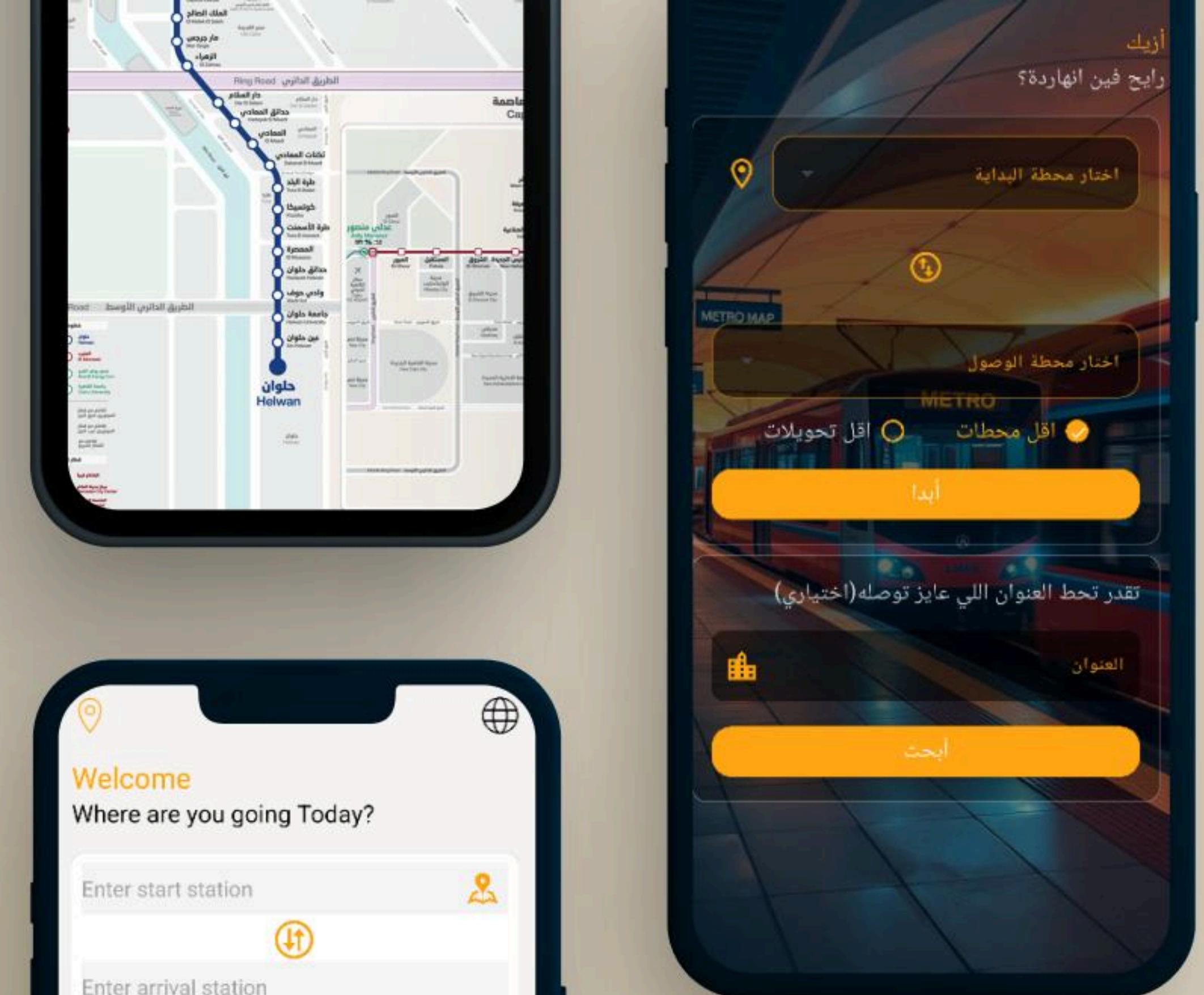


# Cairo Metro App



# **Team members**

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**Radwa Mohamed Shehata**

**Mohamed Al Sayed Nosair**

# Agenda

introduction

Android native app

Flutter app

Future Work

# Introduction

# Lost in the Metro? You're Not Alone.

Your Smart Metro Companion Starts Here!

Imagine you're running late, heading to an important meeting.

You're standing in front of the Cairo Metro map, completely confused...

Where do I get on?

Where do I switch lines?

How long will it take?

How much will it cost?

These are the same questions asked every single day by millions of Cairo Metro riders.

Although the metro is a fast and affordable way to get around, navigating it isn't always easy.

So, we started asking ourselves:

Why shouldn't metro users have a smart guide right in their pocket?

A guide that answers all these questions in seconds.

And that's where our journey began.

