Day 5: Testing, Error Handling, and Backend

Hecto Furniture Marketplace

Objective

The objective of Day 5 is to ensure that the **Hecto Furniture Marketplace** is fully **deployment-ready**. This includes the following aspects:

- Complete **functionality testing**
- Implementing **effective error handling** techniques
- Improving **performance, accessibility, and SEO**
- Checking compatibility across different **browsers and devices**
- Preparing **detailed documentation** of findings and fixes

Key Learning Outcomes

✅ **Validate all features** through functional and user acceptance testing ✅ Improve **website performance** using tools like **Lighthouse** ✅ Enhance **accessibility scores** for users with disabilities ✅ **Optimize SEO** for better search engine rankings ✅ Prepare **comprehensive documentation and a CSV-based testing report**

Implementation Steps

Step 1: Functional Testing

📌 **Objective:** Verify that all **key features** of the website function correctly.

- ✅ **Navigation Links:** Ensure all links direct to the correct pages.
- ✅ **Forms & Inputs:** Check form fields and their correct data entry.
- ✅ **Buttons & Actions:** Test all buttons and their expected outcomes.
- ✅ **User Authentication:** Validate login, sign-up, and password reset functionalities.

Step 2: Error Handling

📌 **Objective:** Ensure the website **handles errors properly**.

- ✅ **Invalid Inputs Handling:** Display appropriate messages for incorrect inputs.
- ✅ **404 & 500 Errors:** Properly handle missing pages and server errors.
- ✅ **Form Validations:** Display **validation messages** for incorrect user data entries.

Step 3: Performance Optimization

📌 **Objective:** Improve the speed and efficiency of the website.

- ✅ **Lighthouse Analysis:** Use Google Lighthouse and similar tools to enhance scores.
- ✅ **Image Optimization:** Reduce image sizes for **faster loading times**.
- ✅ **Code Minification:** Minify **CSS, JS, and HTML** to remove unnecessary data.

Step 4: Accessibility & SEO Enhancement

📌 **Objective:** Make the website more accessible and search engine friendly.

- ✅ **Screen Reader Testing:** Ensure the website is **easily navigable for disabled users**.
- ✅ **Alt Text for Images:** Add **relevant Alt Text** to all images.
- ✅ **Meta Tags & Structured Data:** Optimize **meta tags and structured data** for search engines.

Step 5: Documentation & Reporting

📌 **Objective:** Document all testing and improvements in detail.

- ✅ **Test Cases & Results:** Compile test cases and results into a **CSV report**.
- ✅ **Bug Reports:** Document all detected **bugs** and their **fixes**.
- ✅ **Deployment Checklist:** Create a **comprehensive checklist** to verify everything before launch.

Conclusion

This **Testing & Optimization** session ensures that **Hecto Furniture Marketplace** is not only **high-performing** but also excels in **user experience, accessibility, and SEO standards**. 🚀