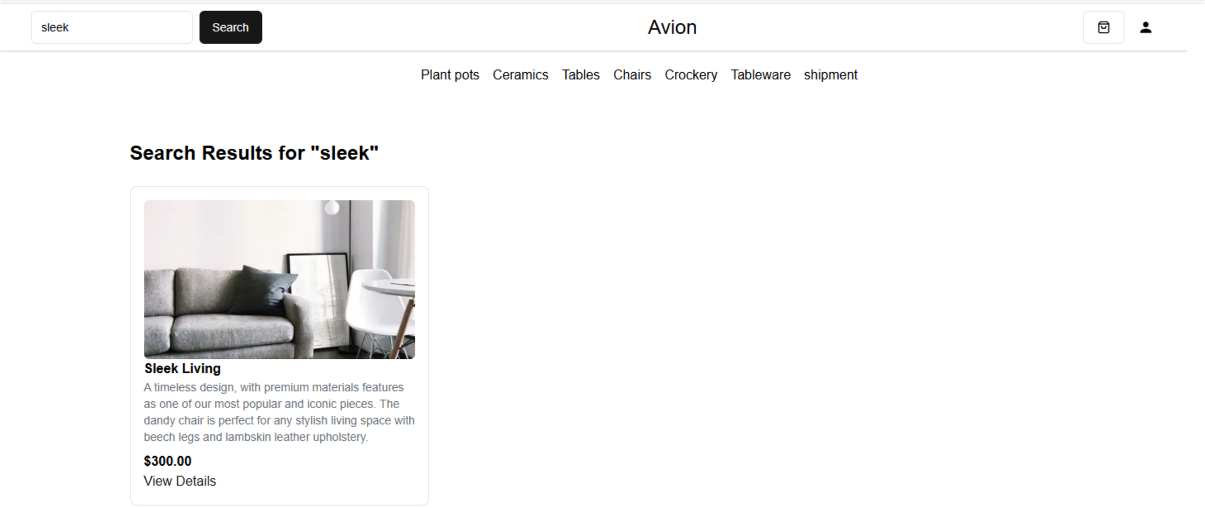
DAY 5 - TESTING, ERROR HANDLING, AND BACKEND INTEGRATION REFINEMENT

1. Functional Deliverables:

i- Search component and page:


sleek
Search
Avion
Plant pots Ceramics Tables Chairs Crockery Tableware shipment

Search Results for "sleek"

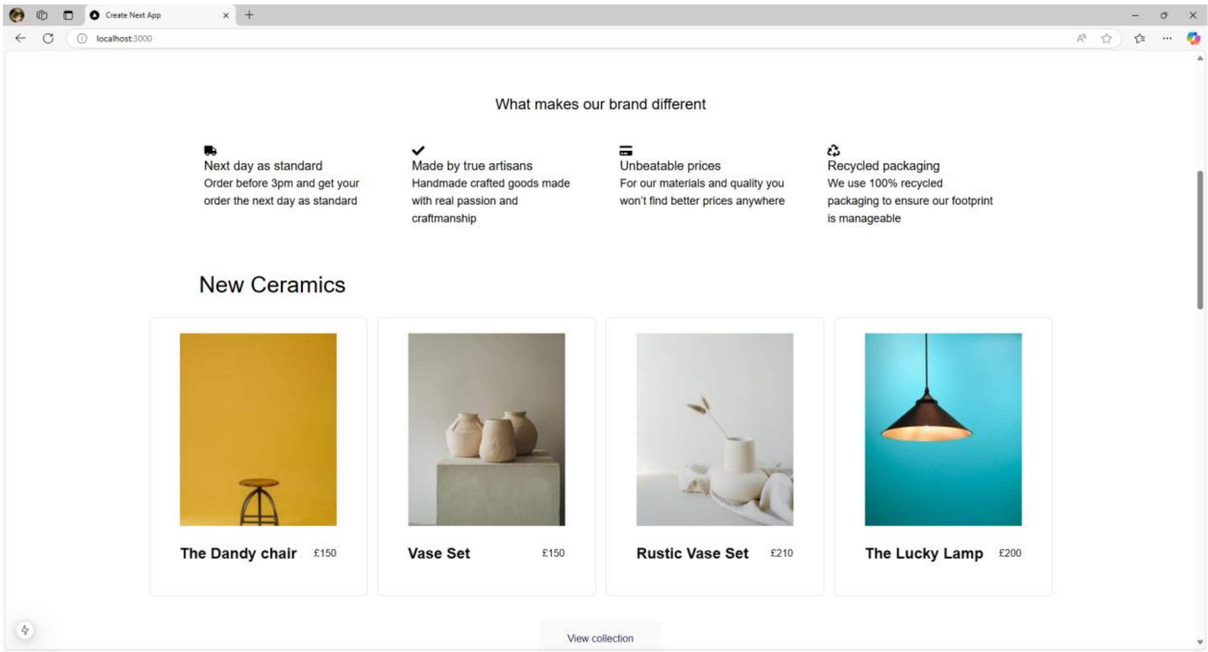
Sleek Living

A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery.

$300.00

View Details

ii- Product component for tag new ceramics and popular products:



What makes our brand different

Next day as standard
Order before 3pm and get your order the next day as standard

Made by true artisans
Handmade crafted goods made with real passion and craftmanship

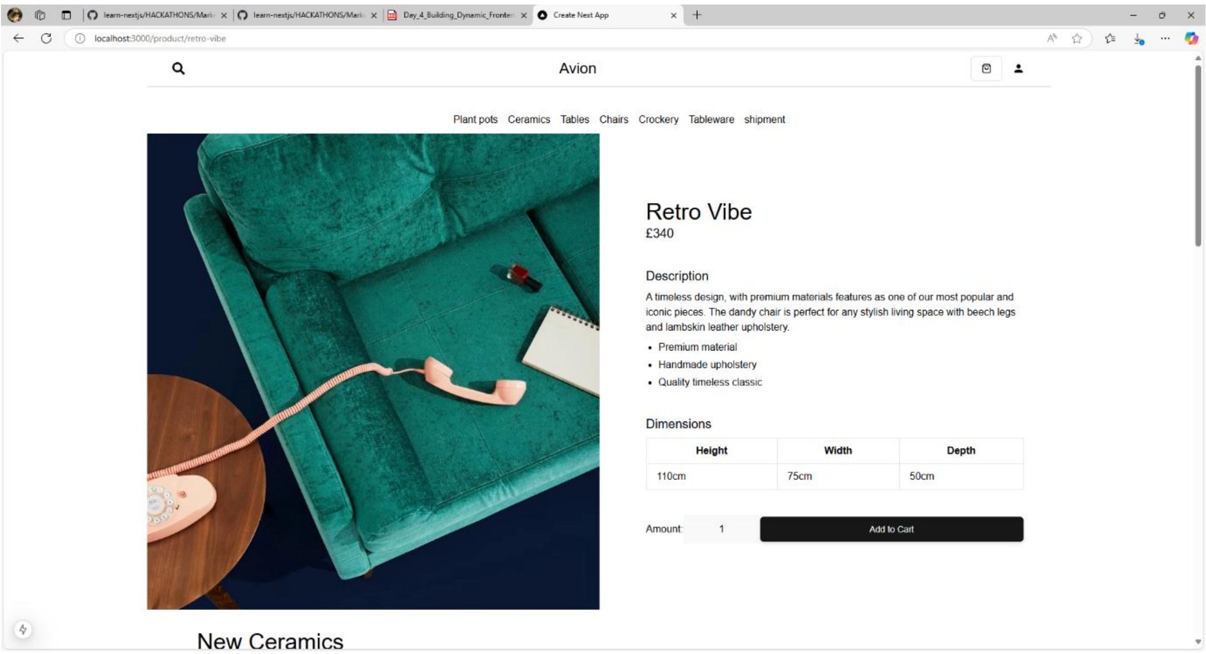
Unbeatable prices
For our materials and quality you won't find better prices anywhere

Recycled packaging
We use 100% recycled packaging to ensure our footprint is manageable

New Ceramics

The Dandy chair	£150
Vase Set	£150
Rustic Vase Set	£210
The Lucky Lamp	£200

iii- Product detail dynamic route:


learn-nextjs/HACKATHONS/Mark
learn-nextjs/HACKATHONS/Mark
Day_4_Building_Dynamic_Fronten
Create Next App
localhost:3000/product/retro-vibe
Avion
Plant pots
Ceramics
Tables
Chairs
Crockery
Tableware
shipment

Retro Vibe

£340

Description

A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery.

