

Nielsen's Heuristics analysis report

Course: CO2214: Practical Work on CO2224

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Nielsen's Heuristics Evaluation Report based on the issues and redesign of the CEB Care mobile application presented in our project

This section maps the usability issues found in the original CEB Care app to **Jakob Nielsen's 10 Usability Heuristics** and explains how each issue was addressed in the redesigned prototype.

1. Visibility of System Status

Issue: Poorly designed interruption calendar

- **Violation:** Users could not easily understand power interruption schedules due to unclear labels and status indicators.
- **Fix:** Redesigned calendar with clear labels, color-coded indicators, and real-time update cues.

2. Match Between System and the Real World

Issue: Technical language and unclear complaint submission process

- **Violation:** The app used unclear terms and lacked logical task flow for non-technical users.
- **Fix:** Simplified language and organized steps using real-world metaphors (e.g., "Submit" and "Track Complaint").

3. User Control and Freedom

Issue: Poor navigation system and no logout confirmation

- **Violation:** Users could not move freely between sections or cancel accidental logout actions.
- **Fix:** Implemented a structured navigation menu and added logout confirmation dialogs.

4. Consistency and Standards

Issue: No option to view previous bills

- **Violation:** Lacked standard utility app features expected by users.
- **Fix:** Introduced a "Billing History" section consistent with other utility service apps.

5. Error Prevention

Issue: Accidental logout without confirmation

- **Violation:** No preventive mechanism for actions with high consequences.
- **Fix:** Added error prevention dialog with confirmation before logout.

6. Recognition Rather Than Recall

Issue: Inefficient home page layout

- **Violation:** Important actions (e.g., reporting outages, checking bills) were hidden, requiring memory-based navigation.
- **Fix:** Introduced shortcut links and dashboard elements to promote recognition.

7. Flexibility and Efficiency of Use

Issue: No shortcuts or personalization options

- **Violation:** Users had to perform multiple steps for routine tasks.
- **Fix:** Added quick access icons for common actions and simplified form inputs.

8. Aesthetic and Minimalist Design

Issue: Unattractive login and complaint pages

- **Violation:** Outdated visuals, cluttered forms, and lack of clear CTAs reduced trust and engagement.
- **Fix:** Redesigned with clean layouts, modern typography, and minimalist color schemes.

9. Help Users Recognize, Diagnose, and Recover from Errors

Issue: No feedback for failed form submissions or loading errors

- **Violation:** Users were left guessing what went wrong.
- **Fix:** Introduced clear error messages and field validations.

10. Help and Documentation

Issue: Lack of support or guidance during form filling or error handling

- **Violation:** No tooltips or help prompts were available.
- **Fix:** Added brief instructions and visual hints in key areas like complaints and outage reporting.

Conclusion

The redesigned CEB Care application effectively addresses major usability violations identified through Nielsen's heuristics. Continued iterative testing will help resolve remaining minor issues to ensure a complete, user-centered experience. Thank you.