

Day 6 - Deployment Preparation and Staging Environment Setup

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1. Introduction

This document provides a detailed summary of the **deployment preparation and staging environment setup** for the marketplace project. The focus was on:

- ✓ Setting up a staging environment for testing and refinement.
 - ✓ Configuring environment variables for security and efficiency.
 - ✓ Deploying the project on a hosting platform (Vercel, Netlify, or AWS).
 - ✓ Fixing pre-rendering errors related to `useSearchParams`.
 - ✓ Conducting staging environment testing and documentation.
 - ✓ Organizing all project files and reports in a GitHub repository.
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2. Deployment Strategy & Environment Setup

1. Hosting Platform Setup

- ✓ Deployed the project on **Vercel**
- ✓ Connected the **GitHub repository** for continuous deployment.
- ✓ Configured **build settings** to ensure a smooth deployment.

2. Environment Variable Configuration

- ✓ Secured sensitive data using **.env files**.
- ✓ Added **API keys, database credentials**, and other configurations securely.

3. Staging Environment Deployment

- ✓ Successfully deployed the marketplace to a **staging environment**.
- ✓ Verified that **all features work correctly** in a live setting.

- ✓ Successfully fixed the issue, ensuring **smooth deployment** without prerender failures.

5. Staging Environment Testing

- ✓ **Functional Testing:** Verified workflows like product listings, cart, and checkout.
 - ✓ **Performance Testing:** Used **Lighthouse** to optimize page load speed.
 - ✓ **Security Testing:** Ensured **HTTPS, API security, and input validation**.
 - ✓ **Cross-Browser Testing:** Tested on **Chrome, Firefox, Safari, and Edge**.
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4. GitHub Repository & Deployment Link

- 📁 All project files, reports, and test cases have been uploaded to the repository.

🔗 GitHub Repository: github.com/nihalnaveed12/giaic-hackathon2

🌐 Staging Environment URL: giaic-hackathon2-xi.vercel.app

5. Challenges & Solutions

Challenge 1: Deployment Errors

- ✓ **Solution:** Fixed **build script issues** and **configured dependencies properly**.

Challenge 2: API Key Exposure

- ✓ **Solution:** Used **.env variables** to secure sensitive information.

Challenge 3: Slow Page Load Time

- ✓ **Solution:** Optimized images, enabled lazy loading, and minified JS/CSS.

Challenge 4: Prerendering Error with **useSearchParams**

- ✓ **Solution:** Wrapped the component in **Suspense** to ensure proper rendering.
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6. Submission Checklist

- ✓ Staging environment is fully deployed and functional.
 - ✓ All test cases documented in CSV format.
 - ✓ Performance and security optimizations implemented.
 - ✓ GitHub repository is well-structured and contains all project files.
 - ✓ A professional README.md file is included with project details.
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Conclusion

This submission successfully sets up a **staging environment** for deployment, ensuring the marketplace is **tested, optimized, and ready for production**. All **deployment challenges** have been resolved.

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