Heuristic Evaluation Report

Evaluator Information

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- **Date:** 02.05.2025
- **Project:** Inventory Management System
- **Sprint:** Sprint 8

Evaluation Method

Each screen of the application was evaluated individually using Jakob Nielsen's 10 usability heuristics. Identified issues were documented, severity ratings were assigned, and suggestions for improvement were proposed.

Severity Rating Scale

Rating	Description
0	No usability problem
1	Cosmetic issue only
2	Minor usability issue
3	Major usability issue (should be addressed)
4	Critical usability issue (must be fixed)

Heuristic Evaluation by Principle

H1-1: Simple & Natural Dialog

Issue Description:

On the "Purchases" page, column headers such as "ORDER ID" and "SUPPLIER ID" use technical, database-oriented terminology. This may be unclear to non-technical users. Additionally, the "Date" column displays time down to milliseconds, which is excessive for typical users.

Screenshot:

Severity: 2 – Minor usability issue
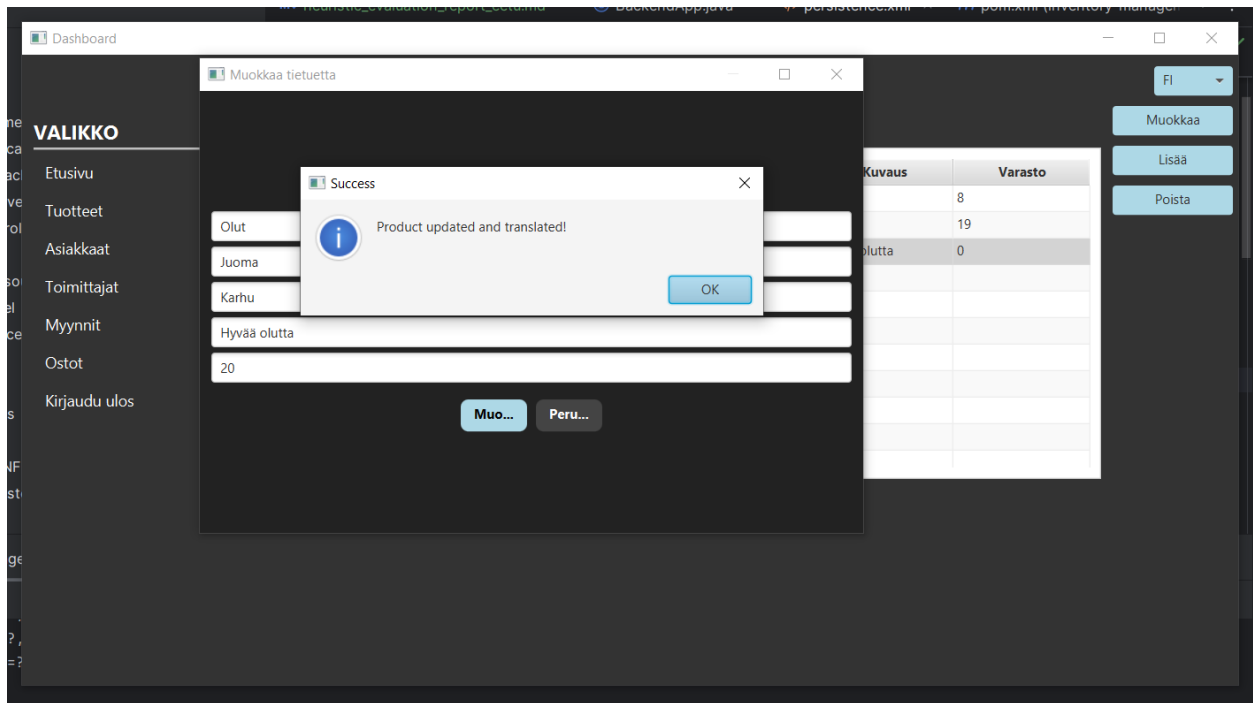
Suggested Improvement:

- Trim the Date format (e.g., display as "2025-03-03 17:05").
- Replace "SUPPLIER ID" with "Supplier Name".
- Replace "ORDER ID" with "Order Number".

