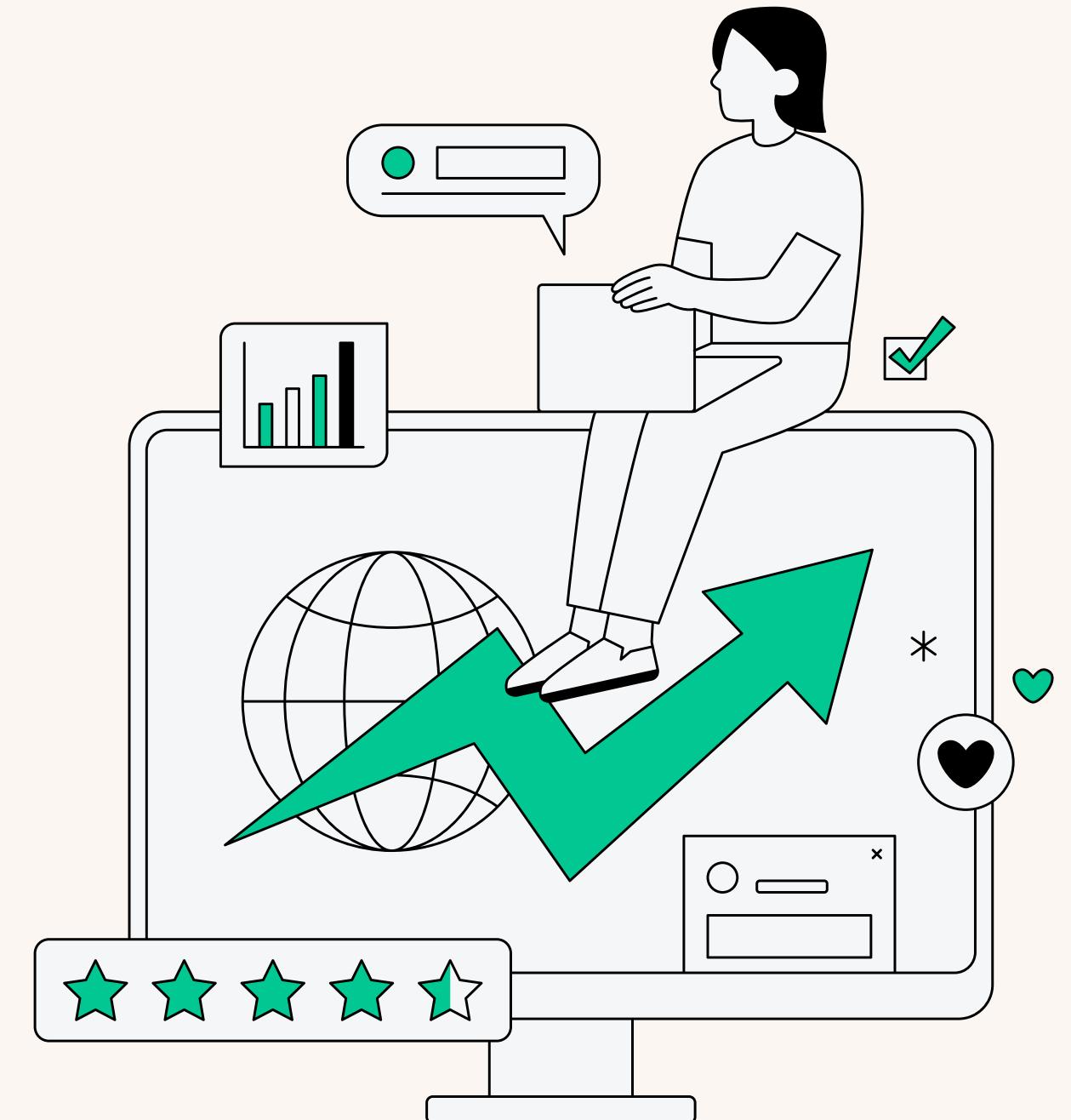
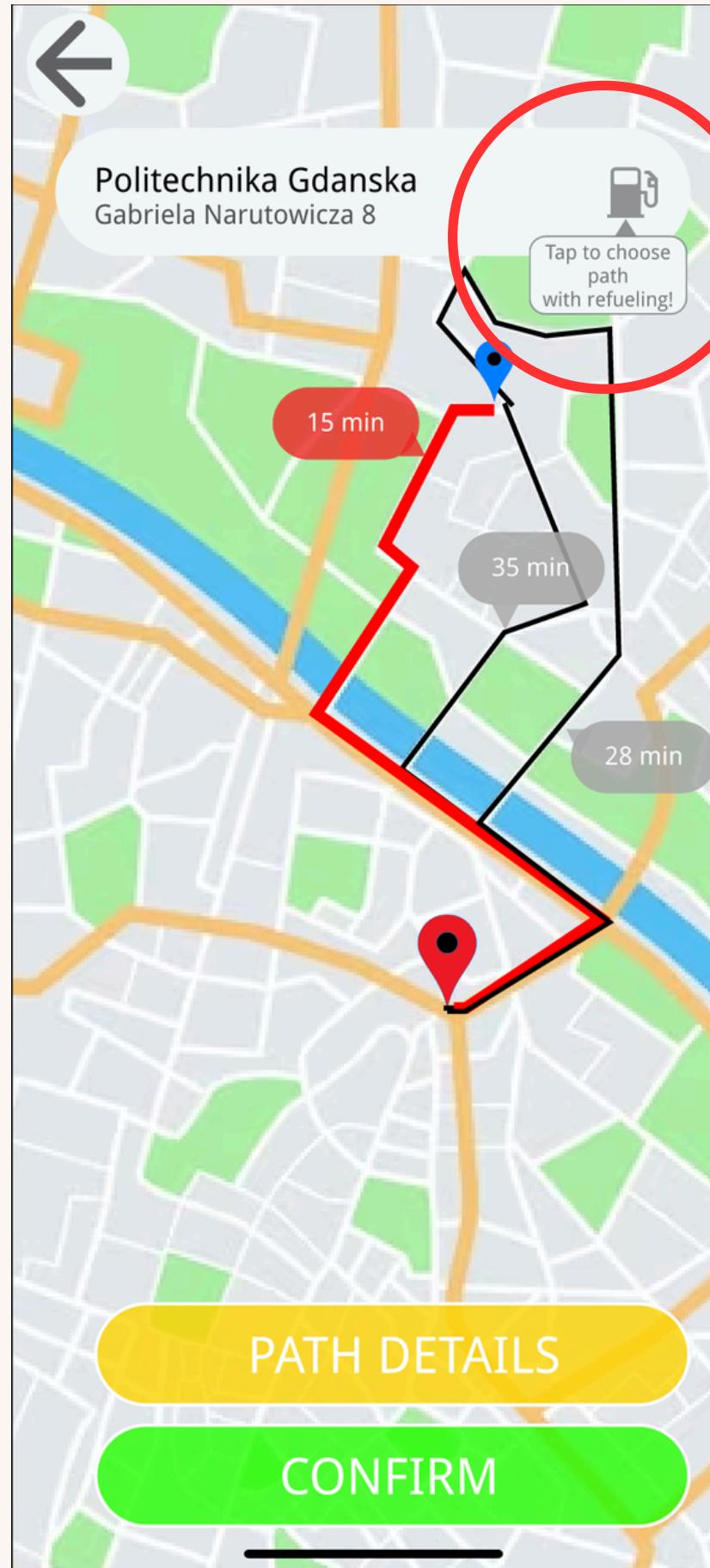


