Day 6 - Deployment Preparation and Staging Environment Setup

Overview

This document outlines the progress and successful completion of the Day 6 Deployment Readiness & Staging Setup. The objective of this stage was to prepare the project for deployment by setting up a staging environment, configuring a hosting platform, ensuring functionality through rigorous testing, and documenting all relevant processes.

Tasks Accomplished

Hosting Platform Setup

> Configured Vercel as the staging platform.
> Connected the GitHub repository to the hosting service.
> Adjusted build and deployment settings for seamless integration.
> Confirmed the successful linkage between GitHub and Vercel.

Environment Variables Setup

> Created a .env file to store API keys and other sensitive credentials.
> Ensured secure handling of environment variables within the hosting environment.
> Verified the integration of environment variables to maintain seamless functionality.

> Checked API connectivity and ensured compliance with security best practices.

Example .env File:

```env
NEXT_PUBLIC_SANITY_PROJECT_ID=your_project_id
NEXT_PUBLIC_SANITY_DATASET=production
API_KEY=your_api_key
```

Staging Environment Deployment

> Successfully deployed the project to a staging environment via Vercel.
> Verified that the build process completed without any errors or warnings.
> Ensured all pages and components loaded correctly in the staging environment.
> Confirmed backend interactions, including API requests and database connectivity, functioned as expected

Testing Phase

Functional Testing:

> Conducted tests on all core features, such as navigation, authentication, and user interactions.
> Validated CRUD (Create, Read, Update, Delete) operations.
> Performed cross-browser testing for compatibility assurance.
> Ensured responsiveness across multiple devices.

Performance Testing:

> Analyzed page load speed and responsiveness using Lighthouse and GTmetrix.

> Optimized images and assets to enhance performance.

> Minimized unnecessary re-renders for efficiency.

> Implemented caching strategies to improve load times.

Security Testing:

> Ensured user input was handled properly to prevent vulnerabilities.

> Verified HTTPS implementation for secure data transmission.

> Checked authentication and authorization mechanisms for security.

> Conducted API security checks to prevent sensitive data exposure.

Project Links

> **Staging Environment:**

https://hackathon-figma-e-commerce-website-shop-co.vercel.app/

> **GitHub Repository:**

https://github.com/dev-bilal-h/hackathon-figma-website-shop-co.git

> **Test Case Report:**

https://github.com/dev-bilal-h/shop-co-test-case-report.git

> **Complete Documentation (Day 1 to Day 6):**

https://github.com/dev-bilal-h/marketplace-hackathon-documents.git

Conclusion

With the deployment readiness and staging setup successfully completed, the project is now fully functional, optimized, and prepared for final deployment or further refinements. The extensive testing conducted has ensured stability, security, and high performance. By implementing industry best practices in hosting, environment configuration, and testing, the project is well-positioned for a seamless transition to production.

This document serves as official documentation of the progress and completed tasks on Day 6. The project is now staged, tested, and documented, ready for enhancements or final launch. Any feedback or suggestions for further improvement are welcome.