H1-2: Speak the Users' Language

Issue Description:

When editing a product, the confirmation message appears in English, even though Finnish is selected as the language.

Screenshots:

Severity: 2 – Minor usability issue

Suggested Improvement: Ensure that all confirmation messages are localized based on the selected language using a resource bundle.

H1-3: Minimize Users' Memory Load

Issue Description:

In the "Add Entity" form, the textareas lack labels, making it unclear what information should be entered without manually deleting placeholder text.

Screenshot:

Severity: 3 – Major usability issue
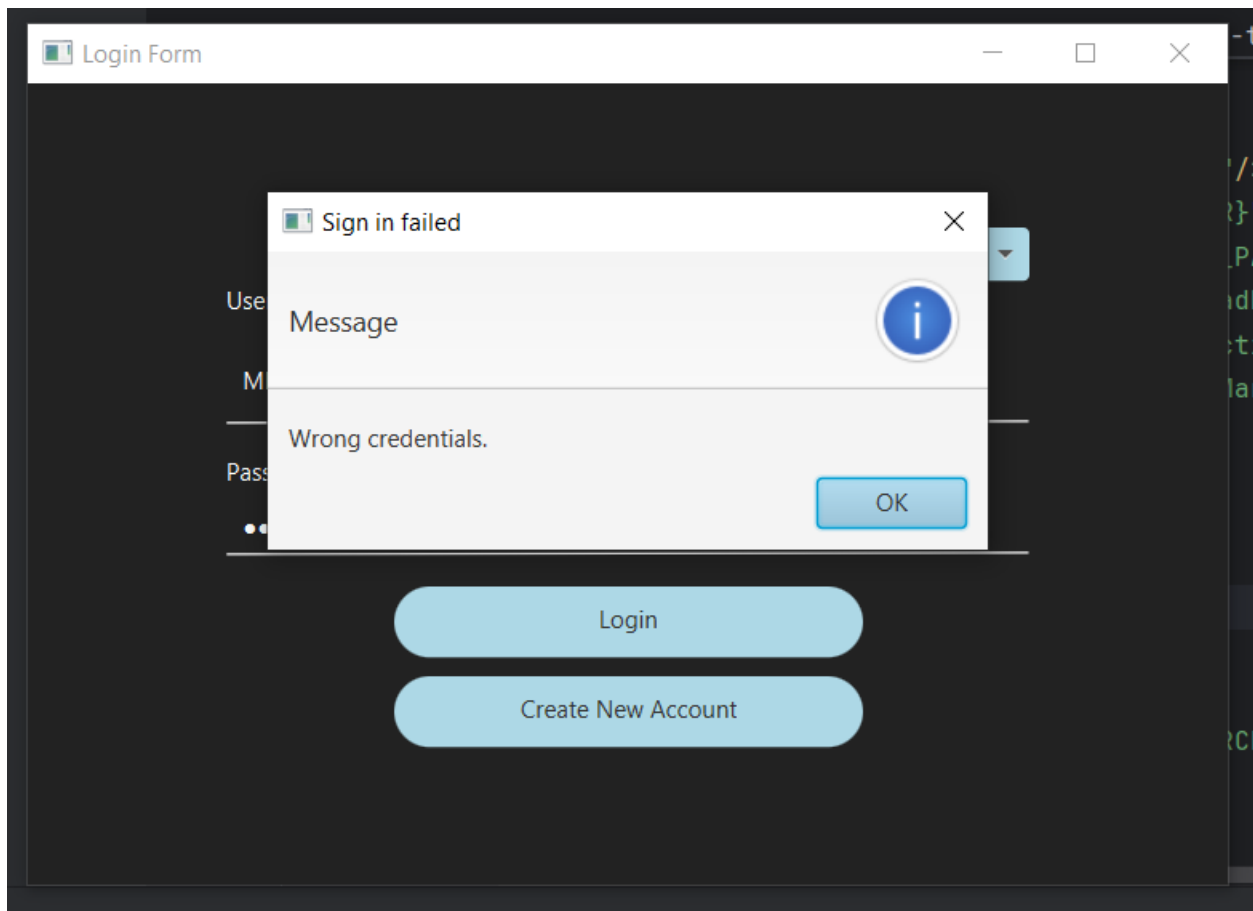
Suggested Improvement:

- Add clear labels above each input field in the form.

