

Hackathon Day 5 - Testing and Backend Refinement – FURNIRO

Platform Technologies: NextJS, TailwindCSS, TypeScript, Sanity CMS, Cypress, Postman

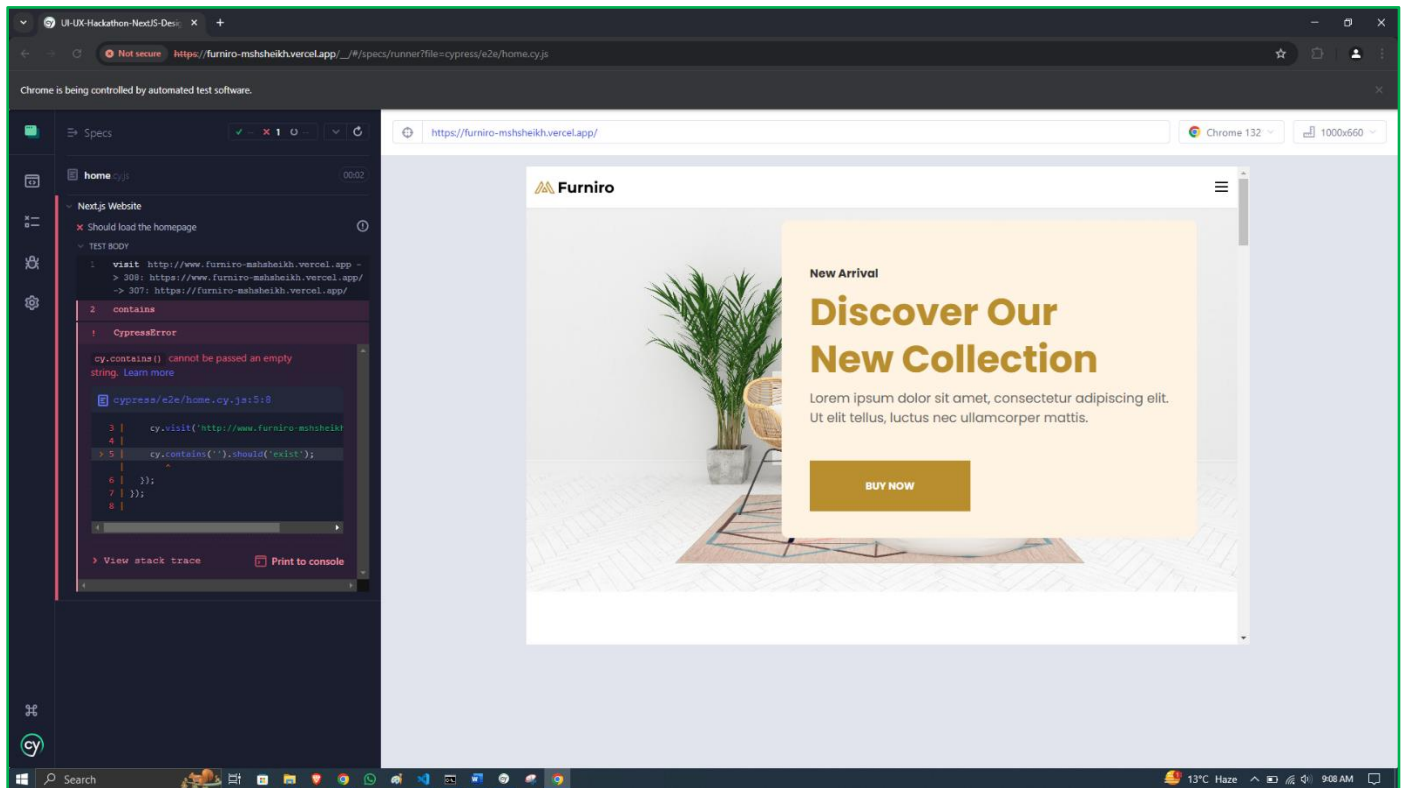
Objective: Conduct functional, non-functional, UAT, and security testing to prepare the platform for deployment.