Usability testing results

AutoVerse



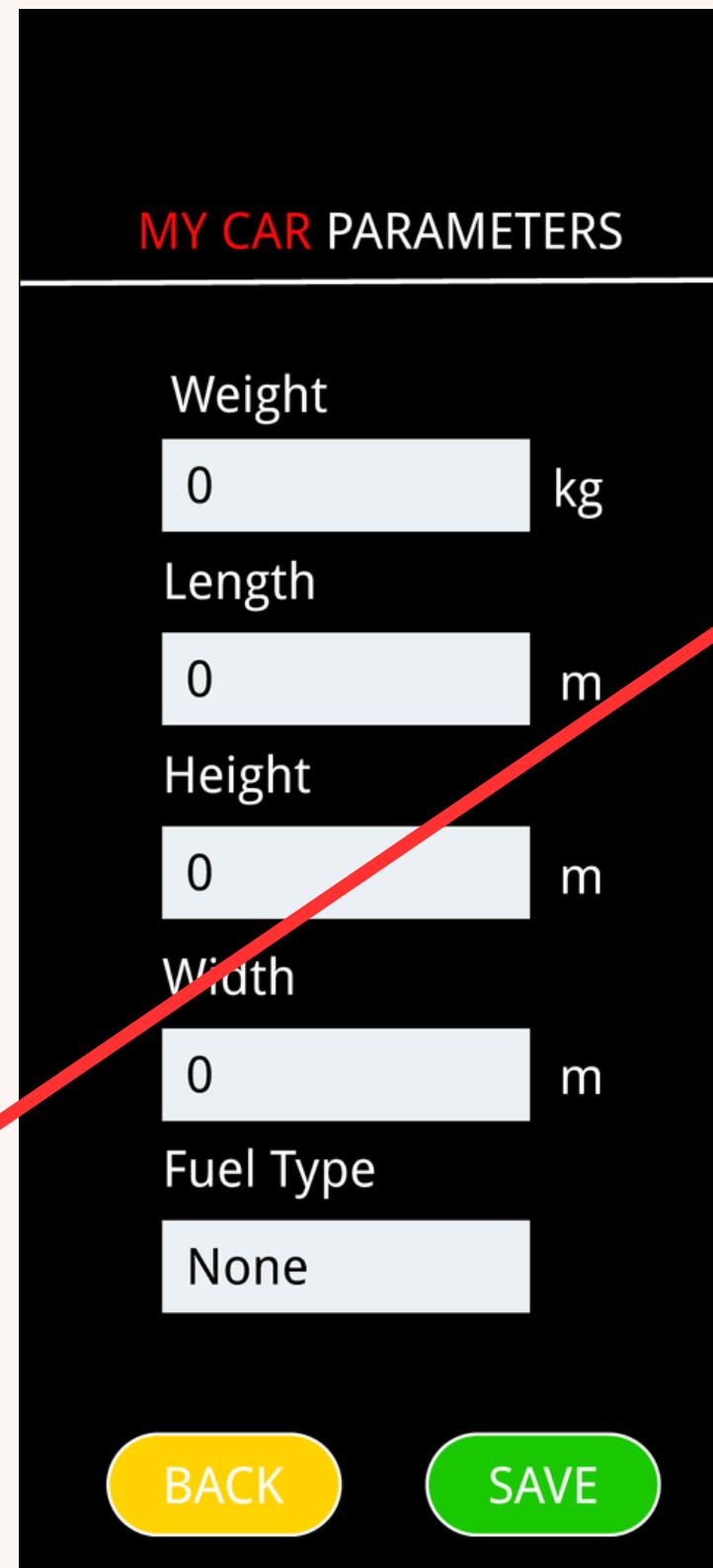
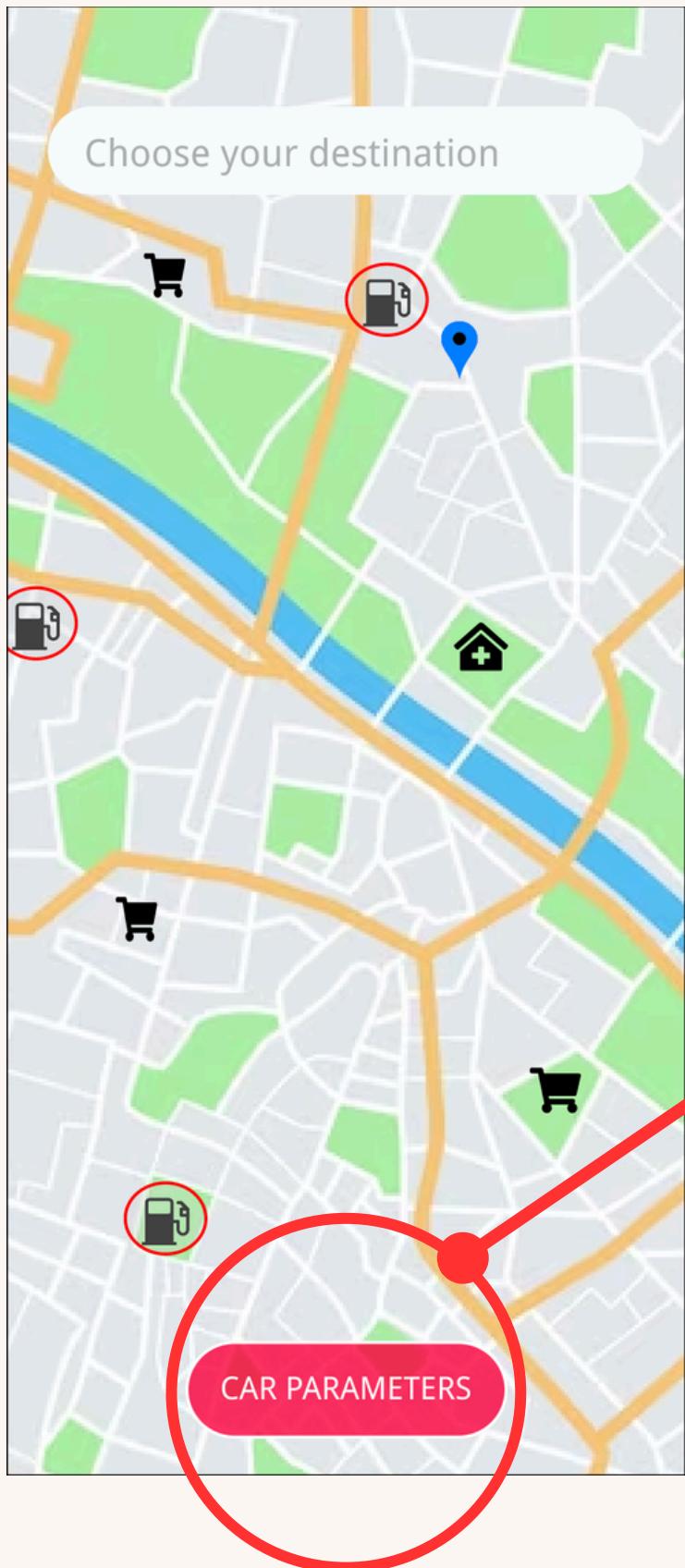
Problem: When asked, what activity was the most difficult, respondents mentioned refueling.



Pop up describing refueling option is small and visible to user only for couple of seconds

Suggestion: Making the pop up bigger and adding closing option to it, so user can close it whenever they want. Adding option in settings to never show the pop up, so regular users familiar with refueling options, wouldn't be bothered.