H1-4: Consistency

Issue Description:

On the sign-in page, the window title reads "Login form," whereas error messages use "Sign in failed." This inconsistency in terminology may confuse users.

Screenshot:

Severity: 1 – Cosmetic issue

Suggested Improvement:

- Use consistent terminology by standardizing all references to "Sign in."
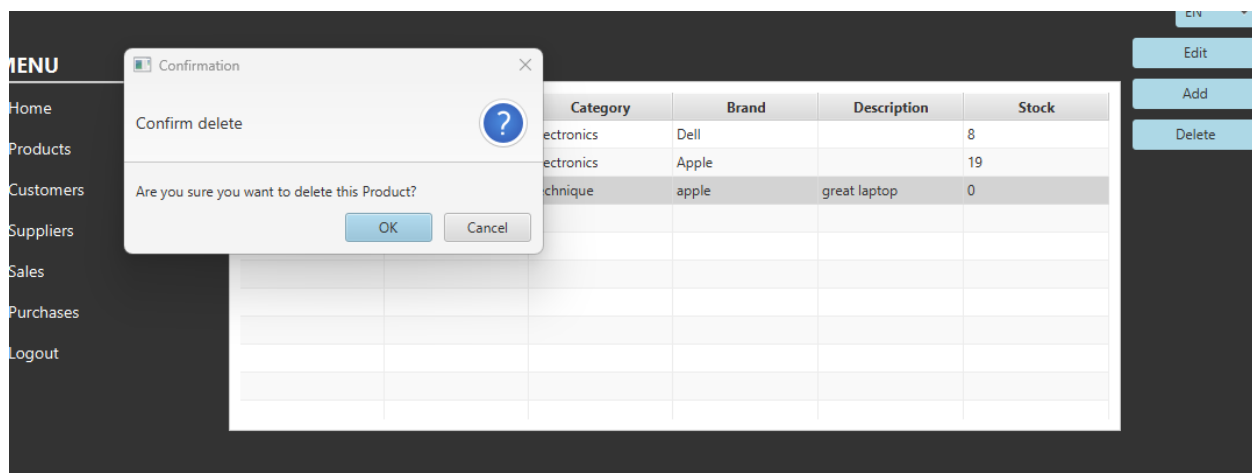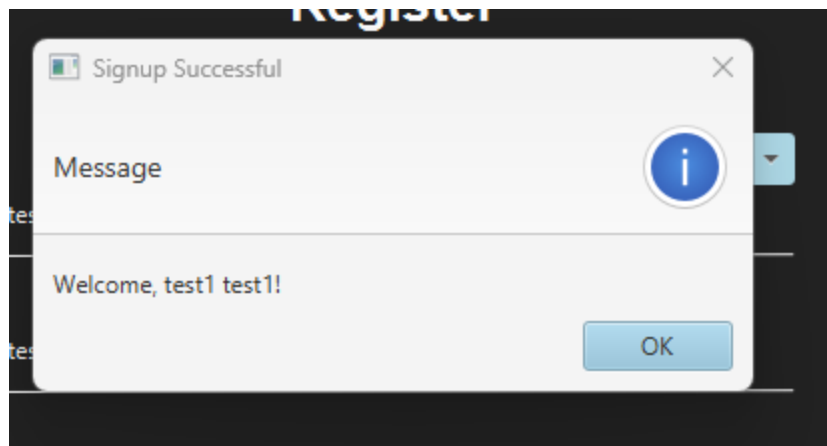
H1-5: Feedback