# Features in Cairo metro app





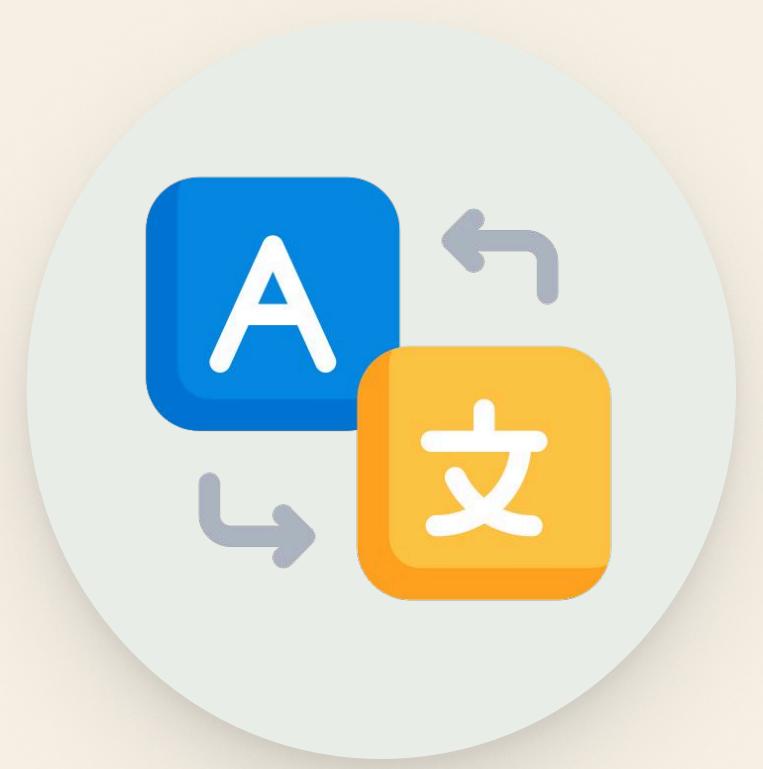
user friendly



real time tracking



notifications



multi language



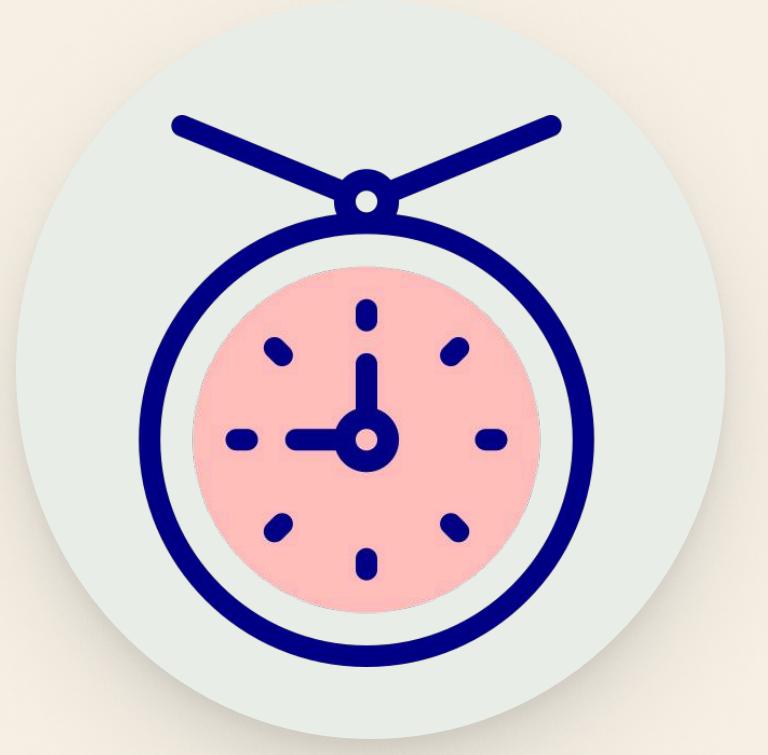
All available paths



shortest route



number of stations

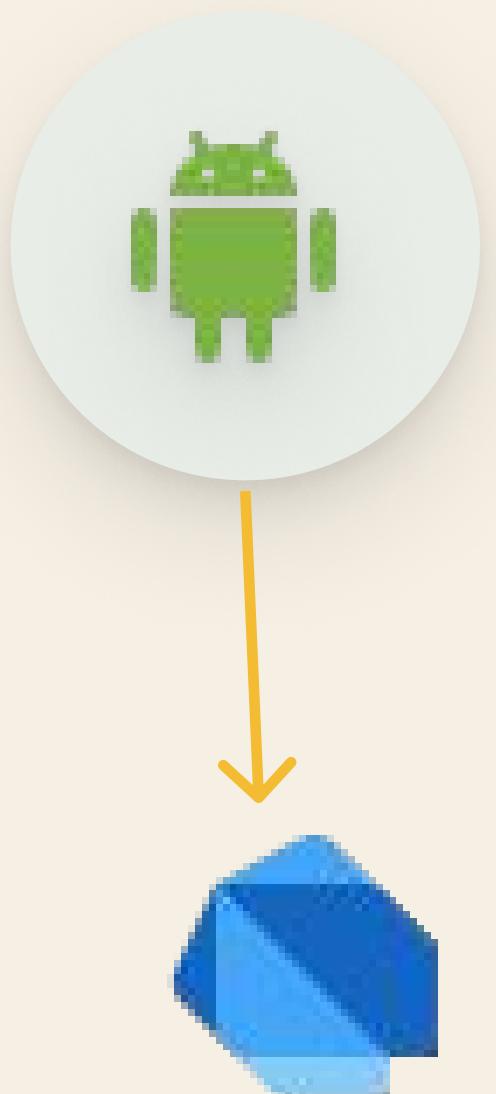