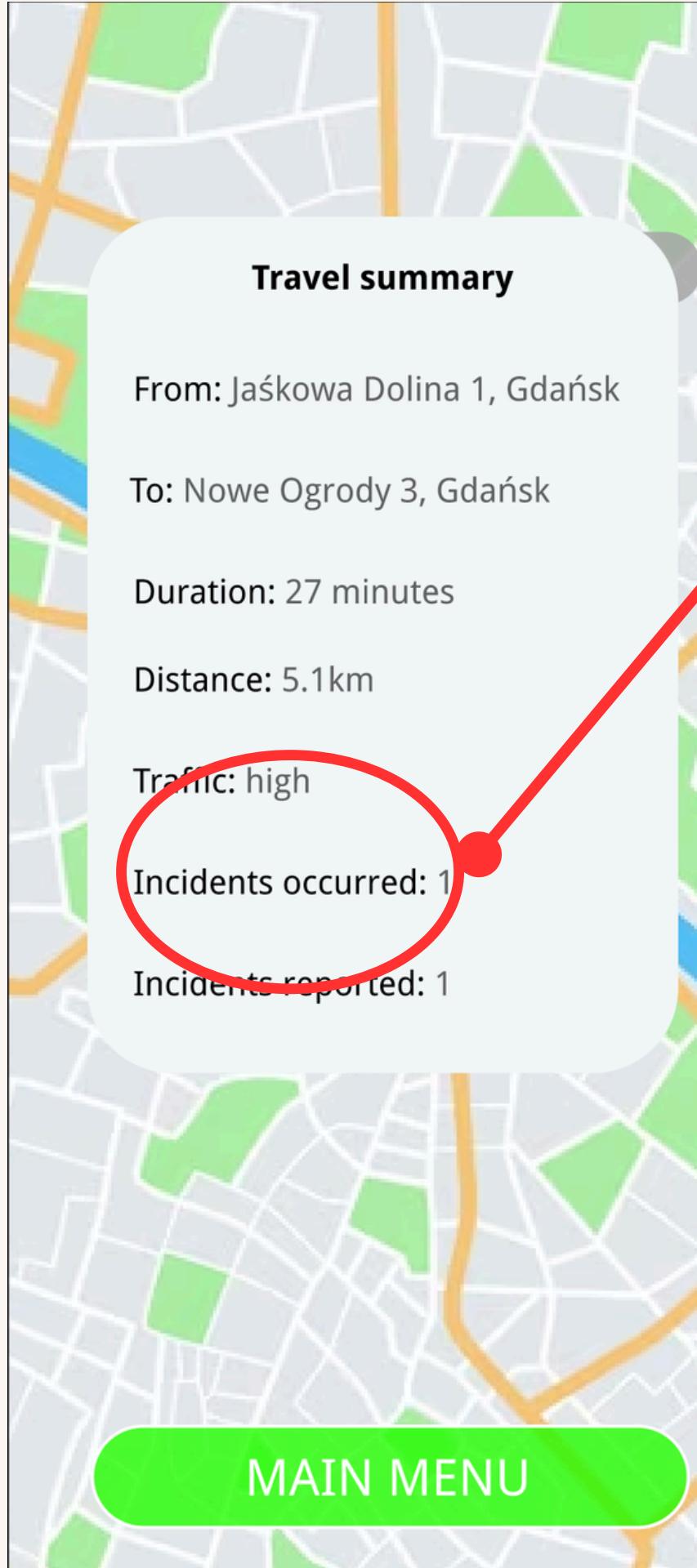
Problem: Testers found “car parameters” option of small importance.



Car parameters option was mainly made for truck drivers, as trucks can't drive on some roads based on their parameters.

Suggestion: Moving “car parameters” option from main page to settings, so the users driving regular vehicles won’t be distracted by this option, while other users will still be able to insert their car parameters and have shown only roads they can drive on

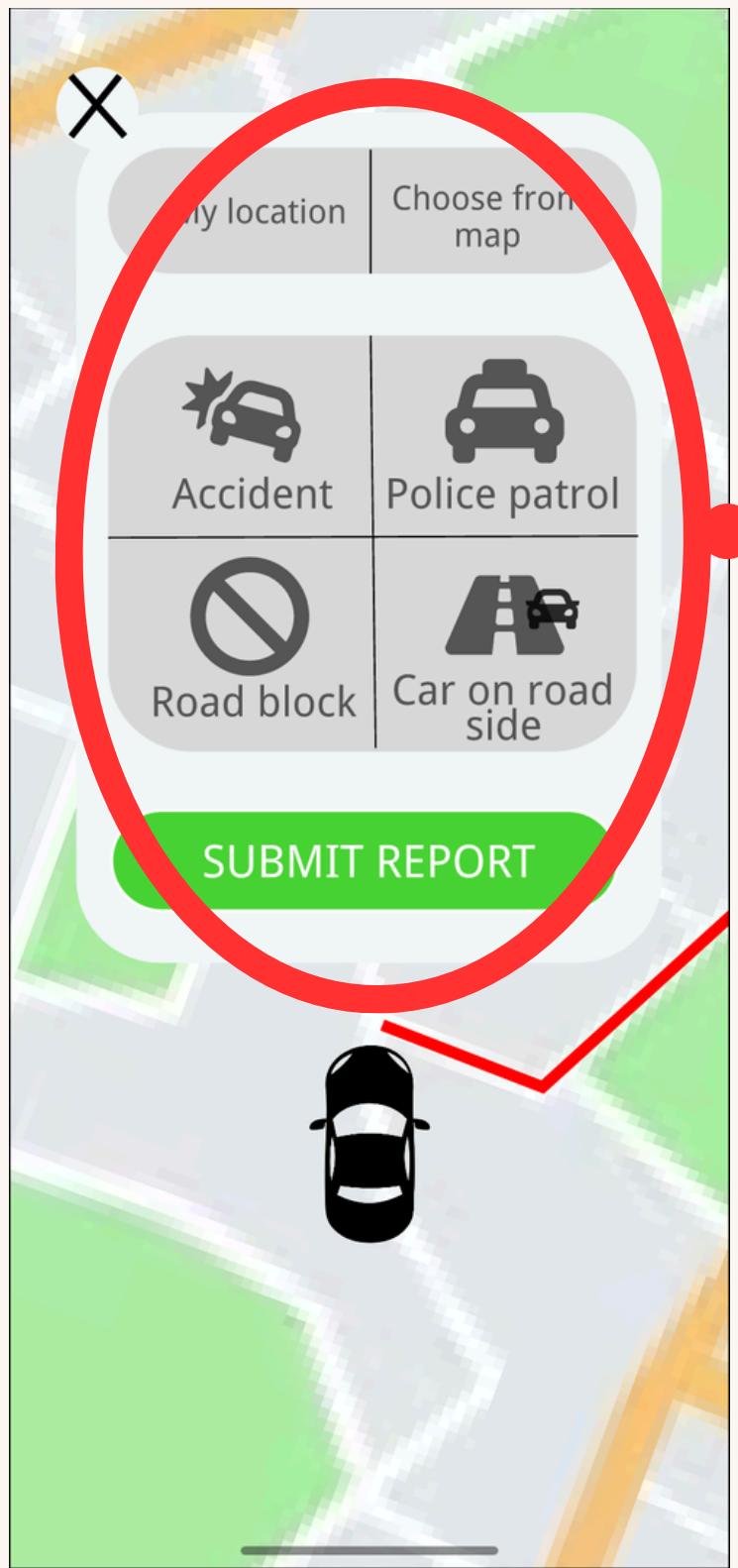
Problem:
Testers also found “incidents occurred” information in the travel summary as least important feature.



Incidents occurred gives an information to user about the number of incidents during the travel

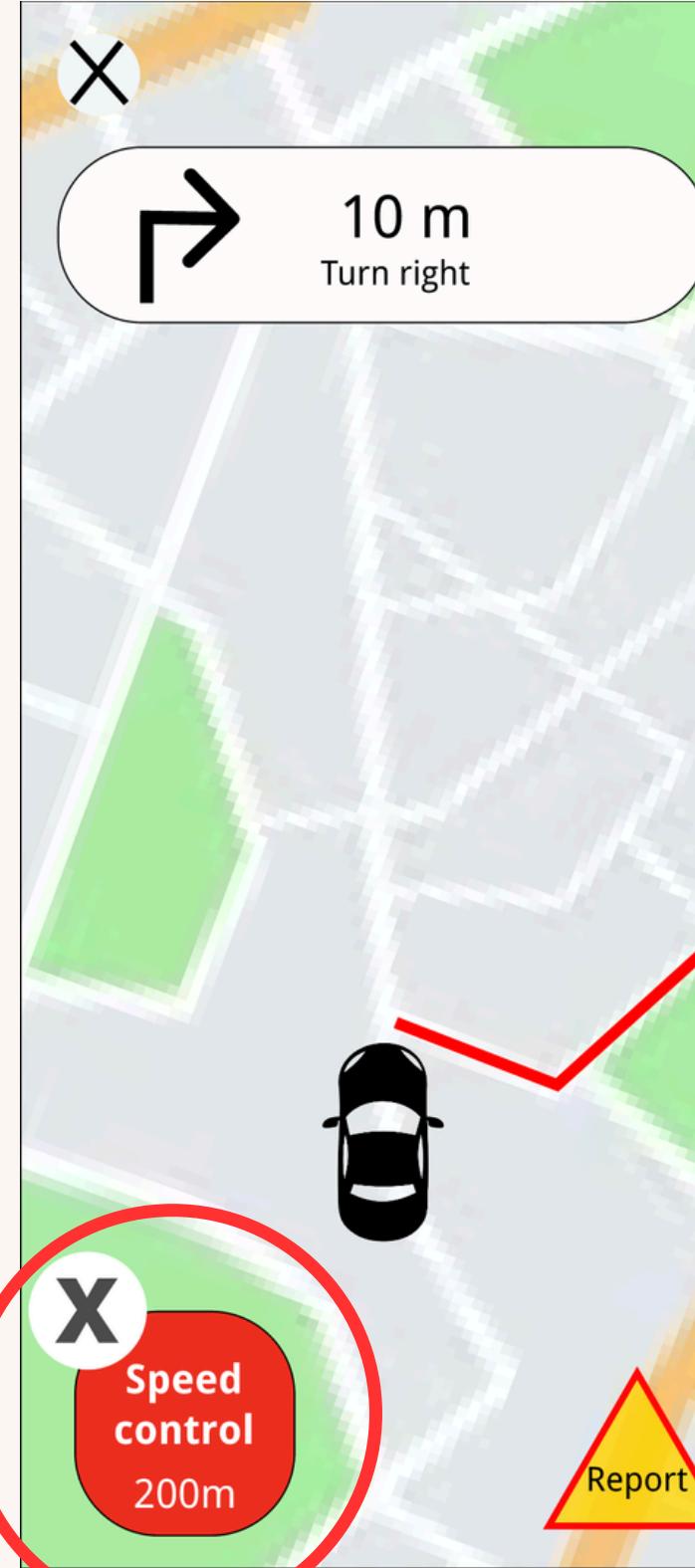
Suggestion: Enabling user to make a custom travel summary in settings, so the summary includes only those information, that user have chosen