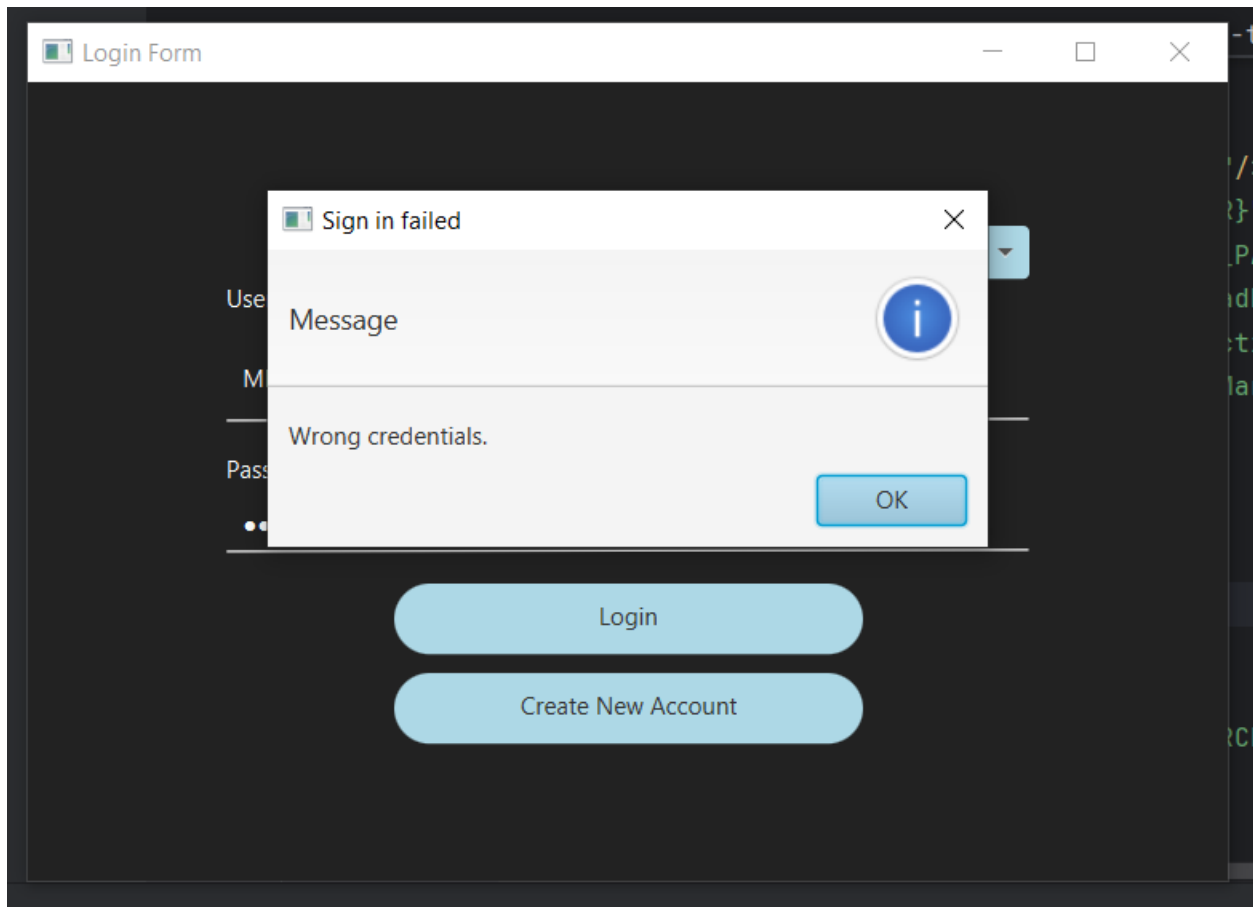Issue Description:

The system gives basic feedback for key actions, such as confirming deletions or successful registration. However, these could be more descriptive:

- The deletion confirmation should name the product.
- The registration success popup is labeled generically as "Message."
- Failed sign-in attempts display an informational blue icon rather than an error-specific red one.

Screenshots:

Register

Signup Successful   ✕

Message   ⓘ

Welcome, test1 test1!

OK

MENU

Home

Products

Customers

Suppliers

Sales

Purchases

Logout

EN

Edit

Add

Delete

Confirmation   ✕

Confirm delete   ❓

Are you sure you want to delete this Product?

OK   Cancel

	Category	Brand	Description	Stock
	ectronics	Dell		8
	ectronics	Apple		19
	chnique	apple	great laptop	0

Severity: 2 – Minor usability issue
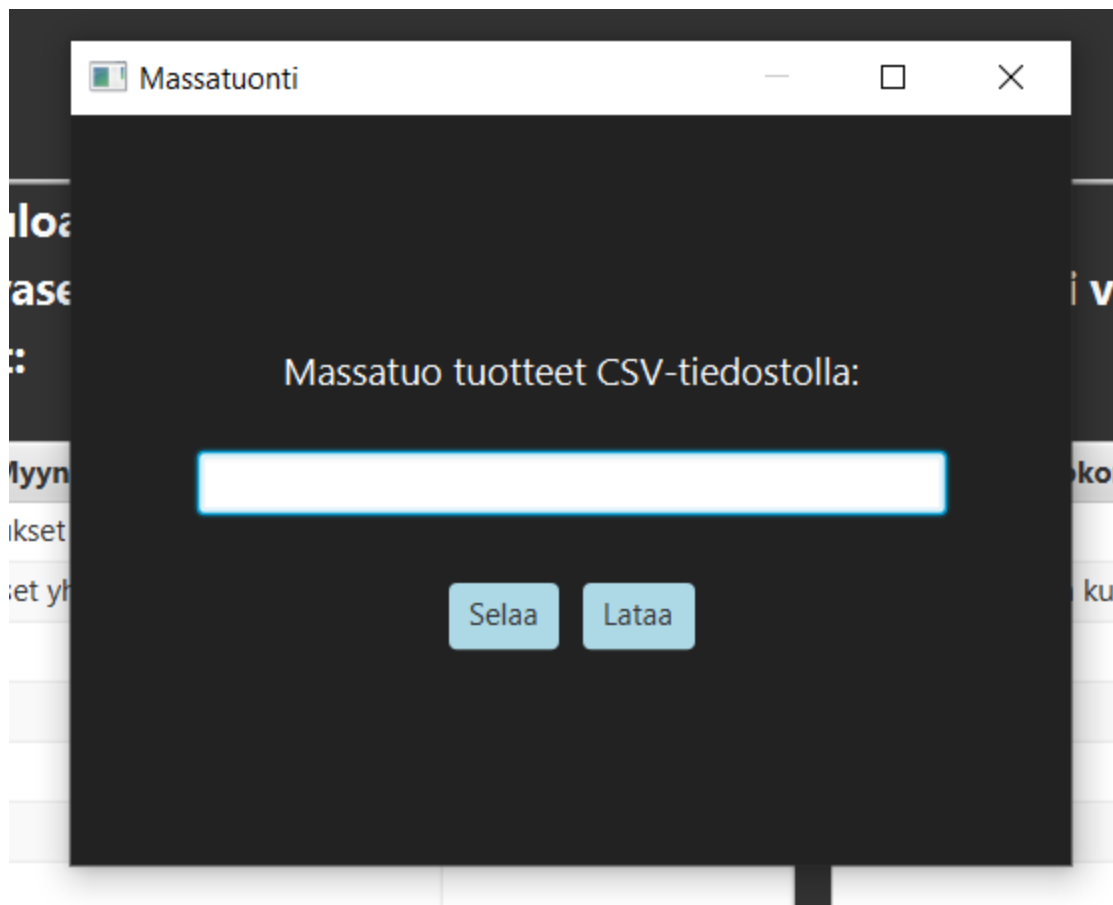
Suggested Improvement:

- Display the product name in deletion confirmation dialogs.
- Change the registration popup title to "Registration Successful."
- Replace the info icon and blue message with a red error icon for failed sign-ins.

