

Hackathon-3

DEPLOYMENT PREPARATION AND STAGING ENVIRONMENT SETUP

E-Commerce

Introduction

SHOP.CO is a modern and responsive clothes marketplace designed to empower small business and individuals. This platform provides a seamless and secure e-commerce experience.

Objective

Day 6 focuses on preparing your marketplace for deployment by setting up a staging environment, configuring, hosting, platform and ensuring readiness for a customer's facing application. Building on the testing and optimization work from Day 5, this stage emphasize ensuring the marketplace operates seamlessly in a production-like environment.

Deployment:

What I Did?

Deployed my application using Vercel to ensure smooth functionality before launching it to production.

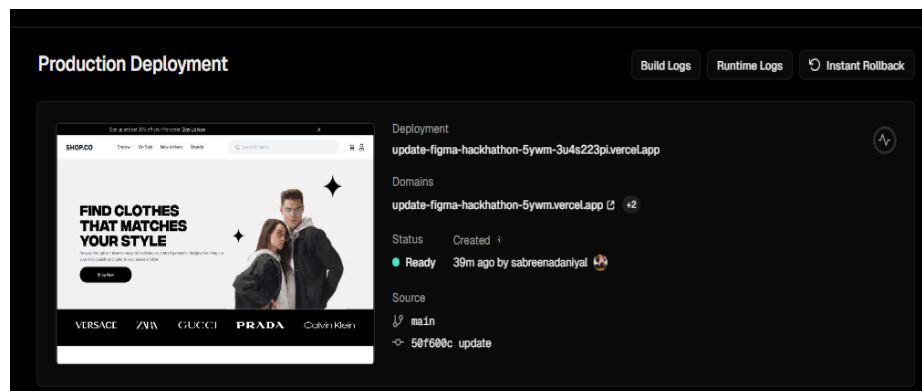
How I Did It?

- ✓ Linked my GitHub repository to Vercel for seamless integration.
- ✓ Configure build setting and deployment options.
- ✓ Sensitive variables secured in .env files.
- ✓ Configure environmental variables in the hosting platform for secure deployment
- ✓ Deploy the application to a staging environment to test it in a production-like setting.

- ✓ Validate that deployment build successfully and the site loads correctly.
- ✓ Deployed and tested functionality, performance and security.

