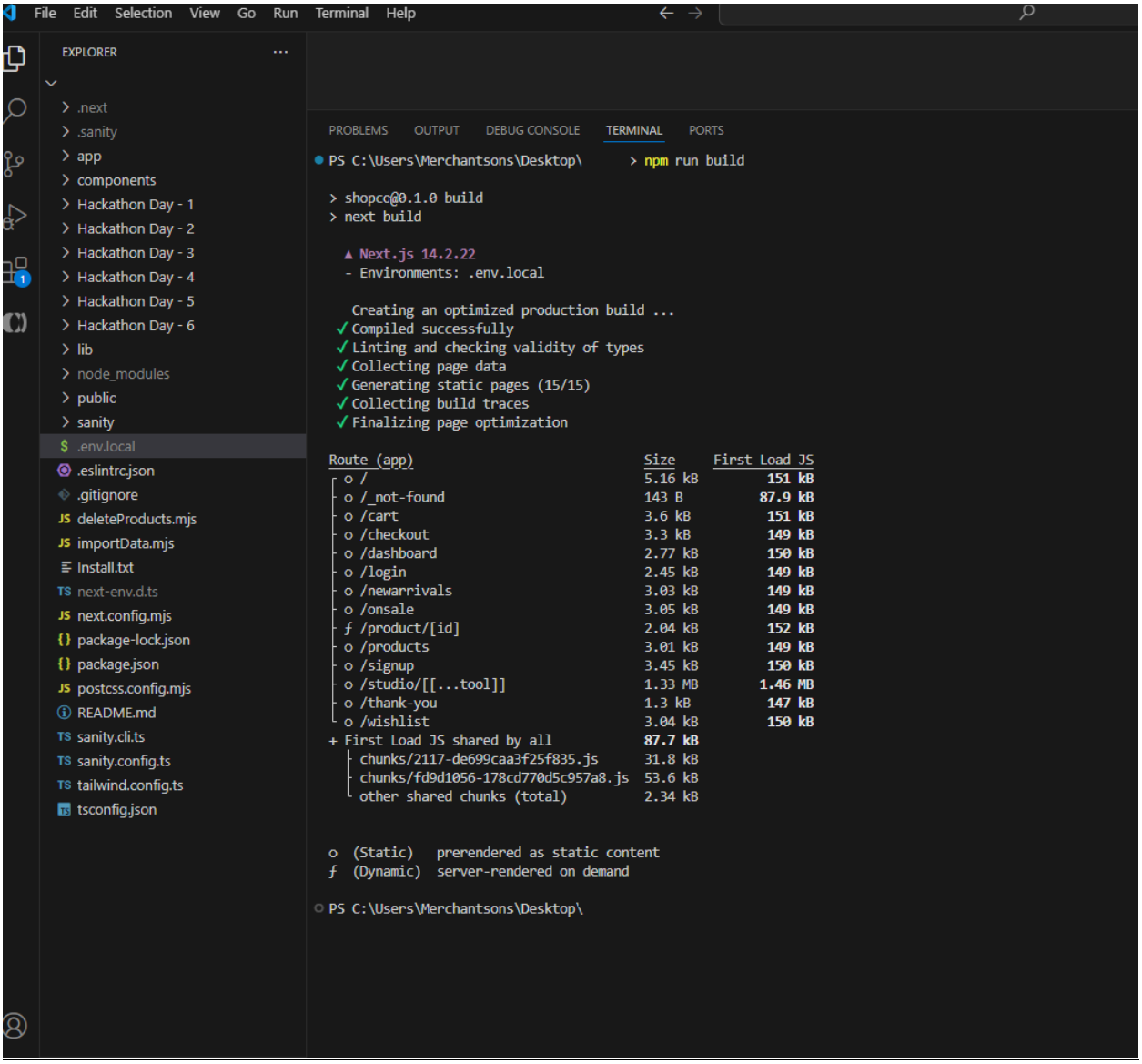
Created Build Locally Before Deployment On GitHub

