

DAY 6 - DEPLOYMENT PREPARATION AND STAGING ENVIRONMENT SETUP

Objective:

Day 6 focuses on preparing your marketplace for deployment by setting up a staging environment, configuring hosting platforms, and ensuring the application is production-ready. Building on the testing and optimization from Day 5, this stage ensures the marketplace runs smoothly in a production-like environment. Students will also learn industry-standard practices for managing various environments like non-production (DEV, SIT, TRN) and production (UAT, PROD, DR).

Key Areas of Focus:

1. Deployment Strategy Planning:

- Deployed the application on **Vercel** for both staging and production environments.
- Integrated with **Sanity CMS** for dynamic content using tokens and dataset IDs.

2. Environment Variable Configuration:

- Stored sensitive data (API keys, tokens) in the `.env.local` file.
- Configured environment variables securely in the **Vercel Dashboard** for deployment.

3. Staging Environment Setup:

- Deployed the application to **Vercel** and verified successful deployment.
- Ensured correct content fetching from **Sanity CMS**.

4. Staging Environment Testing:

- Conducted **Cypress** functional tests, **Postman** API validation, and **Lighthouse** performance tests.
- Verified security using **HTTPS**, ensured proper data handling, and tested responsiveness across devices.

5. Documentation Updates:

- Created a **README.md** file with deployment instructions, configurations, and test results.
 - Included all reports and test results in the **GitHub repository**.
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Steps for Implementation:

Step 1: Hosting Platform Setup

- **Platform Chosen:**
 - **Vercel** was selected for quick and easy deployment.
 - Live link: <https://furniture-ecommerce3.vercel.app/>
 - **Connect Repository:**
 - Successfully connected the **GitHub** repository to Vercel for automatic deployments.
 - Configured build settings and added necessary deployment scripts in the **Vercel dashboard**.
 - GitHub repository: <https://github.com/ALIRAZA4278/Milestone3-basic-e-commerce>
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Step 2: Configure Environment Variables

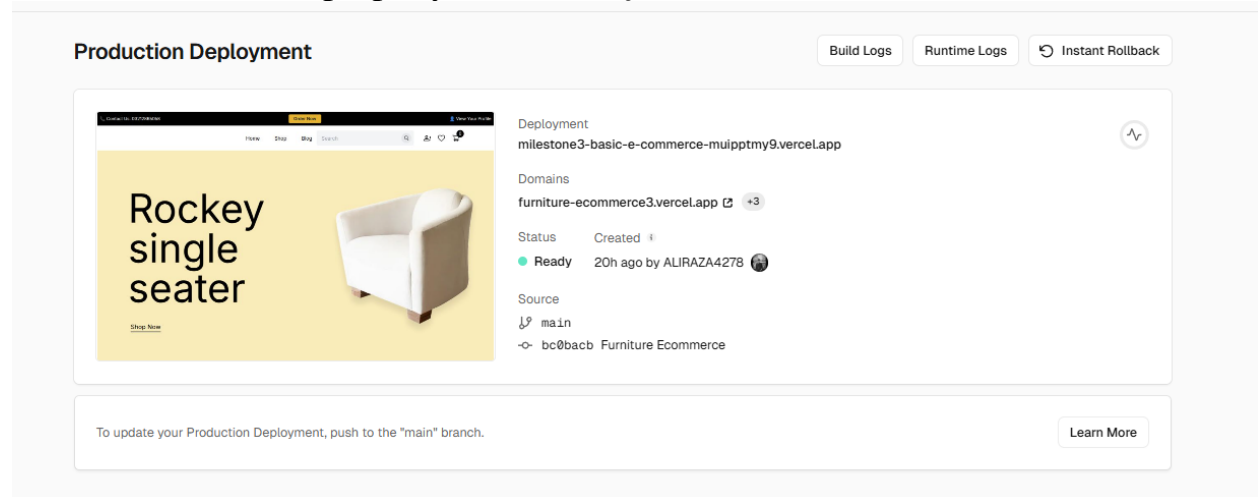
- **Create .env.local File:**
 - Created the `.env.local` file to securely store sensitive data like **API keys** and **tokens**.
 - Example content: (You can add specific examples here if needed).
- **Upload Variables to Vercel:**
 - Uploaded the environment variables securely using the **Vercel Dashboard** for proper handling.

```
.env.local
1  NEXT_PUBLIC_SANITY_PROJECT_ID=
2  NEXT_PUBLIC_SANITY_DATASET=
3  Contact_form_access_key=
4
```

Step 3: Deploy to Staging

- **Deploy Application:**
 - Deployed the application to **Vercel's staging environment** for testing.
- **Validate Deployment:**
 - Ensured the deployment build completed successfully without errors.

- Verified that the application loaded correctly and that all content was fetched properly from **Sanity CMS**.



