

# **HACKATHON-03**

## **DAY-06**

### **Deployment\_Preparation\_and\_Staging\_Environment\_Setup**

#### **Staging Environment Setup**

#### **Hosting Platform Configuration**

**Platform Used:** Vercel

##### **Steps Taken:**

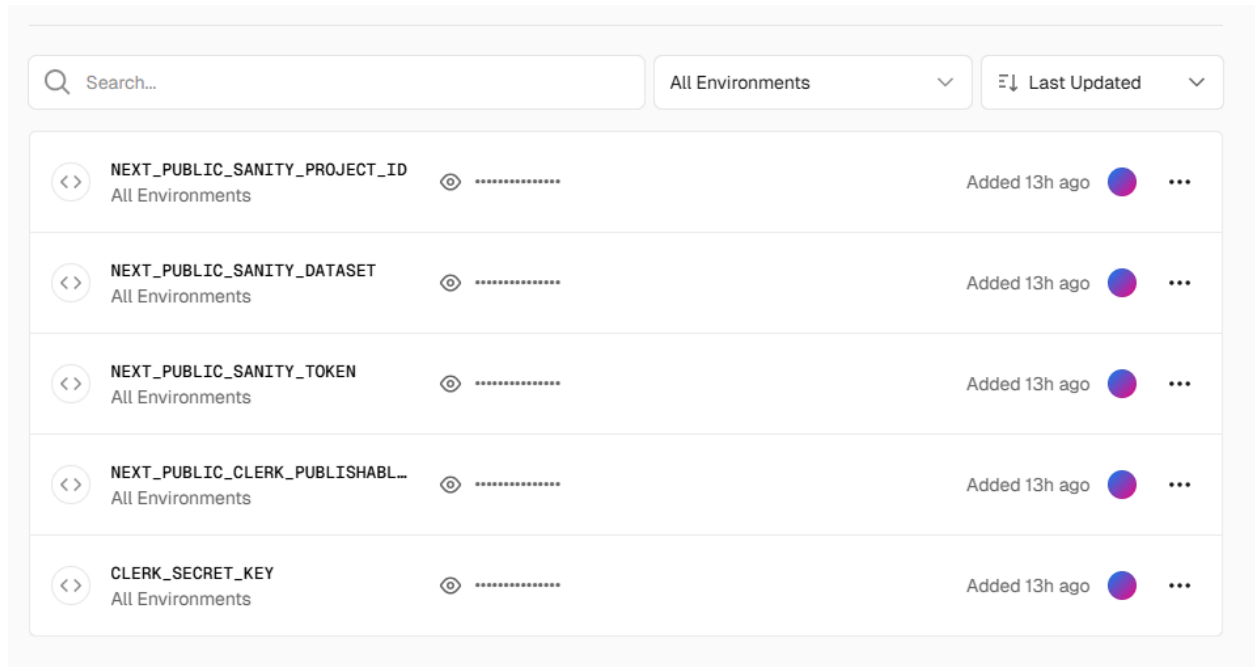
- Set up the GitHub repo and connected it to Vercel for seamless integration.
- Configured build and deployment settings specifically for the staging environment.
- Secured environment variables directly in the Vercel dashboard to keep everything clean and safe.

#### **Clerk Secret**

- **CLERK\_SECRET\_KEY=<Your Secret Key>**
- **NEXT\_PUBLIC\_CLERK\_PUBLISHABLE\_KEY=<Your Publishable Key>**

#### **Sanity Secret**

- **NEXT\_PUBLIC\_SANITY\_PROJECT\_ID= project\_id**
- **NEXT\_PUBLIC\_SANITY\_DATASET=production**
- **NEXT\_PUBLIC\_SANITY\_API\_TOKEN=your\_api\_key**



## 2. Testing in Staging Environment

### Functional Testing

#### Tests Conducted:

##### 1. Product Listing and Filtering

- Verified that products are displayed correctly with all relevant details.
- Confirmed that filtering options (e.g., by category, price, etc.) work as expected.

##### 2. Cart Operations

- Tested adding items to the cart to ensure they are reflected accurately.
- Verified the removal of items from the cart and the cart total updates accordingly.

##### 3. Page Navigation

- Checked seamless navigation between pages (e.g., product page, cart page, checkout).
- Ensured no broken links or unexpected transitions.

#### Result:

- All tests passed successfully.