- Premium material
- Handmade upholstery
- Quality timeless classic

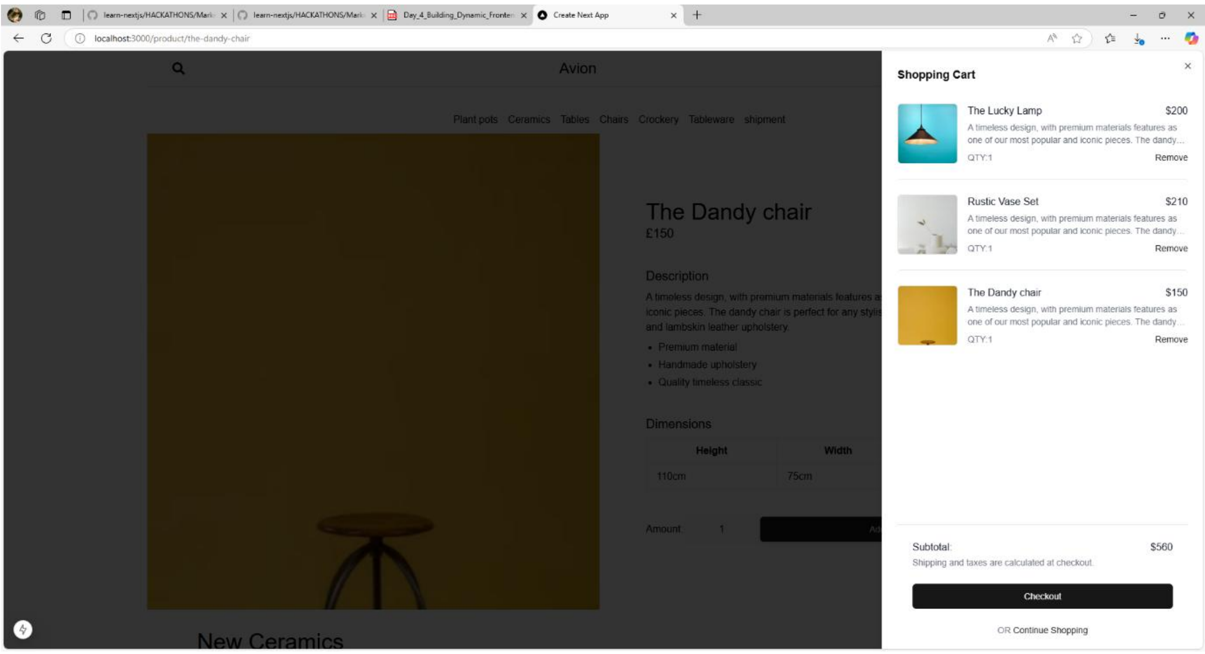
Dimensions

Height	Width	Depth
110cm	75cm	50cm

Amount 1 Add to Cart

New Ceramics

iv- Add to cart component and page:


learn-nextjs/HACKATHONS/Mark
learn-nextjs/HACKATHONS/Mark
Day_4_Building_Dynamic_Fronten
Create Next App
localhost:3000/product/the-dandy-chair
Avion
Plant pots Ceramics Tables Chairs Crockery Tableware shipment

The Dandy chair
£150

Description

A timeless design, with premium materials features a
iconic pieces. The dandy chair is perfect for any stylis
and lambskin leather upholstery.

- Premium material
- Handmade upholstery
- Quality timeless classic

Dimensions

Height	Width
110cm	75cm

Amount 1

New Ceramics

Shopping Cart

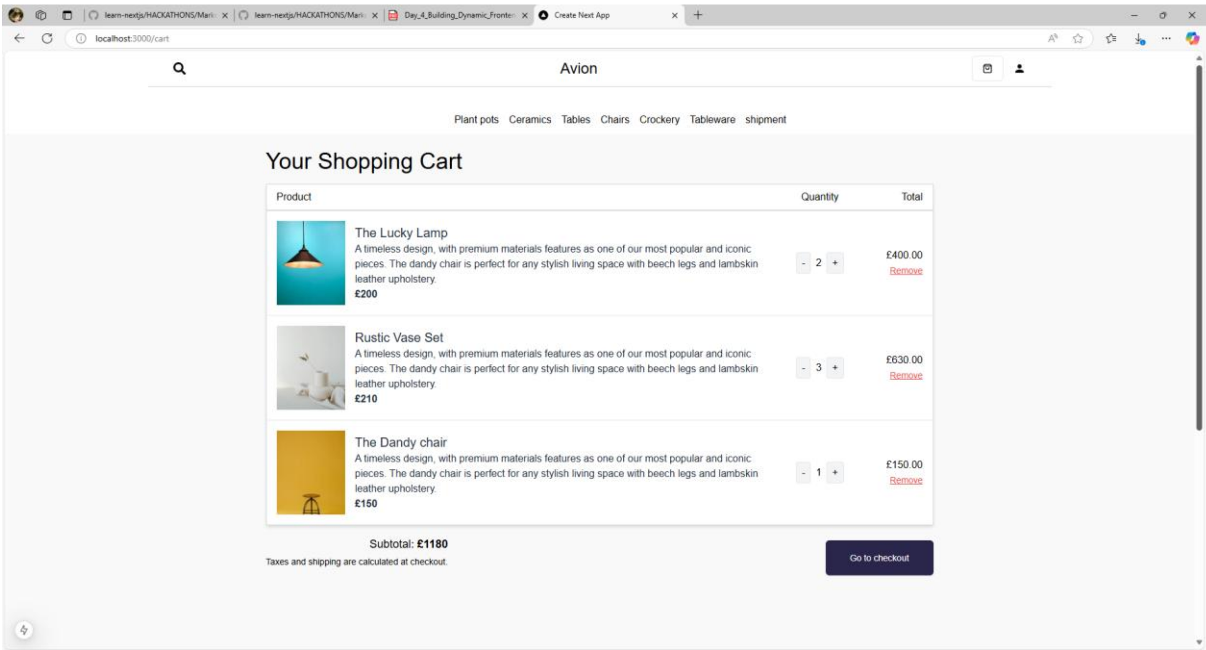
The Lucky Lamp $200
A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy…
QTY:1 Remove

Rustic Vase Set $210
A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy…
QTY:1 Remove

The Dandy chair $150
A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy…
QTY:1 Remove

Subtotal: $560
Shipping and taxes are calculated at checkout.

