# Day 4: BUILDING DAYNAMIC FRONTEND COMPONENTS FOR YOUR MARKETPLACE

**Objective:**

On Day 4, the main goal was to build dynamic frontend components that fetch and display marketplace data from Sanity CMS or APIs. The task focused on creating modular and reusable components while keeping in mind best practices for responsive design and user experience.

## Key Learning Outcomes:

**Building Dynamic Components:**

I learned how to build frontend components that can display live data from an API or a content management system (Sanity CMS). This makes the application more interactive and connected to real-time data.

**Creating Reusable Components:**

The assignment emphasized building components that are reusable, which will help with future scalability. Instead of repeating code, I made sure that components could be easily reused throughout the application.

**State Management:**

I practiced using state management techniques to handle dynamic data and user interactions. This is important because it allows the application to update and display data based on user actions or changes.

**Responsive Design:**

I learned the importance of making sure the application is mobile-friendly and looks great on all screen sizes. I applied responsive design principles and followed UX/UI best practices to ensure the app was easy to use.

**Preparing for Real-World Projects:**

The assignment replicated a real-world workflow, which gave me valuable experience for future client projects. I worked on integrating APIs, building modular components, and ensuring the app was responsive—all important skills for a frontend developer.

**Outcome:**

By the end of Day 4, I was able to build a dynamic and responsive frontend application that fetches data from Sanity CMS or APIs. I gained practical experience in creating reusable components, managing state, and designing an app that works well on all devices.

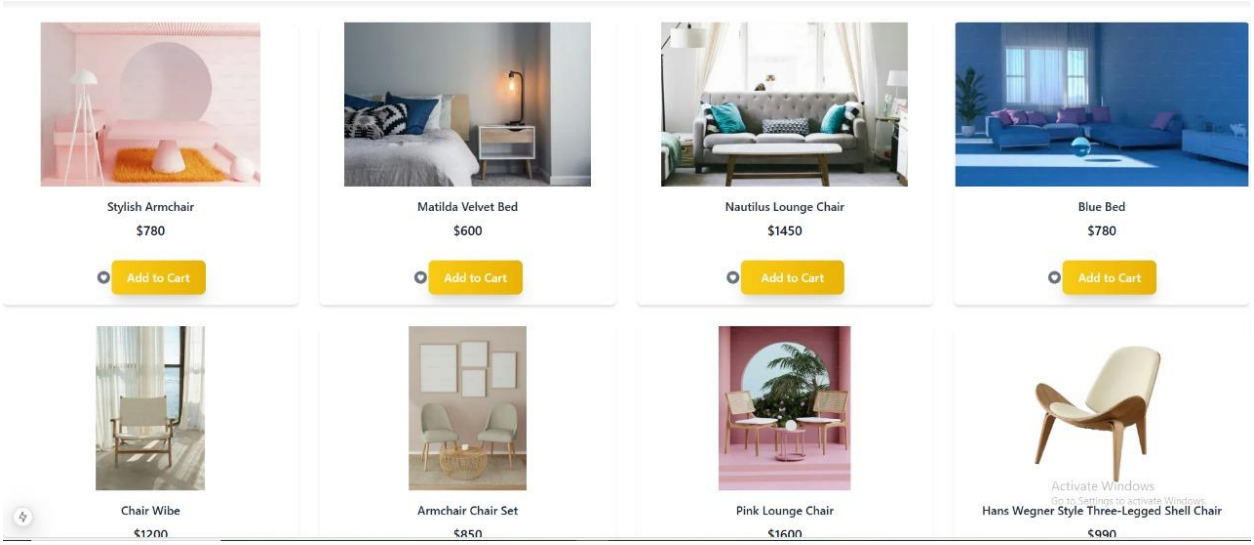
# SCHEMA

```
export default {
    name: 'product',
    title: 'Product',
    type: 'document',
    fields: [
      {
        name: 'id',
        title: 'ID',
        type: 'string',
      },
      {
        name: 'name',
        title: 'Name',
        type: 'string',
      },
      {
        name: 'image',
        title: 'Image',
        type: 'image',
      },
      {
        name: 'imagePath',
        title: 'Image Path',
        type: 'url',
      },
      {
        name: 'price',
        title: 'Price',
        type: 'number',
      },
      {
        name: 'description',
        title: 'Description',
        type: 'text',
      },
      {
        name: 'discountPercentage',
        title: 'Discount Percentage',
        type: 'number',
      },
      {
        name: 'isFeaturedProduct',
        title: 'Is Featured Product',
        type: 'boolean',
      },
      {
        name: 'stockLevel',
        title: 'Stock Level',
        type: 'number',
      },
      {
        name: 'category',
        title: 'Category',
        type: 'string',
      },
      {
        name: 'slug',
        title: 'Slug',
        type: 'slug',
        options: {
          source: 'id',
        },
      }
    ],
  };
```

