

Day 6 - Deployment Preparation and Staging Environment Setup

Overview:

On Day 6, I focused on preparing my e-commerce marketplace for deployment. The primary objective was to set up a staging environment to ensure that the application operates smoothly in a production-like setting. I selected Vercel as the hosting platform for its seamless integration with Next.js and GitHub. My work included configuring the necessary environment variables, connecting the GitHub repository to the hosting platform, and deploying the application to a staging environment for validation and testing. The tasks also involved conducting functional, performance, and security tests to ensure that the application was ready for deployment.

Key Tasks:

Staging Environment Setup:

- I selected Vercel as the hosting platform due to its efficient deployment process with Next.js.
- Connected my GitHub repository to Vercel for automated builds and deployment.
- Configured environment variables securely within Vercel to manage API keys and sensitive information.

Deployment Validation:

- Ensured the application was deployed successfully and that it worked as expected in a staging environment.
- Verified that all components loaded correctly and that the deployment process did not cause any issues.

Testing:

- Conducted functional tests to verify key features such as product listing, cart functionality, and search operations.
- Performed performance testing using Lighthouse to analyze load time and responsiveness of the site.

Documentation:

- Created a detailed testing report in CSV format, documenting the test cases, results, and any issues encountered during staging tests.

Challenges Faced:

Environment Configuration:

The most challenging part of the day was ensuring that all environment variables were correctly configured within Vercel, especially for API keys. While the process was straightforward, I had to carefully verify that each environment variable was set correctly to avoid any potential issues during deployment.

Testing Errors:

During the staging tests, I encountered a few minor issues related to API integration, where certain data was not being pulled correctly due to misconfigured environment variables. These issues were resolved by carefully reviewing the configuration and making necessary adjustments.

Performance Testing:

Ensuring the website's responsiveness on mobile and its load time were optimal was another challenge. I had to fine-tune some aspects of the website, such as image optimization and lazy loading, to ensure better performance.

Outcome:

By the end of Day 6, I successfully deployed the application to a staging environment, conducted extensive tests, and ensured that everything was functioning smoothly. I also organized all project files, reports, and documentation in a well-structured GitHub repository. The marketplace is now ready for the final production deployment.