Checkout
OR Continue Shopping

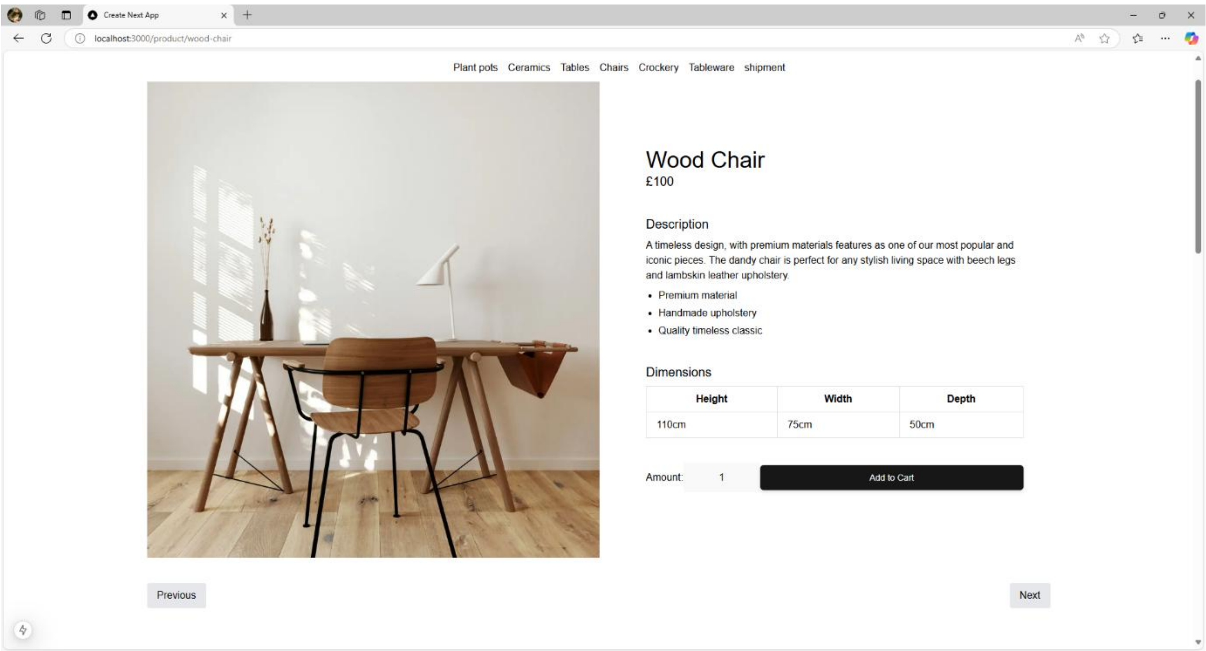

learn-nextjs/HACKATHONS/Mark
learn-nextjs/HACKATHONS/Mark
Day_4_Building_Dynamic_Fronten
Create Next App
localhost:3000/cart
Avion
Plant pots Ceramics Tables Chairs Crockery Tableware shipment

Your Shopping Cart

Product	Quantity	Total
The Lucky Lamp A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery. **£200**	- 2 +	£400.00 Remove
Rustic Vase Set A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery. **£210**	- 3 +	£630.00 Remove
The Dandy chair A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery. **£150**	- 1 +	£150.00 Remove

Subtotal: **£1180**
Taxes and shipping are calculated at checkout.

v- Pagination:



Create Next App
localhost:3000/product/wood-chair
Plant pots Ceramics Tables Chairs Crockery Tableware shipment

Wood Chair

£100

Description

A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery.

- Premium material
- Handmade upholstery
- Quality timeless classic

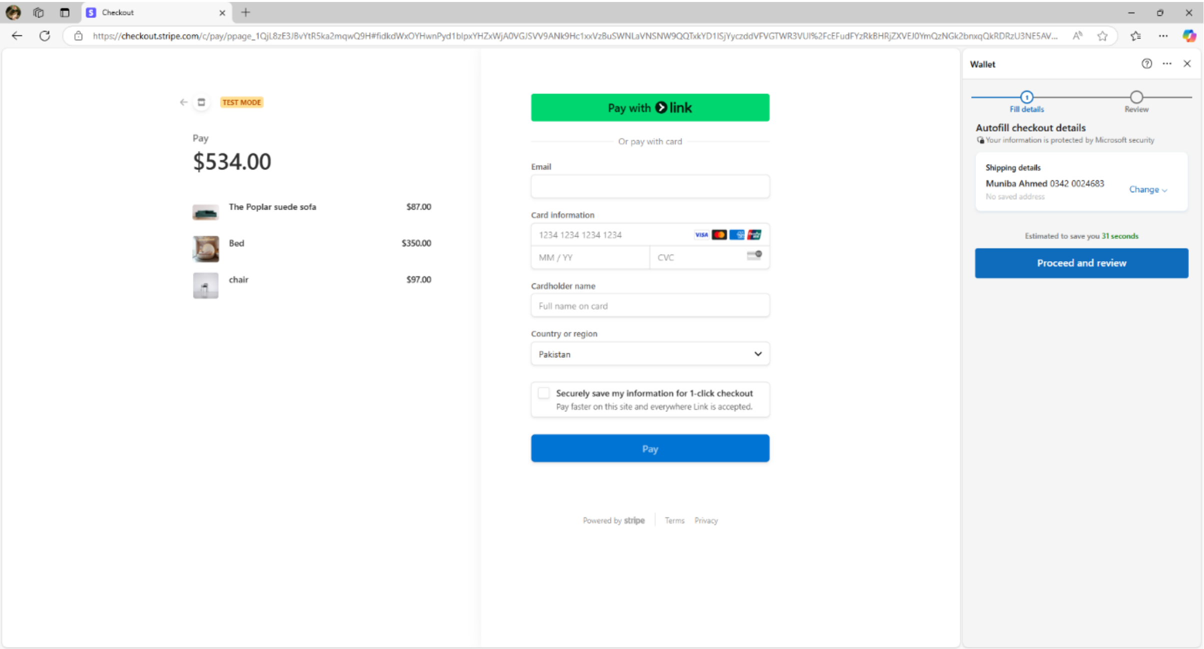
Dimensions

Height	Width	Depth
110cm	75cm	50cm

Amount: 1

Add to Cart
Previous
Next

vi- Checkout:



Checkout
https://checkout.stripe.com/c/pay/ppage_1QjL8zE3JBvYtR5ka2mqwQ9H#fidkdWxOYHwnPyd1blpxYHZxWjA0VGJSVV9ANk9Hc1xxVzBuSWNLaVNSNW9QQTxkYD1lSjYyczddVFVGTWR3VUl%2FcEFudFYzRkBHRjZXVEJ0YmQzNGk2bnxqQkRDRzU3NE5AV...
TEST MODE

Pay

$534.00

The Poplar suede sofa	$87.00
Bed	$350.00
chair	$97.00

Pay with link
Or pay with card

Email

Card information

1234 1234 1234 1234

MM / YY CVC

Cardholder name

Full name on card

Country or region

Pakistan

□ Securely save my information for 1-click checkout
Pay faster on this site and everywhere Link is accepted.

Pay
Powered by stripe | Terms Privacy
Wallet
Fill details
Review

Autofill checkout details

Your information is protected by Microsoft security

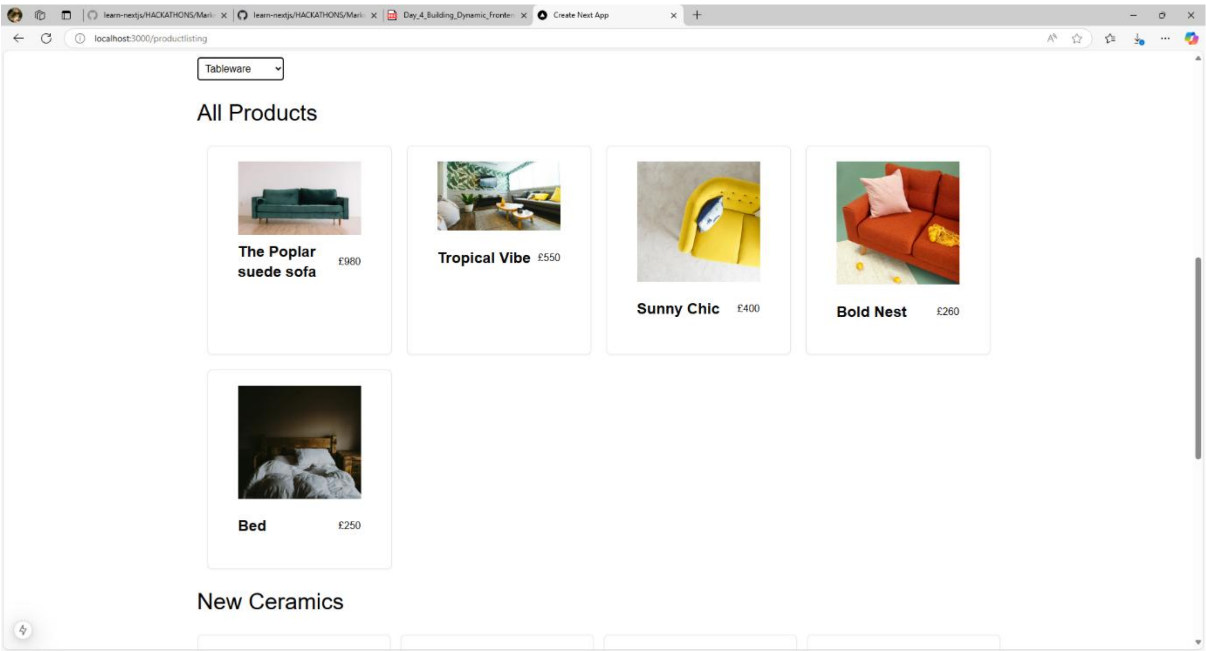
Shipping details

Muniba Ahmed 0342 0024683

No saved address

Estimated to save you 31 seconds

vii- Category filter component:


learn-nextjs/HACKATHONS/Mark
learn-nextjs/HACKATHONS/Mark
Day_4_Building_Dynamic_Fronten
Create Next App
localhost:3000/productlisting

