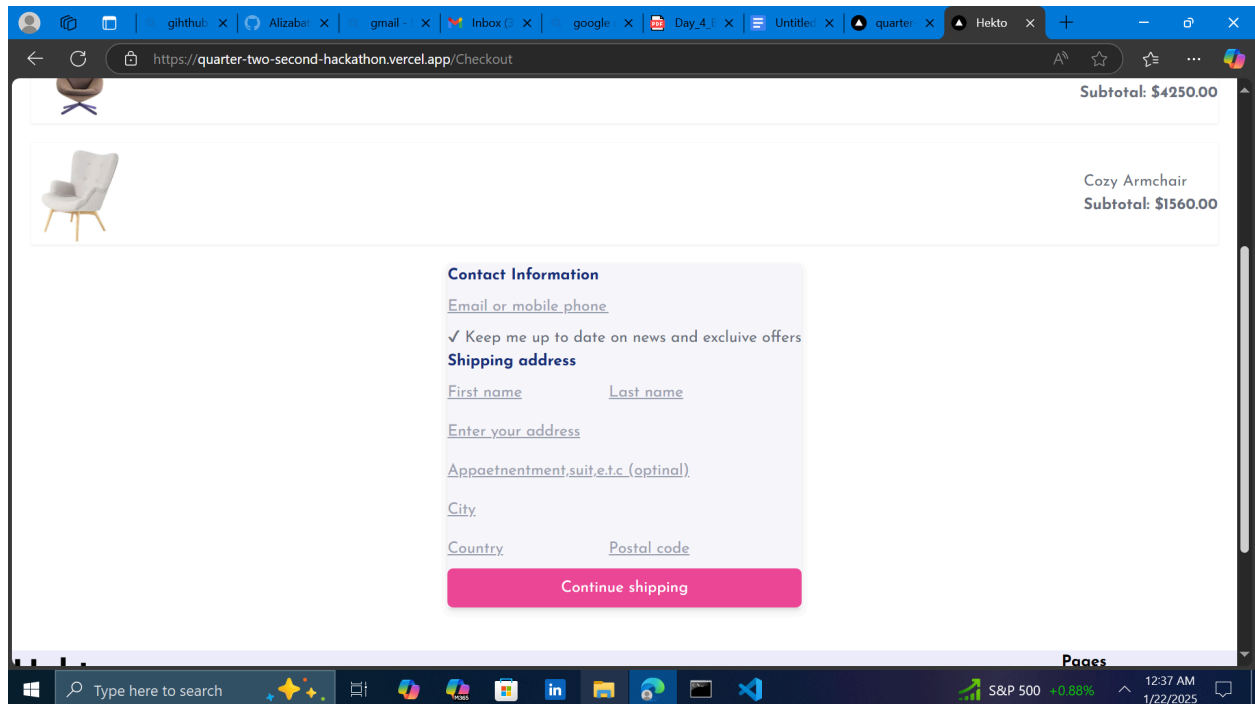
Challenges

This checkout functionality was not that difficult to add as I already had created the cart functionality I used the cartitems array length to tack the products in the cart and display them in the check out page then I added a simple form which, on submit clears the cart and delivers

