

Day 5 - Testing and Backend Refinement

E-Commerce - Selling Furniture Website

1. Functional Testing:

Validate that all marketplace features work as intended.

- o Test Case ID >>> TC001
- o Test Case Description >>> Validate Product Listing Page
- o Test Steps >>> Open Products Page > Validate Products
- o Expected Result >>> Products Display Successfully
- o Actual Result >>> Products Display Successfully
- o Status >>> Passed
- o Severity Level >>> Low
- o Assigned To >>> by myself
- o Remarks >>> No problems detected

Test core functionalities like product listing, detail pages, cart operations, and user profile management.

The screenshot shows the homepage of the Avion E-commerce website. At the top, there is a banner with the text "Free delivery on all orders over £50 with code easter checkout". Below the banner, the Avion logo is on the left, and on the right are links for "About us", "Contact", "Blog", a search icon, a shopping cart icon with a red notification dot (0), and a user profile icon.

The main navigation menu includes "All products", "Plant pots", "Ceramics", "Tables", "Chairs", "Crockery", "Tableware", and "Cutlery".

A large black rectangular area contains the text "All products". Below this, there are four product cards displayed horizontally:

- Gold Cutlery** (£250) - An image of gold-colored cutlery pieces.
- Lamp Table** (£250) - An image of a lamp table with a wooden frame and a white lamp shade.
- White Lamp Table** (£250) - An image of a white lamp table with a white lamp shade.
- Peach Lamp Table** (£250) - An image of a lamp table with a light-colored wooden frame and a woven lamp shade.

Below these, there are two more rows of product cards:

- Best Seller** - An image of a small potted plant on a desk.
- New** - An image of a teal velvet sofa.
- Limited** - An image of a dining table set with plates, glasses, and fruit.
- New** - An image of gold-colored cutlery pieces.

Zubair Ahmed
Saturday - 2 to 5

2. Error Handling

Implement proper error messages for:

- o Network failures.
- o Invalid or missing data.
- o Unexpected server errors.

Display fallback UI elements (e.g., "No products available" when the API returns no data).

- o **Test Case ID** >>> TC002
- o **Test Case Description** >>> Test API error handling
- o **Test Steps** >>> Remove Sanity Gorg Query > Reload Page
- o **Expected Result** >>> Show Error Message - Failed to load products X
- o **Actual Result** >>> Show Error Message - Failed to load products X
- o **Status** >>> Passed
- o **Severity Level** >>> Low
- o **Assigned To** >>> by myself
- o **Remarks** >>> Handled gracefully

The screenshot shows a web browser displaying the Avion website. At the top, there's a dark header bar with a promotional banner: "Free delivery on all orders over £50 with code easter checkout". Below the header, the Avion logo is on the left, and a navigation bar with links for "About us", "Contact", "Blog", a search icon, a shopping cart icon with a red '0' notification, and a user profile icon. The main content area has a large, dark, textured background image. Overlaid on this image is the text "All products" in white. Below the image, there are filters for "Category", "Product type", "Price", and "Brand", followed by a sorting dropdown set to "Sorting by: Date added". In the center of the page, the text "Failed to load products" is displayed in red, accompanied by a red 'X' icon. At the bottom of the page, there's a "Load More" button. The footer section contains links for "Menu" (New arrivals, Best sellers, Recently viewed, Popular this week, All products), "Categories" (Crockery, Furniture, Homeware, Plant pots, Chairs, Crockery), "Our company" (About us, Vacancies, Contact us, Privacy, Returns policy), and a mailing list sign-up form with fields for "your@email.com" and "Sign up". The footer also includes copyright information ("Copyright 2022 Avion LTD") and social media icons for LinkedIn, Facebook, Instagram, YouTube, Twitter, and Pinterest.