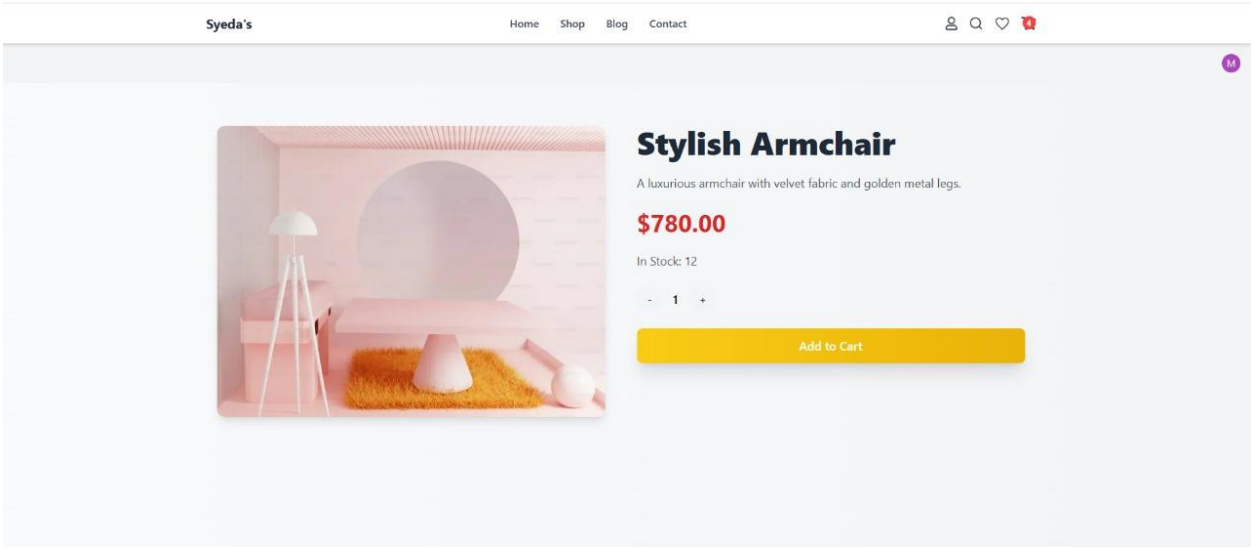
# SCRIPT

```python
import { createClient } from '@sanity/client';
import axios from 'axios';
import dotenv from 'dotenv';
import { fileURLToPath } from 'url';
import path from 'path';

// Load environment variables from .env.local
const __filename = fileURLToPath(import.meta.url);
const __dirname = path.dirname(__filename);
dotenv.config({ path: path.resolve(__dirname, '../.env.local') });

// Create Sanity client
const client = createClient({
  projectId: process.env.NEXT_PUBLIC_SANITY_PROJECT_ID,
  dataset: process.env.NEXT_PUBLIC_SANITY_DATASET,
  useCdn: false,
  token: process.env.SANITY_API_TOKEN,
  apiVersion: '2021-08-31',
});

async function uploadImageToSanity(imageUrl) {
  try {
    console.log(`Uploading image: ${imageUrl}`);
    const response = await axios.get(imageUrl, { responseType: 'arraybuffer' });
    const buffer = Buffer.from(response.data);
    const asset = await client.assets.upload('image', buffer, {
      filename: imageUrl.split('/').pop(),
    });
    console.log(`Image uploaded successfully: ${asset._id}`);
    return asset._id;
  } catch (error) {
    console.error('Failed to upload image:', imageUrl, error.message);
    return null;
  }
}

async function importData() {
  try {
    console.log('Migrating data, please wait...');

    // Fetch products from the API
    const response = await axios.get('https://template-0-beta.vercel.app/api/product');
    const products = response.data;

    console.log('Products fetched:', products);

    for (const product of products) {
      let imageRef = null;

      if (product.imagePath) {
        imageRef = await uploadImageToSanity(product.imagePath);
      }

      const sanityProduct = {
        _type: 'product',
        id: product.id,
        name: product.name,
        category: product.category,
        description: product.description,
        discountPercentage: product.discountPercentage,
        isFeaturedProduct: product.isFeaturedProduct,
        stockLevel: product.stockLevel,
        price: parseFloat(product.price),
        image: imageRef
          ? {
              _type: 'image',
              asset: {
                _type: 'reference',
                _ref: imageRef,
              },
            }
          : undefined,
        imagePath: product.imagePath,

          // Store original image URL
      };

      await client.create(sanityProduct);
      console.log(`Product created in Sanity: ${sanityProduct.id}`);
    }

    console.log('Data migrated successfully!');
  } catch (error) {
    console.error('Error in migrating data:', error.message);
  }
}

importData();
```

