

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

Objective

The objective of Day 5 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.

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.

7. 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.