H1-6: Clearly Marked Exits

Issue Description:

When initiating a CSV import from the Home screen, the user is shown a popup without any visible option to cancel the operation besides the window's close button.

Screenshot:

Severity: 2 – Minor usability issue

Suggested Improvement:

- Include a clearly visible "Cancel" button in the CSV import popup window.

H1-7: Shortcuts

Issue Description: There are no keyboard shortcuts for common tasks like adding a product or navigating between sections. This slows down experienced users.

Screenshot: Not applicable
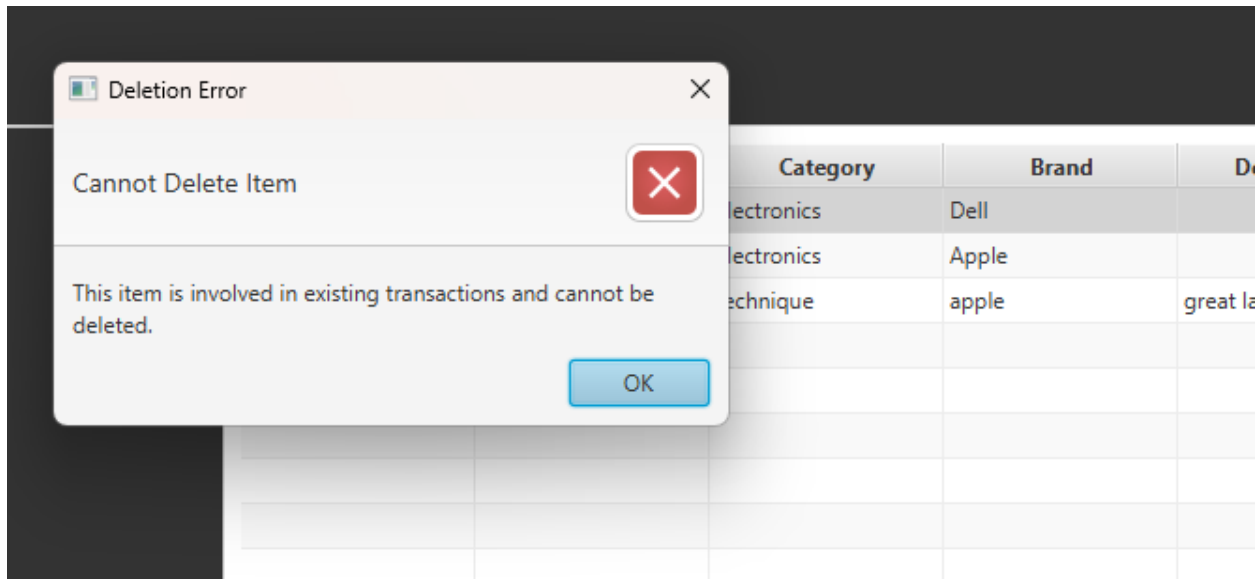
Severity: 2 – Minor usability issue

Suggested Improvement: Add keyboard shortcuts, such as:

- Ctrl+N → Add new item
- Ctrl+E → Edit selected item
- Ctrl+1/2/3 → Navigate between sections

H1-8: Precise & Constructive Error Messages

Issue Description: Attempting to delete a product tied to transactions yields a generic error message: "Product participates in a transaction." This lacks specifics and doesn't offer next steps.

Screenshot:

Severity: 3 – Major usability issue
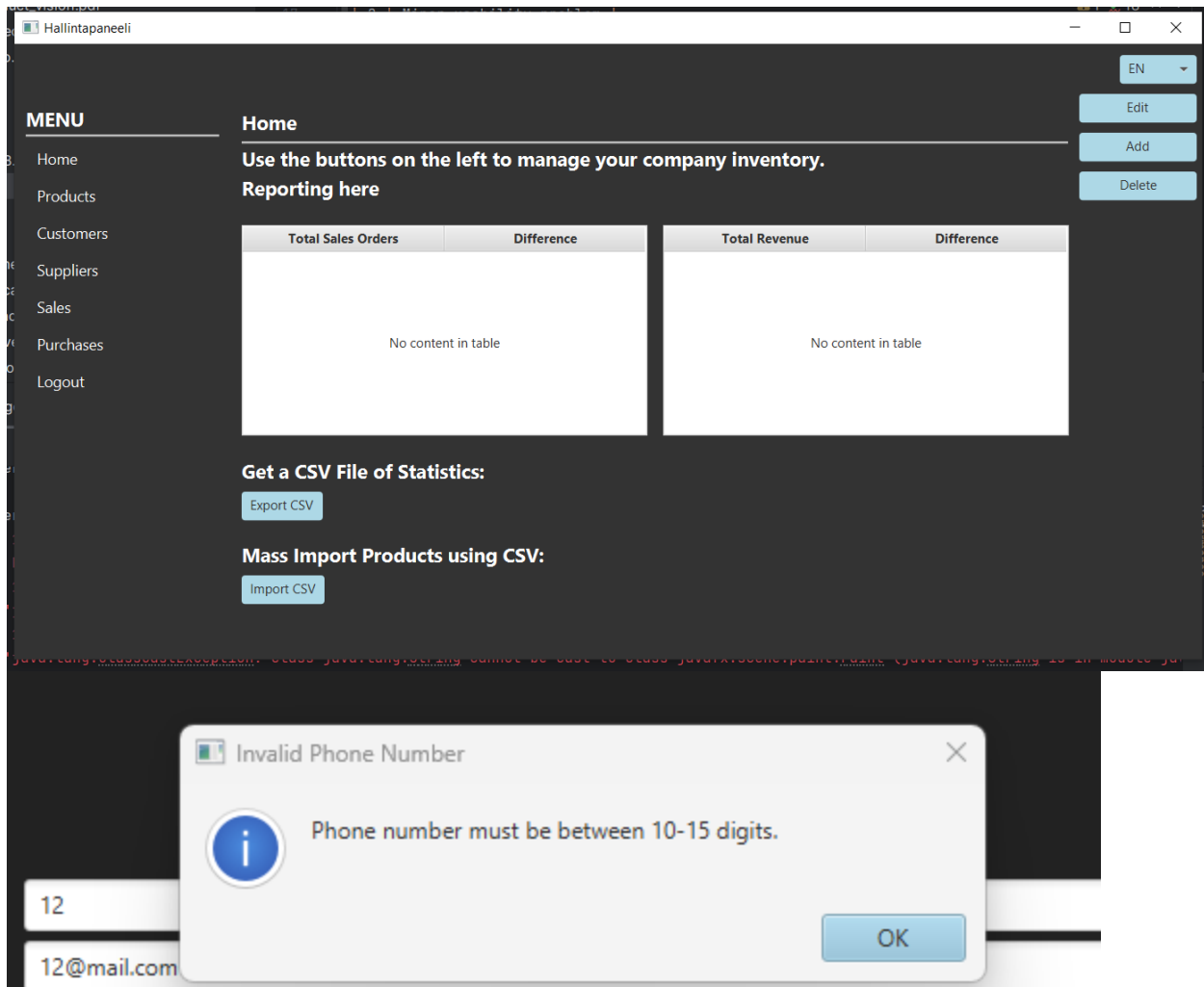
Suggested Improvement:

- Make error messages specific (e.g., reference sales or purchase order IDs).
- Provide actionable guidance (e.g., "Please delete related transactions first.").
- Link to related transactions if possible.

H1-9: Prevent Errors

Problem 1: After changing the language, edit and delete buttons remain active even without a selected entity.

Problem 2: Validation for phone numbers and emails occurs only after form submission, not during input.

