Hackathon 3

Day-6

Introduction:

The complete process of creating and launching the FoodTuck marketplace is outlined in this document. Planning and design were the first steps in the project, which then moved on to development and testing before being deployed to a live staging environment on Vercel.

Hackathon Conclusion:

Day-1: Project Planning and Setup

- **Tasks Completed:**
  - Defined project objectives and key features, such as product listing, cart functionality, and user profiles.
  - Set up the project environment using Next.js and connected it to Sanity CMS for dynamic content management.
  - Organized the project folder structure with directories like `src/`, `public/`, and `components/`.
- **Tools Used:** Visual Studio Code, GitHub, Sanity CMS.

Day 2: Backend Integration

- **Tasks Completed:**
  - Integrated APIs to fetch data for products, categories, and user profiles.
  - Designed data schemas in Sanity CMS for managing dynamic content.
  - Implemented error handling for API calls using `try-catch` blocks.
- Challenges Faced:
  - Initial issues with API authentication resolved by updating tokens.

Day 3: Building Core Features

- **Tasks Completed:**
  - Created reusable components for the product listing, search bar, and filter panel.
  - Designed dynamic routing for individual product detail pages.
  - Implemented state management using React Context API.
- **Best Practices Followed:** Modular component design and reusable logic.

Day 4: Dynamic Frontend Development

- **Tasks Completed:**
  - Built responsive UI components, ensuring compatibility across devices.
  - Enhanced user experience with features like pagination and a wishlist.
  - Tested components using mock data to ensure proper functionality.
- **Performance Optimization:** Lazy-loaded images and reduced unused CSS.

Day 5: Testing and Refinement

- **Tasks Completed:**
  - Conducted functional, performance, and security testing.
  - Used Pagespeed or GTmetrix for performance analysis.
  - Fixed issues related to responsiveness and API error handling.
- Results:
  - Improved load time to under 2 seconds.
  - Resolved search bar issue for irrelevant queries.

Day 6: Deployment Preparation and Staging Setup

- **Tasks Completed:**
  - Selected Vercel as the hosting platform.
  - Connected the GitHub repository to Vercel for automated builds and deployments.
  - Configured environment variables securely within Vercel.
  - Deployed the application to a staging environment for final testing.
- Testing in Staging:
  - Verified workflows like product search, cart operations, and checkout.
  - Conducted cross-browser testing on Chrome, Firefox, and Microsoft Edge.

Deployment Process:

1. Hosting Platform:
   - Used Vercel for its simplicity and seamless Next.js integration.
2. Repository Setup:
   - Organized project files into logical directories.
3. Environment Variables:
   - Configured sensitive data like API keys in the Vercel dashboard.
   - Ensured security by excluding `.env` files from the repository.
4. Deployment Steps:
   - Pushed the latest code to the `main` branch on GitHub.
   - Vercel automatically triggered a build and deployed the site to a live staging URL.
5. Validation:

- Tested the deployed site for functionality, responsiveness, and performance.
- Confirmed that all features worked as intended in the staging environment.

Conclusion:

The FoodTuck marketplace project was developed, tested, and launched effectively by adhering to best practices. For additional testing and improvement, Vercel's staging environment offers a production-like environment. The value of preparation and close attention to detail in producing a top-notch application was illustrated by this trip.