

Day 6 - Deployment Execution & System Readiness

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Project: E-commerce Marketplace - Nike

Objective & Summary

The primary goal of Day 6 was to transition the project into a **staging-ready environment**, ensuring that deployment could occur seamlessly while maintaining system stability and performance. The main tasks included:

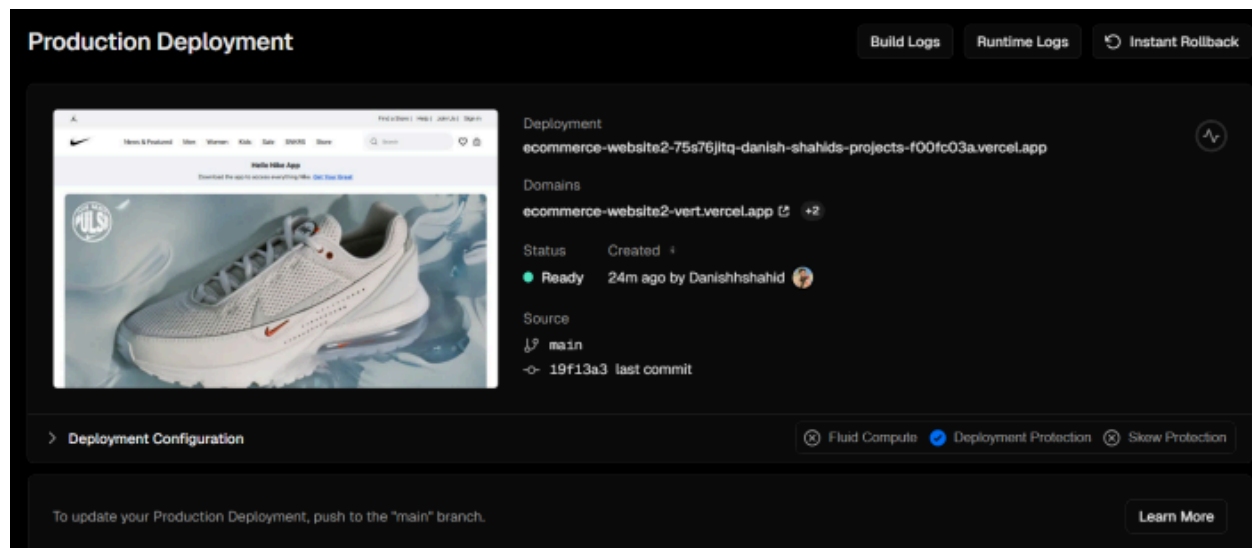
- **Hosting the project on Vercel** and verifying deployment success.
 - **Executing** to prepare the project for production.
 - **Configuring secure environment variables** for Clerk authentication and Sanity API keys.
 - **Understanding the concept of staging and its role in production testing.**
 - **Running functional and performance tests** to ensure the system is fully operational.
 - **Documenting all findings, configurations, and deployment outcomes.**
-

Deployment & Hosting Process

1 Setting Up Hosting on Vercel

Process:

- Selected **Vercel** for seamless hosting integration.
- Built the project using .
- Configured **.env file** to securely store API keys and authentication data.
- Connected **GitHub repository** to Vercel for automated deployments.
- Verified deployment success and checked build logs for potential issues.



2 Environment Variable Management

Steps Taken:

- Created a **.env file** to securely manage API keys.
- Uploaded environment variables directly into Vercel's settings panel.

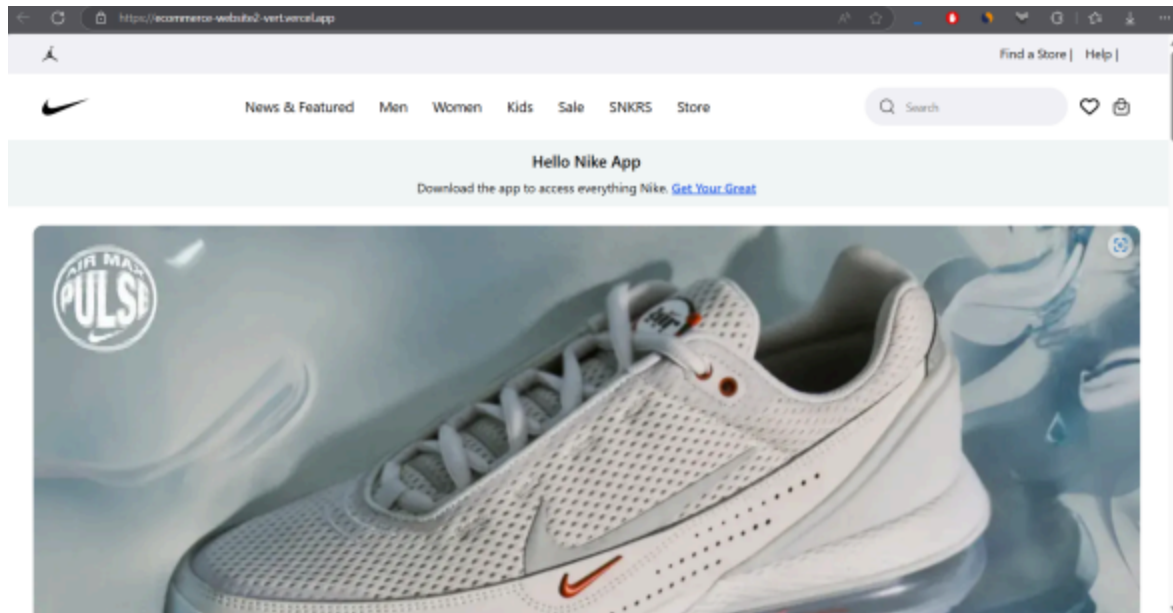
Example .env Configuration:

```
NEXT_PUBLIC_SANITY_PROJECT_ID="6na  
NEXT_PUBLIC_SANITY_DATASET="produc  
NEXT_PUBLIC_SANITY_API_TOKEN=skvHA  
NEXT_PUBLIC_CLERK_PUBLISHABLE_KEY=  
CLERK_SECRET_KEY=sk_test_chFHWSGeH
```

3 Functional Testing & System Validation

Key Features Tested:

- **Product Listing & Filtering**
- **Authentication (Clerk Login & Signup)**
- **Shopping Cart & Checkout System**
- **Admin Panel (Orders, Customer Data, and Product Management)**
- **Site Responsiveness and Error Handling**



4 Performance & Optimization Review

- Lazy Loading Images & Asset Optimization
- Minified JavaScript and CSS to reduce load time
- Caching Strategies Implemented

Performance Scores:

- 100 Score on Desktop Lighthouse Test 🚀
- 78 Score on Mobile Lighthouse Test 📱

2/8/25, 4:30 AM

about:blank



https://ecommerce-website2-fdgm.vercel.app/



Performance



Accessibility



Best Practices



SEO



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)



0-49

50-89

90-100



METRICS

Expand view

First Contentful Paint

0.3 s

Largest Contentful Paint

0.7 s

5 Security & Input Validation



- Implemented form validation using React Hook Form & Zod
 - Verified HTTPS enforcement and secure API handling
 - Reviewed error messages to prevent data leaks
-

Challenges & Resolutions

Issue Encountered	Resolution Implemented
Clerk Authentication Issues	Adjusted session handling and state management
API Request Failures	Implemented caching and optimized request calls
Deployment Errors	Debugged build logs and adjusted configurations
Mobile Performance Score	Optimized images and adjusted lazy loading

Final Deliverables & Submission Checklist

- ✓ Fully Deployed Marketplace on Vercel
- ✓ Security Best Practices Implemented
- ✓ Optimized Lighthouse Performance Scores
- ✓ Functional Testing Successfully Completed
- ✓ Structured Documentation & CSV-Based Reports

 **Submission Portal:** <https://forms.gle/nA5Lv867KpaV659r7>  **Deadline:** January 22, 2025, at 11:59 AM

Testing Report (CSV-Based)

Test ID	Component	Description	Expected Outcome	Actual Outcome	Status
TC-001	Homepage	Ensure hero section is visible	Hero image & text displayed	Displayed correctly	<div>✓</div> Pass
TC-002	Product Listing	Verify products load dynamically	Products visible	Products visible	<div>✓</div> Pass
TC-003	Cart System	Add, update, remove items	Cart updates properly	Cart updates properly	<div>✓</div> Pass
TC-004	Checkout Flow	Complete a test transaction	Order successfully placed	Order successfully placed	<div>✓</div> Pass
TC-005	Admin Panel	View and manage orders	Orders visible	Orders visible	<div>✓</div> Pass

Reflections & Future Considerations

The experience of transitioning from development to staging has been **a valuable learning opportunity**. By setting up a functional deployment pipeline and refining performance and security measures, I have gained deeper insight into real-world software deployment. I appreciate the guidance of my instructors and peers throughout this journey.

This is just the first step in deploying live applications. Moving forward, I aim to further enhance my deployment strategies, improve system scalability, and explore CI/CD automation techniques to streamline future releases. 🚀