The most important features according to testers:

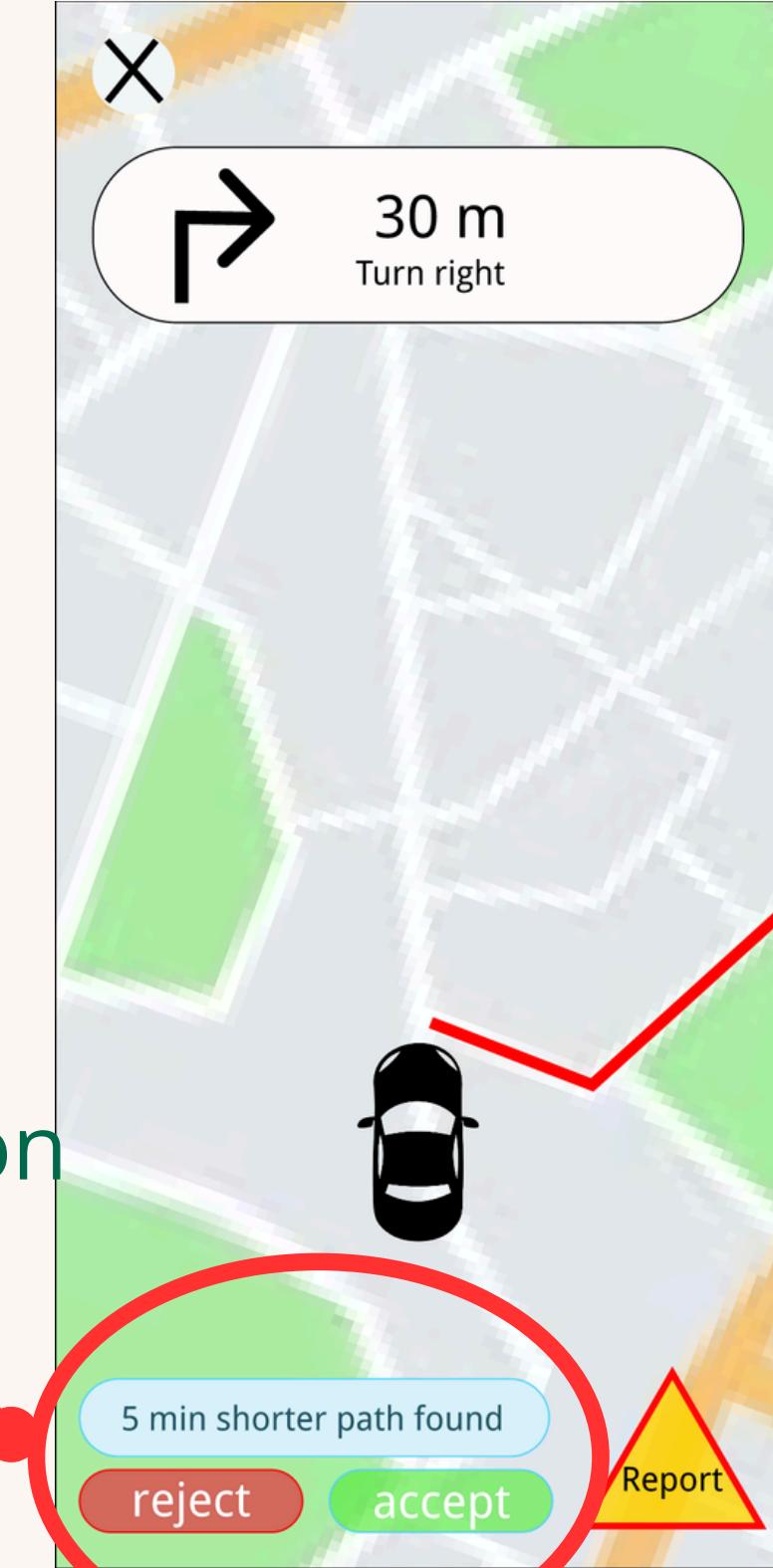


reporting
option

warnings



shorter
path
suggestion



Closed questions results

Assumption: The results are measured on 5 - level scale presented below. Every question regarding requirements starts with the statement "Please evaluate to what extent do you agree with the statement:" and has the following answers possible to choose:

1 - strongly disagree

2 - disagree

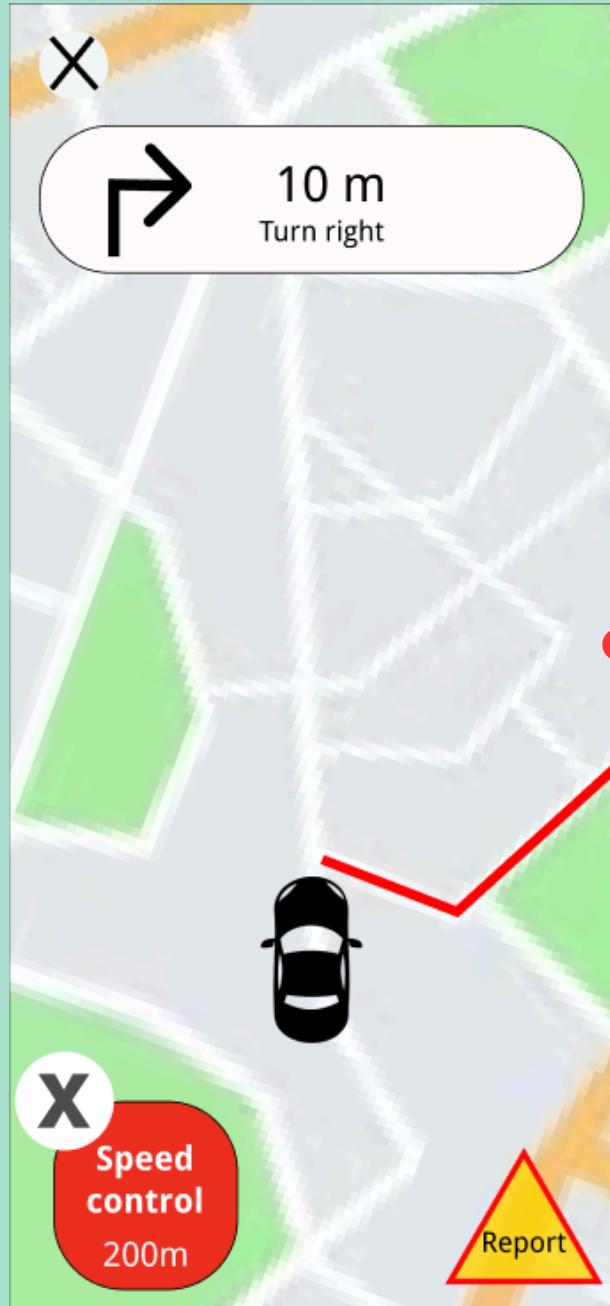
3 - neither agree nor disagree

4 - agree

5 - strongly agree



Requirement: Is interface of the app is user-friendly?



Example of the app interface while driving

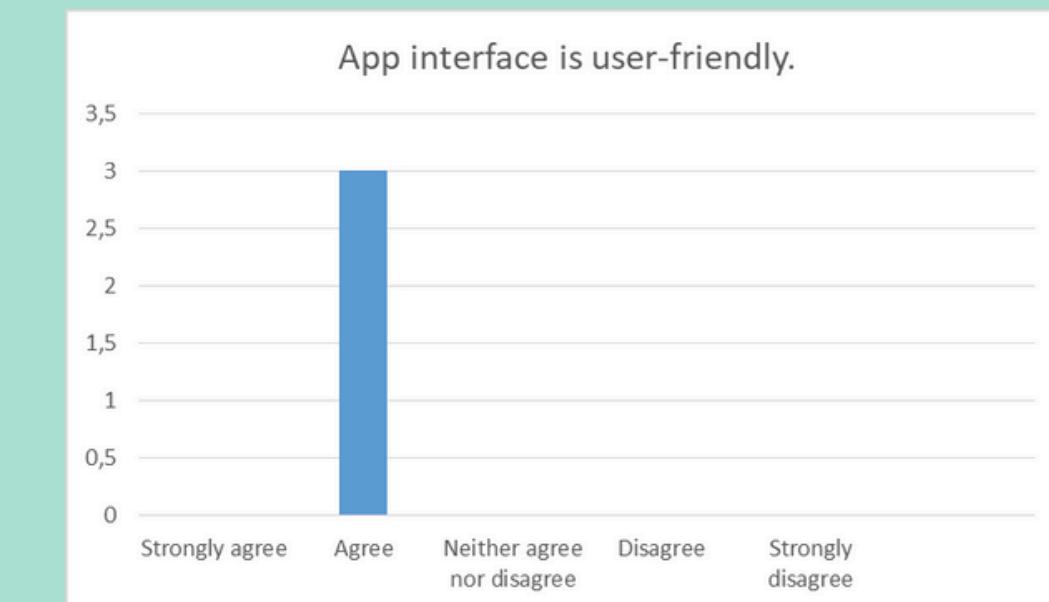
Questionnaire results:

mean: 4

median: 4

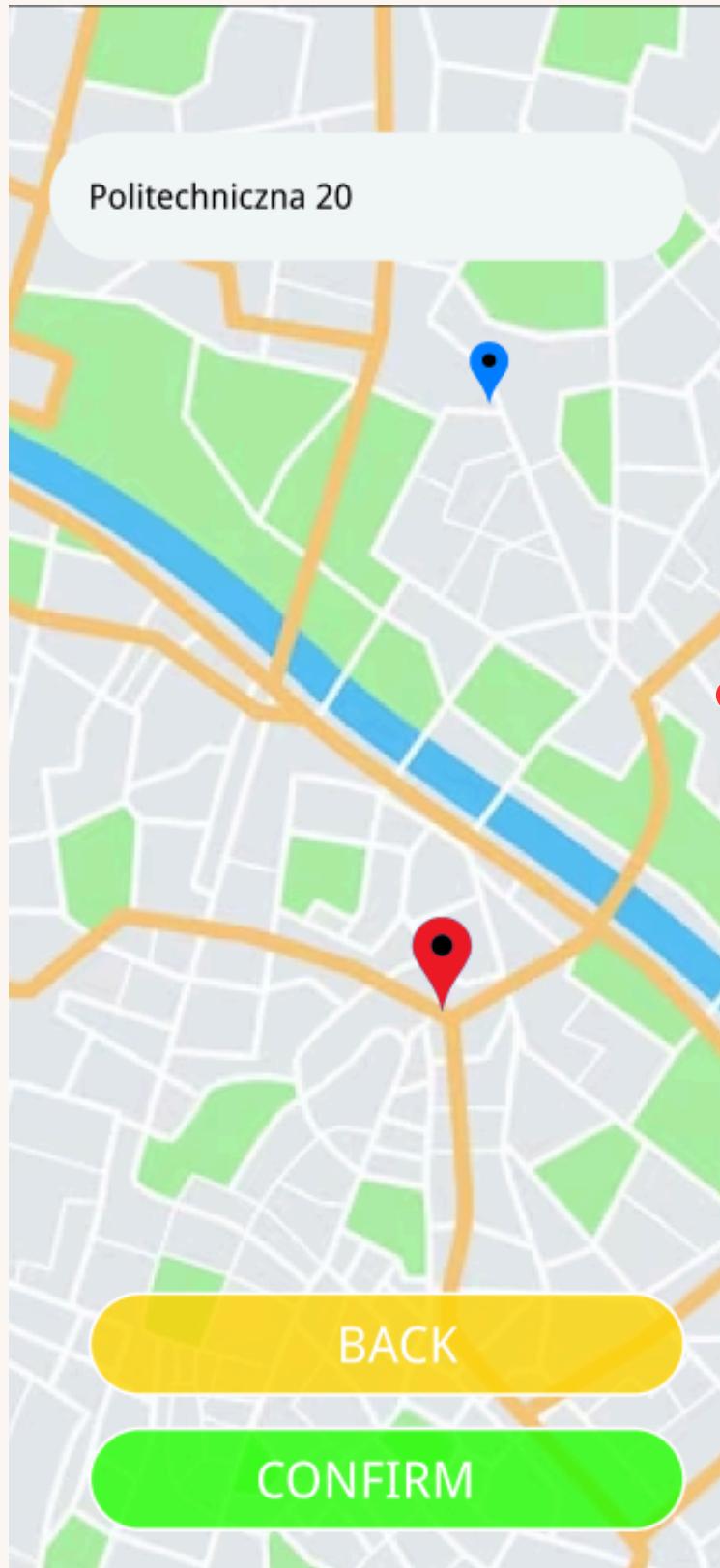
standard deviation: 0

variance: 0



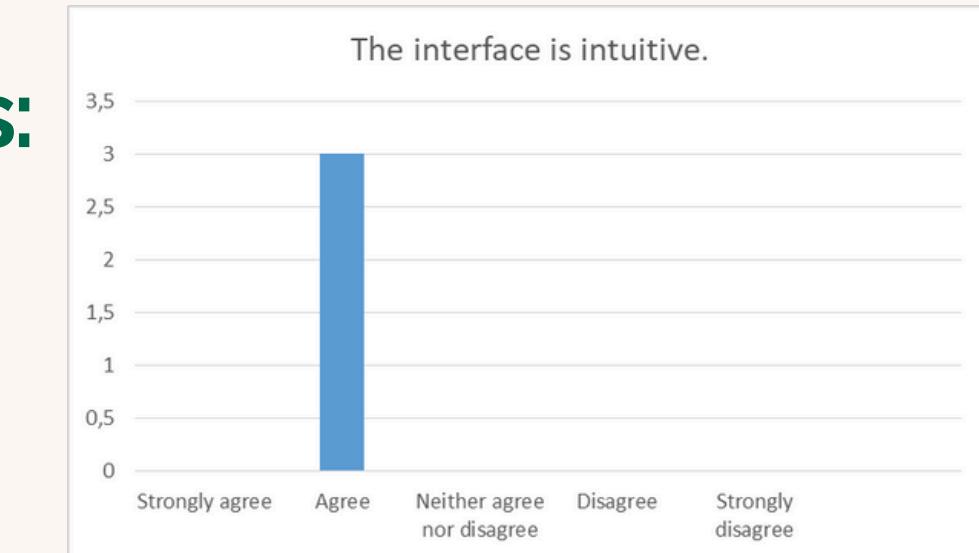
Suggestion: The interface may need small corrections in terms of visual clarity. For example by making the text more legible.

Requirement: Is the interface intuitive to use?