Testing Area	Goal	Tools Used	Risk
Functional Testing	Ensure features (e.g., product listing, cart) work as intended.	Postman, Cypress, React Testing Library	High
Error Handling	Verify fallback UI and error messages for API failures.	Custom logs, React testing	Medium
Performance Testing	Optimize speed, minimize resource usage, and test load times.	Lighthouse, GTmetrix	High
Cross-Browser/Device	Validate functionality on major browsers and devices.	BrowserStack, physical devices	Medium
Security Testing	Scan for vulnerabilities and ensure secure data handling.	OWASP ZAP, Burp Suite	High
User Acceptance Testing	Simulate user actions to verify workflows are smooth and intuitive.	Manual Testing	Low
Documentation Updates	Record findings, results, and resolutions in a professional format.	Markdown, CSV	None

1. Functional Testing (High-Risk):

- **Key Tests:**
 - ✓ Product listing displays all items correctly.
 - ✓ Filters and search return accurate results.
 - ✓ Cart operations (add, update, delete) work seamlessly.
 - ✓ Product detail pages load dynamically and show relevant data.

Cypress Test Completed:



Postman Test Completed:

The screenshot shows the Postman interface with a REST API collection named 'REST API basics: CRUD, test & variable'. The selected endpoint is 'GET /products' with the URL 'https://template6-six.vercel.app/api/products'. The test script is as follows:

```
1 pm.test("Status code is 200", function () {
2   pm.response.to.have.status(200);
3 });
4
5 var template = `
6 <style type="text/css">
7   .tftable {font-size:14px;color:#333333;width:100%;border-width: 1px;border-color: #07ceeb;border-collapse: collapse;}
8   .tftable th {font-size:10px;background-color:#07ceeb;border-width: 1px;padding: 8px;border-style: solid;border-color: #07ceeb;
9     text-align:left;}
10  .tftable tr {background-color:#ffffff;}
11  .tftable td {font-size:14px;border-width: 1px;padding: 8px;border-style: solid;border-color: #07ceeb;}
12  .tftable tr:hover {background-color:#e0e0e0;}
13 </style>
14 <table class="tftable" border="1">
15   <tr>
16     <th>Name</th>
17     <th>Price</th>
18   </tr>
19   [[#each response.data]]
20   <tr>
21     <td>[[name]]</td>
22     <td>[[price]]</td>
23   </tr>
24   </each>
25 </table>
26 `;
27
28
29 function constructVisualizerPayload() {
30   var res = pm.response.json();
31   return {response: res};
32 }
33
34 pm.visualizer.set(template, constructVisualizerPayload());
```

The test results show a '200 OK' status with a response time of 6 m 30.06 s and a body size of 14.63 KB. The response body is a JSON array of product objects.

