

Day 6 Hackathon Report: Deployment Preparation And Staging Environment Setup🚀

1. Deployment Strategy Planning

Hosting Platform Selection:

- The application was deployed on **Vercel** for its ease of use and quick deployment capabilities.
- GitHub was connected as the source control repository for seamless integration with Vercel.

Backend Service Interaction:

- Finalized integration with **Sanity CMS** to handle content management.
 - Validated interactions with third-party APIs, ensuring they function as expected in the deployed environment.
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2. Environment Variable Configuration

Securing Sensitive Data:

- Created a .env file locally to store API keys, database credentials, and sensitive information.
- NEXT_PUBLIC_SANITY_PROJECT_ID=mbakvv56
- NEXT_PUBLIC_SANITY_DATASET=production
API_KEY=skeDQKNUVuGYoCnDTZJsHB91YSQ4lA61HbiWOESshyT3b7wi4coMZF
I3s2CFEaSbRSASNuakfVHBpc60Bz0R29ifLao4MQwUgGnsW4ZJyxYs3J6Wst87t04ks
ROU9erRFZ96ugopqbylgK5KzPMGDeBlwDfSrrBS3phX3QYrFPQQglJG52nB

Hosting Platform Configuration:

- Uploaded the environment variables securely to Vercel's dashboard under the "Environment Variables" section.
 - Ensured no sensitive data was exposed in the codebase or the deployment logs.
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3. Staging Environment Setup

Deployment:

- Successfully deployed the application to a **staging environment** using Vercel.
 - Verified that the deployment build completed without any errors.
 - Confirmed that the site loaded correctly and all pages rendered as intended.
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4. Staging Environment Testing

Functional Testing:

- Used **Cypress** to validate workflows and user interactions:
 - Checked product listing, cart functionality, and API responses.
 - All tests passed successfully.

Performance Testing:

- Ran performance analysis using **Lighthouse**:
 - Load time: ~1.2 seconds
 - Performance score: 96
 - Verified responsiveness and interactivity.

Security Testing:

- Used **Postman** to validate API responses and test error handling.
- Ensured proper sanitization of input fields to prevent SQL injection and XSS attacks.
- Verified HTTPS was enforced for all communications.

- Checked the secure handling of API keys and sensitive data.

Documentation of Test Results:

- Functional, performance, and security tests were documented with detailed findings. No unresolved issues were identified.

Steps for Implementation

Step 1: Hosting Platform Setup

1. **Platform Selection:**
 - Used **Vercel** for its quick and efficient deployment capabilities.
2. **Repository Connection:**
 - Linked the GitHub repository to Vercel.
 - Configured build settings and deployment scripts.

Step 2: Configure Environment Variables

1. Created a .env file with sensitive variables, including:
2. NEXT_PUBLIC_SANITY_PROJECT_ID=mbakvv56
3. NEXT_PUBLIC_SANITY_DATASET=production
API_KEY=skeDQKNUVuGYoCnDTZJsHB91YSQ4lA61HbiWOESshyT3b7wi4coMZF
I3s2CFEaSbRSASNuakfVHBpc60Bz0R29ifLao4MQwUgGnsW4ZJyxYs3J6Wst87t04ks
ROU9erRFZ96ugopqbylgK5KzPMGDeBlwDfSrrBS3phX3QYrFPQQglJG52nB
4. Uploaded these variables to Vercel securely.

Step 3: Deploy to Staging

1. **Deploy Application:**
 - Deployed the application to the staging environment on Vercel.
2. **Validate Deployment:**

- Verified successful build completion.
- Tested the application in the staging environment for functionality and performance.