Screenshots:

Severity:

- Problem 1: 3 – Major usability issue
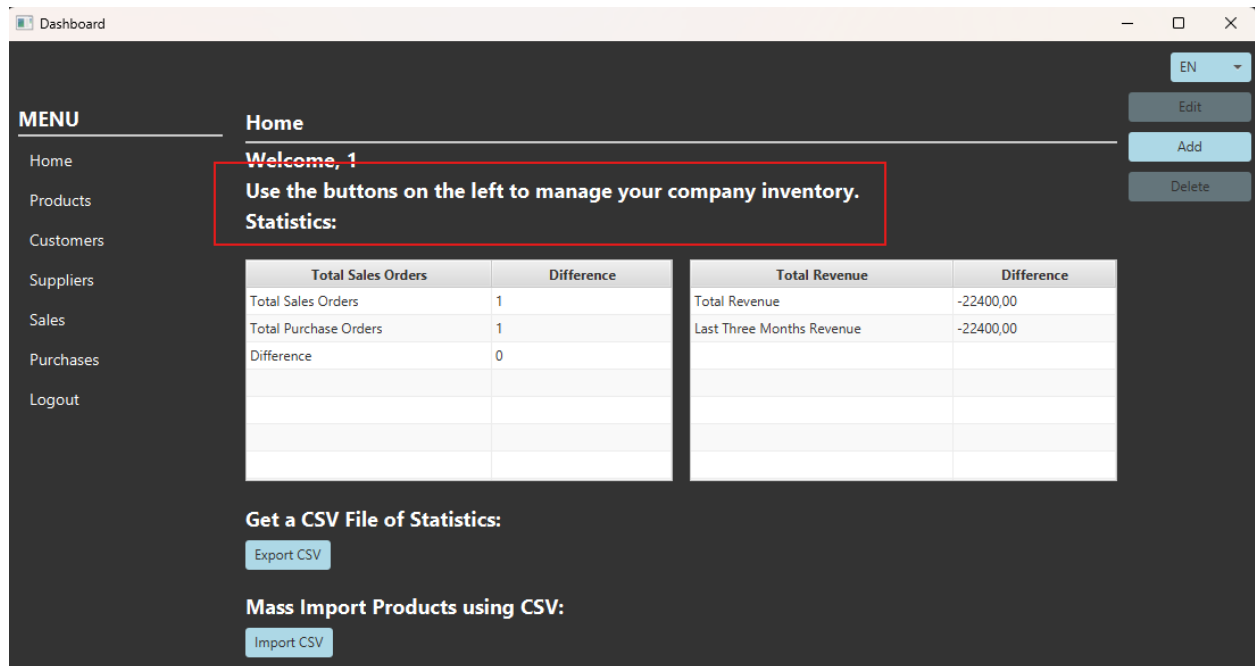- Problem 2: 2 – Minor usability issue

Suggested Improvement:

- Problem 1: Disable edit/delete buttons until an item is selected.
- Problem 2: Implement real-time validation and show inline hints (e.g., "Phone number must be 10–15 digits").

H1-10: Help and Documentation

Issue Description: The Home page provides a brief instruction, but there's no comprehensive documentation to guide users through core tasks or validation rules.

Screenshot:

Severity: 2 – Minor usability issue

Suggested Improvement:

- Add a basic Help section explaining tasks like adding/editing entries and validation rules.
- Include contextual help or tooltips.

Summary of Findings

Major Issues:
- Inadequate error messages for linked transactions (H1-8)
- Input forms lack labels, increasing cognitive load (H1-3)
- Editable actions remain enabled without selection (H1-9)

Minor Issues:
- Technical column headings and timestamp formatting (H1-1)
- Language inconsistency in messages (H1-2)
- No real-time validation feedback (H1-9)
- Missing Cancel options in popups (H1-6)
- No keyboard shortcuts (H1-7)
- Limited user guidance or help content (H1-10)
- Imprecise feedback dialogs (H1-5)

Cosmetic Issues:

- Terminology inconsistency across UI (H1-4)

Recommendations

- Refine error messages to be specific, contextual, and actionable.
- Prevent user errors by disabling buttons and providing real-time validation.
- Add intuitive navigation options, including cancel buttons and keyboard shortcuts.
- Provide inline field hints and tooltips to support task completion.
- Ensure consistent terminology and label usage throughout the application.
- Expand the Help section with practical guidance and validation rules.