Hackthon 2025-Day 6

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Friday(9am-12pm)

E-commerce Project Deployment Report

Project Overview

This report outlines the steps taken to deploy the e-commerce application to Vercel and GitHub. The application is built with Next.js, integrates with Sanity for content management, and includes features like cart functionality, product display, and checkout process. The goal of this deployment was to make the e-commerce site publicly available with a smooth user experience and optimal performance.

Deployment Details

1. GitHub Repository Setup

Repository URL: [https://github.com/amnakifayat13/ecom-hackathone.git]
Version Control: Git is used for version control to manage the codebase, which is hosted on GitHub.

Steps to set up GitHub Repository:

1.

Created a New GitHub Repository:

2.

- Created a new repository on GitHub to host the project code.
- Ensured .gitignore is properly set up to exclude sensitive data and unnecessary files such as node_modules and .env.

3.

Commit & Push Code:

4.

- After development, all code files (Next.js files) were committed to the GitHub repository.
- Regular commits were made to keep track of changes in the codebase.

5.

Branch Management:

6.

- Used Git branches for organizing features and bug fixes.
- Merged feature branches into the main branch after code reviews.

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2. Vercel Deployment Setup

- **Vercel URL**: [https://ecom-hackathone-prqe.vercel.app/]

Steps to Deploy on Vercel:

1.

Vercel Project Creation:

2.

- Connected the GitHub repository to Vercel for automated deployment.
- Authorized Vercel to access the GitHub account and select the repository to deploy.

3.

Build & Deploy:

4.

- Vercel automatically detected the Next.js framework during the setup process.
- The application was deployed with a few clicks after selecting the repository.
- Vercel automatically handled build configurations (e.g., installing dependencies and setting up the build pipeline).

5.

Environment Variables Setup:

6.

- Configured environment variables such as API keys and project settings needed to connect to the Sanity content management system.
- Ensured that sensitive data such as API keys was not pushed to GitHub but managed securely through Vercel's environment variables.

7.

Automatic Deployment Triggers:

8.

   - Any changes pushed to the main branch or any pull requests merged into the main branch automatically trigger Vercel to redeploy the application.
   - Vercel handles automatic optimizations and caching for faster page loads and improved performance.

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3. Features Implemented and Functionality

- **Home Page**: Displays featured products, best-selling Products, and relevant product information such as title, description, and pricing.
- **Product Pages**: Each product has its own page, showing detailed information and product images sourced from Sanity CMS.
- **Cart Functionality**: Users can add items to the cart, view available stock, and proceed to checkout.
- **Responsive Design**: The site is fully responsive and optimized for mobile, tablet, and desktop devices.

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4. Testing & Validation

- **Cross-Browser Testing**: The website was tested across popular browsers (Chrome, Firefox, Safari, Edge) to ensure consistent behavior and appearance.

- **Responsive Design Testing**: The layout and functionality were tested on mobile, tablet, and desktop devices to ensure proper display.
- **Performance Testing**:
    - Page load speed was tested to ensure fast rendering using tools like Google PageSpeed Insights.
    - Vercel's built-in optimizations (such as edge caching and automatic CDN distribution) were leveraged to enhance performance.

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5. Final Result

- The e-commerce site is now live and accessible via the Vercel URL.
- All functionality, including product display, cart interaction, and responsive layout, is working seamlessly.

Conclusion

The deployment process was successfully completed, and the e-commerce application is now fully functional and live on Vercel. GitHub's version control and Vercel's deployment platform have provided a streamlined and efficient workflow for continuous integration and deployment.