Estimate time to  
arrival

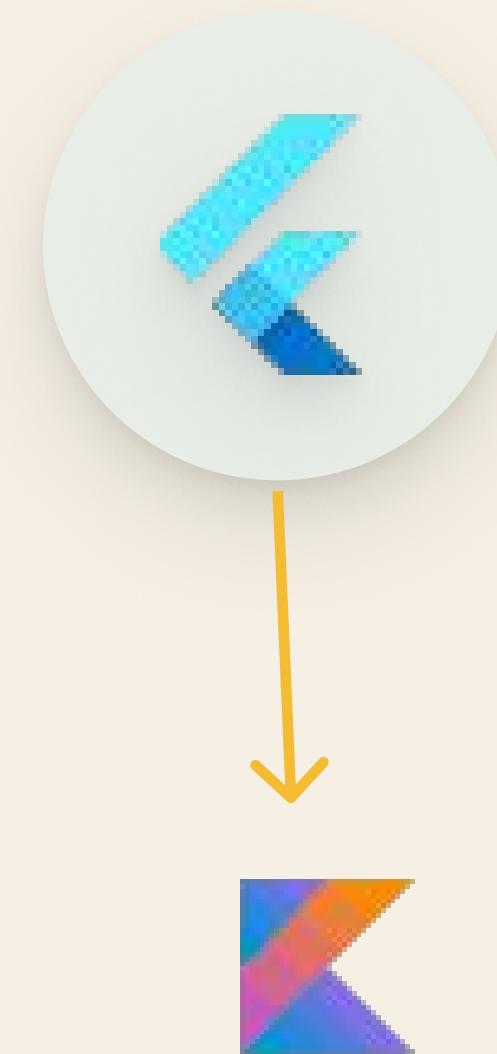


ticket pricing

# App has two versions



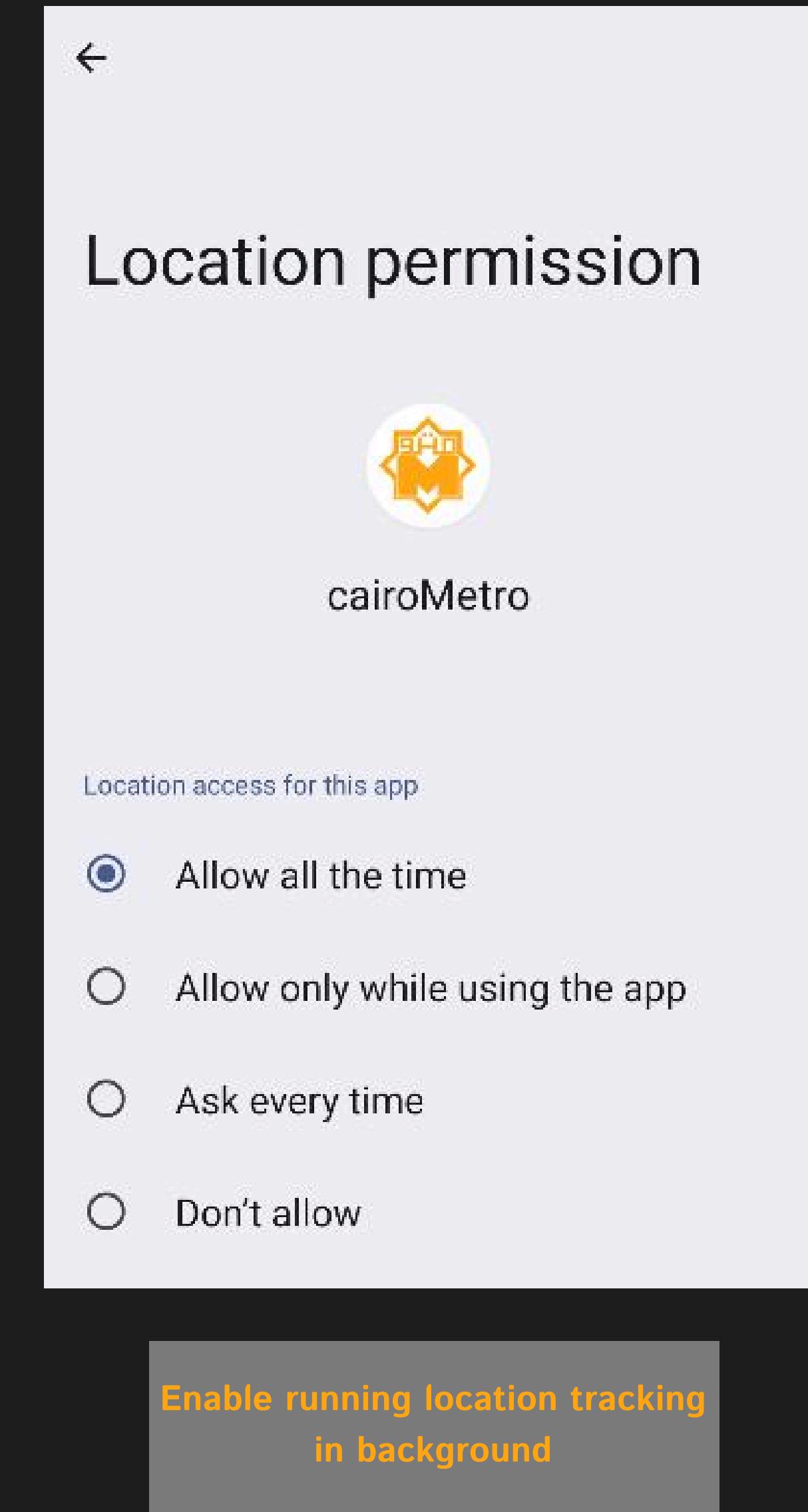
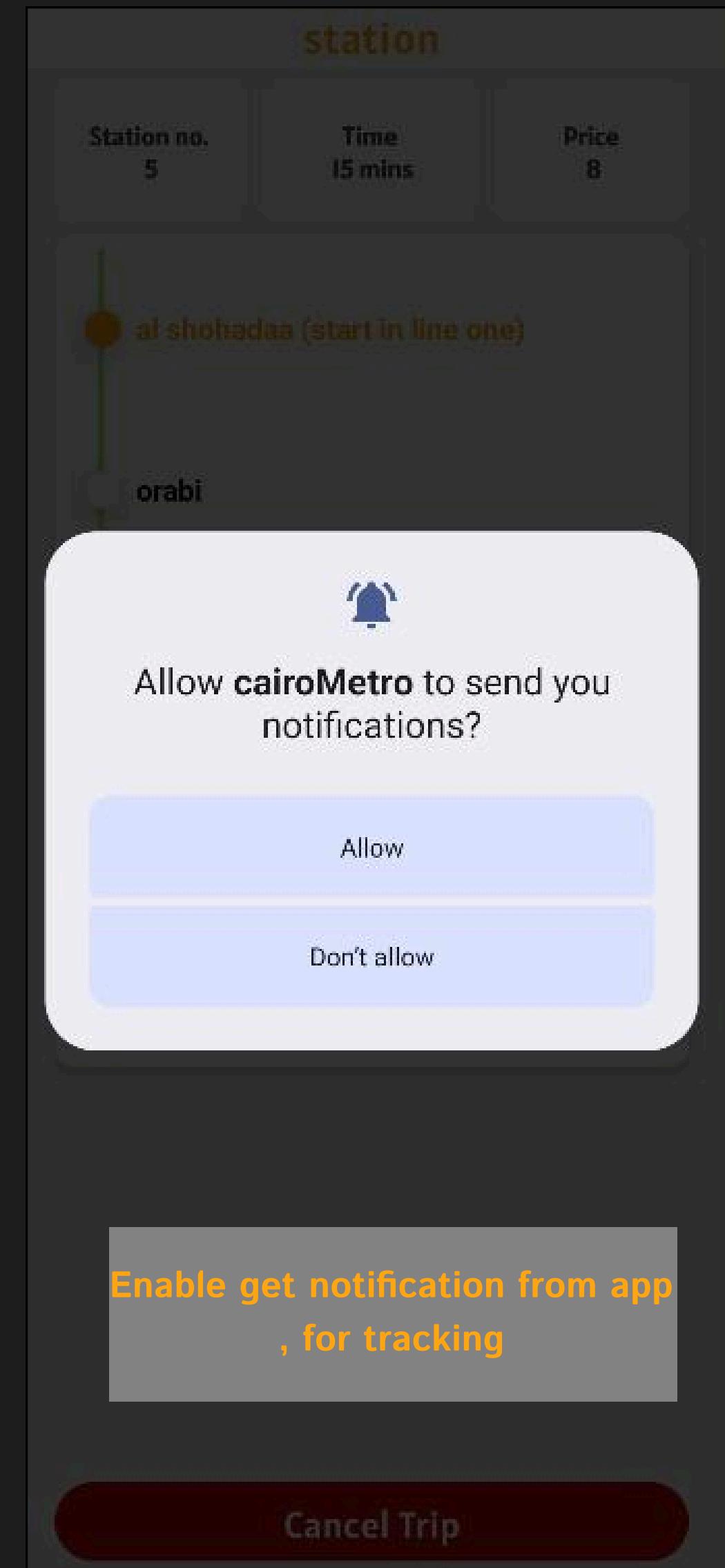
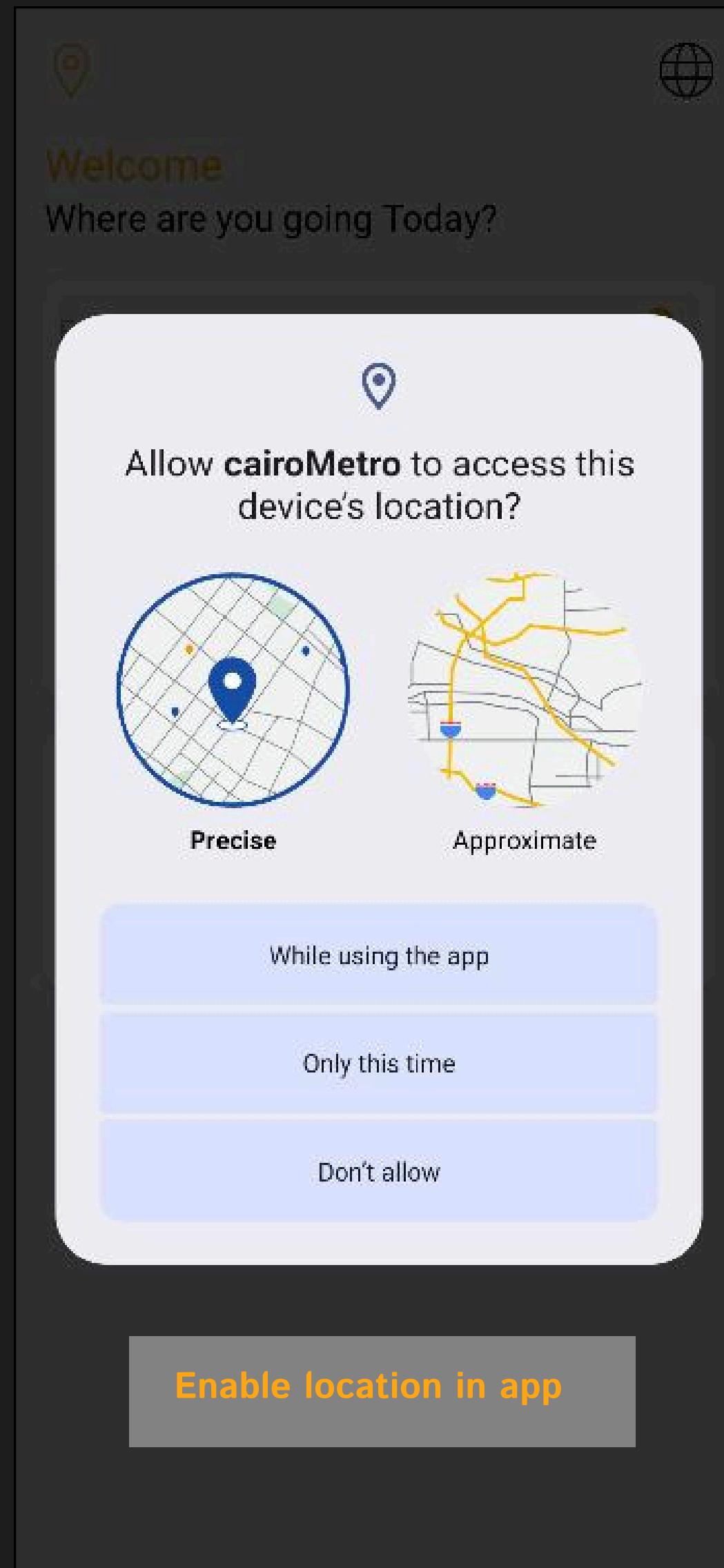
Android with Kotlin