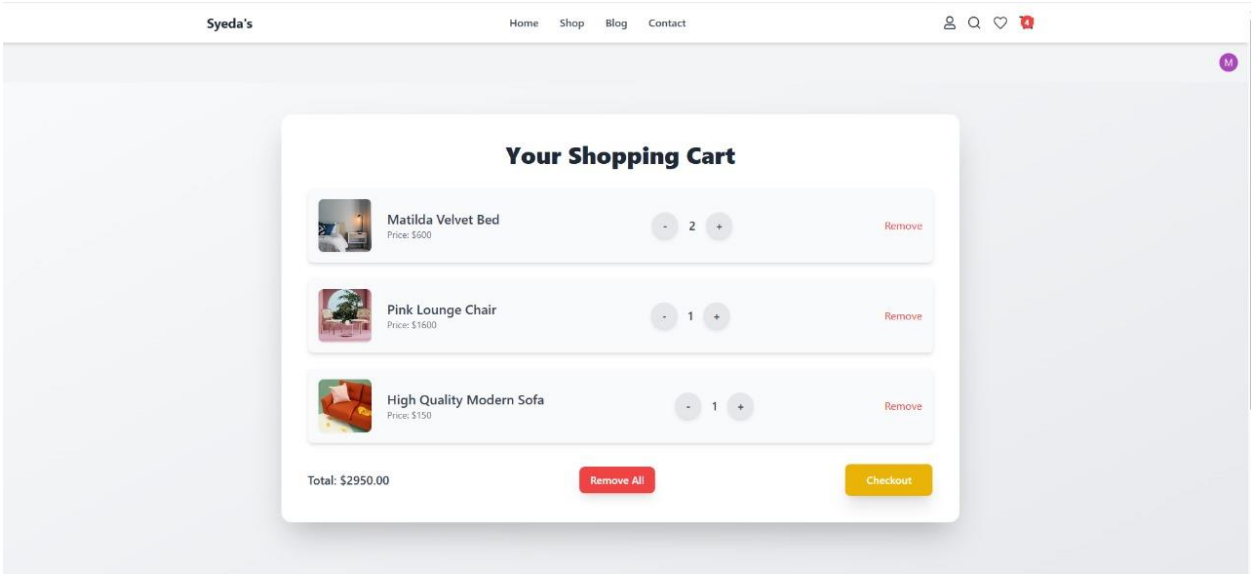
# PRODUCT LISTING



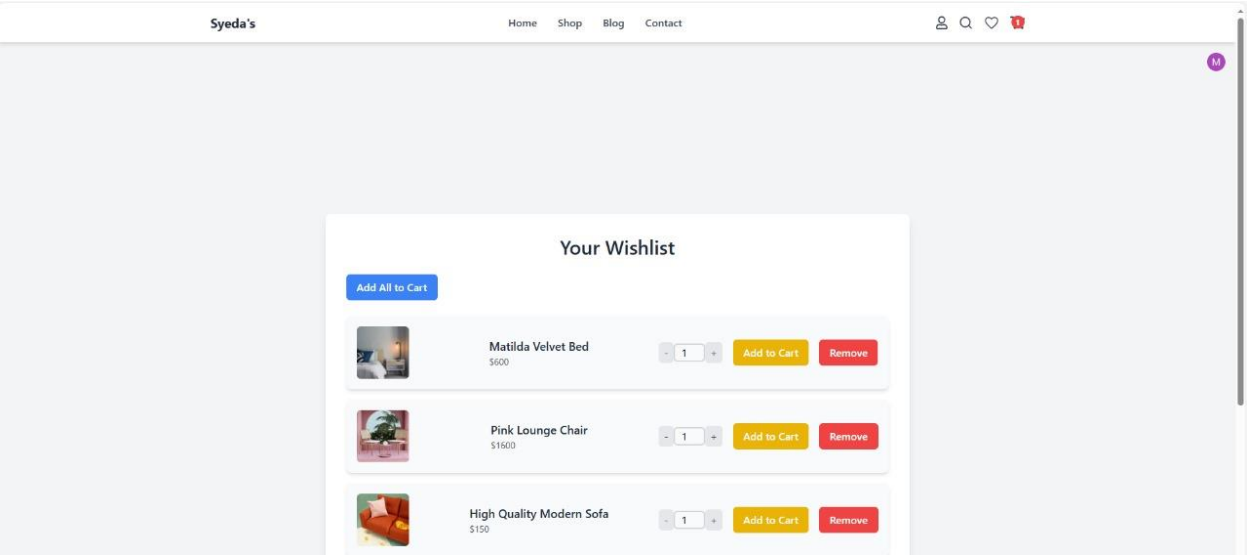

# PRODUCT DETAILS



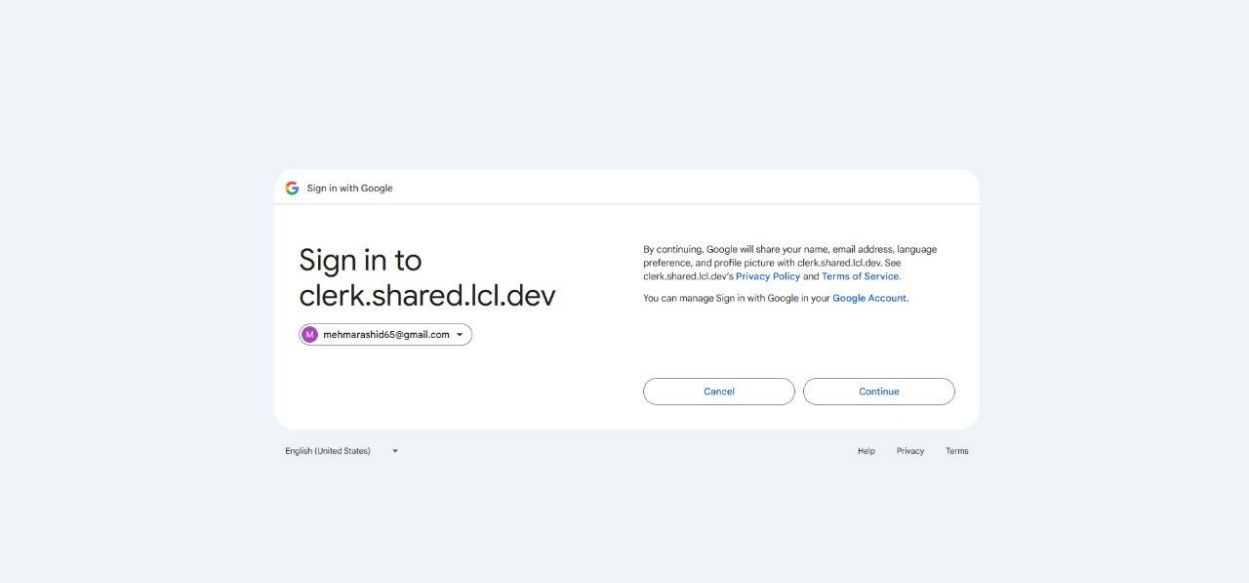
# CART PAGE

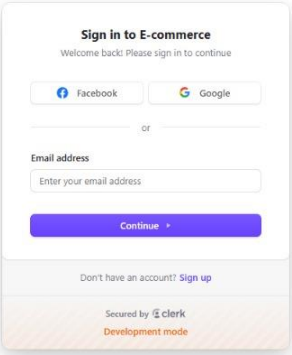

Syeda's
Home
Shop
Blog
Contact