Tableware

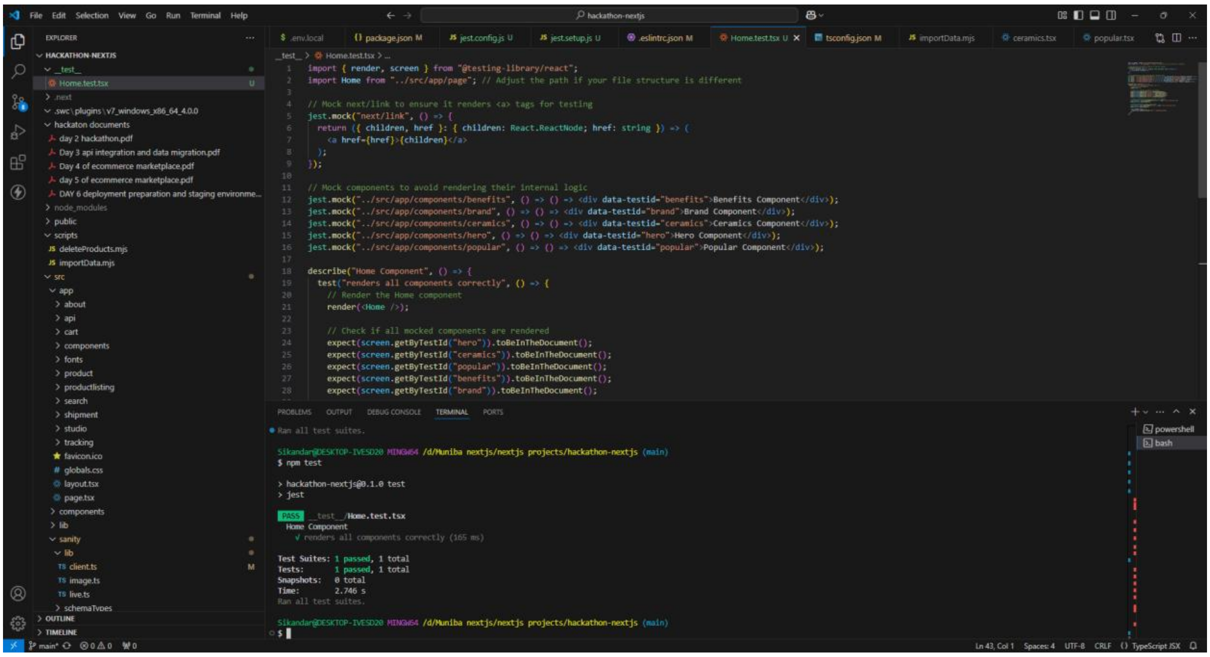
All Products

The Poplar suede sofa	£980
Tropical Vibe	£550
Sunny Chic	£400
Bold Nest	£260
Bed	£250

New Ceramics

Use of React Testing Library(RTL):

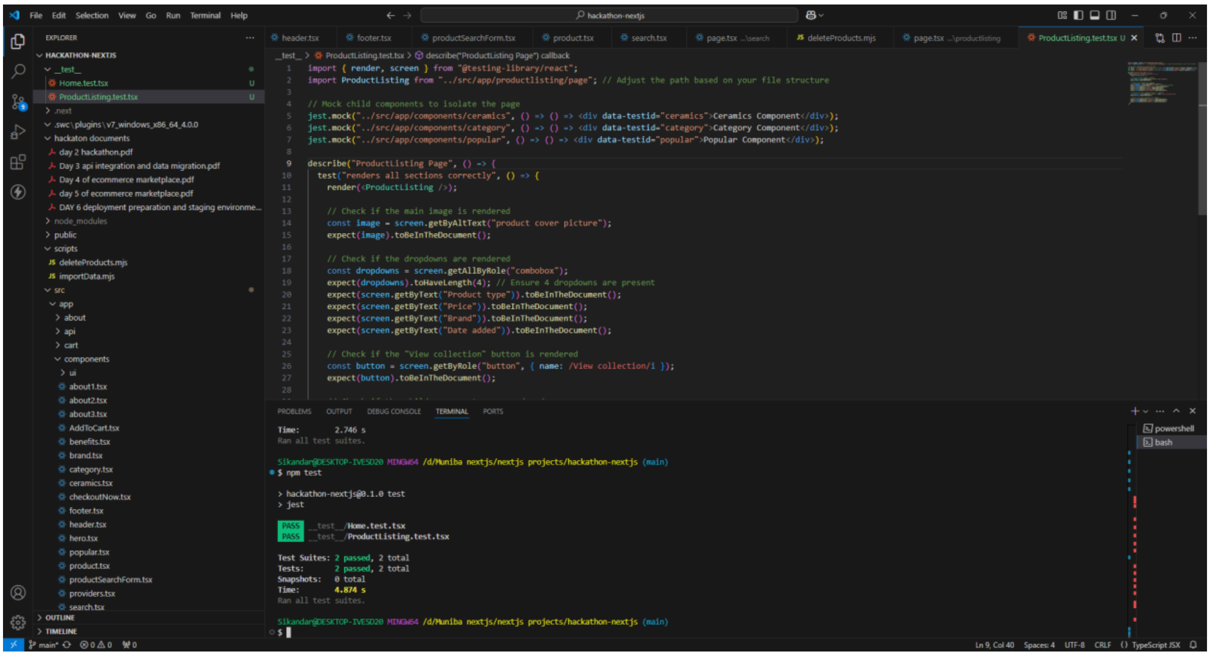
I- For testing Home Page:



```tsx
import { render, screen } from "@testing-library/react";
import Home from "../src/app/page"; // Adjust the path if your file structure is different

// Mock next/link to ensure it renders <a> tags for testing
jest.mock("next/link", () => {
  return ({ children, href }: { children: React.ReactNode; href: string }) => (
    <a href={href}>{children}</a>
  );
});

// Mock components to avoid rendering their internal logic
jest.mock("../src/app/components/benefits", () => () => <div data-testid="benefits">Benefits Component</div>);
jest.mock("../src/app/components/brand", () => () => <div data-testid="brand">Brand Component</div>);
jest.mock("../src/app/components/ceramics", () => () => <div data-testid="ceramics">Ceramics Component</div>);
jest.mock("../src/app/components/hero", () => () => <div data-testid="hero">Hero Component</div>);
jest.mock("../src/app/components/popular", () => () => <div data-testid="popular">Popular Component</div>);

describe("Home Component", () => {
  test("renders all components correctly", () => {
    // Render the Home component
    render(<Home />);

    // Check if all mocked components are rendered
    expect(screen.getByTestId("hero")).toBeInTheDocument();
    expect(screen.getByTestId("ceramics")).toBeInTheDocument();
    expect(screen.getByTestId("popular")).toBeInTheDocument();
    expect(screen.getByTestId("benefits")).toBeInTheDocument();
    expect(screen.getByTestId("brand")).toBeInTheDocument();
```

```
Ran all test suites.

Sikandar@DESKTOP-IVESD20 MINGW64 /d/Muniba nextjs/nextjs projects/hackathon-nextjs (main)
$ npm test

> hackathon-nextjs@0.1.0 test
> jest

 PASS  __test__/Home.test.tsx
  Home Component
    √ renders all components correctly (165 ms)

Test Suites: 1 passed, 1 total
Tests:       1 passed, 1 total
Snapshots:   0 total
Time:        2.746 s
Ran all test suites.

Sikandar@DESKTOP-IVESD20 MINGW64 /d/Muniba nextjs/nextjs projects/hackathon-nextjs (main)
$ 
```

ii- For Product Listing Page:

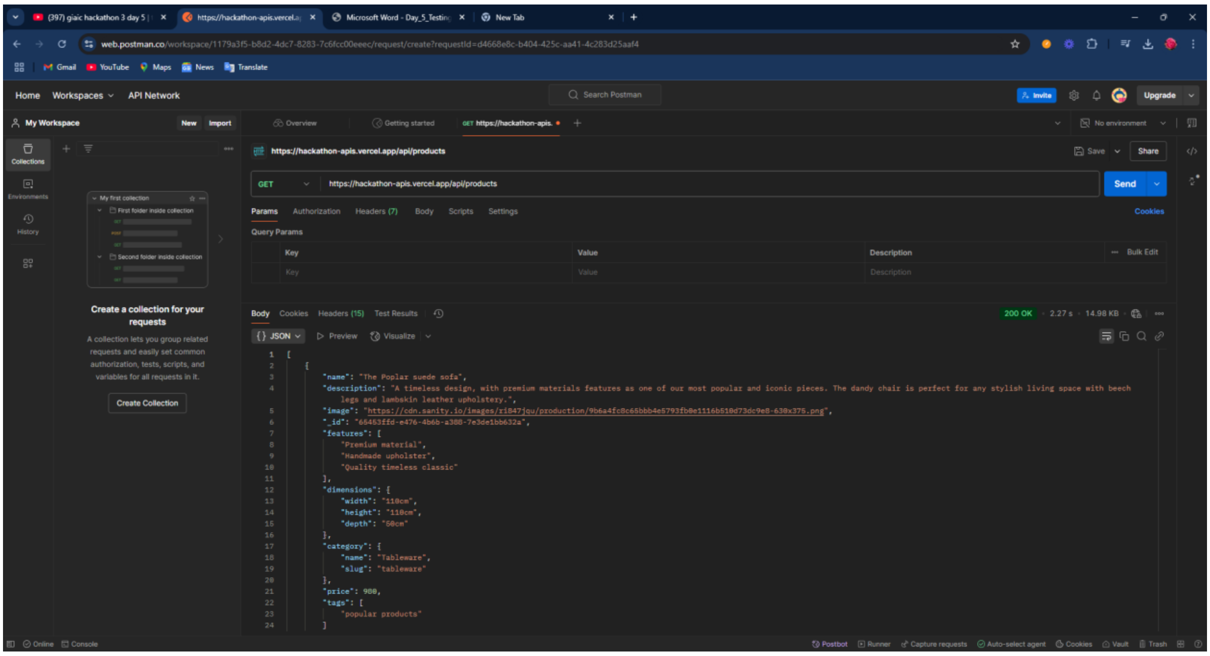


```
import { render, screen } from "@testing-library/react";
import ProductListing from "../src/app/productlisting/page"; // Adjust the path based on your file structure

// Mock child components to isolate the page
jest.mock("../src/app/components/ceramics", () => () => <div data-testid="ceramics">Ceramics Component</div>);
jest.mock("../src/app/components/category", () => () => <div data-testid="category">Category Component</div>);
jest.mock("../src/app/components/popular", () => () => <div data-testid="popular">Popular Component</div>);

describe("ProductListing Page", () => {
  test("renders all sections correctly", () => {
    render(<ProductListing />);

    // Check if the main image is rendered
    const image = screen.getByAltText("product cover picture");
    expect(image).toBeInTheDocument();

    // Check if the dropdowns are rendered
    const dropdowns = screen.getAllByRole("combobox");
    expect(dropdowns).toHaveLength(4); // Ensure 4 dropdowns are present
    expect(screen.getByText("Product type")).toBeInTheDocument();
    expect(screen.getByText("Price")).toBeInTheDocument();
    expect(screen.getByText("Brand")).toBeInTheDocument();
    expect(screen.getByText("Date added")).toBeInTheDocument();

    // Check if the "View collection" button is rendered
    const button = screen.getByRole("button", { name: /View collection/i });
    expect(button).toBeInTheDocument();
```

```
Time:        2.746 s
Ran all test suites.

Sikandar@DESKTOP-IVESD20 MINGW64 /d/Muniba nextjs/nextjs projects/hackathon-nextjs (main)
$ npm test

> hackathon-nextjs@0.1.0 test
> jest

 PASS  __test__/Home.test.tsx
 PASS  __test__/ProductListing.test.tsx

Test Suites: 2 passed, 2 total
Tests:       2 passed, 2 total
Snapshots:   0 total
Time:        4.874 s
Ran all test suites.

Sikandar@DESKTOP-IVESD20 MINGW64 /d/Muniba nextjs/nextjs projects/hackathon-nextjs (main)
$
```

Api testing:

i- With Postman testing tool:

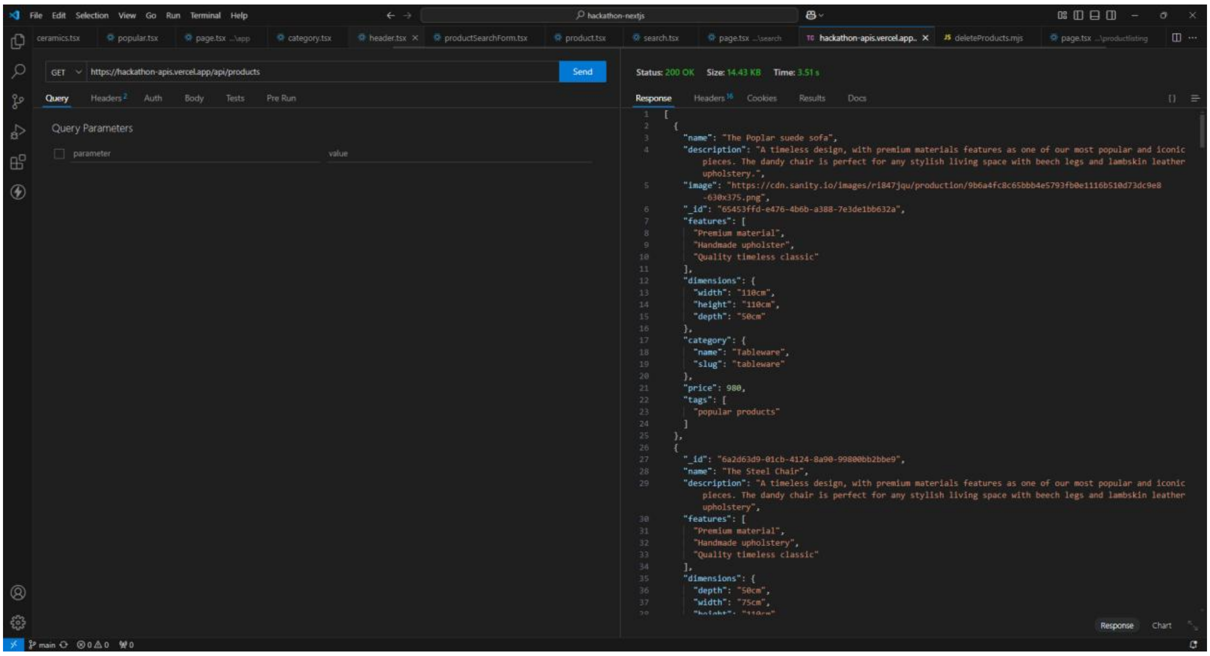


GET https://hackathon-apis.vercel.app/api/products

200 OK · 2.27 s · 14.98 KB

```
[
    {
        "name": "The Poplar suede sofa",
        "description": "A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery.",
        "image": "https://cdn.sanity.io/images/ri847jqu/production/9b6a4fc8c65bbb4e5793fb0e1116b510d73dc9e8-630x375.png",
        "_id": "65453ffd-e476-4b6b-a388-7e3de1bb632a",
        "features": [
            "Premium material",
            "Handmade upholster",
            "Quality timeless classic"
        ],
        "dimensions": {
            "width": "110cm",
            "height": "110cm",
            "depth": "50cm"
        },
        "category": {
            "name": "Tableware",
            "slug": "tableware"
        },
        "price": 980,
        "tags": [
            "popular products"
        ]
```

ii- With thunderclient extension:

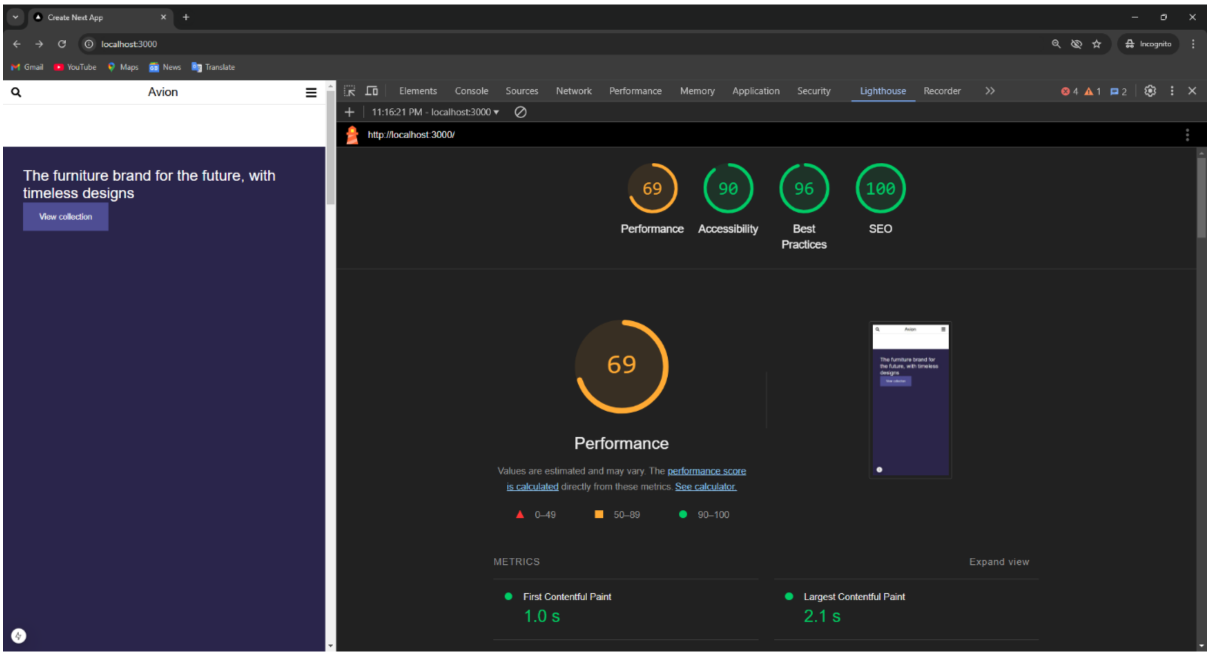


GET https://hackathon-apis.vercel.app/api/products

Status: 200 OK Size: 14.43 KB Time: 3.51 s

```
[
  {
    "name": "The Poplar suede sofa",
    "description": "A timeless design, with premium materials features as one of our most popular and iconic
        pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather
        upholstery.",
    "image": "https://cdn.sanity.io/images/ri847jqu/production/9b6a4fc8c65bbb4e5793fb0e1116b510d73dc9e8
        -630x375.png",
    "_id": "65453ffd-e476-4b6b-a388-7e3de1bb632a",
    "features": [
      "Premium material",
      "Handmade upholster",
      "Quality timeless classic"
    ],
    "dimensions": {
      "width": "110cm",
      "height": "110cm",
      "depth": "50cm"
    },
    "category": {
      "name": "Tableware",
      "slug": "tableware"
    },
    "price": 980,
    "tags": [
      "popular products"
    ]
  },
  {
    "_id": "6a2d63d9-01cb-4124-8a90-99800bb2bbe9",
    "name": "The Steel Chair",
    "description": "A timeless design, with premium materials features as one of our most popular and iconic
        pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather
        upholstery",
    "features": [
      "Premium material",
      "Handmade upholstery",
      "Quality timeless classic"
    ],
    "dimensions": {
      "depth": "50cm",
      "width": "75cm",
      "height": "110cm"
```

2- Performance Testing with Lighthouse dev tool:



The furniture brand for the future, with timeless designs

View collection

69 Performance

90 Accessibility

96 Best Practices

100 SEO

69

Performance

Values are estimated and may vary. The performance score is calculated directly from these metrics. See calculator.

▲ 0–49 ■ 50–89 ● 90–100

METRICS

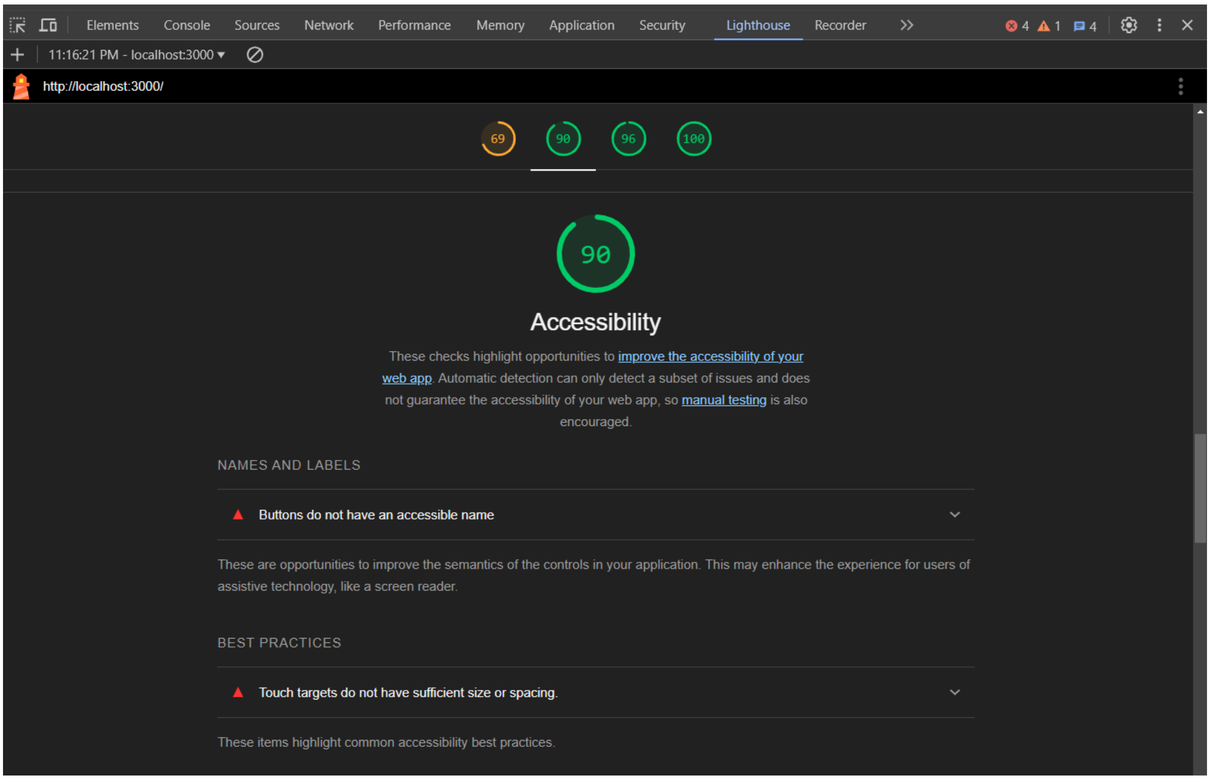
Expand view

● First Contentful Paint

1.0 s

● Largest Contentful Paint

2.1 s



90

Accessibility

These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app, so manual testing is also encouraged.

