

# Heuristic Evaluation

## Structure of the individual report

### Part I: Your Name

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### Part II: Project Description

The evaluated application is “**Komoot**”, a mobile application designed for outdoor activities such as hiking, biking, and trekking. It allows users to plan routes, explore maps, and access detailed information about points of interest such as trails, routes, and bivouacs.

### Part III: Evaluation Execution

The heuristic evaluation was conducted individually using the Komoot mobile application on an iOS device updated to version 2026.5.0. The evaluation followed Nielsen’s ten usability heuristics and was based on the execution of three representative tasks:

- Planning a hiking route from the user’s location to a selected outdoor destination (Task 1).
- Exploring the map and modifying a planned route (Task 2).
- Starting navigation and recording an outdoor activity, including managing the tracking session and preparing offline maps (Task 3).

The application interface and available functionalities were sufficient to perform the evaluation, and no additional documentation was required.

### Part IV: List of Violations

- *Issue1. H1, Visibility of system status (Task 2)*
  - *Where: recalculation after modifying a waypoint in route planning*
  - *What: When the user modifies the route, the system recalculates the path but does not provide immediate or clear feedback that the operation is in progress.*

- *Why: The lack of visible system feedback makes it unclear whether the system is responding to the user's action.*
- *Severity: 2*
- *Issue2. H5, Error prevention (Task 1)*
  - *Where: activity type selection in route planning*
  - *What: The system allows users to select an inappropriate activity type (for example road cycling on unpaved trails) without a clear warning.*
  - *Why: The interface does not prevent potentially problematic choices that could lead to user errors during navigation.*
  - *Severity: 3*
- *Issue3. H3, User control and freedom (Task 3)*
  - *Where: Activity type selection in route planning*
  - *What: If the user wants to exit during active recording, there is no immediately visible option to stop or exit the active recording.*
  - *Why: Users do not have an immediate and intuitive way to return to planning.*
  - *Severity: 3*
- *Issue4. H3, User control and freedom (Task 3)*
  - *Where: Activity type selection in route planning*
  - *What: If the user accidentally exits the navigation screen during an active recording, returning to the tracking interface is not immediate or obvious.*
  - *Why: Users lack an easy way to quickly recover from accidental navigation actions.*
  - *Severity: 3*
- *Issue5. H8, Aesthetic and minimalist design (Task 2)*
  - *Where: Route details screen*
  - *What: The route details screen displays many types of information at once (elevation, surface, difficulty, points of interest, etc.).*
  - *Why: The amount of information shown can overwhelm users and reduce clarity.*
  - *Severity: 2*
- *Issue6. H1, Visibility of system status (Task 1)*
  - *Where: Route planning and navigation start*
  - *What: When the user selects "Hiking" as the activity type and plans a route from their home to a mountain destination, starting the navigation immediately begins the route without clearly distinguishing the driving segment from the actual hiking route.*
  - *Why: The system does not clearly communicate the current state and structure of the route.*
  - *Severity: 3*

- *Issue7. H1, Visibility of system status (Task 3)*
  - *Where: Downloading offline maps*
  - *What: When downloading offline maps, the progress indicator is very small and easy to miss, especially on smaller screens. It is not immediately clear whether the download is ongoing, paused, or completed.*
  - *Why: The system status is not sufficiently visible, which may lead users to think the app is frozen or the download failed.*
  - *Severity: 2*
  
- *Issue8. H7, Flexibility and efficiency of use (Task 1)*
  - *Where: Downloading offline maps*
  - *What: Users who frequently plan routes starting from the same location must manually re-enter or re-select the starting point each time.*
  - *Why: The lack of quick presets or favorites reduces efficiency for frequent users.*
  - *Severity: 2*
  
- *Issue9. H10, Help and documentation (Task 3)*
  - *Where: First time use*
  - *What: Some advanced features are not explained during onboarding and are only discoverable through exploration.*
  - *Why: The lack of contextual help makes it harder for new users to learn important features.*
  - *Severity: 2*
  
- *Issue10. H3, User control and freedom (Task 2)*
  - *Where: Route planning*
  - *What: When the user accidentally places a waypoint on the map, removing it requires opening a secondary menu, and there is no quick “undo” action.*
  - *Why: The interface does not support easy recovery from accidental actions, reducing user control and freedom.*
  - *Severity: 2*

## Part V: Summary and Recommendations

Report in the table below the total number of identified violations.

Heuristic	# violations
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H1: Visibility of system status	3
H2: Match between system and the real world	
H3: User control and freedom	3
H4: Consistency and standards	
H5: Error prevention	1
H6: Recognition rather than recall	
H7: Flexibility and efficiency of use	1
H8: Aesthetic and minimalist design	1
H9: Help users recognize, diagnose, and recover from errors	
H10: Help and documentation	1
HN: Non-heuristic issue	

Overall, Komoot provides a rich and well-structured user experience, particularly for users who are already familiar with outdoor navigation and route planning tools. The application offers a wide range of advanced functionalities that support different outdoor activities, making it suitable for both casual and experienced users. However, the evaluation highlighted that the interface can appear dense and cognitively demanding, especially for novice users, due to the amount of information presented in certain screens and the limited visual prioritization of key elements. This may hinder quick comprehension during critical moments, such as when modifying routes or starting navigation.

A recurring usability trend concerns the limited visibility of system status and feedback during important operations, such as route recalculation, offline map downloads, and transitions between different navigation phases, for example like driving to the starting point versus the actual hiking route. Improving the clarity and prominence of feedback mechanisms like adding progress indicators, clearer status messages, and contextual cues, would increase user confidence and reduce uncertainty during interaction. Additionally, error prevention and recovery could be strengthened by providing clearer warnings in potentially problematic situations and more immediate options to undo or recover from accidental actions.

Finally, the interface could benefit from a stronger differentiation between basic and advanced functionalities, for instance by progressively disclosing complex options and providing lightweight contextual guidance during first-time use. Introducing customizable presets and shortcuts for frequent users could further enhance efficiency without compromising usability for beginners. These improvements would contribute to a more inclusive user experience, supporting both novice users who require guidance and experienced users who seek speed and flexibility.