success message

Visualization:
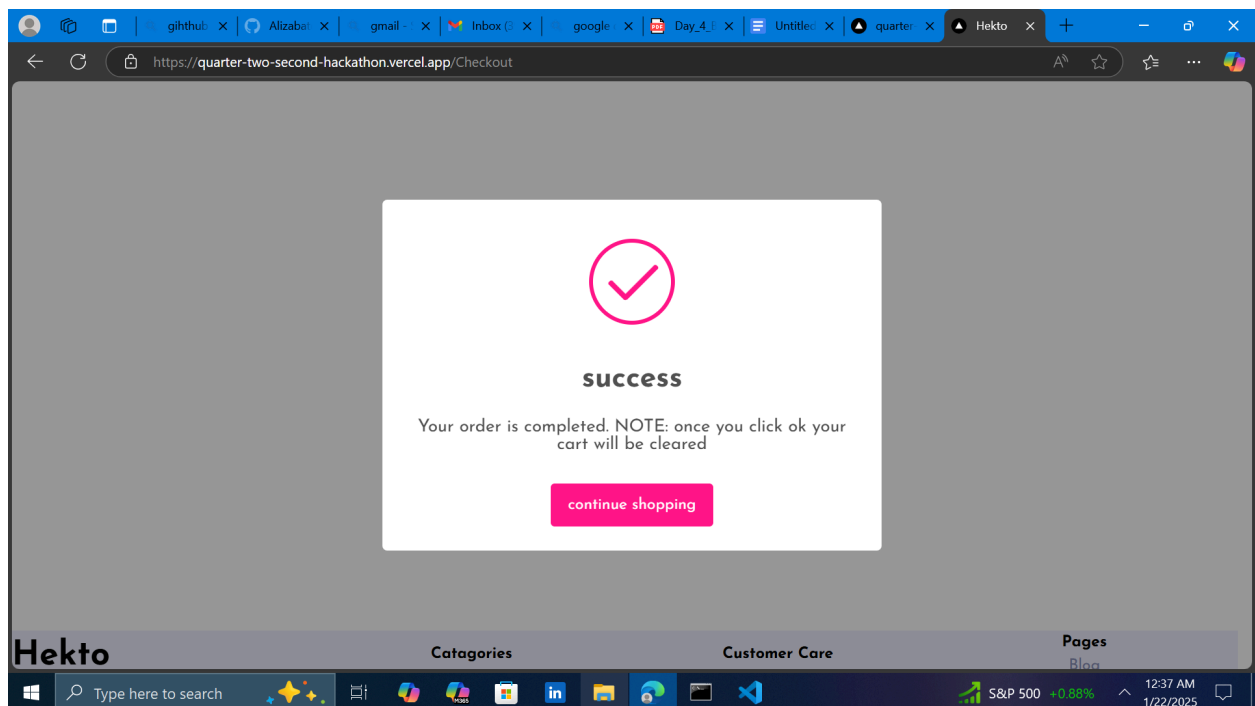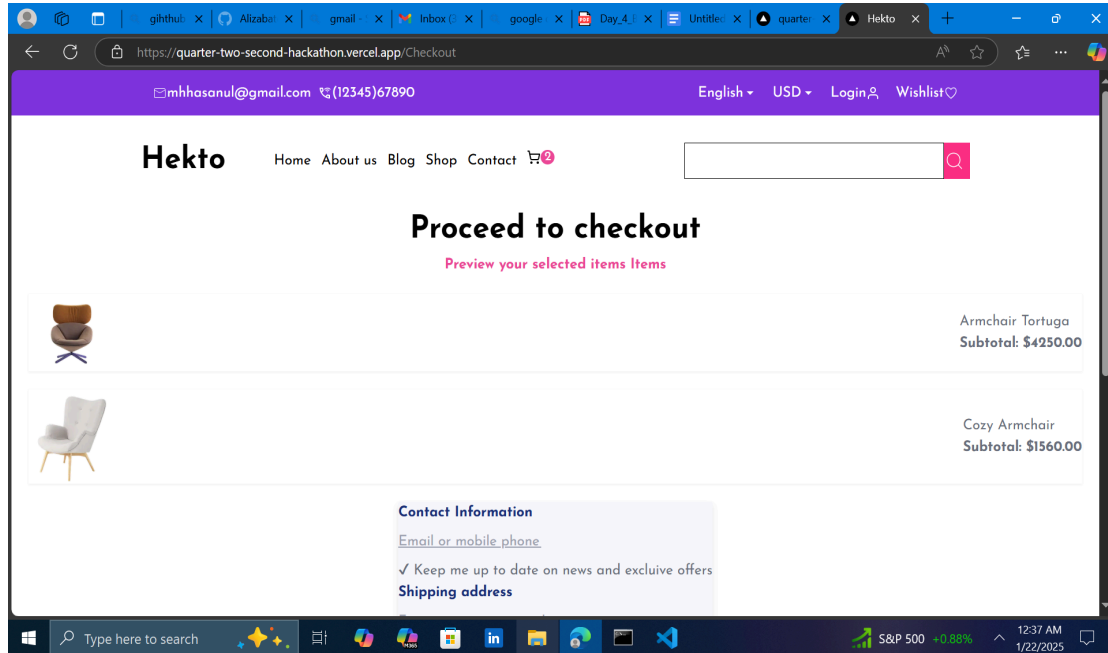
Price calculations

Importance

The add to cart functionality also calculates the price according to the stock and the amount of product added to cart and their quantity.