NAMES AND LABELS

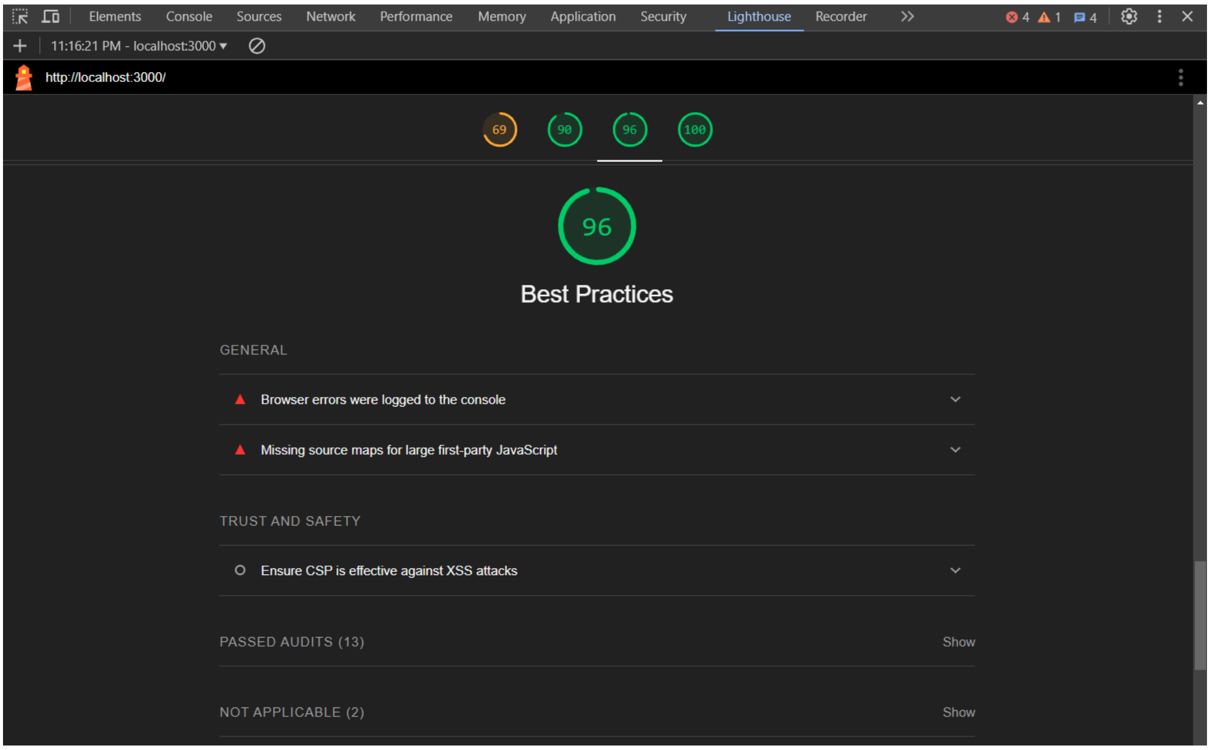
▲ Buttons do not have an accessible name

These are opportunities to improve the semantics of the controls in your application. This may enhance the experience for users of assistive technology, like a screen reader.

BEST PRACTICES

▲ Touch targets do not have sufficient size or spacing.

These items highlight common accessibility best practices.



96

Best Practices

GENERAL

▲ Browser errors were logged to the console

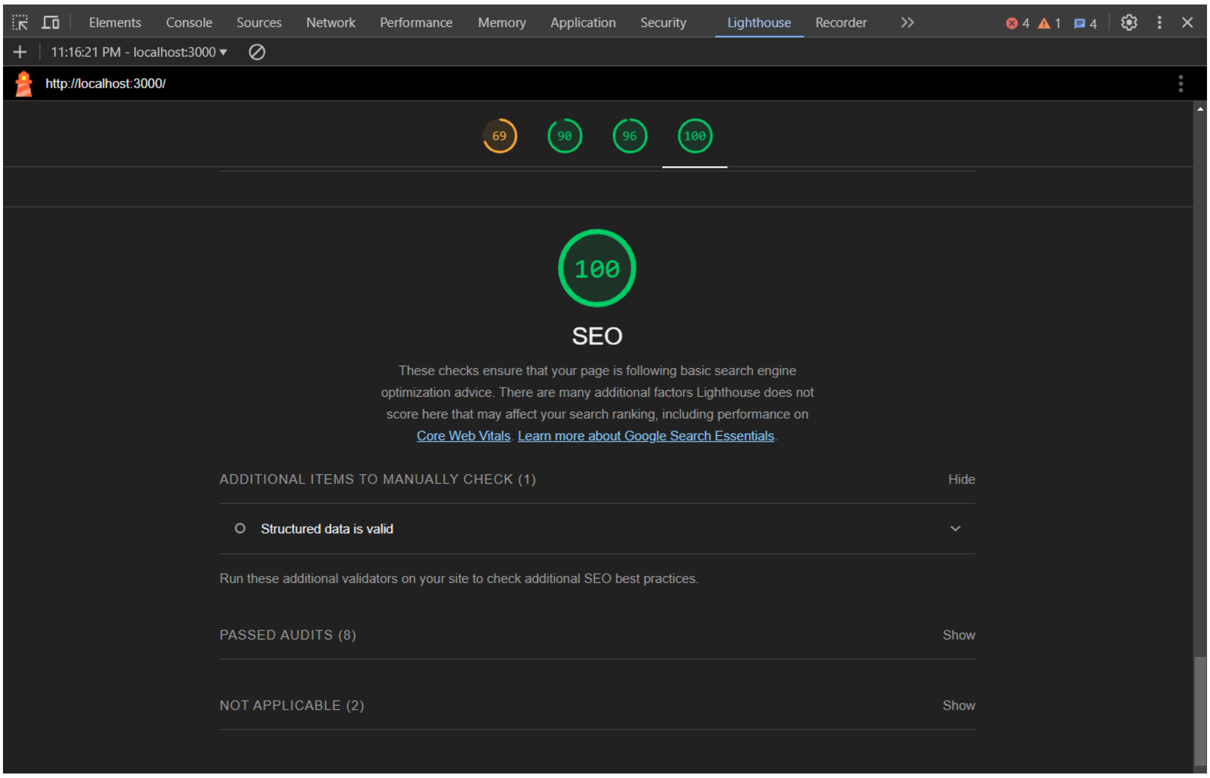
▲ Missing source maps for large first-party JavaScript

TRUST AND SAFETY

○ Ensure CSP is effective against XSS attacks

PASSED AUDITS (13) Show

NOT APPLICABLE (2) Show



100

SEO

These checks ensure that your page is following basic search engine optimization advice. There are many additional factors Lighthouse does not score here that may affect your search ranking, including performance on Core Web Vitals. Learn more about Google Search Essentials.

ADDITIONAL ITEMS TO MANUALLY CHECK (1) Hide

○ Structured data is valid

Run these additional validators on your site to check additional SEO best practices.