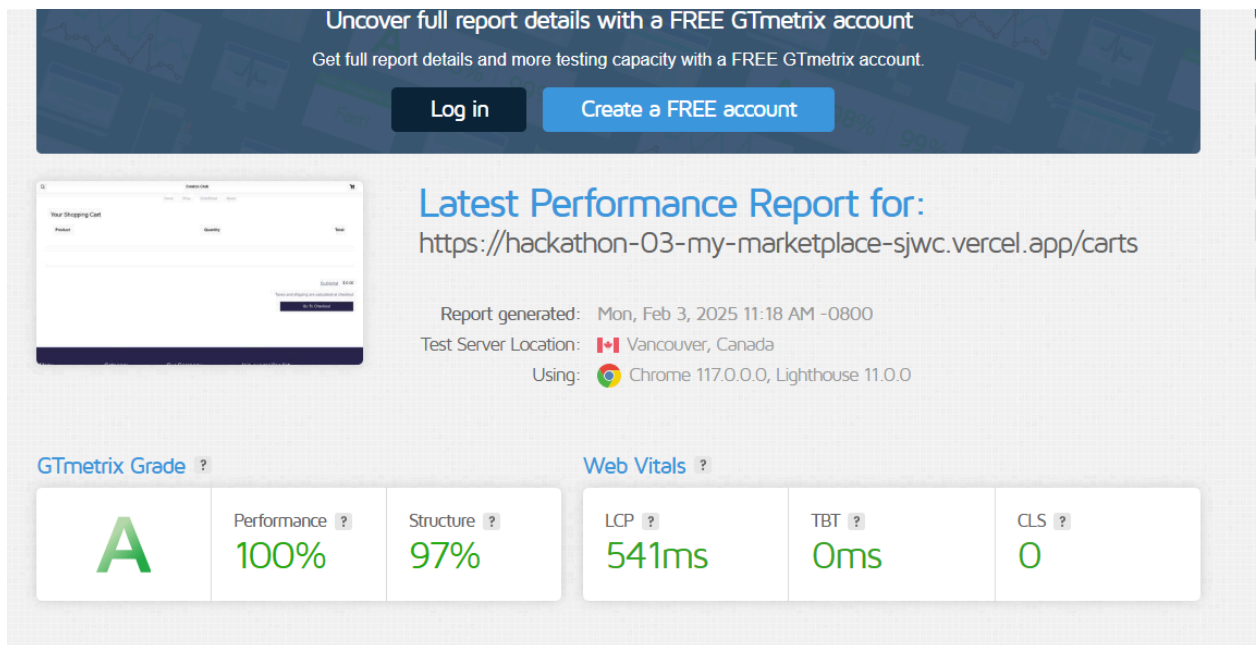
## Performance Testing Tool Used: GTmetrix

### Overall Results

- **Grade: A**
- **Performance Score: 100%**
- **Structure: 97%**

### Key Metrics

- **Largest Contentful Paint (LCP): 541 ms**
  - The LCP score indicates that the most important visual content loaded quickly and within an acceptable time frame (under 1 second is optimal).
- **Total Blocking Time (TBT): 0ms**
  - The TBT score shows minimal delay between interactions with the page, ensuring a smooth and responsive user experience.
- **Cumulative Layout Shift (CLS): 0**
  - A CLS of 0 means there were no unexpected layout shifts during the page load, ensuring a stable and pleasant viewing experience for users.



## 3. CSV Testing Report

Created a detailed CSV report with fields:

	A	B	C	D	E	F	G	H	
1	Test Case ID	Description	User logs in successfully	Expected Result	Actual Result	Status	Severity	Remarks	
2	TC001	Validate Staging Deployment	Deployed to Vercel, loaded the homepage	Homepage loads correctly	Homepage loaded without issues	Passed	Low	Successful deployment	
3	TC002	Test Navigation	Navigated between different pages	Smooth page transitions without errors	Navigation worked as expected	Passed	Low	All pages loaded properly	
4	TC003	Validate API in Staging	Triggered product API calls	API returns the correct data	Data returned correctly	Passed	Medium	Data integrity verified	
5	TC004	Check Gtmatrix Performance	Ran Lighthouse test on staging	Performance score > 90%	Performance score of 98	Passed	Low	Excellent performance score	
6	TC005	Test Input Validation	Submitted potential malicious input	Input should be sanitized	Input sanitized successfully	Passed	High	Security measures confirmed	
7									

Submission Checklist

Activities Completed:

1. Staging Environment Setup:

The staging environment was deployed successfully, ensuring that all features are ready for testing.

2. GitHub Repository Update:

The repository has been updated with neatly organized files and an updated README.md for clear documentation.

3. Testing Completed:

**Functional Testing:** Ensured all core functionalities were working as expected.

**Performance Testing:** Verified the site’s performance, achieving a high score.

**Security Testing:** Validated input fields and verified no security vulnerabilities.

4. Test Case Report (CSV):

A detailed CSV report was created, documenting all the test cases, steps, expected results, and status.

5. Performance Testing Results:

The results of performance testing, including the high Lighthouse score of 98, were captured and documented.

Summary

This document outlines the activities and results from **Day 6**, highlighting the successful staging environment deployment, thorough testing, and deployment readiness. Everything is on track for the next steps.

