

Day 6: Deployment Preparation and Staging Environment Setup

Overview

This report details the steps taken to prepare the marketplace application for deployment in a staging environment. It includes setup, testing, and documentation to ensure the application is stable and secure for further deployment stages.

Key Achievements

1. Staging Environment Setup

- **Hosting Platform:** Vercel
- **GitHub Repository:** Successfully linked to the Vercel deployment.
- **Environment Variables:** Configured securely within the Vercel dashboard using .env file.
- **Deployment Validation:** Ensured that the application deployed successfully and passed initial tests.

2. Testing Conducted

- **Functional Testing:** Validated critical workflows such as product listing, adding/removing items from the cart, and checkout operations.
- **Performance Testing:** Conducted speed and responsiveness tests using Lighthouse to ensure fast load times and smooth user experience.
- **Security Testing:** Ensured all input fields are properly validated, HTTPS is enforced, and sensitive data is protected through secure practices.

3. Documentation

- Created a **README.md** file with a summary of the project and detailed deployment steps.
- Organized test cases and reports in the GitHub repository for easy access and reference.

Deployment Process

1. Hosting Platform Setup

- Chose **Vercel** as the platform for deployment.
- Linked the GitHub repository with Vercel and configured the build settings.

2. Environment Variables

- Used the **Vercel dashboard** to securely manage environment variables, ensuring sensitive data such as API keys and secrets are not exposed.

3. Deployment Validation

- Conducted a series of tests to verify that the build was successful and the application functions as expected after deployment.
- 4. **Testing Overview**
 - **Tools Used:**
 - **Cypress:** For functional and end-to-end testing.
 - **Lighthouse:** For performance testing and identifying optimization opportunities.
 - **Postman:** For API testing and ensuring data integrity.

Resources:

- **Deployment Link:** <https://detailofuser.vercel.app/shoppingcart>
- **Repository Link:** <https://github.com/Syed-Ahmed-Hussain-Bukhari/Final-Hackathon-Hekto-website>