Code for Error Handling

A screenshot of a code editor (VS Code) showing a file named `ProductsPage.tsx`. The code implements error handling for fetching products from a Sanity database. It uses the `useState` hook to manage state and the `useEffect` hook to fetch data. A green callout arrow points to the `catch` block where an error is logged and the state is updated to failed.

```
export default function ProductsPage() {
  const [error, setError] = useState<string | null>(null);

  const getProducts = async () => {
    try {
      const fetchedProducts: Product[] = await client.fetch(allProducts);
      setProducts(fetchedProducts);
    } catch (error) {
      console.error("Error fetching products:", error);
      setError("Failed to load products ✗");
    } finally {
      setLoading(false); // Stop the loading spinner
    }
  };
  getProducts();
}, [];

useEffect(() => {
  const getCategories = async () => {
    try {
      const fetchedCategories: Category[] = await client.fetch(category);
      setCategories(fetchedCategories);
    } catch (error) {
      console.error("Error fetching categories:", error);
      setError("Failed to load categories ✗");
    }
  };
  getCategories();
});
```

API Error Testing Status: 200 OK

A screenshot of a browser-based API testing tool (Postman or similar) showing a successful API call. The request URL is `https://hackathon-apis.vercel.app/api/products`. The response status is `200 OK`, size is `14.43 KB`, and time taken is `436 ms`. The response body is a JSON object representing a product item.

```
[{"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": "6545ffd-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"]}]
```

Zubair Ahmed
Saturday - 2 to 5

3. Add to Cart

Test core functionalities like Cart operations.

- o **Test Case ID** >>> TC003
- o **Test Case Description** >>> Check cart functionality
- o **Test Steps** >>> Add product to cart > Verify cart contents
- o **Expected Result** >>> Cart updates with added product
- o **Actual Result** >>> Cart updated Qty and rest Data
- o **Status** >>> Passed
- o **Severity Level** >>> High
- o **Assigned To** >>> by myself
- o **Remarks** >>> Working Properly

The screenshot shows the Avion website's shopping cart page. At the top, there is a banner with the text "Free delivery on all orders over £50 with code easter checkout". Below the banner, the Avion logo is on the left, and a navigation bar with links for "About us", "Contact", "Blog", a search icon, a shopping cart icon with a red notification badge (2), and a user profile icon. The main content area is titled "Your shopping cart". It lists two items:

Product	Quantity	Total
Lamp Table  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. £250	- 1 +	£250.00
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. £149	- 3 +	£447.00

At the bottom of the cart page, there are buttons for "Clear cart" (in a red box), "Subtotal £697.00", "Taxes and shipping are calculated at checkout", and "Go to checkout".

The footer of the page contains links for "Menu", "Categories", "Our company", and a "Join our mailing list" section where users can enter their email address ("your@email.com") and sign up. The footer also includes social media icons for LinkedIn, Facebook, Instagram, Snapchat, Twitter, and Pinterest, and a copyright notice: "Copyright 2022 Avion LTD".

4. Responsive

Test core functionalities like Cart operations.

- **Test Case ID** >>> TC004
 - **Test Case Description** >>> Ensure responsiveness on mobile
 - **Test Steps** >>> Resize browser window > Check layout
 - **Expected Result** >>> Layout adjusts properly to screen size
 - **Actual Result** >>> Fully Responsive layout working as intended
 - **Status** >>> Passed
 - **Severity Level** >>> Low
 - **Assigned To** >>> by myself
 - **Remarks** >>> Test successful

The Dandy chair £149

The Silky Vase £250

New

Vase Set £150

Discount

The Lucky Lamp £200

Join the club and get the benefits

Sign up for our newsletter and receive exclusive offers on new ranges, sales, pop up stores and more

your@email.com

Sign up

-  **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 craftsmanship
-  **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

The grid displays several products:

- A large teal velvet sofa with wooden legs.
- A green velvet chair with white legs, labeled "Limited".
- A white desk with a black top.
- A yellow chair with gold legs.
- A light blue chair with gold legs.

Text labels provide product names and prices:

- The Poplar suede sofa £980
- Green White Chair £150
- Yellow and White Chair £320

A "View collection" button is located at the bottom center.

From a studio in London to a global brand with over 400 outlets

When we started Avion, the idea was simple. Make high quality furniture affordable and available for the mass market.

Handmade, and lovingly crafted furniture and homeware is what we live, breathe and design so our Chelsea boutique become the hub for the London interior design community.