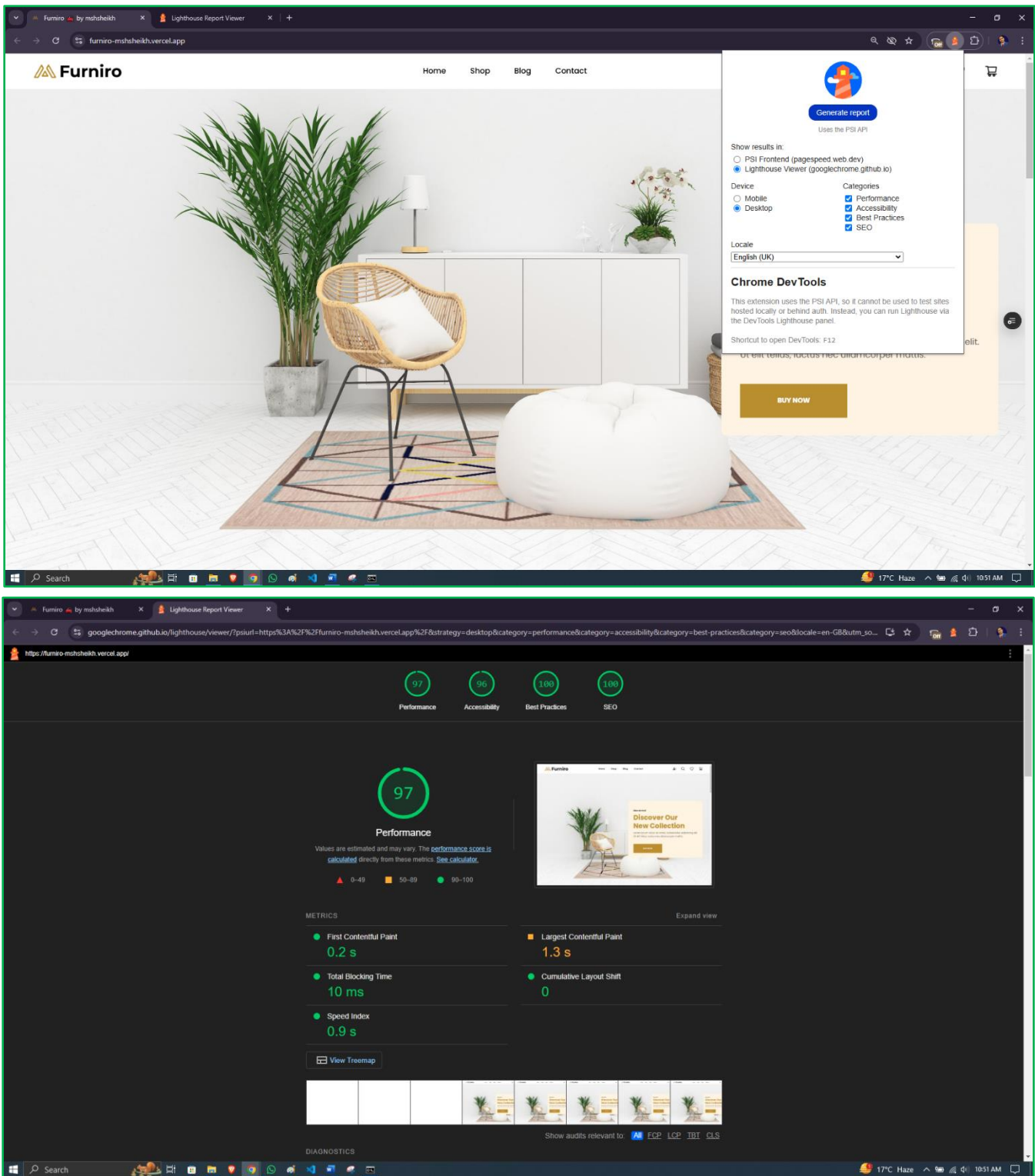
The screenshot shows the Postman interface with the same REST API collection. The selected endpoint is 'GET /products' with the URL 'https://template6-six.vercel.app/api/products'. The test script is the same as in the previous screenshot. The test results show a '200 OK' status with a response time of 6 m 30.06 s and a body size of 14.63 KB. The response body is a JSON array of product objects, including:

```
1 [
2   {
3     "imageurl": "https://cdn.sanity.io/images/7xt4qcqh/production/2219cafc285ec13a2ed3f8aa36cbea852a1f735-306x376.png",
4     "price": 210,
5     "tags": [
6       "rustic ",
7       "vase ",
8       "home decor",
9       "vintage ",
10      "interior design"
11    ],
12     "discountPercentage": 10,
13     "description": "Bring the charm of nature into your home with the Rustic Vase Set. Perfect for those who appreciate timeless beauty and a warm, inviting atmosphere, this set of vases adds a touch of rustic elegance to any space. Crafted with care and attention to detail, these vases are designed to evoke the essence of vintage craftsmanship while seamlessly complementing both modern and traditional decor styles.\n\nThe Rustic Vase Set features a collection of three uniquely designed vases, each with its own character. Their earthy tones, textured finishes, and artisanal touch capture the essence of the countryside, making them ideal for showcasing fresh flowers, dried arrangements, or simply as standalone decor pieces. Whether placed on a mantel, coffee table, or dining area, these vases effortlessly enhance the ambiance of your home.\n\nMade from high-quality materials, the Rustic Vase Set offers both style and durability. The natural, imperfect surfaces of the vases give them a distinct, hand-crafted appeal, ensuring that each set is one-of-a-kind. With their timeless design, these vases make a perfect gift for housewarmings, weddings, or any special occasion.\n\nKey Features:\n\n- Set includes three uniquely designed rustic vases\n- Crafted from high-quality materials with a natural, hand-crafted finish\n- Perfect for displaying flowers, greenery, or as standalone decorative pieces\n- Versatile design complements both modern and traditional interiors\n- Ideal for gifting or personal use in any living space\n- Add warmth and character to your home with the Rustic Vase Set-where classic design meets natural beauty.",
14     "isNew": false,
15     "id": "06ec0333-7e9c-4815-9229-93aaddbd727f",
16     "title": "Rustic Vase Set"
17   },
18   {
19     "title": "Timber Craft",
20     "imageurl": "https://cdn.sanity.io/images/7xt4qcqh/production/cbf4d4d2e1a3a58e257631d84efe10a8c26aed7-3264x4920.jpg",
21     "price": 320,
22     "tags": [
23       "wooden ",
24       "craftsmanship ",
25       "furniture ",
26       "modern ",
27       "nature inspired"
28     ],
29     "discountPercentage": 30,
30     "description": "Introducing TimberCraft-a collection that celebrates the timeless beauty of wood craftsmanship and the art of nature's finest materials. Inspired by the rustic charm and durability of natural wood, TimberCraft brings warmth, character, and a touch of handcrafted elegance to any space. Perfect for those who value authenticity and
```

