DAY 6 - DEPLOYMENT PREPARATION & STAGING ENVIRONMENT SETUP

Avion Furniture - By Muhammad Kashif

Objective:

The goal for Day 6 was to **finalize the deployment of Avion Furniture** by setting up a **staging environment**, configuring **secure hosting**, and validating performance in a **production-like setting**. This process ensured a smooth transition from development to live deployment while following **industry-standard best practices** for environment management.

Professional Deployment Environments:

1️⃣ **TRN (Training):** Onboarding & practice environment.
2️⃣ **DEV (Development):** Local environment for writing & testing code.
3️⃣ **SIT (System Integration Testing):** Ensures seamless integration across systems.
4️⃣ **UAT (User Acceptance Testing):** Allows stakeholders to validate features.
5️⃣ **PROD (Production):** Live, customer-facing version of Avion Furniture.
6️⃣ **DR (Disaster Recovery):** Backup system for critical scenarios.

Key Achievements:

✅ **Deployed Avion Furniture on Vercel** for both staging and production.
✅ **Integrated with Sanity CMS** for dynamic content updates.
✅ **Secured environment variables** to protect sensitive API keys and database credentials.
✅ **Performed staging environment testing** to ensure functionality, security, and responsiveness.
✅ **Updated documentation** with project progress, test reports, and deployment guidelines.

Step-by-Step Implementation:

1️⃣ Hosting Platform Setup:

🔹 **Used Vercel for fast and secure deployment.**
🔹 **Linked GitHub repository to Vercel** for automated builds.
🔹 **Configured build settings** to optimize performance.

2️⃣ Configuring Environment Variables:

🔹 Created a **.env** file to store API keys and credentials:

NEXT_PUBLIC_SANITY_PROJECT_ID=your_project_id

NEXT_PUBLIC_SANITY_DATASET=production

API_KEY=your_api_key

🔹 **Uploaded these variables securely** to Vercel's dashboard.

3️⃣ Deploying to Staging:

🔹 **Initiated deployment** to the staging environment via Vercel.
🔹 **Validated the build process** to ensure it completed without errors.
🔹 **Checked website functionality** to confirm a smooth user experience.

4️⃣ Staging Environment Testing:

🔸 **Functional Testing:** Verified product listings, search, cart, and checkout.
🔸 **Performance Testing:** Used Lighthouse & GTmetrix for speed analysis.
🔸 **Security Testing:** Ensured HTTPS usage and input validation.
🔸 **Responsiveness Testing:** Checked layout on different devices.

5️⃣ Documentation & Repository Organization:

📌 **Created README.md** summarizing all development activities.
📌 **Structured all project files** into organized folders.
📌 **Uploaded test reports & performance results** to GitHub.

Final Deliverables:

✅ **Live Staging Environment:** Fully functional on Vercel.
✅ **Secure Environment Variables:** API keys & credentials properly configured.
✅ **Comprehensive Testing Reports:** Performance and security validations documented.
✅ **Structured GitHub Repository:** Well-organized project files and documentation.
✅ **Professional README.md File:** Summarizing the entire **Avion Furniture** journey.

🚀 Avion Furniture Vercel Link:

https://hackathon-3-2025-six.vercel.app/

📂 GitHub Repositories:

https://github.com/Kashifzaii/Hackathon-3-2025

Conclusion:

Day 6 marked the **successful deployment** of **Avion Furniture**, ensuring that it is optimized for real-world usage. Through careful testing, security enhancements, and documentation, the project is now **fully operational and ready for launch!** 🚀