Get in touch



Menu	Categories	Our company
New arrivals	Crockery	About us
Best sellers	Furniture	Vacancies
Recently viewed	Homeware	Contact us
Popular this week	Plant pots	Privacy
All products	Chairs	Returns policy
	Crockery	

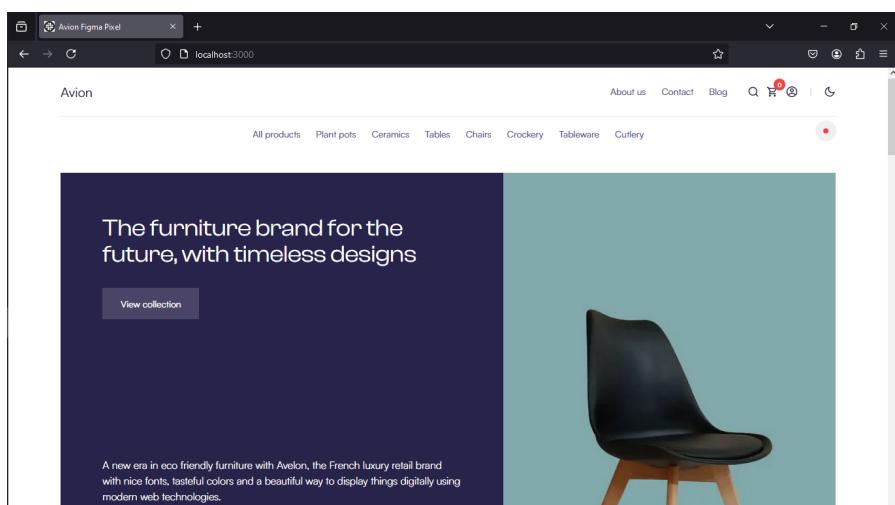
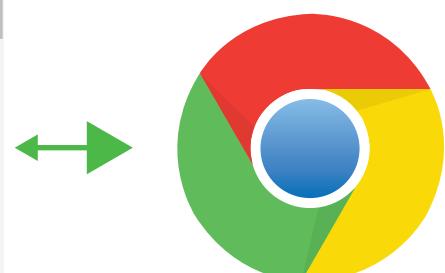
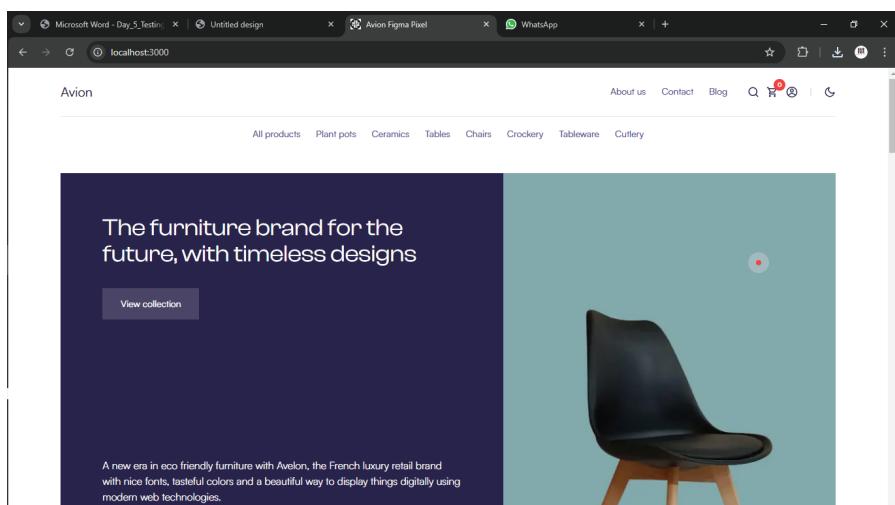
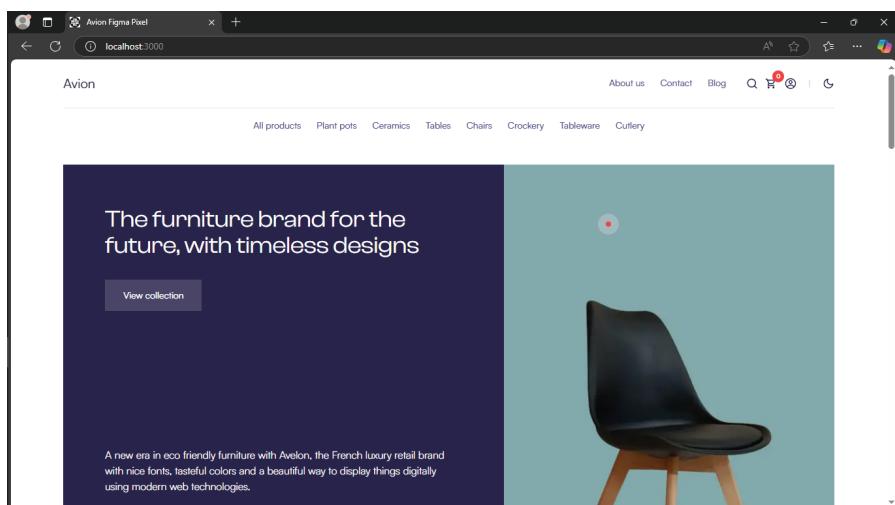
Join our mailing list

