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Day 6 - Deployment Preparation and Staging Environment Setup - Comforty

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1. Overview

Today, I focused on getting my marketplace application ready for deployment. I set up a staging environment, configured hosting on Vercel, and ensured everything was running smoothly. Since my backend is powered by Sanity, I needed to make sure the integration was seamless. Performance testing was also a priority, and I used Lighthouse to evaluate how well the application was performing.

2. Deployment Strategy Planning

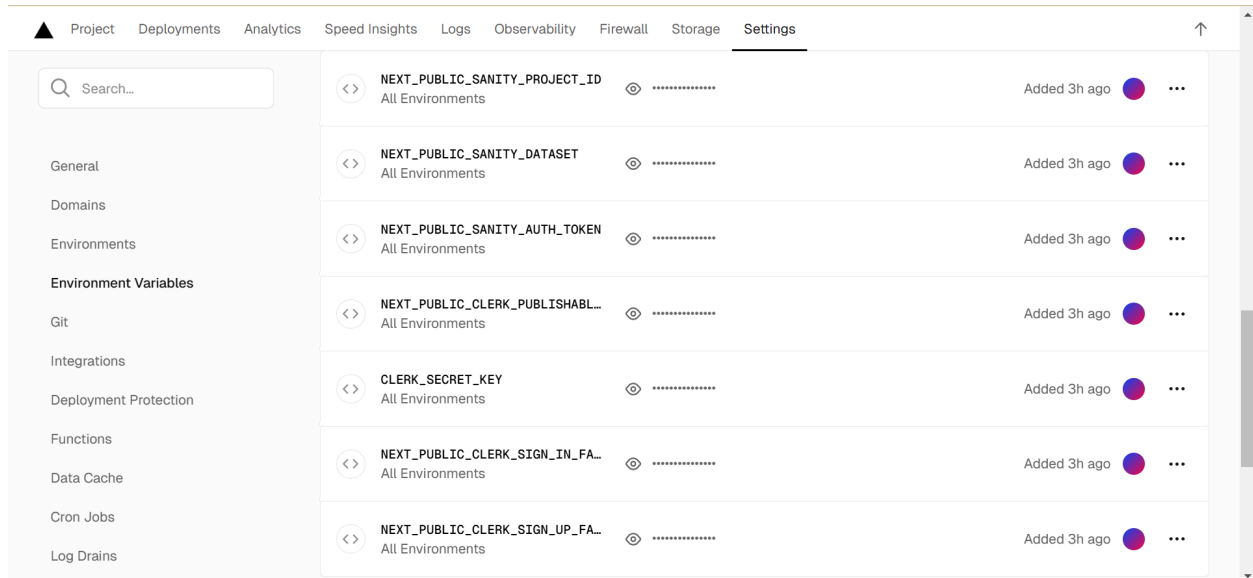
Since I planned to deploy the application on Vercel, I followed a structured approach:

1. Connected my GitHub repository to Vercel for seamless deployment.
2. Integrated Sanity as the backend service to ensure smooth data management.
3. Finalized how the frontend interacts with Sanity and third-party APIs.

3. Environment Variable Configuration

To ensure security and efficiency, I configured environment variables as follows:

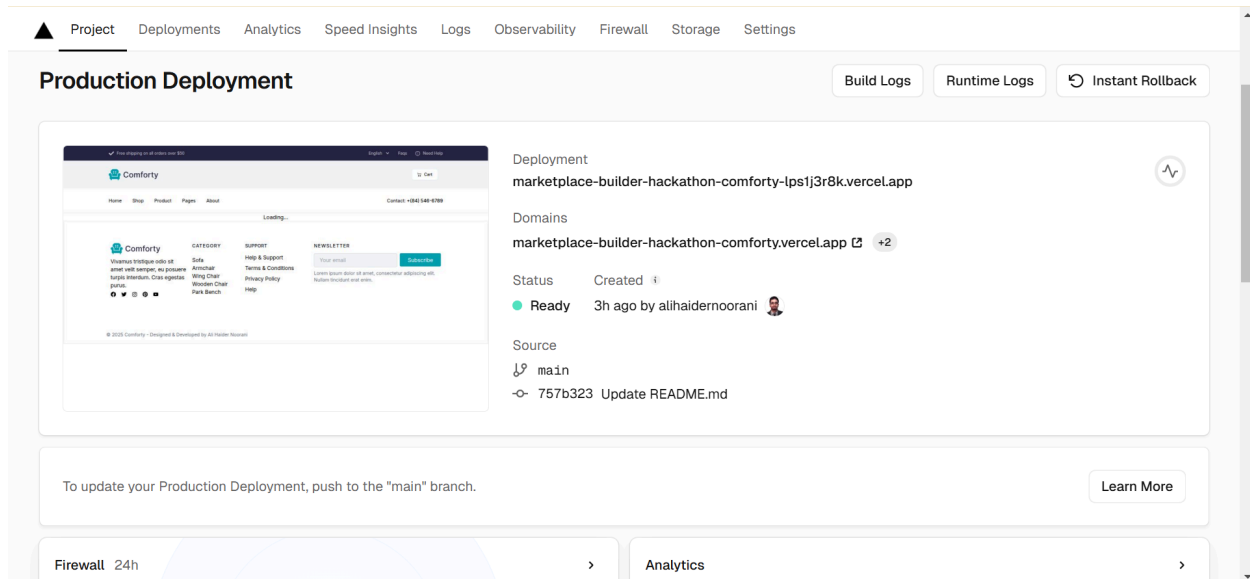
1. Created a `.env` file to store sensitive credentials like API keys and Sanity configuration.
2. Uploaded these environment variables securely in Vercel's settings.
3. Verified that all API calls and database requests were correctly referencing the environment variables.



4. Staging Environment Setup

With everything in place, I moved forward with setting up the staging environment:

1. Deployed the application to a staging environment using Vercel.
2. Checked for any build errors and ensured that the site was loading properly.
3. Set up automated deployments so that new commits to the main branch would automatically trigger a deployment.



5. Staging Environment Testing

Testing was an essential step to validate the deployment. I conducted multiple tests to ensure everything was functioning as expected:

1. **Functional Testing:** Verified core workflows, such as product listing, cart operations, and user authentication.
2. **Performance Testing:** Used Lighthouse to assess site speed, responsiveness, and overall performance. Addressed any areas where optimizations were needed.
3. **Security Testing:** Ensured HTTPS was properly implemented, validated input fields to prevent injection attacks, and checked that API keys were not exposed.
4. **Test Case Reporting:** Documented test results in a CSV format, noting any issues that required fixing.

6. Expected Output

By the end of the deployment preparation, I had:

1. A fully deployed staging environment on Vercel.
2. Securely configured environment variables.
3. A performance report generated using Lighthouse.
4. A structured GitHub repository with all necessary documentation.
5. A README.md file summarizing deployment steps and project structure.

7. Conclusion

Day 6 was a crucial step in ensuring my marketplace application was ready for production. By deploying to a staging environment on Vercel and integrating Sanity as the backend, I was able to create a smooth and efficient workflow. Using Lighthouse for performance testing provided insights into optimizations, making sure the application runs efficiently. The structured deployment process will help in maintaining a reliable and scalable system moving forward.