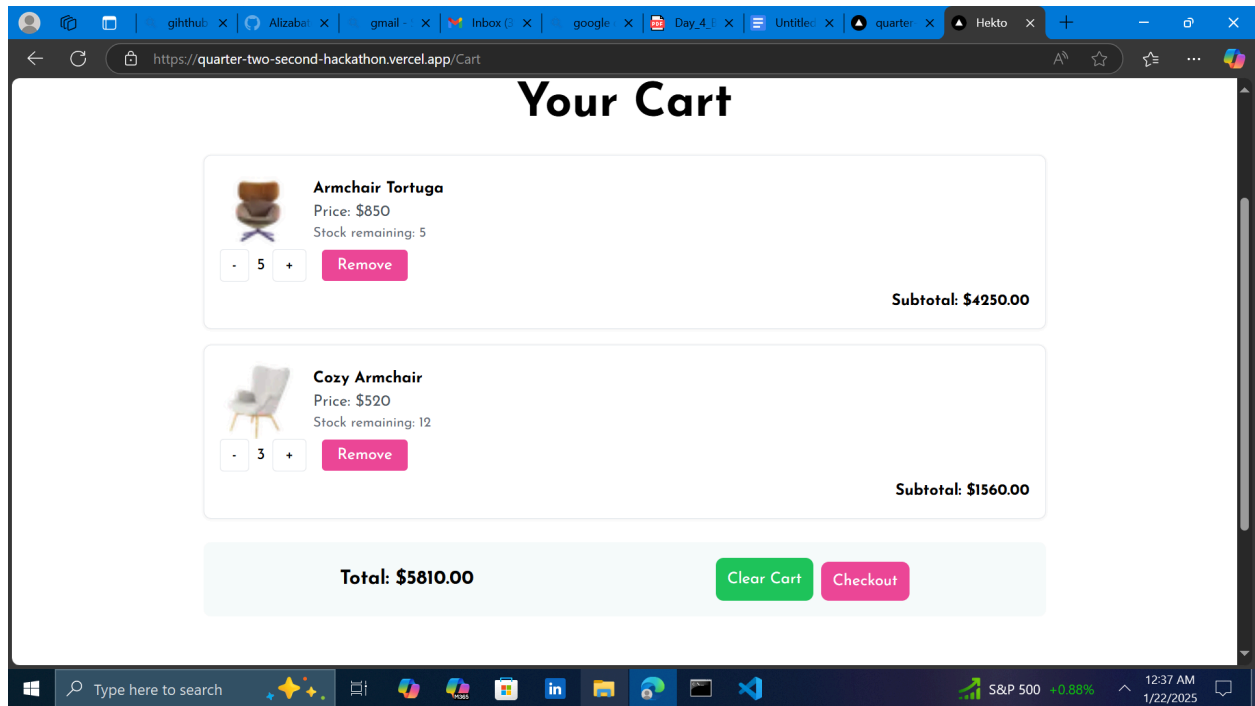Price calculation s are highly important because without them the website wont function
It is responsible for payment purposes

Challenges

The price calculation was not that difficult. I multiplied the product's price with its quantity to get the subtotal of each product.
For the total I just added all the subtotals .

