

Day 6: Deployment Preparation and Staging Environment Setup

Key Achievements:

- **Deployment Strategy:**
 - Hosted the application on Vercel for quick deployment.
 - Integrated GitHub repository for CI/CD.
- **Environment Variables:**
 - Configured sensitive variables (e.g., API keys) in `.env` and uploaded them securely to Vercel.
- **Staging Environment:**
 - Deployed a staging build to validate functionality in a production-like environment.
 - Example `.env` File:
`NEXT_PUBLIC_SANITY_PROJECT_ID=your_project_id`
`NEXT_PUBLIC_SANITY_DATASET=production`
- **Staging Testing:**
 - Functional Testing: Verified key workflows like product listings and checkout.
 - Performance Testing: Used GTmetrix for analyzing speed and responsiveness.
 - Security Testing: Validated HTTPS, input handling, and secure API calls.
- **Documentation:**
 - Created a `README.md` summarizing the project structure and deployment steps.
 - Organized the GitHub repository with folders for `src/`, `public/`, and `documents/`.

GitHub Repository Structure

```
Ecommerce-Marketplace-Hackathon/
├── .next/                # Next.js build files (auto-generated, not
committed)
├── node_modules/        # Dependencies (auto-generated, not committed)
├── public/              # Static assets (images, fonts, etc.)
│   ├── favicon.ico
│   └── assets/
├── src/                 # Main source folder for the project
│   ├── app/             # Application-specific files
│   │   ├── (auth)/      # Authentication-related pages signup / login
│   │   ├── about/       # About page
│   │   ├── cart/        # Cart functionality
│   │   ├── checkout/    # Checkout process
│   │   ├── contact/     # Contact page
│   │   ├── order-confirmation/ # Order confirmation workflow
│   │   └── pricing/     # Pricing details
```

└─ search/	# Search functionality
└─ shop/	# Shop-related pages
└─ studio/	# Studio configuration (if applicable)
└─ team/	# Team page
└─ wishlist/	# Wishlist functionality
└─ layout.tsx	# Layout components
└─ page.tsx	# Main entry point for the app
└─ components/	# Reusable UI components
└─ aboutpage/	
└─ cart/	
└─ checkout/	
└─ contactpage/	
└─ filter/	
└─ footer/	
└─ header/	
└─ homepage/	
└─ pricing/	
└─ product-list-page/	
└─ product-page/	
└─ searchbar/	
└─ team/	
└─ ui/	
└─ PostCard.tsx	
└─ ProductCard.tsx	
└─ index.ts	
└─ context/	# React context for global state management
└─ myFunctions/	# Custom utility functions
└─ sanity/	# Sanity CMS configuration files
└─ types/	# TypeScript interfaces and types
└─ .eslintrc.json	# ESLint configuration
└─ .gitignore	# Files to ignore in Git
└─ README.md	# Project overview and instructions

Conclusion

The deployment preparation and staging environment setup marked a significant milestone in the project. Successfully hosting the application on Vercel with seamless CI/CD integration ensured a streamlined deployment process. The secure configuration of environment variables added an essential layer of protection to the system. Testing in a production-like staging environment allowed for validation of key workflows, performance, and security. Furthermore, the creation of a well-documented README and an organized GitHub repository laid the foundation for clarity and collaboration, making the project deployment-ready and accessible for future development.