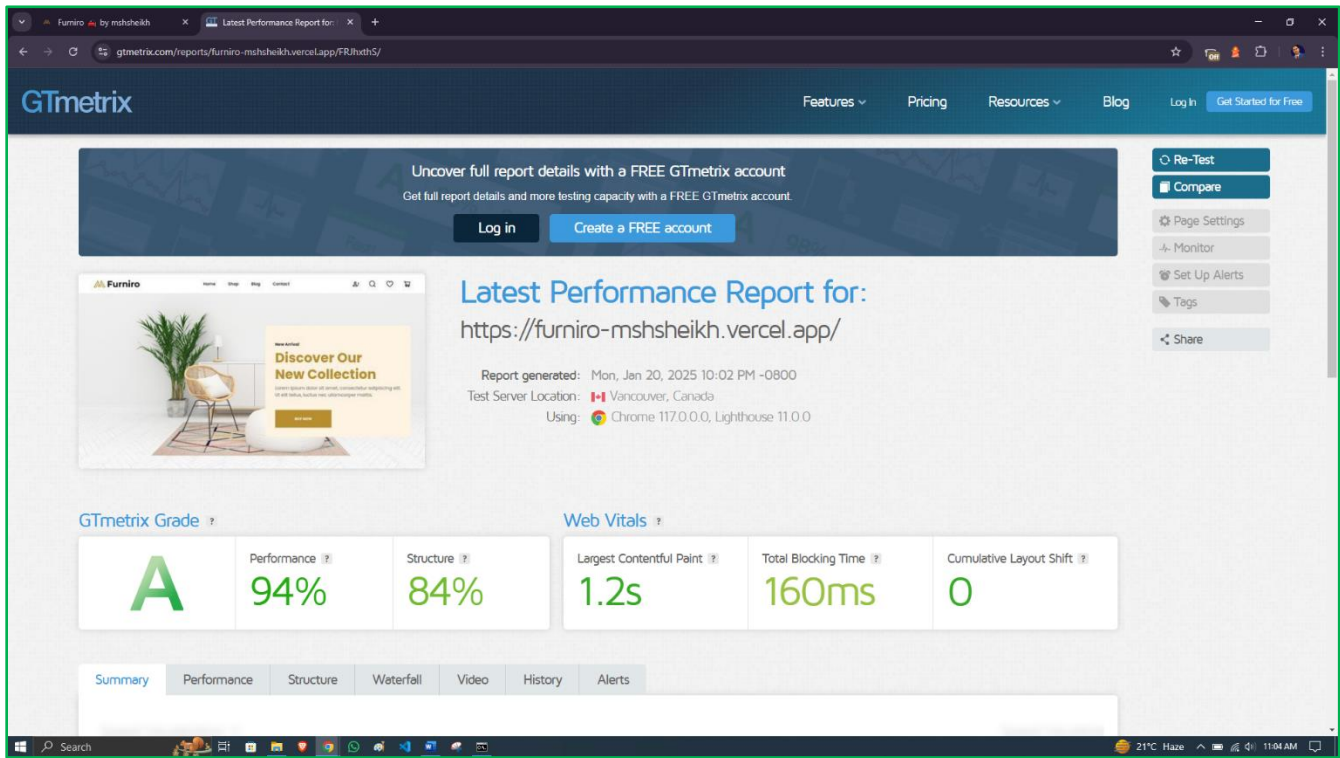
2. Performance Testing (High-Risk):

- **Key Tests:**
 - ✓ Identify and fix bottlenecks in page load times.
 - ✓ Optimize images, minimize CSS/JS, and implement caching.