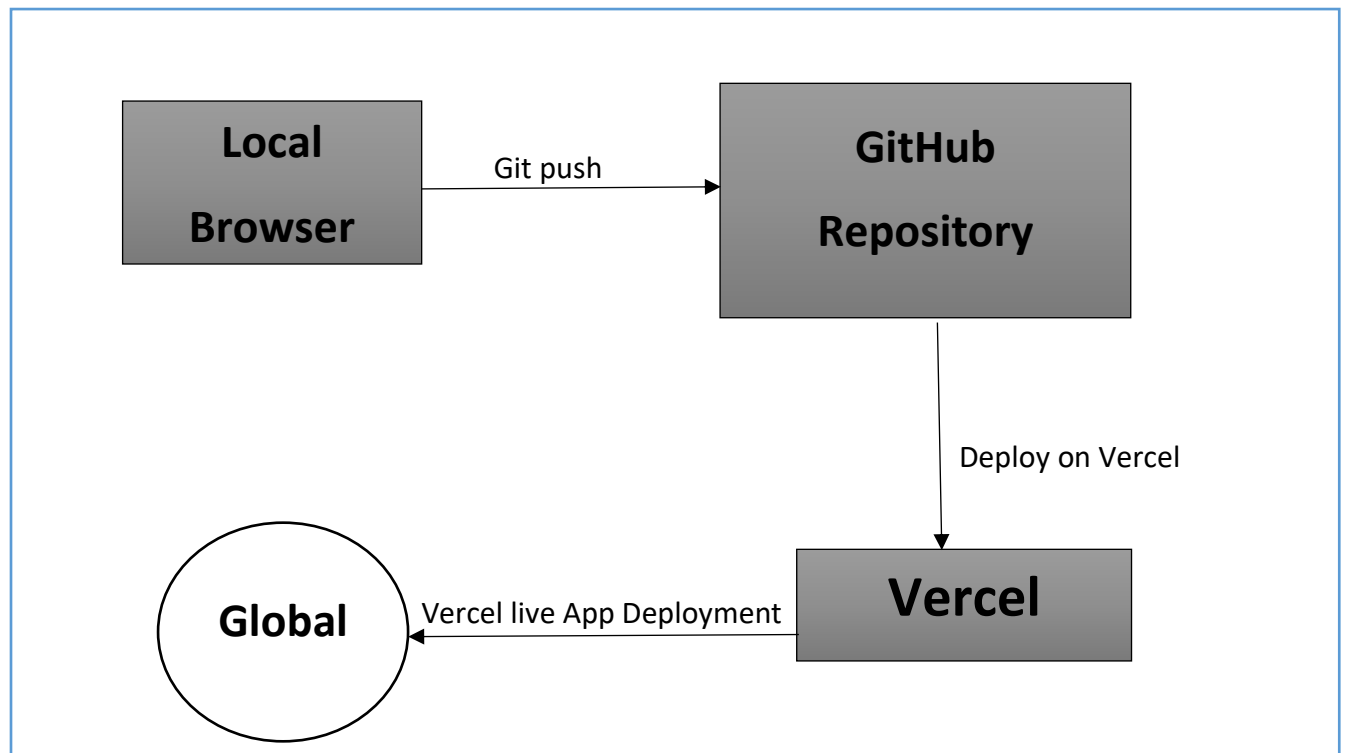
Staging Environment Testing

Conduct functional, performance, and security testing. For functional testing, use tools like Cypress to test workflow and interactions, and Postman to validate API response. Performance testing can be done with Lighthouse to analyze load times, speed, and responsiveness. For security testing, validate input fields to prevent SQL injection, ensure HTTPs is enabled, and check for proper handling of sensitive data like API key.



Vercel is a powerful deployment platform specifically designed for front –end applications, offering an easy-to-use interface and seamless CI/CD pipeline. It provides;

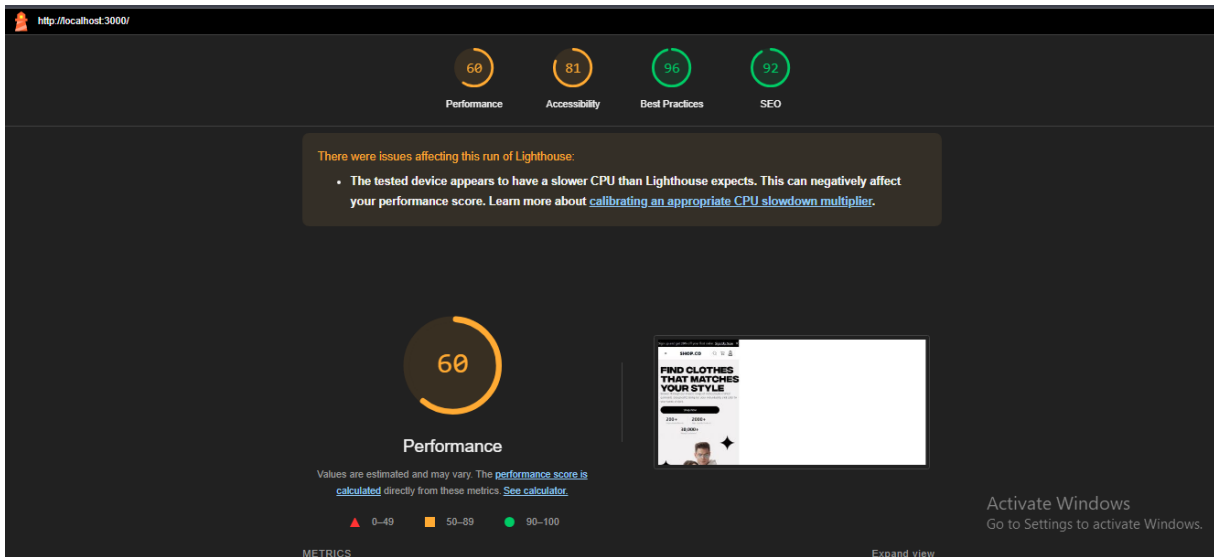
- Automatic deployment
- Integrated environment variable management
- Fast global CDN
- Custom domain support
- Built-in-analysis



Test Case Reporting

Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	Assigned To	Remarks
TC001	Validate product listing page	Open product page > check	Product displayed correctly	Products displayed correctly	Passed	High	Sir Ameen Alam	All functional
TC002	Test API error handling	API successfully working	Fallback UI Shows "All Products"	Fallback UI displayed	Passed	Medium	Sir Ameen Alam	Error Handling Effectively
TC003	Add To Cart functionality	Add product to cart > check Cary	Cart updates with added product	Cart updates as expected	Passed	High	Sir Ameen Alam	Works as expected
TC004	Navigation Bar	Search for products	Links are displayed	Correct result displayed	Passed	High	Sir Ameen Alam	Fully Functional
TC005	Mobile Responsiveness	Resize browser to mobile view	Layout adjusts for mobile view	Layout adapts perfectly	Passed	Medium	Sir Ameen Alam	Responsive on all tested devices

Light House Testing



Conclusion

This application has been deployed to a staging environment on Vercel, environment variables have been securely configured, and all necessary testing (functional, performance, and security) has been completed. Test Cases and performance benchmarks have been documented, and the project repository is well-organized with a professional README.md file. With these steps completed, the application is prepared for a smooth transition to production.