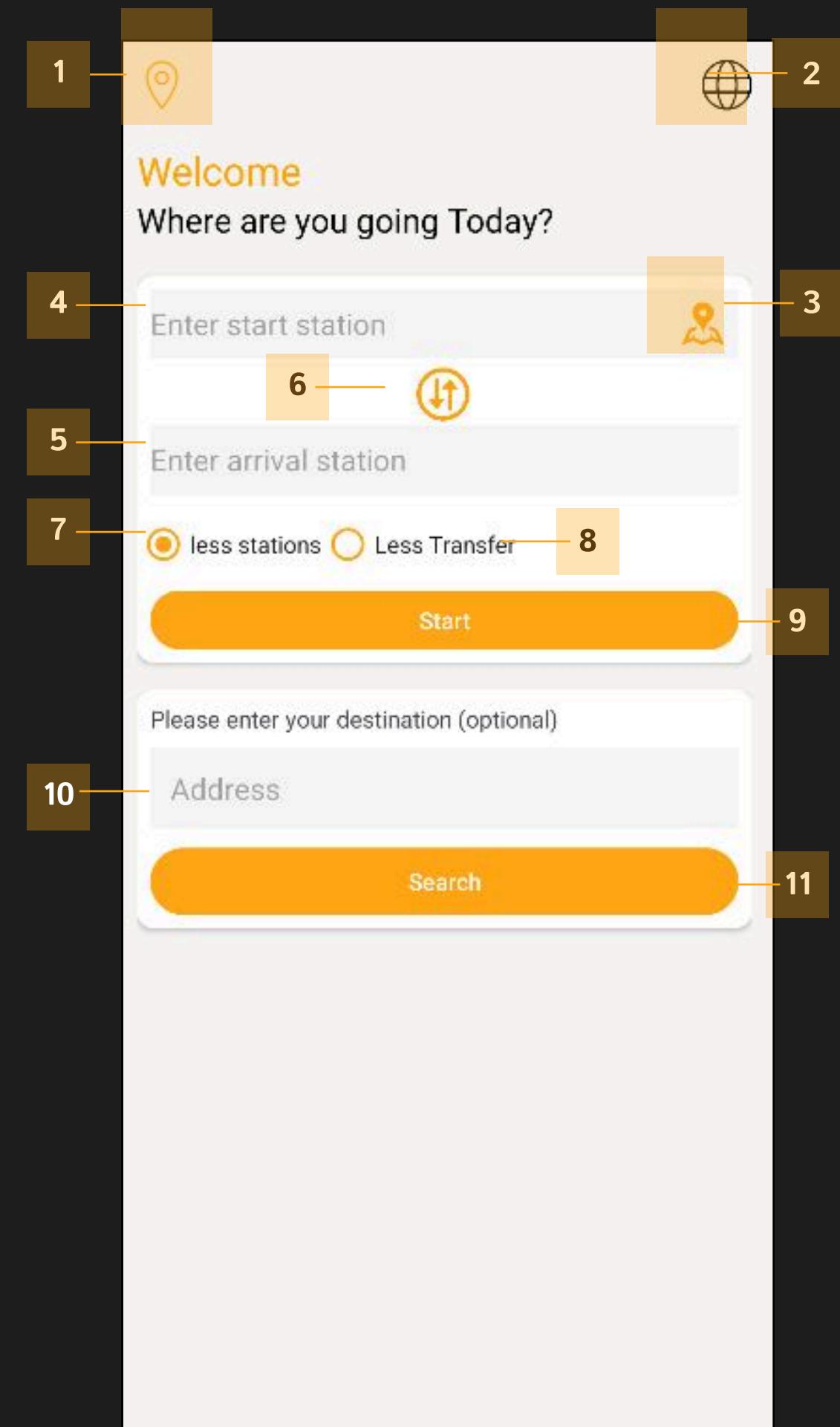
Flutter with Dart

# **Android native app**

# Permissions



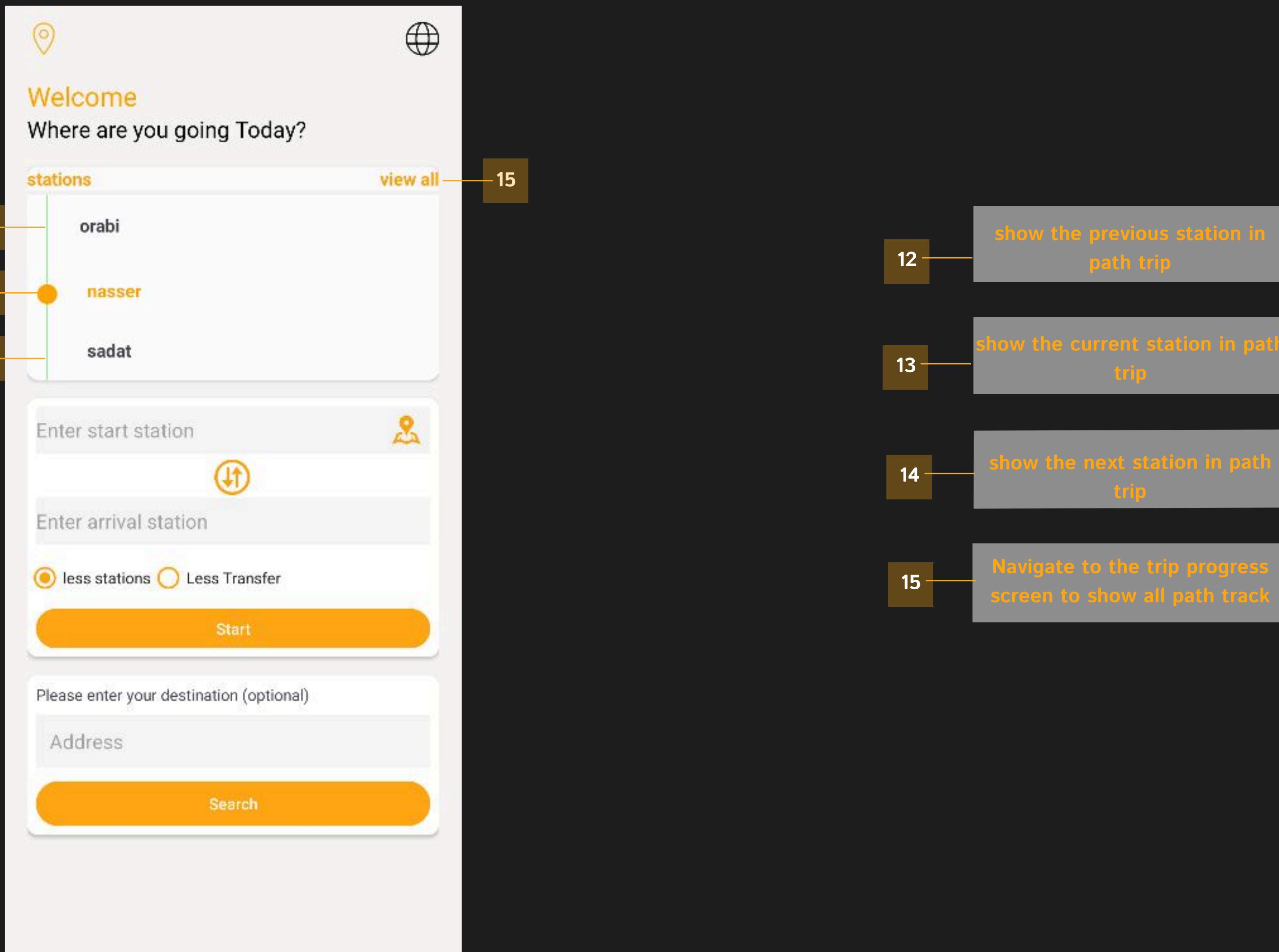
# Home Screen



home screen without  
tracking

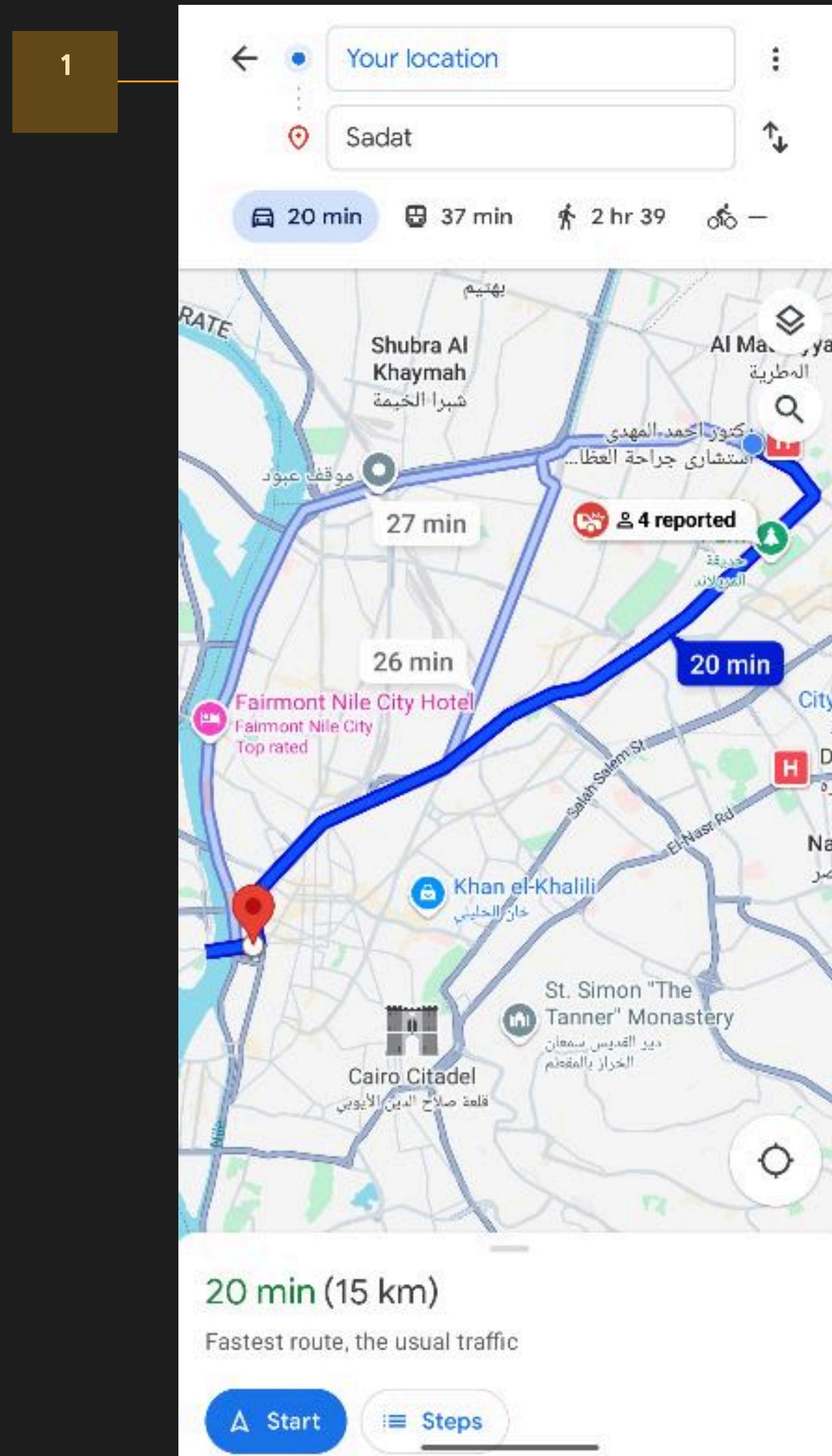
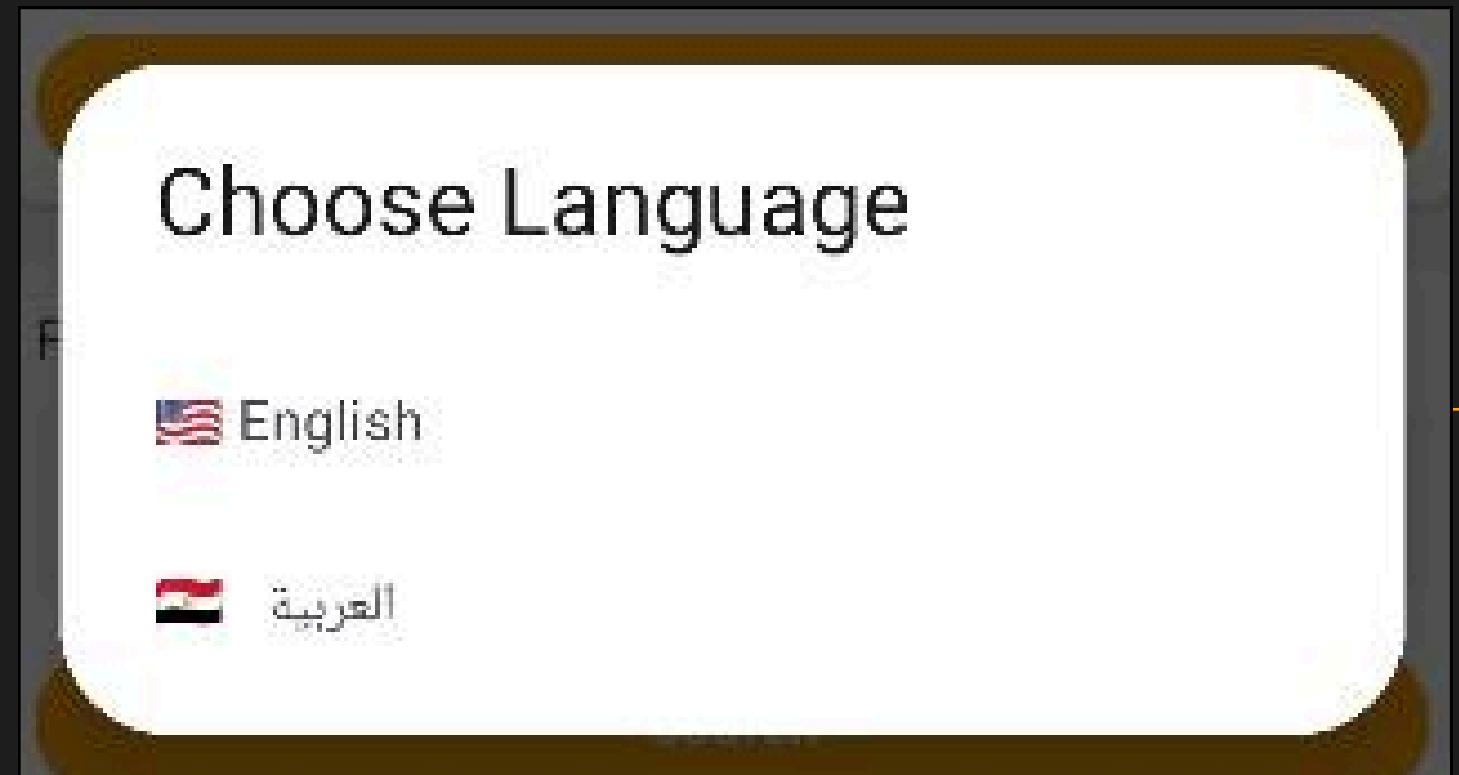
- 1 Get the direction from the user location to the nearest station
- 2 Change the language dialog
- 3 Get the nearest station from the user location
- 4 Select or write start station
- 5 Select or write arrival station
- 6 Exchange between start and arrival stations
- 7 Sort paths by the number of stations
- 8 Sort paths by the number of intersections
- 9 Start to show available paths
- 10 Write the address of the destination address
- 11 Search if there is a station near to user destination