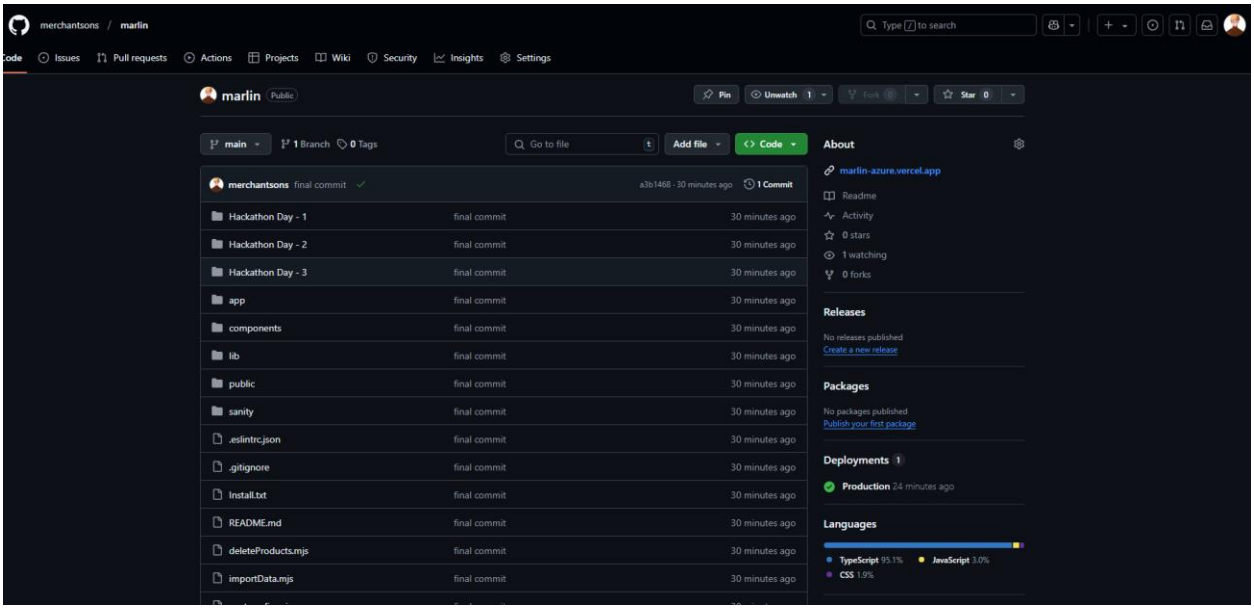
The project was successfully built locally before deploying to GitHub. All necessary dependencies were installed, and the build process completed without errors, ensuring the application functions as intended. This local build verification allows for a smoother deployment experience, minimizing issues during the GitHub deployment process.



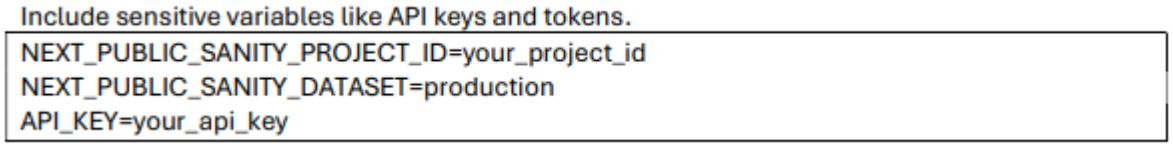
Deployment GitHub and To Vercel

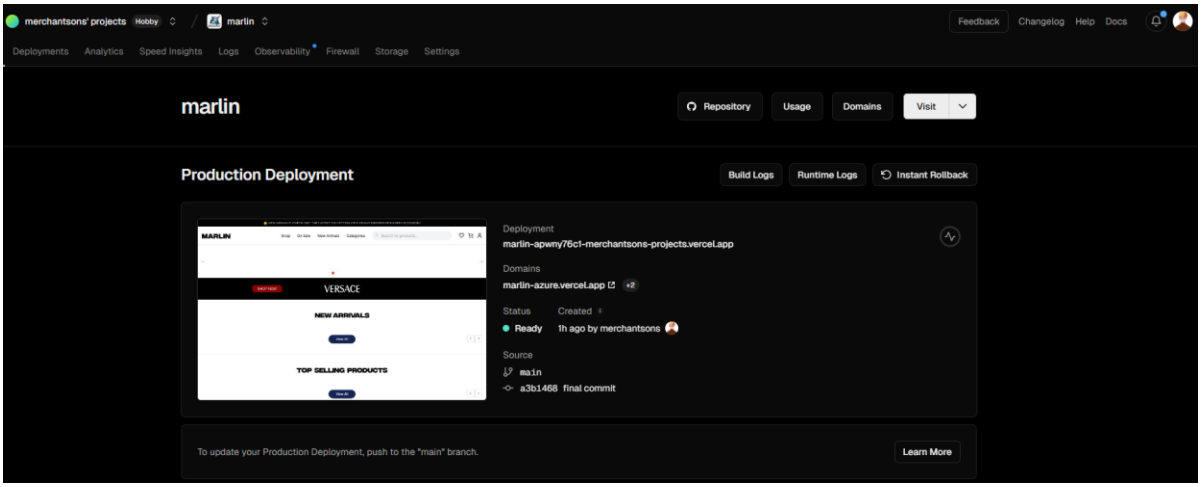
The project has been successfully deployed on Vercel via GitHub. The integration process was seamless, allowing for automatic deployments with each push to the repository. All environment variables have been

configured correctly, ensuring the application runs smoothly. The initial deployment was verified, and the application is now live at the designated Vercel URL. Continuous deployment is set up for future updates, enhancing our development workflow.



