

Prepared by
Talha Shaikh

Hackathon Day 5

Testing, Error Handling, And Backend Integration
Refinement

Objective:

Testing: To ensure all the features of system work correctly, including performance, usability, and security testing.

Error Handling: Implementing error handle mechanism to improve User Experience and make sure to prevent from app failures or system failures

Backend Integration: Enhancing the relation between frontend to backend to improve, the performance greatly and make the stability strong



Performance



Accessibility



Best
Practices



SEO

Error Handling:

In my this Project, I just make error handling functions

- 1 API Error Handling: It Handle scenarios where the API'S if fails or return error (for e.g. server down)*
- 2 Form Validation Error: To ensure that form validation should be sent to the server correctly*
- 3 Backend Error: Handle backend error professionally to control database failures or missing data.*

```
}, {queryLabelId}},
```

Codeium: Refactor | Explain | Generate JSDoc | ✕

```
const fetchTrackingData = async (id: string) => {  
  if (!id) {  
    setErrorMessage("Label ID is required.");  
    return;  
  }  
  
  setIsLoading(true);  
  setErrorMessage(null);  
  
  try {  
    router.replace(`/tracking?labelId=${id}`);  
  
    const { data } = await axios.get(`/api/shipengine/tracking/${id}`);  
    setTrackingInfo(data);  
  } catch (error) {  
    console.error("Error fetching tracking data:", error);  
    setErrorMessage("Unable to track shipment. Please verify the Label ID.");  
  } finally {  
    setIsLoading(false);  
  }  
};
```

Activate Windows
Go to Settings to activate Windows.

Backend Integration:

In my this Project, I just make some integration for backend

1 API Optimization : Improve the API response and reduce the late response

2 Data Synchronization : Ensure frontend and backend will connect together properly and give perfect result in real time rich features

Test Case Report:

<u>Test case</u>	<u>Test case step</u>	<u>Result</u>	<u>Status</u>	<u>Author</u>
1 Product Listing page	- Open product Page and verified products of it	- Display Products perfectly	- Passed	- Talha Shaikh
2 API Error Handling	- Disconnect API to refresh page	- UI failed message	- Passed	- Talha Shaikh
3 Check Cart Func	- Add product to cart	- Cart Update for products	- Passed	- Talha Shaikh
4 Responsive for mobile	- Check layout	- Layout work properly	- Passed	- Talha Shaikh

Thank You