Lighthouse Test Completed:



GTmetrix Test Completed:



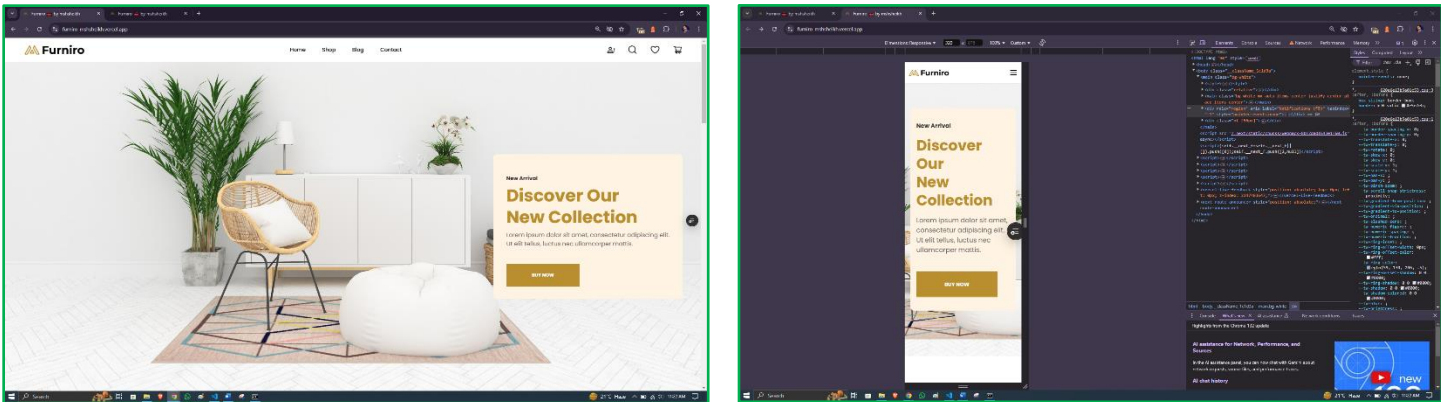
Comparison: Lighthouse vs. GTmetrix

Feature	Lighthouse	GTmetrix
Tool Type	Built-in Chrome DevTools	External Website (No Extension)
Focus Areas	General web performance (FCP, LCP)	Performance & detailed waterfall
Ease of Use	Directly in Chrome	Website or bookmarklet
Mobile Testing	Yes	Yes (Pro users)
Network Analysis	Basic	Comprehensive waterfall view

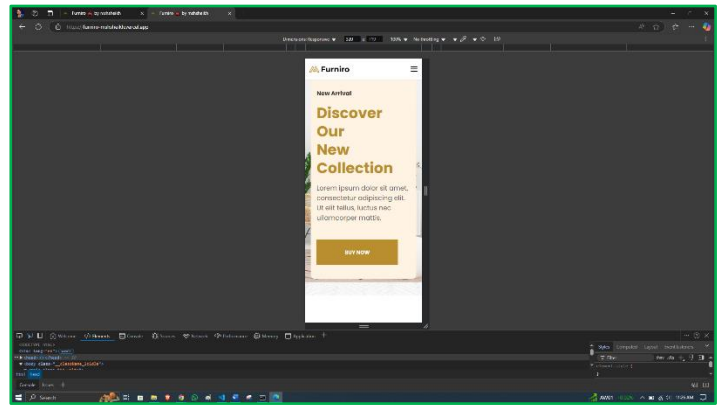
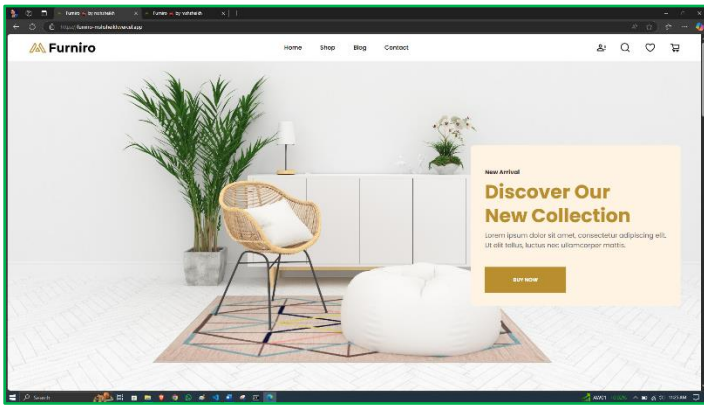
3. Cross-Browser and Device Testing (Medium-Risk):

- **Key Tests:**
 - ✓ Ensure functionality on Chrome, Firefox, Safari, and Edge.
 - ✓ Validate responsiveness on desktop, tablet, and mobile views.

Chrome Browser Test Completed:



Edge Browser Test Completed:



Brave Browser Test Completed:

