

Deployment Preparation and Staging

Environment Setup - Nike Store

Name: Ubaid ur rahman

Roll No: 0063553

Project: Deployment Preparation and Staging Environment Setup

Overview

Day 6 focused on deployment preparation and setting up a staging environment for the Nike

Store marketplace. The goal was to ensure the application is ready for production by testing it in

a production-like environment, configuring hosting platforms, and organizing project files for

deployment. This report summarizes the steps taken, challenges faced, and outcomes achieved.

Key Areas of Focus

1. Deployment Strategy Planning

- **Objective:** Choose a hosting platform and finalize the deployment strategy.

- **Steps Taken:**

- o Selected Vercel as the hosting platform for its ease of use and seamless integration with Next.js.*

- o Connected the GitHub repository to Vercel for automated deployments.*

o Configured build settings and added necessary scripts for deployment.

2. Environment Variable Configuration

- *Objective: Securely configure environment variables for deployment.*

- *Steps Taken:*

o Created a .env file to store sensitive variables like API keys and tokens.

o Uploaded environment variables to Vercel's dashboard for secure deployment.

3. Staging Environment Setup

- ***Objective: Deploy the application to a staging environment for testing.***

- *Steps Taken:*

o Deployed the application to Vercel's staging environment.

o Validated the build process and ensured the site loaded correctly.

o Verified basic functionality, such as product listing, search, and cart operations.

4. Staging Environment Testing

- *Objective: Conduct thorough testing in the staging environment.*

- *Steps Taken:*

o Functional Testing: Verified all features, including product listing, search, cart,

and checkout workflows.

o Performance Testing: Used Lighthouse to analyze speed, responsiveness, and

load times.

o Security Testing: Validated input fields, HTTPS usage, and secure API

communications.

o Test Case Reporting: Documented all test cases in a CSV file with details like

Test Case ID, Description, Steps, Expected Result, Actual Result, Status, and

Remarks.

5. Documentation Updates

- *Objective: Organize project files and create comprehensive documentation*

• Steps Taken:

o Created a README.md file summarizing all project activities, deployment

steps, and test results.

o Organized all project files into a structured GitHub repository with clear folder

hierarchies (e.g., documents/, src/, public/).

o Included all reports, test cases, and deployment instructions in the repository.

Challenges Faced

1. Build Failures:

a. Encountered build failures due to missing environment variables.

b. Resolved by ensuring all required variables were correctly configured in Vercel.

2. Performance Bottlenecks:

a. Identified slow load times during initial performance testing.

b. Addressed by optimizing images, minimizing CSS/JavaScript, and implementing lazy loading.

3. Cross-Browser Compatibility:

a. Ensured consistent rendering and functionality across different browsers.

b. Resolved by using tools like BrowserStack and manually testing on multiple devices.

Outcomes of Day 6

- *Successfully deployed the Nike Store to a staging environment on Vercel.*

- *Securely configured environment variables for deployment.*
- *Conducted thorough staging environment testing and documented results in a CSV file.*
- *Organized all project files and created a comprehensive README.md file.*
- *Prepared the marketplace for production deployment.*

Conclusion

Day 6 was a critical step in preparing the Nike Store marketplace for production. By setting up a

staging environment, conducting thorough testing, and organizing project files, I ensured the

application is ready for deployment. The work completed today lays the foundation for a

scalable and reliable e-commerce platform.

Check Preview here [<https://marketplace-hakathone-yuea.vercel.app/>]