Day 6: Deployment, Testing, and Documentation - Nike Store

Objective

The objective of Day 6 was to successfully deploy the Nike Store project to a staging environment, ensure secure configuration of environment variables, and document the testing and performance evaluation. This report encapsulates the achieved milestones, testing results, and repository organization, highlighting a professional approach to the project's completion.

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1. Deployment Details

Staging Environment

The Nike Store is successfully deployed on Vercel, ensuring a fast, secure, and scalable environment.

- **URL**: https://marketplace-nike-store.vercel.app/
- **Hosting Provider**: Vercel
- **Staging Environment**: Configured for testing before the production launch.

Environment Variables

Environment variables have been securely configured in Vercel to protect sensitive information. Key variables include:

- **SANITY_API_KEY**: For secure communication with the Sanity backend.
- **JWT_SECRET**: For user authentication and secure sessions.
- **NEXT_PUBLIC_BASE_URL**: Base URL for API calls.

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2. Testing and Performance Evaluation

Testing Report Highlights

Test Case ID	Description	Expected Outcome	Actual Outcome	Status	Severity
TC-01	Homepage loading performance	Load within 3 seconds	Loaded in 2.5s	Passed	Low
TC-02	Product filtering functionality	Accurate product display by category/price	Worked as expected	Passed	Medium
TC-03	Cart addition and removal	Items added/removed correctly	Functioning as expected	Passed	High
TC-04	Checkout with invalid details	Display error for invalid input	Error handled correctly	Passed	Medium

Performance Metrics

- **Lighthouse Report**:
  - **Performance**: 90%
  - **Accessibility**: 96%
  - **SEO**: 92%
  - **Best Practices**: 94%
- **Optimizations Implemented**:
  - Lazy loading for images.
  - Minified CSS and JavaScript files.
  - Database query optimization for faster API responses.

Security Measures

- HTTPS enforced for all communications.
- Input validation for forms to prevent SQL injection and XSS.
- Secure environment variable handling in Vercel.

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3. Conclusion

The Nike Store project is now fully deployed and tested, showcasing:

1. Seamless user experience with responsive design.
2. Secure and scalable backend integration.
3. Performance and SEO optimizations.

This project is ready for further development or production deployment.