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Step 4: Staging Environment Testing

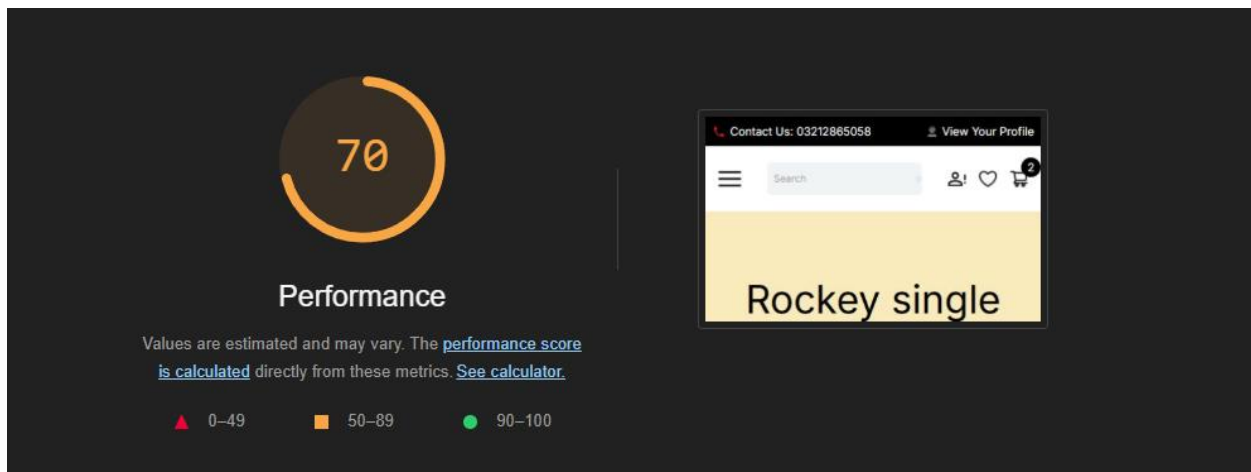
1. Testing Types

- **Functional Testing:**
 - **Product Listing:** Ensured all products were listed correctly.
 - **Product Details:** Verified product details page displayed accurate information.
 - **User Profile:** Tested user login, profile update, and display functionality.
 - **Cart Operations:** Validated the ability to add, remove, and update product quantities in the cart.
 - **Wishlist:** Ensured products could be added and removed from the wishlist.
 - **Category:** Checked that categories displayed the correct product listings and filtered accordingly.
 - **Dynamic Routing:** Verified dynamic routing for product and category pages worked correctly.
- **Performance Testing:**
 - Used **Lighthouse** and **GTmetrix** to analyze performance, speed, and responsiveness.
 - Optimized the application for various devices, screen sizes, and network conditions to ensure a smooth user experience.

- **Security Testing:**

- Validated input fields to protect against vulnerabilities like **SQL injection** and other malicious attacks.
- Ensured **HTTPS** was enabled for secure communication between the client and server.
- Verified that sensitive data (API keys, user credentials) was transmitted securely and stored safely to prevent data breaches.

Performance Testing Here is performance report generate by lighthouse tools;



Vercel

milestone3-basic-e-commerce [Repository](#) [Usage](#) [Domains](#) [Visit](#)

Production Deployment [Build Logs](#) [Runtime Logs](#) [Instant Rollback](#)

Deployment
milestone3-basic-e-commerce-muiptmy9.vercelApp

Domains
furniture-e-commerce3.vercelApp +3

Status Created
Ready 20h ago by ALIRAZA4278

Source
main
bc0bacb Furniture Ecommerce

To update your Production Deployment, push to the "main" branch. [Learn More](#)

Github

Milestone3-basic-e-commercePublic

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main1 Branch0 Tags

Go to fileAdd fileCode

ALIRAZA4278Furniture Ecommerce✓bc0bacb · 20 hours ago11 Commits

Documentation	Furniture Ecommerce	20 hours ago
public	Ecommerce by sanity milestone 3	3 weeks ago
scripts	Ecommerce by sanity milestone 3	3 days ago
src	Furniture Ecommerce	20 hours ago
.gitignore	Initial commit from Create Next App	last month
README.md	Initial commit from Create Next App	last month
eslint.config.mjs	Initial commit from Create Next App	last month
next.config.ts	Ecommerce by sanity milestone 3	3 weeks ago
package-lock.json	Furniture Ecommerce	20 hours ago
package.json	Furniture Ecommerce	20 hours ago
postcss.config.mjs	Initial commit from Create Next App	last month
sanity.cli.ts	Ecommerce by sanity milestone 3	3 weeks ago
sanity.config.ts	Ecommerce by sanity milestone 3	3 weeks ago
tailwind.config.ts	Ecommerce by sanity milestone 3	3 weeks ago
tconfig.json	Ecommerce by sanity milestone 3	3 weeks ago
typing.d.ts	Ecommerce by sanity milestone 3	3 weeks ago

About

basic e-commerce by sanity

[milestone3-basic-e-commerce.vercel.app](#)

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Languages

TypeScript 97.4%JavaScript 2.3%CSS 0.3%


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Conclusion: Deployment Preparation and Staging Step

Day 6 focused on establishing a robust staging environment for deployment. Key tasks included configuring environment variables, conducting comprehensive functionality testing, and updating documentation. These steps ensure a seamless and secure transition to the live platform, minimizing risks and enhancing the readiness for production deployment. ✓