

# Day 6 - Launch Readiness & Staging Setup

## **[JS MARKET– Modern Furniture E-Commerce Platform]**

### *Platform Overview:*

**JS MARKET** is a high-performance, scalable e-commerce platform designed for an intuitive shopping experience.

### **Core Features:**

- Comprehensive product catalog with detailed views
- Cart & wishlist management
- Advanced search & filtering options
- Secure checkout system
- Personalized user profiles
- Ratings & feedback integration
- Real-time notifications
- Fully responsive and dynamic UI

### *Launch Preparation & Key Milestones*

#### ☒ **Pre-Launch Readiness:**

#### **Key Actions Taken:**

##### **1=> Code Optimization:**

- Conducted a thorough code review for efficiency and best practices.
- Removed unused dependencies and redundant code blocks.

##### **2=> Security & Configuration:**

- Secured API keys and credentials using environment variables.
- Verified variable consistency across staging and production environments.

##### **3=> Build Refinement:**

- Executed `npm run build` to identify and resolve compilation errors.
- Optimized third-party libraries to reduce bundle size.

#### 4=> **Quality Assurance:**

- Ran unit, integration, and end-to-end (E2E) tests to ensure stability.
- Confirmed responsive layouts across various devices.

#### 5=> **Progress Tracking:**

- Maintained a CSV log for error tracking and performance benchmarks.

## Staging Environment Setup:

### *Deployment via Vercel*

#### Why Vercel?

- Instant deployment with fast performance and analytics integration.

#### Configuration Steps:

- Set up a dedicated **staging branch** with isolated environment variables.
- Integrated automated **CI/CD pipelines** for smooth updates.
- Utilized **Vercel Insights** for real-time performance monitoring.

### *Deployment Challenges & Fixes:*

#### 1=> **Environment Variable Issues:**

- **Problem:** Staging variables failed to load due to incorrect formatting.
- **Solution:** Fixed `.env` structure and leveraged Vercel's secure variable storage.

#### 2=> **Client-Side Errors in Cart & Wishlist:**

- **Problem:** Unexpected errors in console logs.
- **Root Cause:** Unhandled edge cases in data management.
- **Solution:** Implemented **Sentry monitoring** and refined validation logic.

#### 3=> **Mobile Responsiveness Issues:**

- **Problem:** Misaligned UI elements on smaller screens.
- **Solution:** Adjusted **Tailwind CSS breakpoints** and tested on actual devices.

## Validation & Testing:

### 1=> Feature Testing:

- Verified essential functionalities:
  - ✓ Add/remove items from cart
  - ✓ Update wishlist
  - ✓ Product search accuracy
- Ensured smooth **page transitions & UI interactions**

### 2=> Performance & SEO Audit:

- **Lighthouse Analysis:**
  - ✓ **Performance Boost:** Optimized via code splitting
  - ✓ **Accessibility:** Improved color contrast & ARIA labels
  - ✓ **SEO Enhancements:** Optimized metadata and image alt tags
- Monitored key performance indicators using **Vercel Analytics Dashboard**

### 3=> Cross-Device Compatibility:

- Tested across **mobile, tablet, and desktop** screens.
- Fixed **alignment and overflow issues** to ensure a seamless experience.

## Deployment Pipeline & Final Checks

### ✓ Pre-Launch Checklist:

1. Completed database backup.
2. Revalidated environment variables.
3. Ensured a successful final build (`npm run build`).

### ✓ Vercel Deployment Process:

1. Merged **staging branch** into GitHub.

2. Activated **auto-deployments** for the production branch.
3. Monitored logs for successful deployment confirmation.

#### ✅ **Post-Launch Testing:**

- Conducted final live testing of cart, filters, and wishlist features.
- Ran scripted tests to validate checkout & user workflows.

### **Final Fixes & Enhancements:**

#### 1=> **Build Errors:**

- **Problem:** Deployment failed due to missing dependencies.
- **Solution:** Updated `package.json` and rebuilt the project.

#### 2=> **UI Glitches on Mobile:**

- **Problem:** Overlapping UI components.
- **Solution:** Adjusted **CSS grid settings** for better alignment.

### **Final Outcome:**

- **Successfully deployed** Furniro on **Vercel** with seamless functionality.
- **Lighthouse scores exceeded 90%**, ensuring high performance & accessibility.
- Ensured a **consistent experience across all devices**.

### **Future Roadmap:**

1=> **Continuous Monitoring:** Track uptime via **Vercel & Sentry** integrations.

2=> **Feature Expansion:** Introduce **user reviews & AI-powered recommendations**.

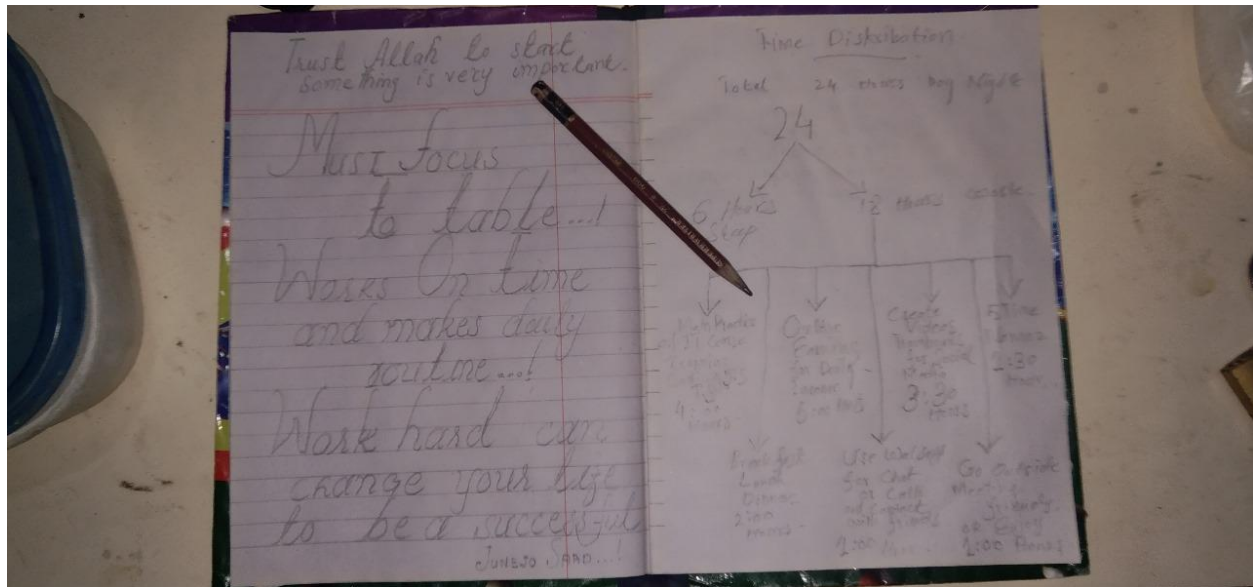
3 => **Security & Performance Audits:** Schedule **quarterly testing & optimizations**.

### **Conclusion:**

**JS MARKET** blends a **robust backend** with an **elegant frontend** to deliver a frictionless shopping experience. By overcoming **deployment challenges** and enhancing **mobile responsiveness**, the platform is fully **optimized for real-world scalability**.

# Developer

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**DAY 6 END**