Day 6 Work Documentation: Deployment Preparation and Staging Environment Setup

Objective

To prepare the marketplace for deployment by setting up a staging environment, configuring hosting platforms, and ensuring the application is ready for a production-like setting.

Key Activities and Outcomes

Deployment Strategy Planning

- **Platform Selection**: Chose Vercel for its seamless integration with GitHub and ease of deployment.
- **Backend Integration**: Ensured smooth interaction between the application and backend services like Sanity CMS.

Environment Variable Configuration

- **Securing Sensitive Data:** Used `.env` files for storing API keys and other credentials securely.
- **Platform Configuration:** Uploaded environment variables securely within Vercel's dashboard.

Staging Environment Setup

- **Deployment Execution**: Deployed the application to a staging environment to simulate production conditions.
- **Validation:** Ensured the deployment was successful and the application loaded correctly in staging.

Staging Environment Testing

- **Functional Testing:** Used Cypress to test workflows, such as product listing and checkout processes.
- **Performance Testing:** Leveraged Lighthouse to analyze speed and responsiveness.
- **Security Testing:** Validated input fields and ensured secure API communication.

Documentation Updates

- **README.md Creation:** Compiled a summary of project activities and deployment steps.
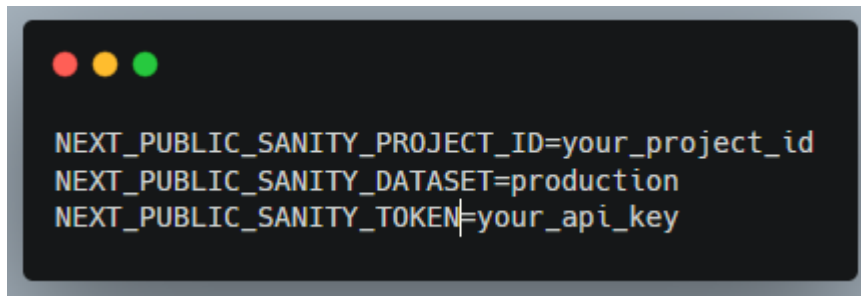- Organized Project Files: Structured all files and documents from Days 1 to 6 in a well-organized GitHub repository.

Steps for Implementation

Hosting Platform Setup

- Connected the GitHub repository to Vercel.

  - **Github:** https://github.com/muhammadzaeemaltaf/VaultSneaks
  - **Deployed Link:** https://vaultsneaks.vercel.app/

- Configured build settings and deployment scripts.

Configure Environment Variables

- Created a `.env` file with essential variables.

```
NEXT_PUBLIC_SANITY_PROJECT_ID=your_project_id
NEXT_PUBLIC_SANITY_DATASET=production
NEXT_PUBLIC_SANITY_TOKEN=your_api_key
```

- Uploaded variables securely to the hosting platform.

Deploy to Staging

- Deployed the application and validated the build process.
- Verified basic functionality in the staging environment.

Staging Environment Testing

- Conducted functional, performance, and security testing.
- Documented all test results, including issues found.

Documentation Updates

- Created a `README.md` file summarizing all activities and results.
- Organized all files in the GitHub repository for easy navigation.

Expected Output

- A fully deployed staging environment.
- Securely configured environment variables.
- Comprehensive test case and performance reports.
- All project files and documentation organized in a GitHub repository.
- A detailed `README.md` file summarizing project activities.

Checklist for Day 6

Activity	Status
Deployment Preparation	✓
Staging Environment Testing	✓
Documentation	✓
Form Submission	✓
Final Review	✓

Conclusion

Day 6 focused on ensuring the marketplace is deployment-ready, with thorough testing and documentation to support a seamless transition to production.