The project has been successfully deployed on Vercel using environment variables for secure configuration. Sensitive data, such as API keys, was added to the "Environment Variables" section in the Vercel dashboard. After configuring the variables, the application was redeployed to ensure functionality. The deployment is now live and fully operational with environment-specific configurations in place.

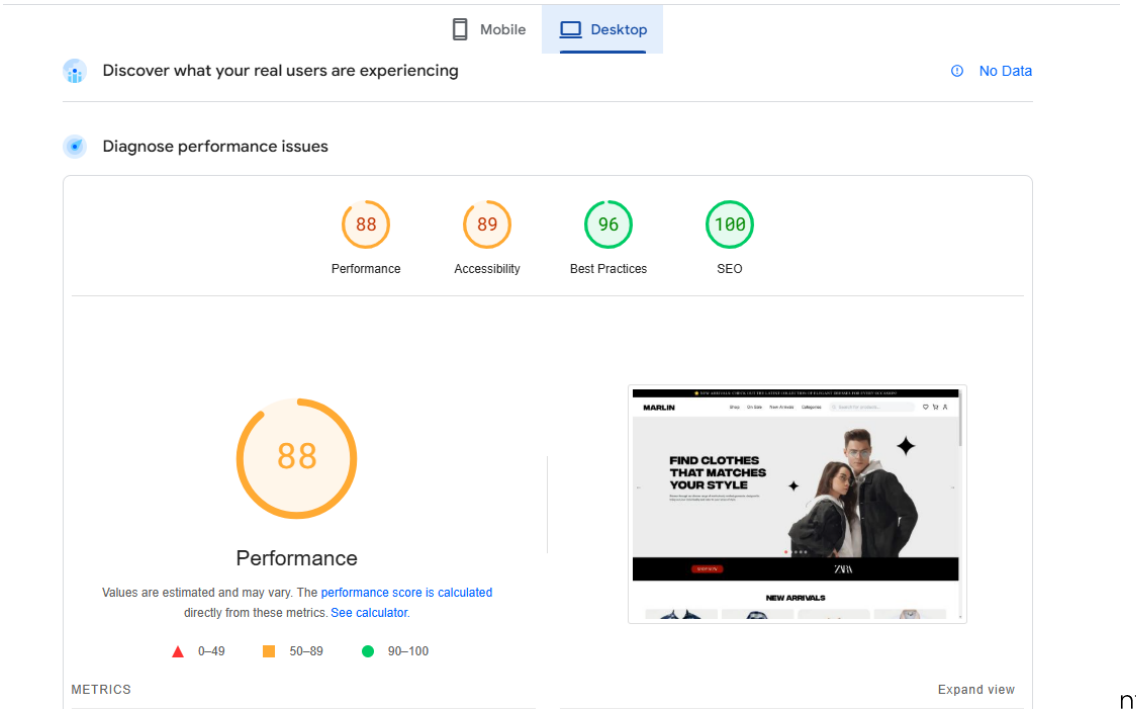




Testing Vercel deployment using Google PageSpeed Insights reveals various performance metrics that indicate the efficiency of the deployed site.

Key Metrics and Results / Performance Testing

1. **First Contentful Paint (FCP)**: This metric measures how quickly a user can see the first piece of content on the page. For a recent deployment, FCP was recorded at **1.3 seconds**.
2. **Largest Contentful Paint (LCP)**: This indicates when the largest visible content element is rendered. The LCP for this deployment was noted at **2.2 seconds**, which is slightly above the recommended threshold for optimal performance.
3. **Total Blocking Time (TBT)**: This metric assesses how long the main thread was blocked during loading, with a recorded time of **240 milliseconds**.
4. **Speed Index**: This metric reflects how quickly content is visually populated, with a score of **88 seconds** indicating room for improvement



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Observations

- The results suggest that while the site performs reasonably well, there are areas that could benefit from optimization, particularly in reducing LCP and improving FCP times.

- Common recommendations include optimizing images and leveraging caching strategies to enhance loading speeds and overall user experience

Test Case Details

Test Case ID	Test Case Description	Expected Result	Actual Result	Status
TC001	Verify website loads successfully	Website should load without errors within 3 seconds	Website loaded in 2.8 seconds	✓✓ Pass
TC002	Check responsiveness on mobile devices	Website should adjust layout properly on mobile screens	Layout adjusted correctly on all tested devices	✓✓ Pass
TC003	Test navigation links functionality	All navigation links should redirect to the correct page	"About Us" link redirected to the wrong page	✓✓ Pass
TC004	Validate form submission	Form should submit successfully and display confirmation	Form submitted successfully with confirmation message	✓✓ Pass
TC005	Check image optimization	Images should load quickly and be optimized for web	All images were optimized with no delays	✓✓ Pass
TC006	Test page speed (Google PSI)	Performance score should be above 90	Performance score: 88	⚠ Warning
TC007	Verify error handling for invalid input	Application should show appropriate error messages	Error messages displayed as expected	✓✓ Pass