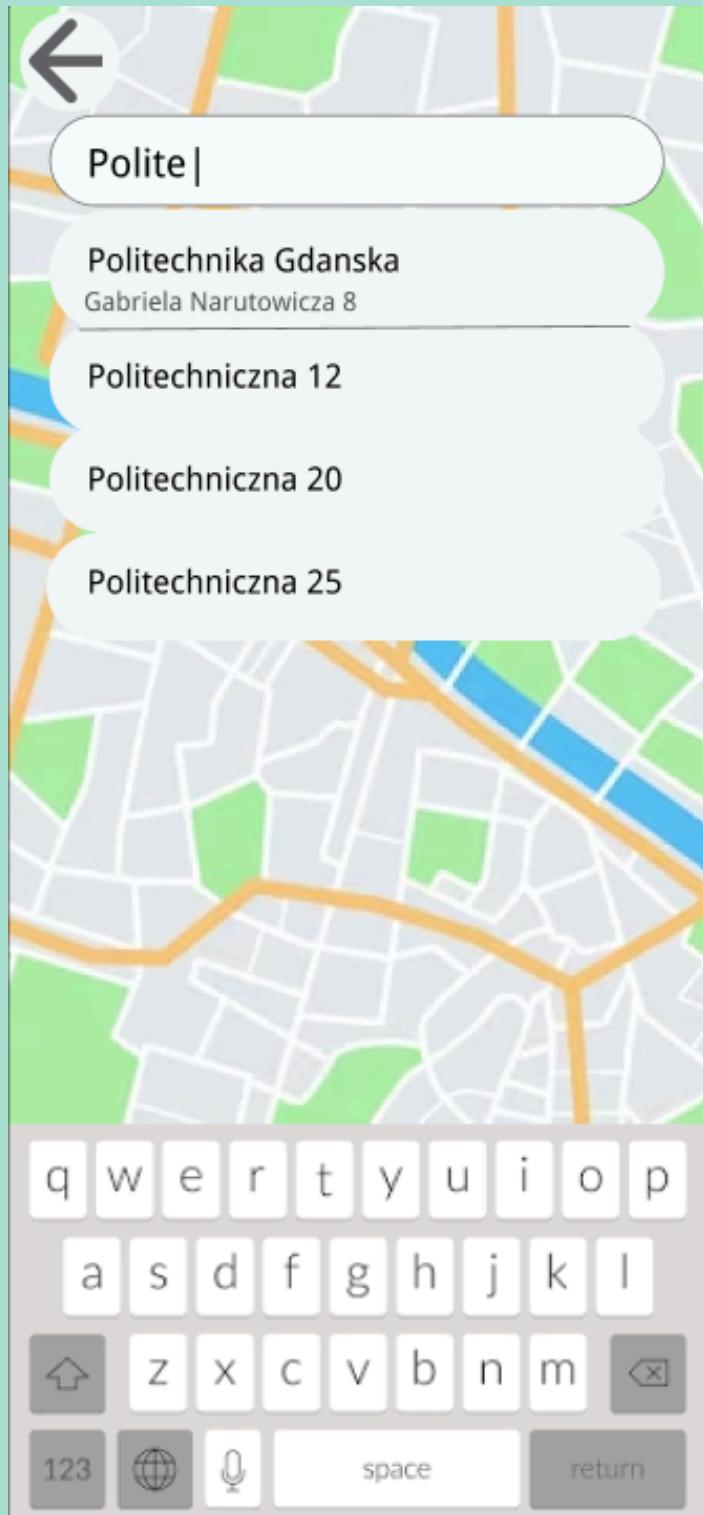
Example of an app interface while destination confirmation

Questionnaire results:
mean: 4
median: 4
standard deviation: 0
variance: 0



Suggestion: Altough the intuitiveness of the interface was evaluated as good, there is an area for improvement. For example, determining destination point and current location on the map more clearly.

Requirement: Is the interface similar to ones in apps like Google Maps or Waze?



In terms of **learnability** it is good for the app to follow well known practices, that the user might be familiar with by using apps with similar purpose

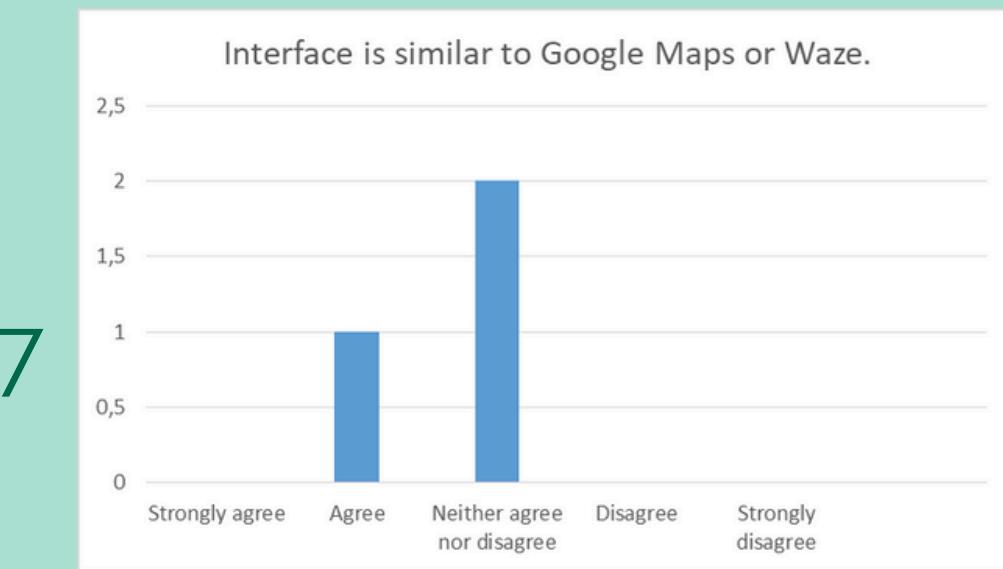
Questionnaire results:

mean: 3.33

median: 3

standard deviation: 0.577

variance: 0.33



Suggestion: palette of colours used is the app is different from what we are used to. Changing colors of elements like path into blue, which is standard, might make the application seem to be more familiar for the user.