Your Shopping Cart
Matilda Velvet Bed
Price: $600
2
Remove
Pink Lounge Chair
Price: $1600
1
Remove
High Quality Modern Sofa
Price: $150
1
Remove
Total: $2950.00
Remove All
Checkout

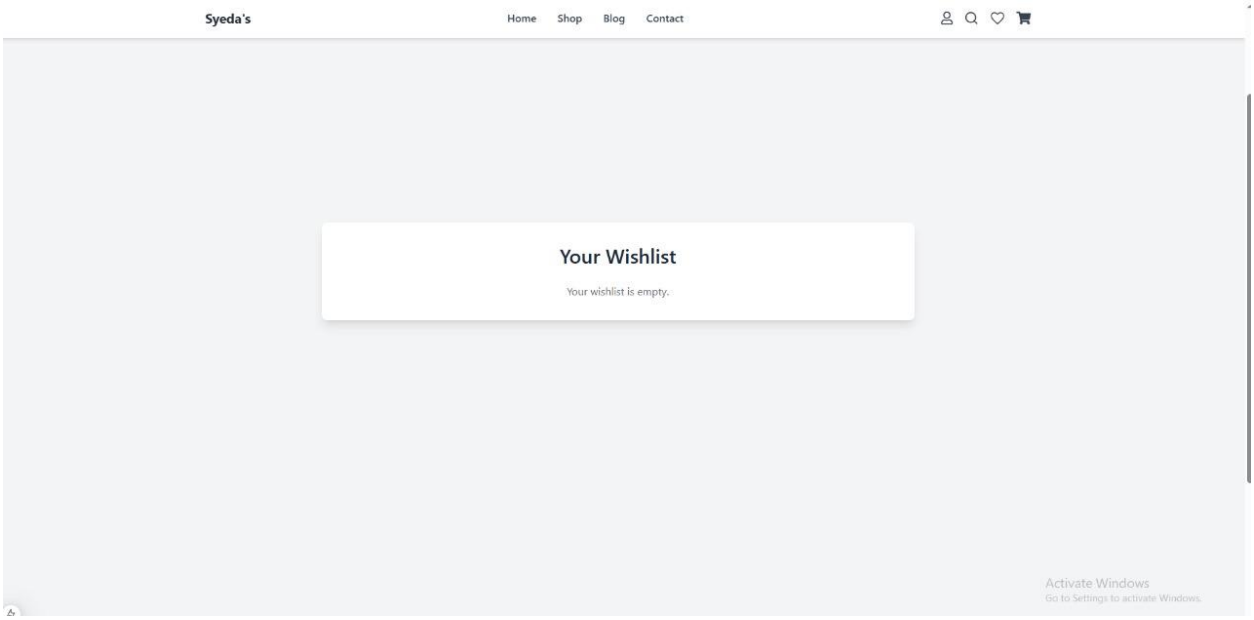
# WISHLIST PAGE

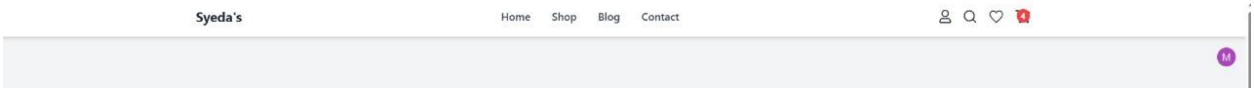


# LOGIN/SIGNIN




Syeda's
Home
Shop
Blog
Contact
Your Wishlist
Your wishlist is empty.
Activate Windows
Go to Settings to activate Windows.


Syeda's
Home
Shop
Blog
Contact
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