Copyright 2022 Avion LTD 

5. Cross Browsing

Cross-Browser and Device Testing

- o **Test Case ID** >>> TC005
- o **Test Case Description** >>> Cross Browsing
- o **Test Steps** >>> Open our website on different Browsers such as Yahoo
- o **Expected Result** >>> Working Correctly on every browsers
- o **Actual Result** >>> Working Correctly on every Browsers
- o **Status** >>> Passed
- o **Severity Level** >>> Low
- o **Assigned To** >>> by myself
- o **Remarks** >>> Waaa! Amazing





There were issues affecting this run of Lighthouse:

- The tested device appears to have a slower CPU than Lighthouse expects. This can negatively affect your performance score. Learn more about [calibrating an appropriate CPU slowdown multiplier](#).



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

■ Largest Contentful Paint

2.7 s

● First Contentful Paint

1.5 s

▲ Total Blocking Time

13,900 ms

● Speed Index

1.5 s

● Cumulative Layout Shift

0.008

[Expand view](#)

[View Treemap](#)



Show audits relevant to: [All](#) [FCP](#) [LCP](#) [TBT](#) [CLS](#)

DIAGNOSTICS

▲ Minimize main-thread work — **17.9 s**

▲ Reduce JavaScript execution time — **14.5 s**

▲ Eliminate render-blocking resources — Potential savings of 670 ms

▲ Reduce unused JavaScript — Potential savings of 244 kB

▲ Minify JavaScript — Potential savings of 5 kB

▲ Largest Contentful Paint element — **2,740 ms**

▲ Page prevented back/forward cache restoration — **3 failure reasons**

■ Avoid serving legacy JavaScript to modern browsers — Potential savings of 0 kB

■ Avoid enormous network payloads — **Total size was 7,741 kB**

○ Avoid long main-thread tasks — **17 long tasks found**

○ Avoid large layout shifts — **1 layout shift found**

○ Avoids an excessive DOM size — **269 elements**

○ Initial server response time was short — Root document took 120 ms

○ Avoid chaining critical requests — **5 chains found**

○ Minimize third-party usage — Third-party code blocked the main thread for 0 ms

More information about the performance of your application. These numbers don't [directly affect](#) the Performance score.



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
- ▲ Links do not have a discernible 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.

CONTRAST

- ▲ Background and foreground colors do not have a sufficient contrast ratio.

These are opportunities to improve the legibility of your content.

NAVIGATION

- ▲ Heading elements are not in a sequentially-descending order

These are opportunities to improve keyboard navigation in your application.

ADDITIONAL ITEMS TO MANUALLY CHECK (10)

Show

These items address areas which an automated testing tool cannot cover. Learn more in our guide on [conducting an accessibility review](#).

PASSED AUDITS (20)

Show

NOT APPLICABLE (33)

Show



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
- Use a strong HSTS policy
- Ensure proper origin isolation with COOP

PASSED AUDITS (13)

Show

NOT APPLICABLE (2)

Show



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](#).

CRAWLING AND INDEXING

⚠️ robots.txt is not valid Lighthouse was unable to download a robots.txt file

To appear in search results, crawlers need access to your app.

ADDITIONAL ITEMS TO MANUALLY CHECK (1)

Show

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

PASSED AUDITS (8)

Show

NOT APPLICABLE (1)

Show

Captured at Jan 23, 2025, 9:32 PM
GMT+5
 Emulated Moto G Power with Lighthouse
12.3.0
 Single page session
 Initial page load
 Slow 4G throttling
 Using Chromium 131.0.0.0 with cli

Generated by **Lighthouse** 12.3.0 | [File an issue](#)

- Functional**
- Testing**
- Error Handling Performance**
- Optimization**
- Cross-Browser and Devices Test**
- Security Testing Documentation**