Other requirements

simple, clear language

Mean: 4.67
Median: 5.00
Standard deviation: 0.577
Variance: 0.33

self - descriptiveness

Mean: 4.33
Median: 4.00
Standard deviation: 0.577
Variance: 0.33

concise instructions

Mean: 4.67
Median: 5.00
Standard deviation: 0.577
Variance: 0.33

coherency

Mean: 4.00
Median: 4.00
Standard deviation: 0.00
Variance: 0.00

satisfying number of options

Mean: 5.00
Median: 5.00
Standard deviation: 0.00
Variance: 0.00

responsiveness

Mean: 4.00
Median: 4.00
Standard deviation: 0.00
Variance: 0.00

suitability to preferences

Mean: 5.00
Median: 5.00
Standard deviation: 0.00
Variance: 0.00

task efficiency

Mean: 4.33
Median: 4
Standard deviation: 0.577
Variance: 0.33

Other requirements p. 2

accuracy of information

Mean: 5.00
Median: 5.00
Standard deviation: 0.00
Variance: 0.00

easiness of customization

Mean: 4.00
Median: 4.00
Standard deviation: 1.00
Variance: 1.00

correctness of information

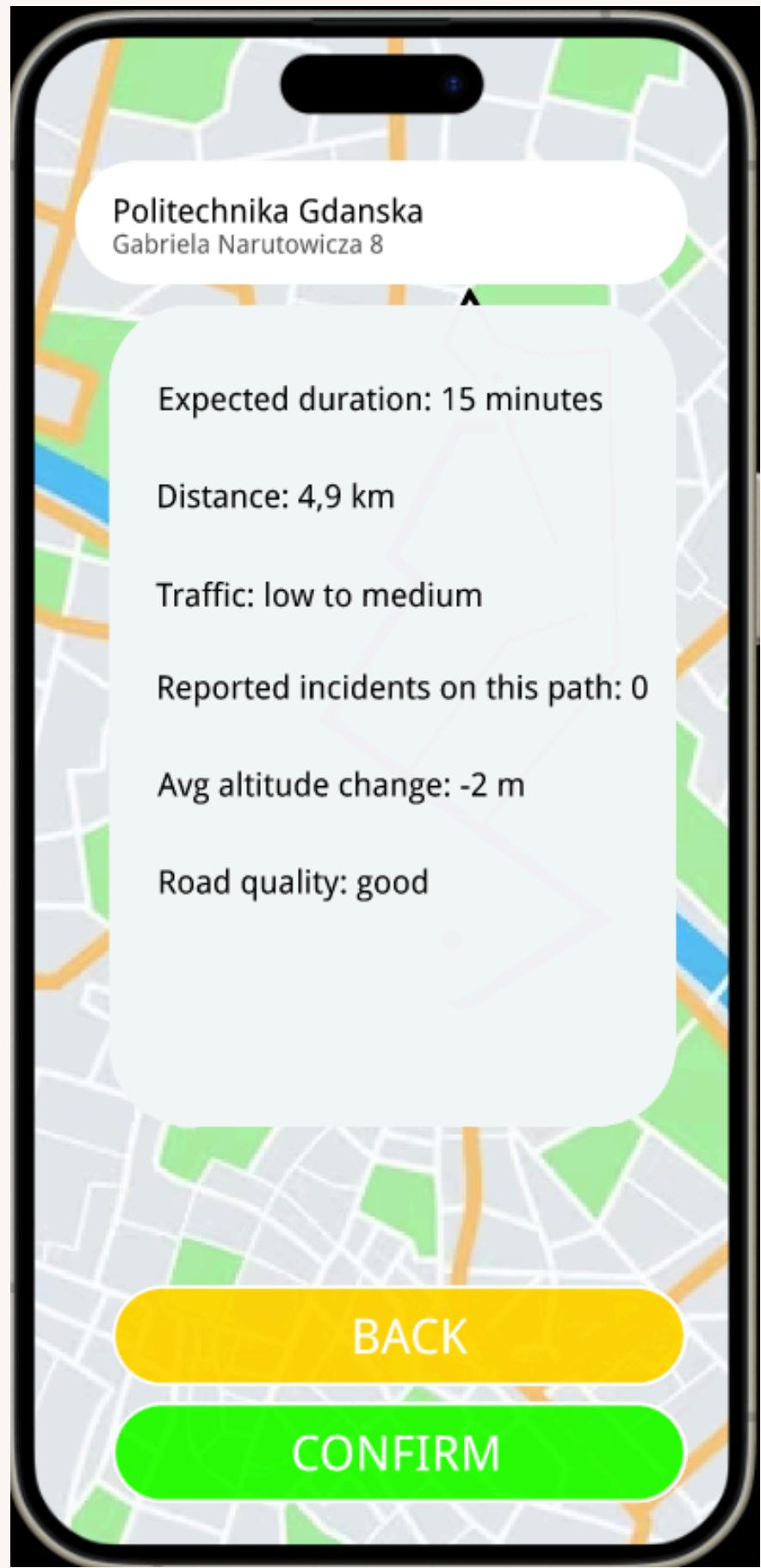
Mean: 4.33
Median: 4.00
Standard deviation: 0.577
Variance: 0.33