# Home Screen

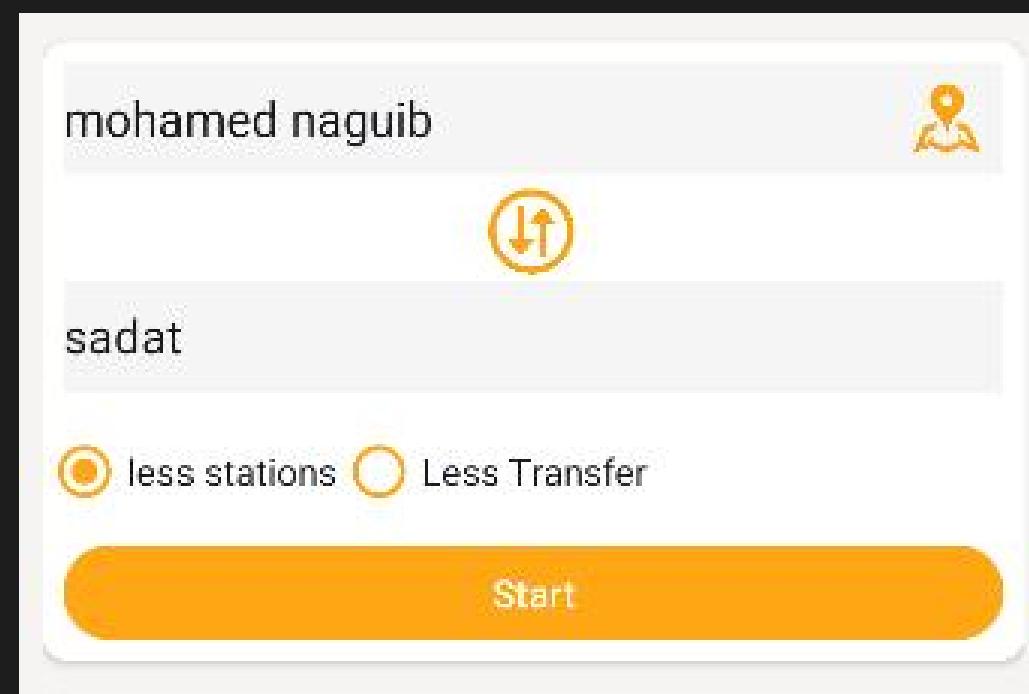
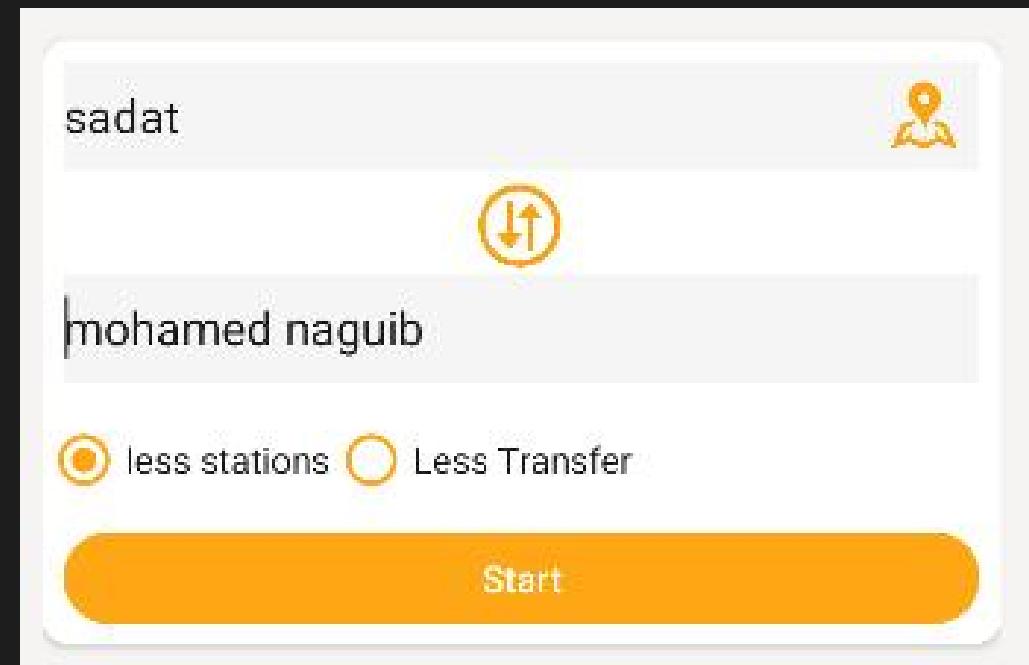