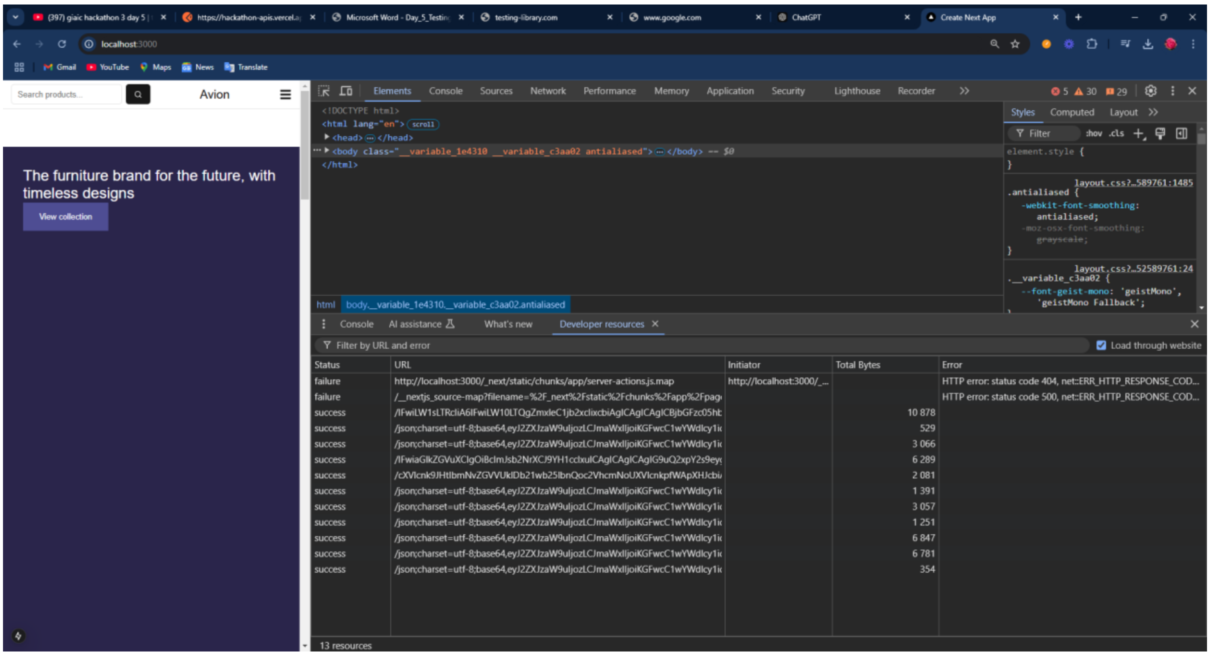
PASSED AUDITS (8) Show

NOT APPLICABLE (2) Show

3- Cross-Browser and Device Testing:

- Test my marketplace on popular browsers like Microsoft Edge and Google chrome.

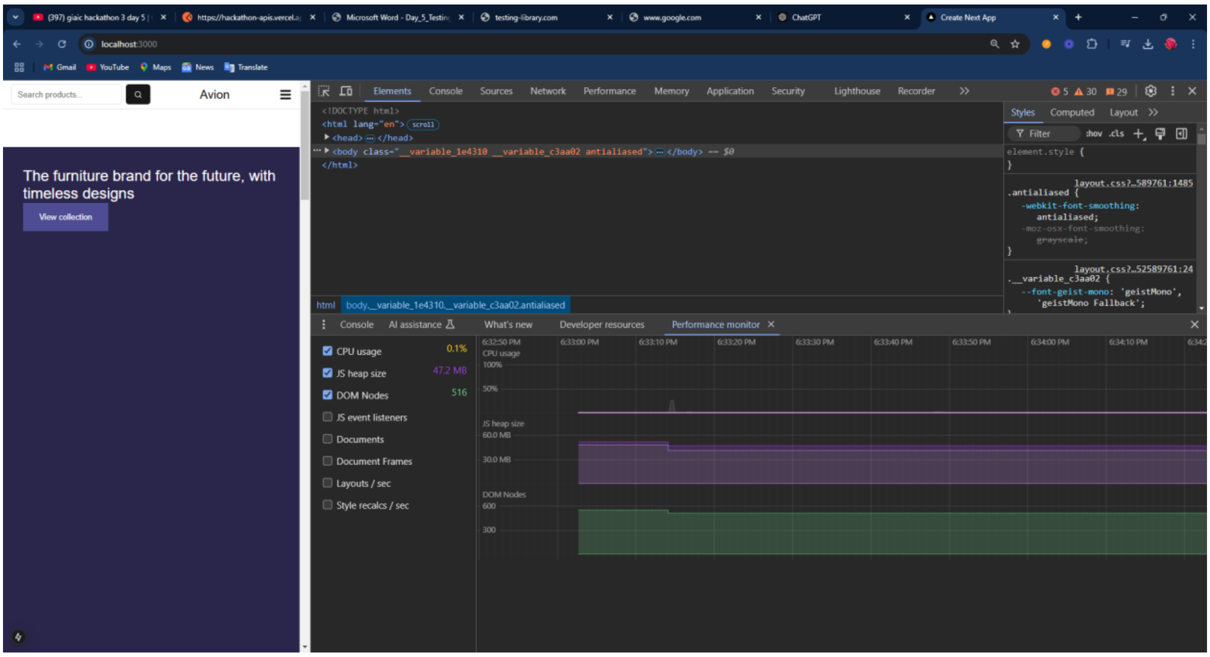
4- Developer Resources:



Status	URL	Initiator	Total Bytes	Error
failure	http://localhost:3000/_next/static/chunks/app/server-actions.js.map	http://localhost:3000/_...		HTTP error: status code 404, net::ERR_HTTP_RESPONSE_COD...
failure	/__nextjs_source-map?filename=%2F_next%2Fstatic%2Fchunks%2Fapp%2Fpag			HTTP error: status code 500, net::ERR_HTTP_RESPONSE_COD...
success	/IFwiLW1sLTRcliA6IFwiLW10LTQgZmxleC1jb2xclixcbiAgICAgICAgICBjbGFzc05hb		10 878	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		529	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		3 066	
success	/IFwiaGlkZGVuXCIgOiBcImJsb2NrXCJ9YH1ccIxuICAgICAgICAgIG9uQ2xpY2s9ey		6 289	
success	/cXVlcnk9JHtlbmNvZGVVUkIDb21wb25lbnQoc2VhcmNoUXVlcnkpfWApXHJcbi		2 081	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		1 391	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		3 057	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		1 251	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		6 847	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		6 781	
success	/json;charset=utf-8;base64,eyJ2ZXJzaW9uIjozLCJmaWxlIjoiKGFwcC1wYWdlcy1i		354	

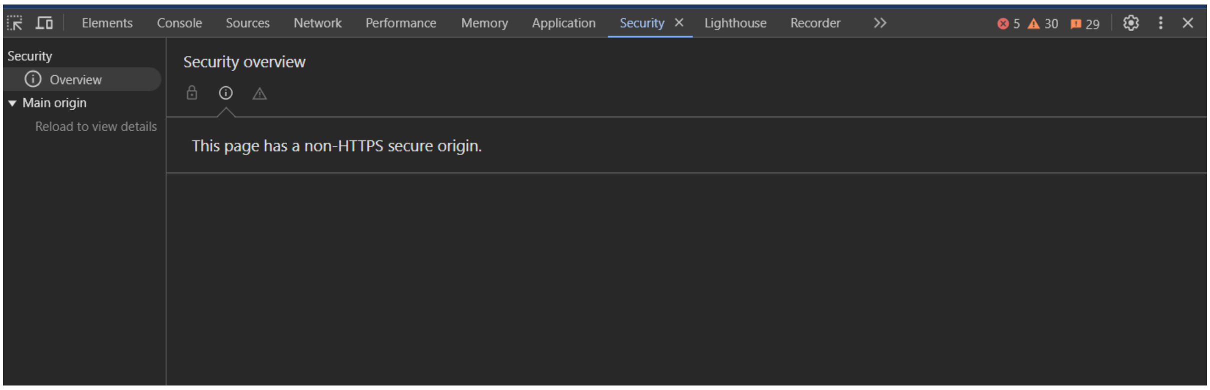
13 resources

Performance Monitor:



☑ CPU usage 0.1%
☑ JS heap size 47.2 MB
☑ DOM Nodes 516
□ JS event listeners
□ Documents
□ Document Frames
□ Layouts / sec
□ Style recalcs / sec

Security:



Security

Overview

Main origin

Reload to view details

Security overview

This page has a non-HTTPS secure origin.

Csv report:

Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	Assigned To	Remarks	
2	TC001	Validate product listing page	Open product page > Verify products	Products displayed correctly	Products displayed correctly	Passed	Low	-	No issues found
3	TC002	Test API error handling	Disconnect API > Refresh page	Show fallback UI with error message	Error message shown	Passed	Medium	-	Handled gracefully
4	TC003	Check cart functionality	Add product to cart > Verify cart contents	Cart updates with added product	Cart updates as expected	Passed	High	-	Works as expected
5	TC004	Ensure responsiveness on mobile	Resize browser window > Check layout	Layout adjusts properly to screen size	Responsive layout working as intended	Passed	Medium	-	Test successful
6	TC005	Check pagination	Product detail>next/prev button	Navigate to next/prev page	Pagination works and navigate to next/prev page	passed	medium	-	Test successful
7	TC006	Category filter	Product list>dropdown button “All products”	Category filter properly	Product displayed of selected category	passed	medium	-	Test successful