consistency of activity sequence

Mean: 4.67
Median: 5.00
Standard deviation: 0.577
Variance: 0.33

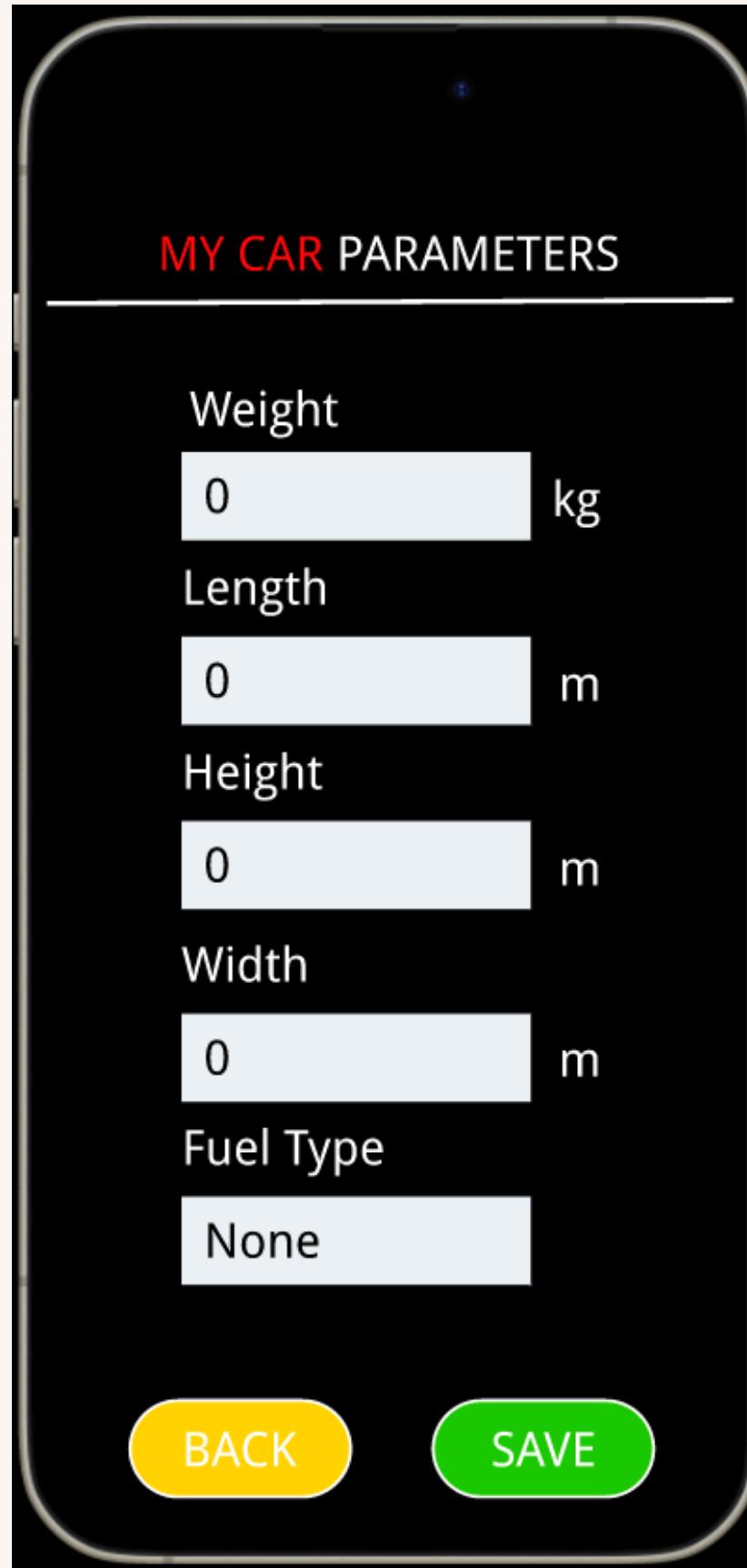
easiness of use

Mean: 4.33
Median: 4.00
Standard deviation: 0.577
Variance: 0.33



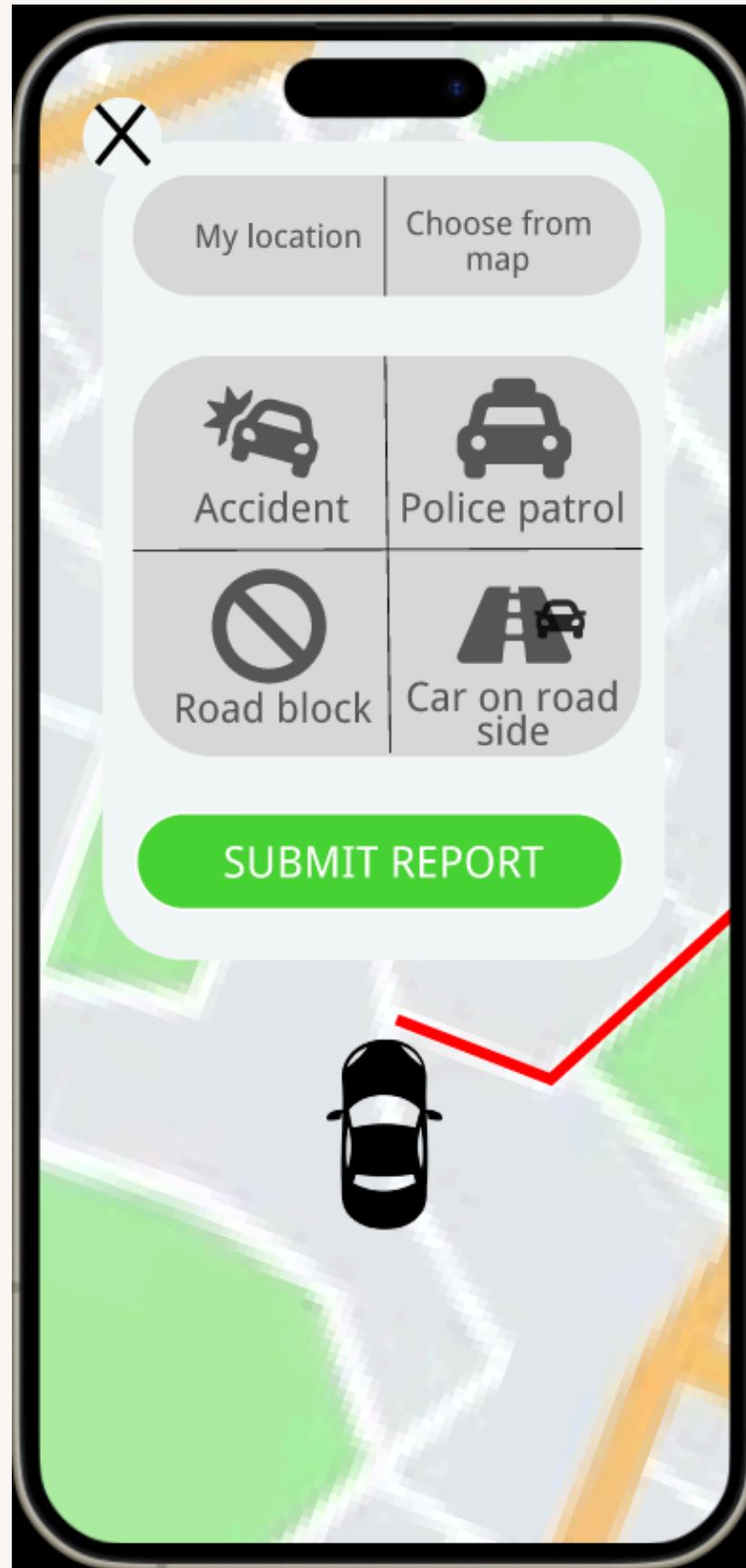
Problem: When using option 'Back' in 'Path details' the app loops back to 'Path details' screen.

Solution: The button's navigate option has been updated and it leads to previous screen.



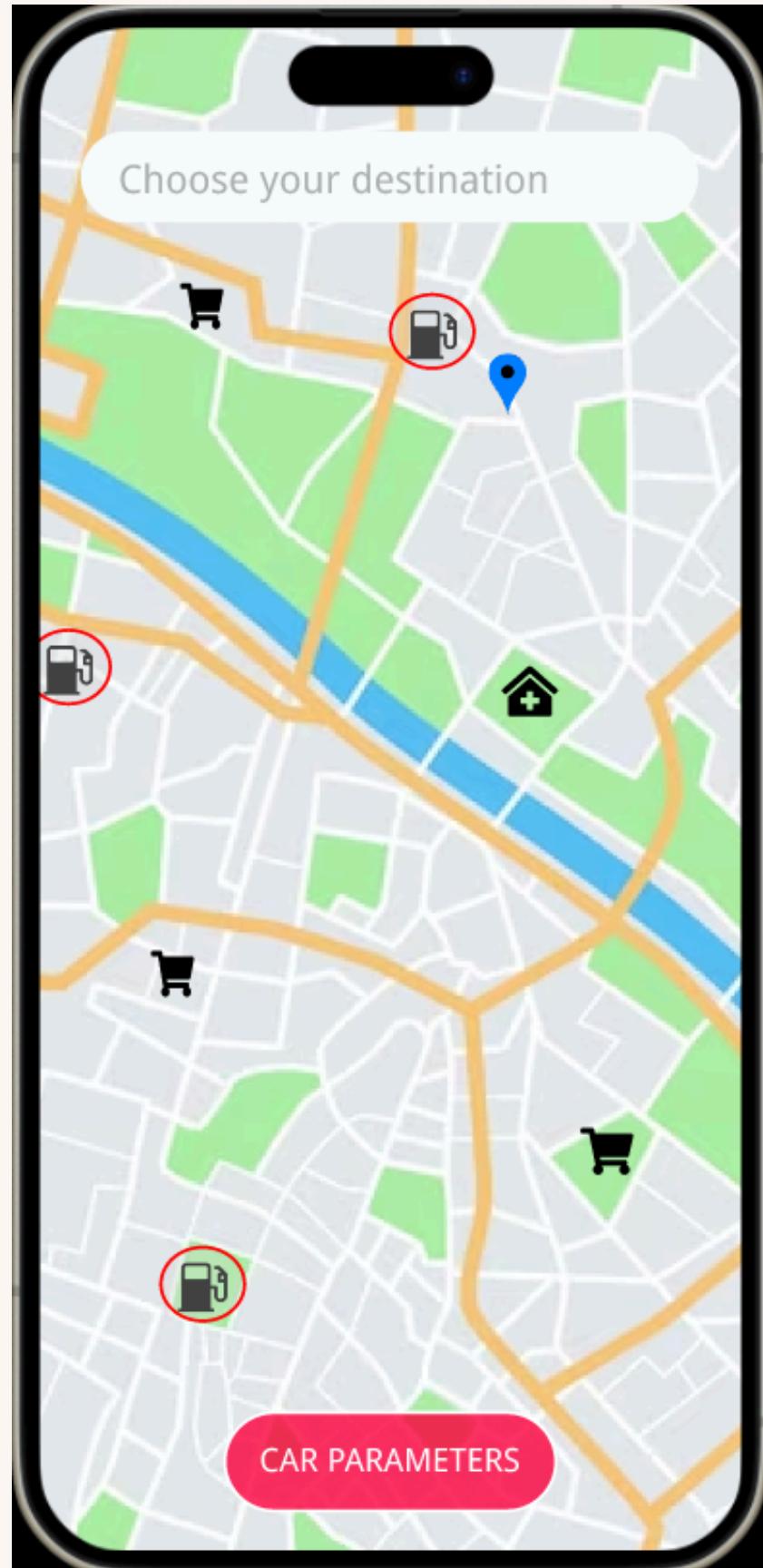
Problem: Car parameters are not saved when accessing them again after being navigated.

Solution: The car parameters should be saved locally in the user's device.



Problem: After reporting an accident the navigation returns to the starting screen.

Solution: In the final version of the app, where location is changed in real-time, this will no longer be an issue



Problem: When clicking on the grocery shop icon, navigation options do not show up.

Solution: It has already been issued and all the icons are clickable and show navigation options and location details.

Other comments provided by our testers have been positive and did not report any issues.

Test task 4.

Try to find a way to the nearest grocery shop. Select the path with refueling during the travel and start navigating. Try to interact with the warning about some incident on the road, and with the information about road optimization possibility.

Time allocated for the task - maximum 15 minutes.

Start time: 13:55:00 End time: 14:00:00

Comments:

Works correctly.

Comments:

The overall look of the app is excellent. The options are mostly self-explanatory.

Comments:

GT

Comments:

Super easy

Comments:

So very good. Once I even had the opportunity to select shorter route.

Comments:

Ultra intuitive

Comments:

The interface of the application seems to be advanced and responsive. No issues occurred so far.

Summary

Autoverse needs some modifications such as moving some functionalities from main screen to settings or allowing user to custom some options. Little errors were also present, however some resulted from Figma limitations.

Although AutoVerse needs some upgrades, the overall user experience is positive and the requirements we set are fulfilled with the lowest mean score at 3,33 at learnability and at least 4 in all other segments.

Thanks for attention!