home screen while tracking

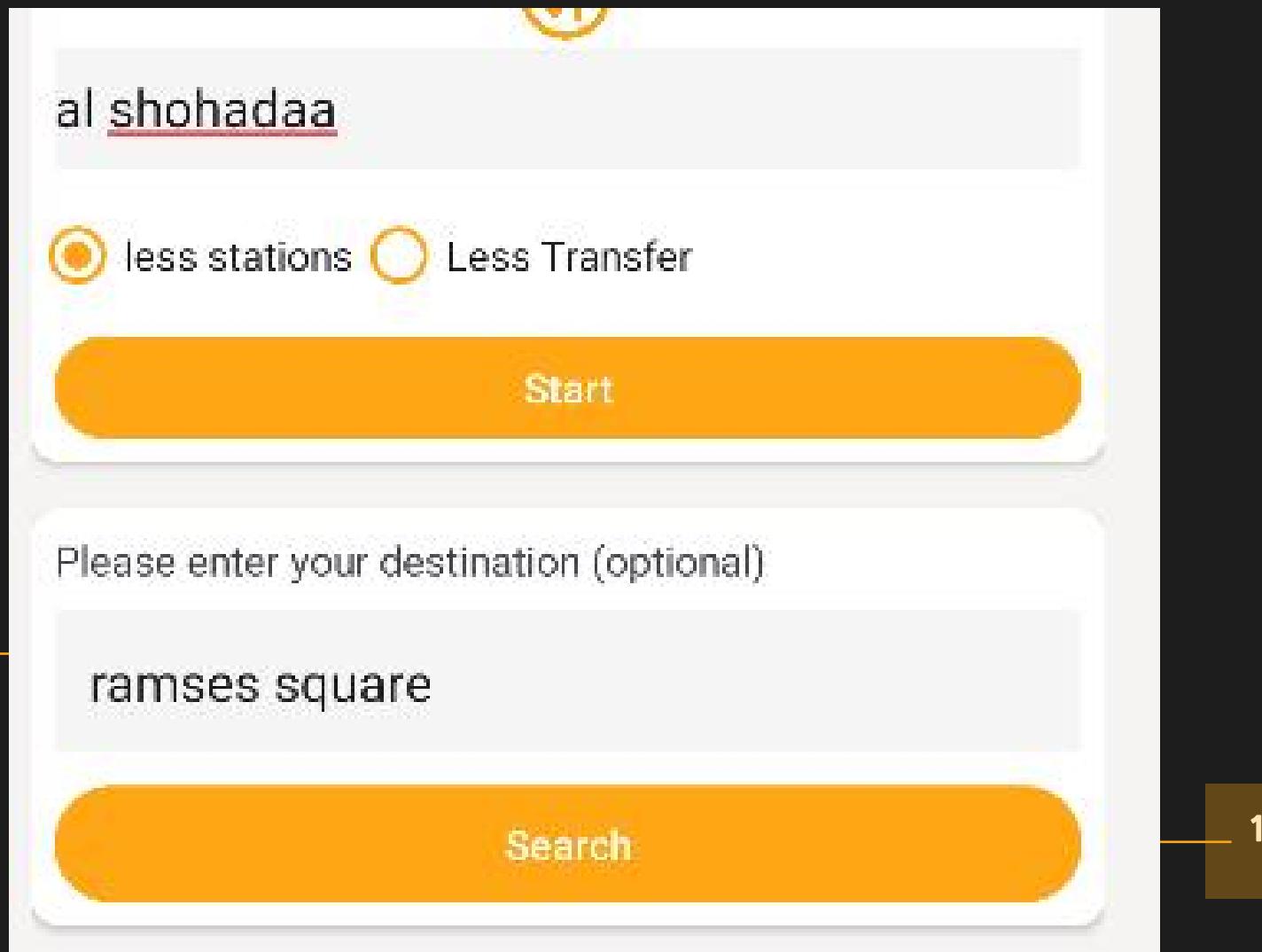
# Home Screen



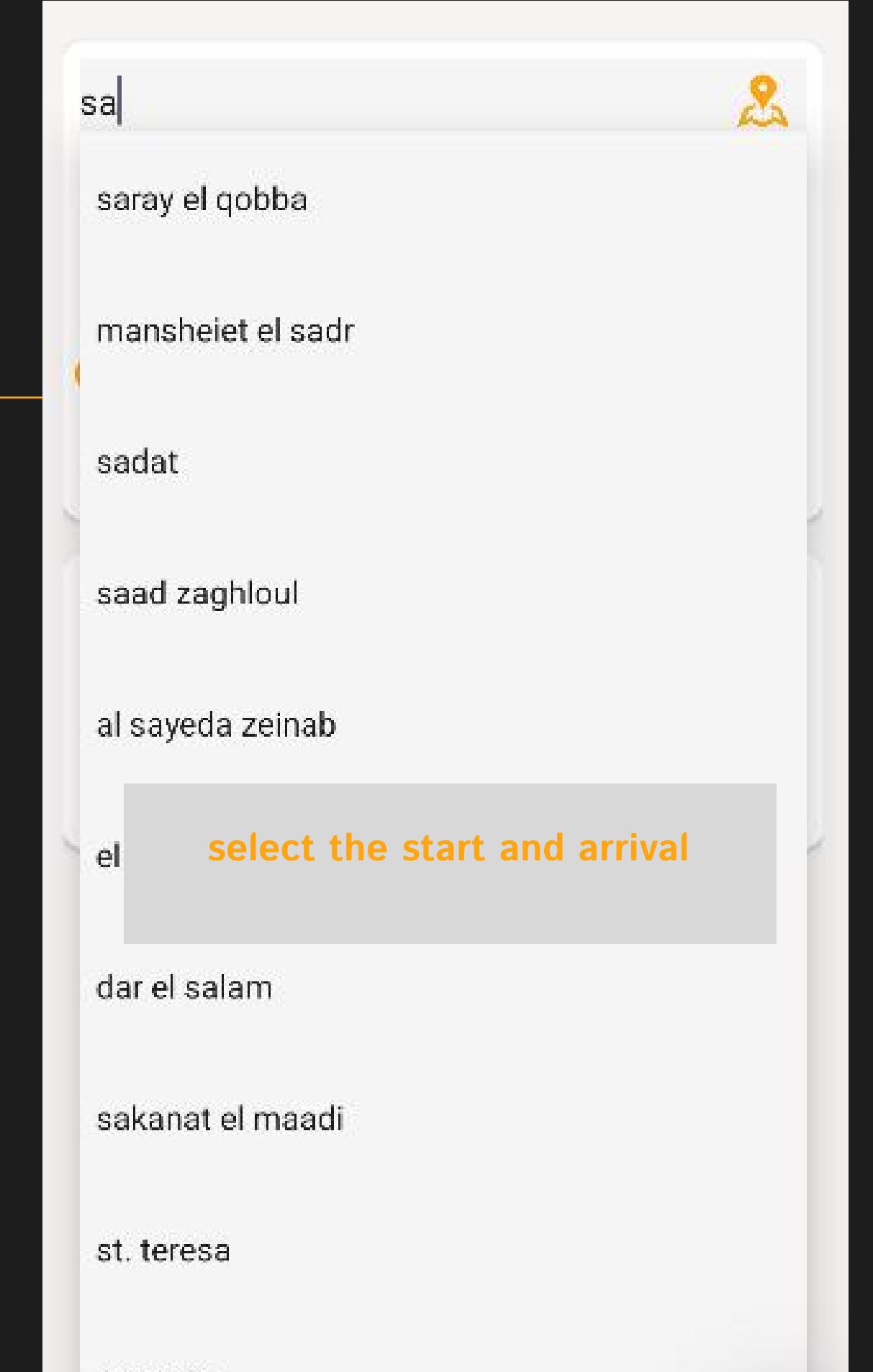
# Home Screen



Example of exchange

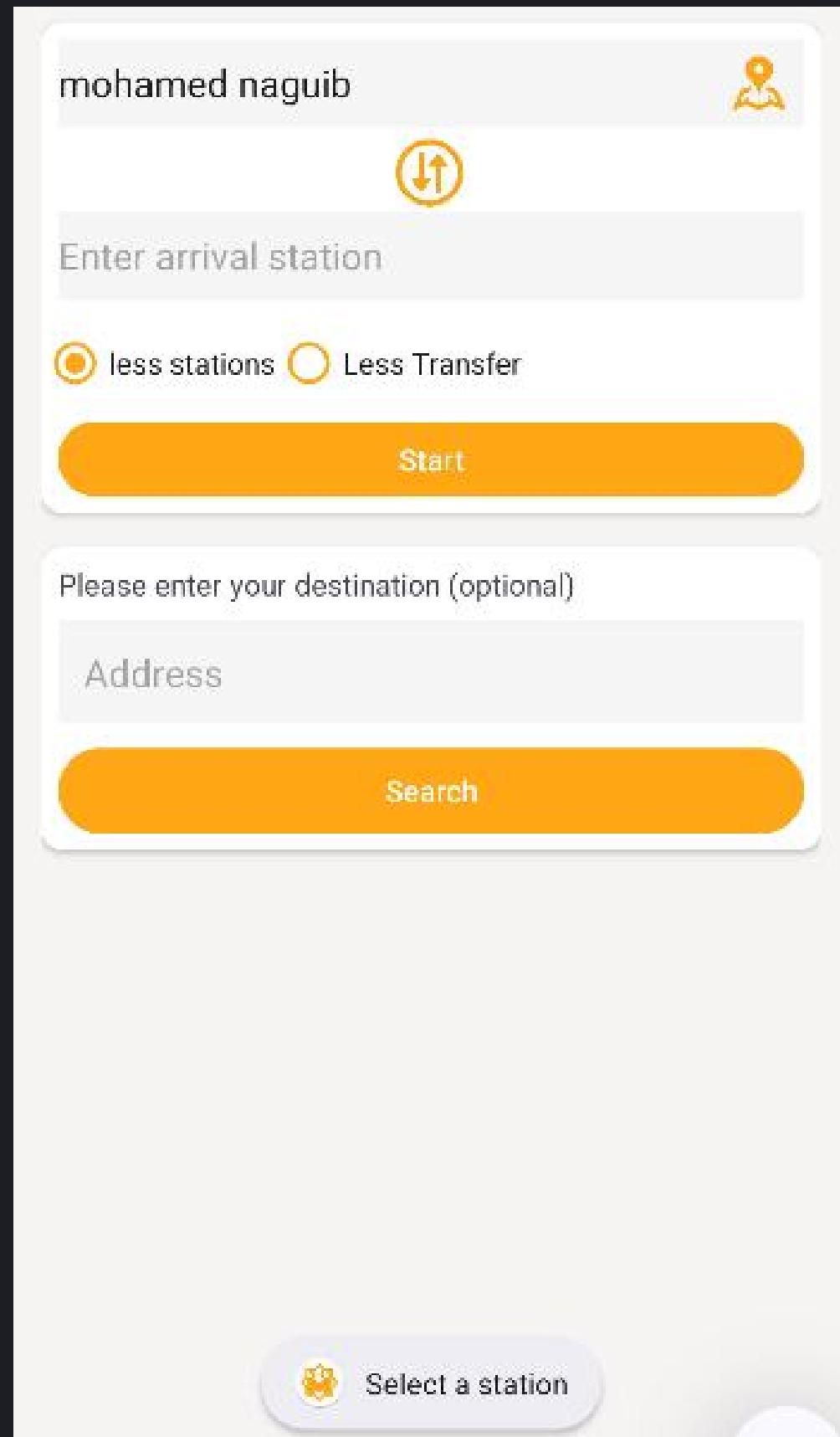


Example of destination