Visualization

Code Deliverables:

Here is the visualization of the code sinnepts of the basic functionalities I implemented in my website:
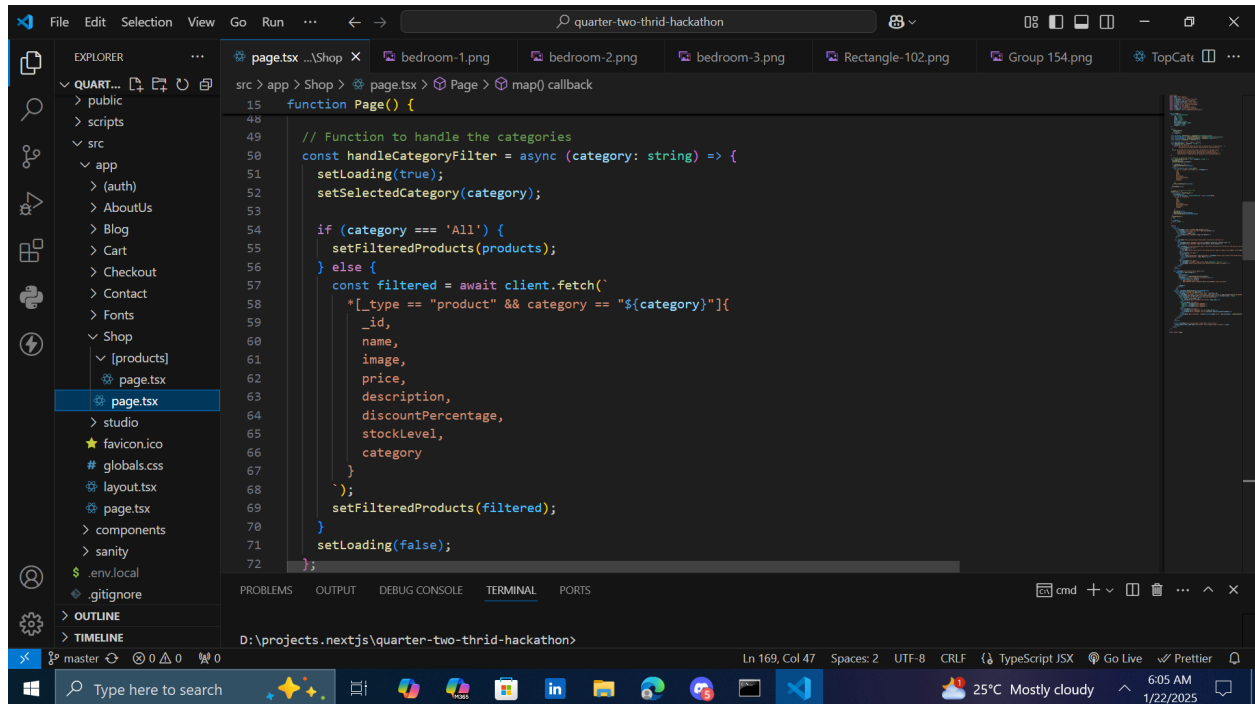
Products cards
Visualization
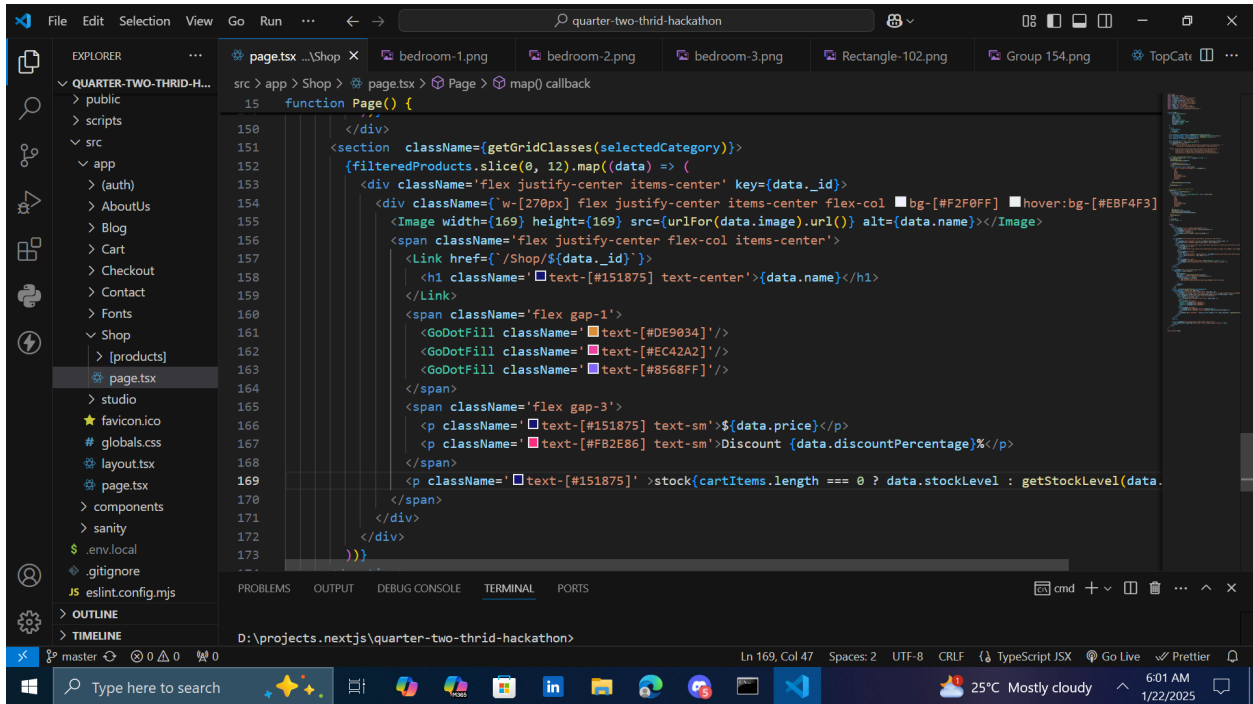
Dynamic routes:

visualization:
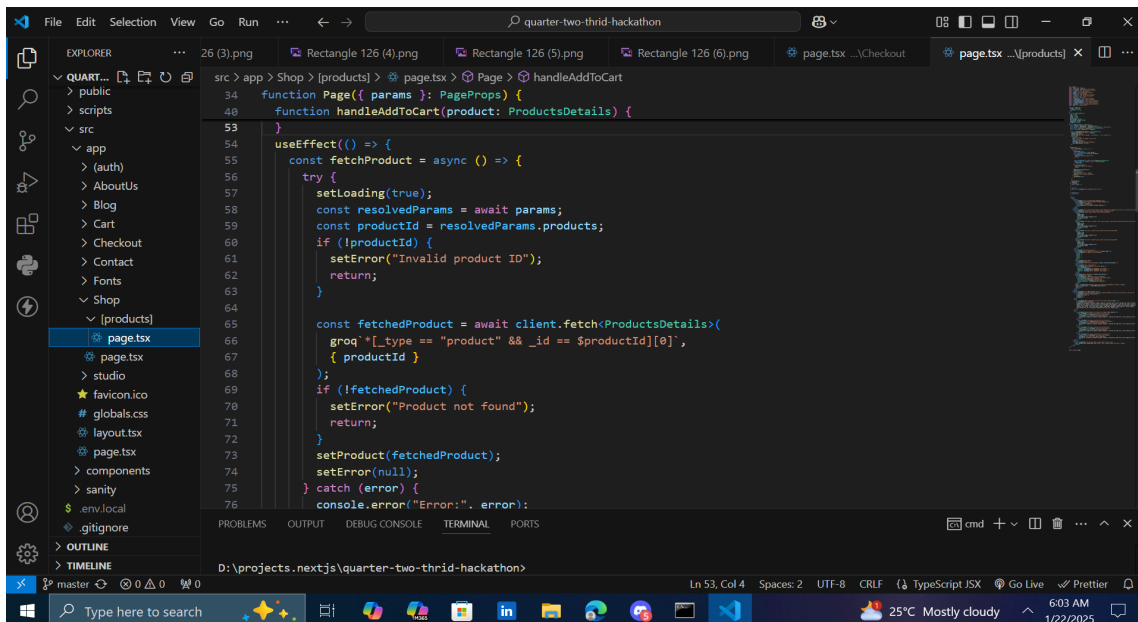
Categories:
Visualization

Conclusion:

In conclusion day four was filled with the most challenges which Were fun and I learned a lot by pushing myself. And I am ready for day 5