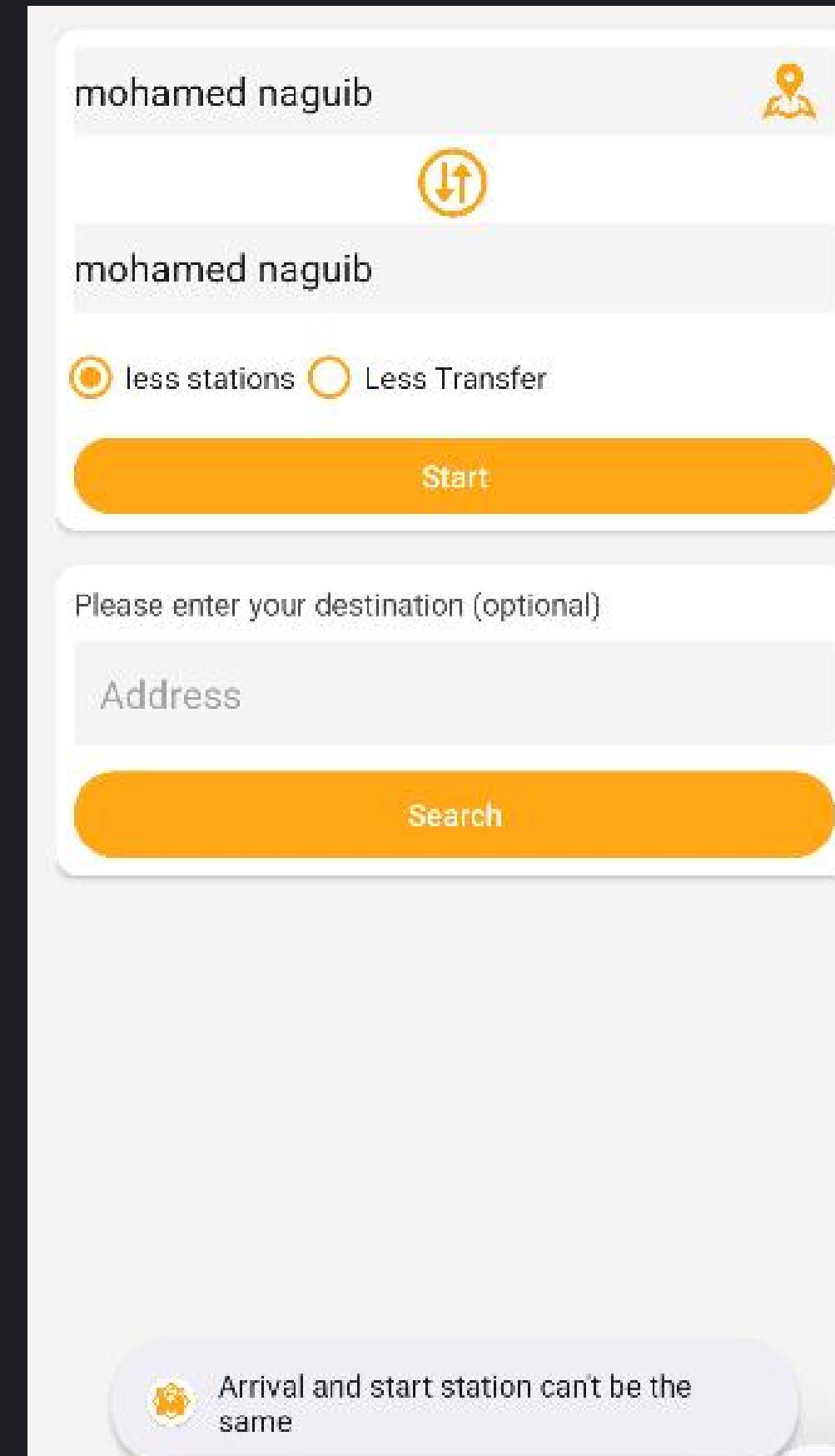


4

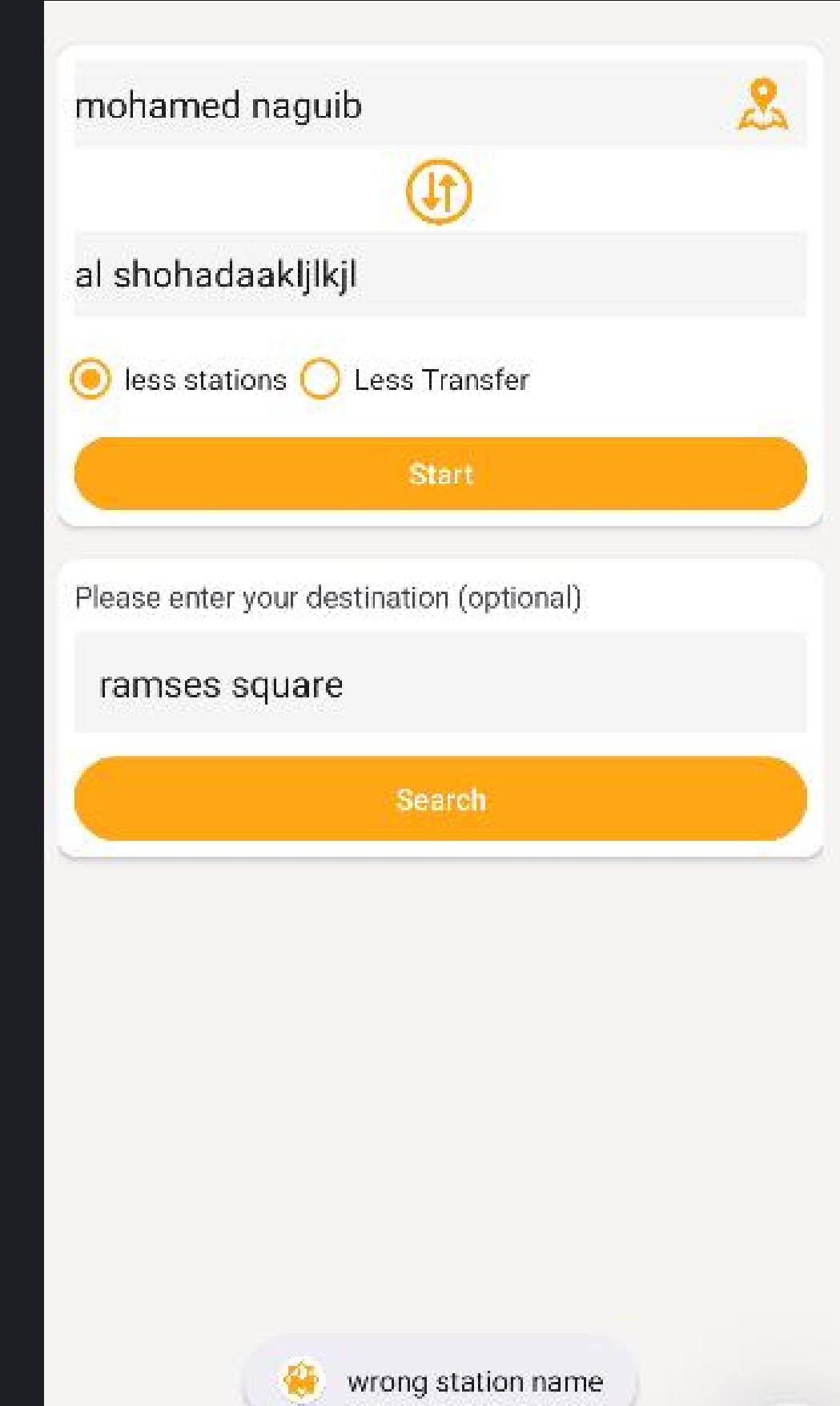
# Home Screen



**if user doesn't enter start or arrival station**

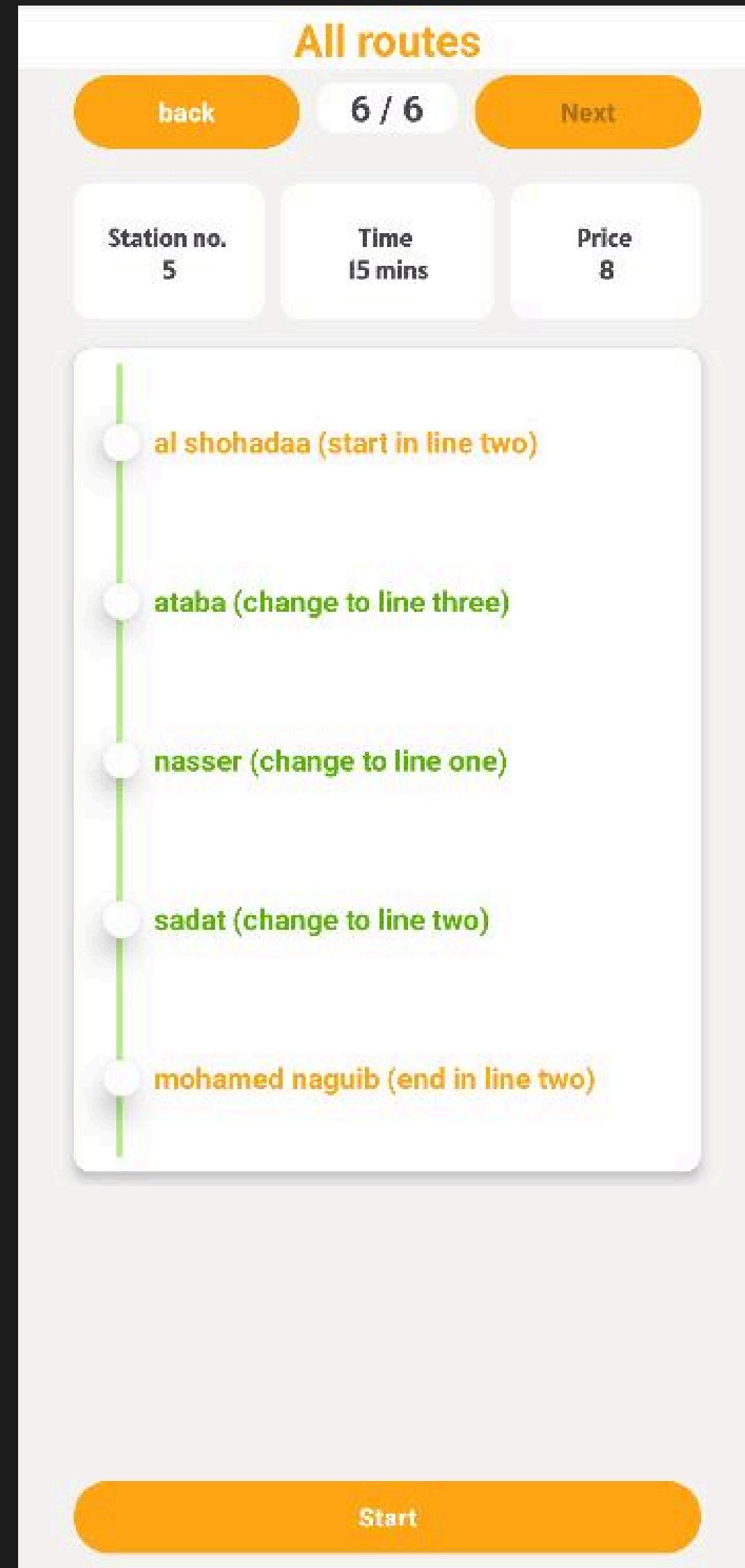
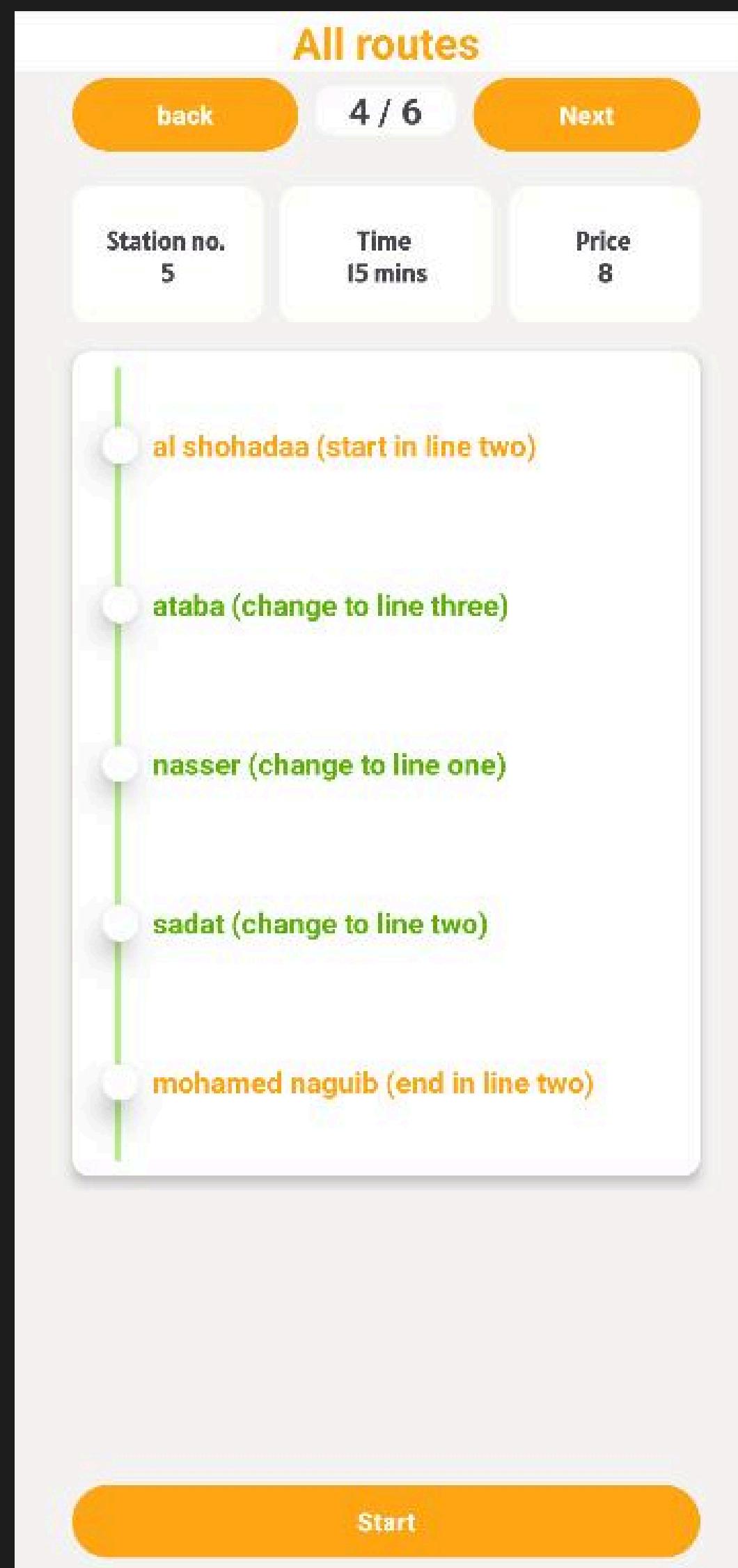


**if user enter the same in arrival and start station**



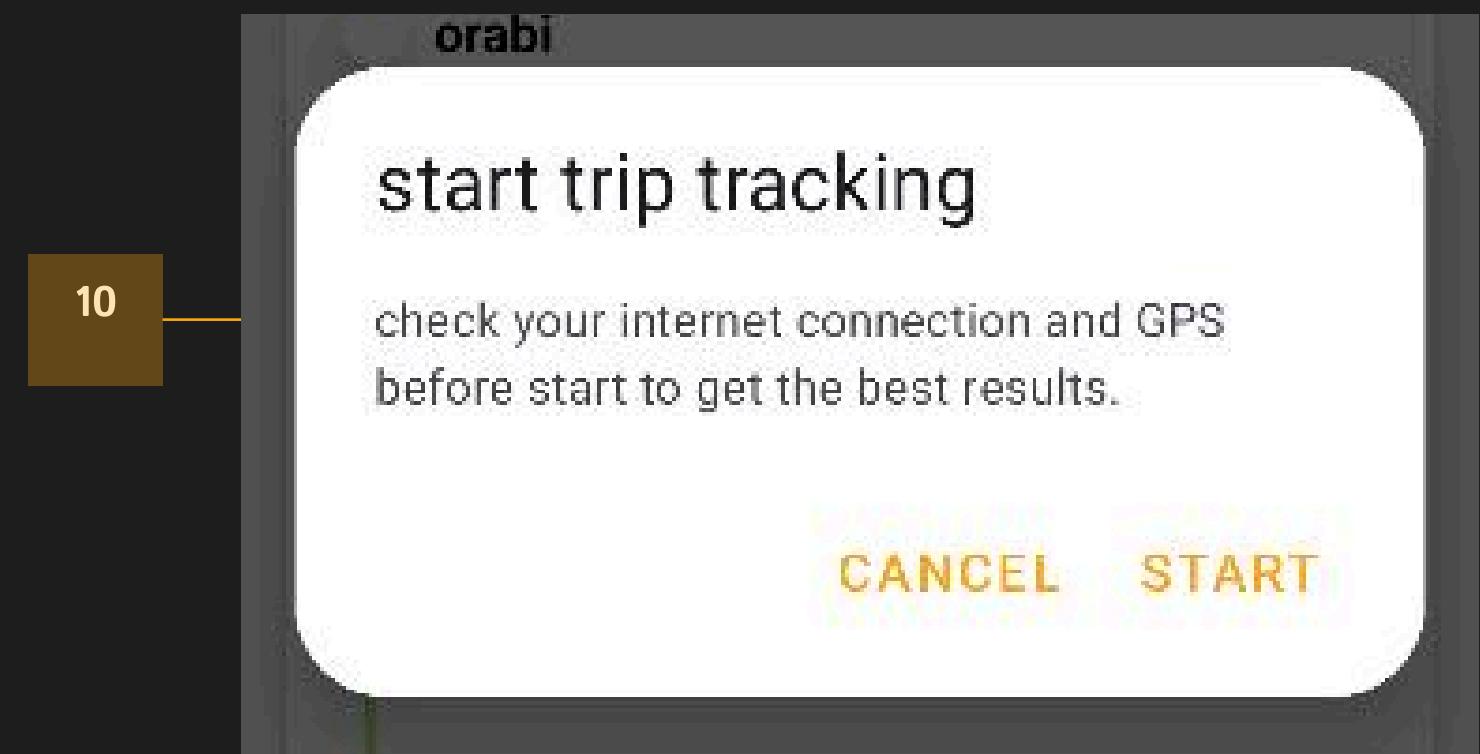
**if user input wrong station name**

# All routes screen

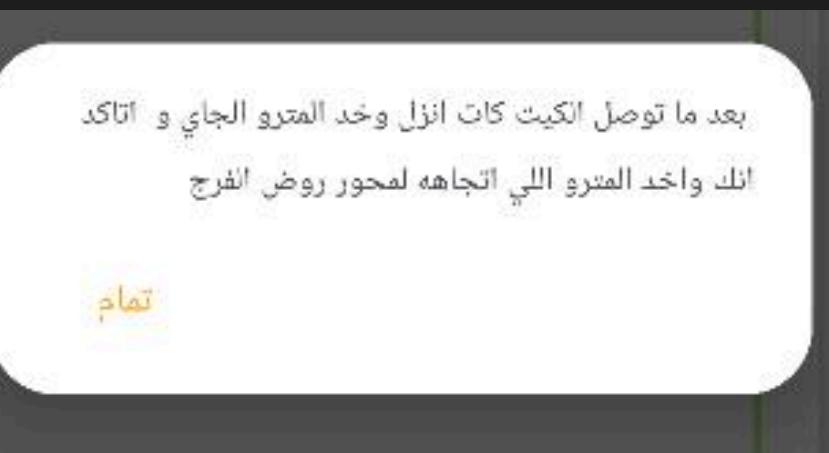
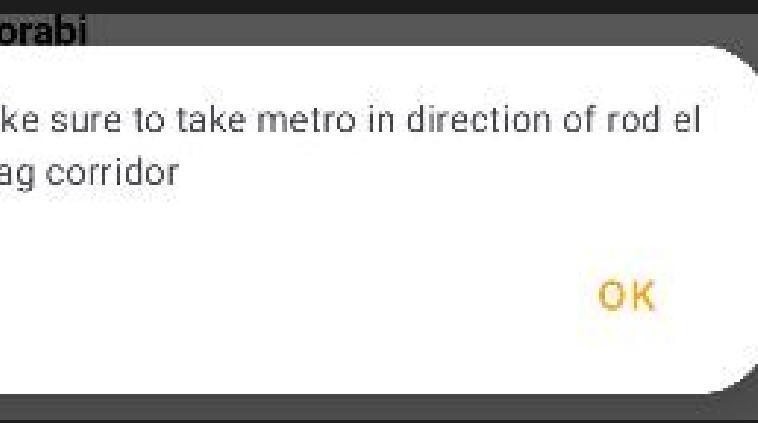
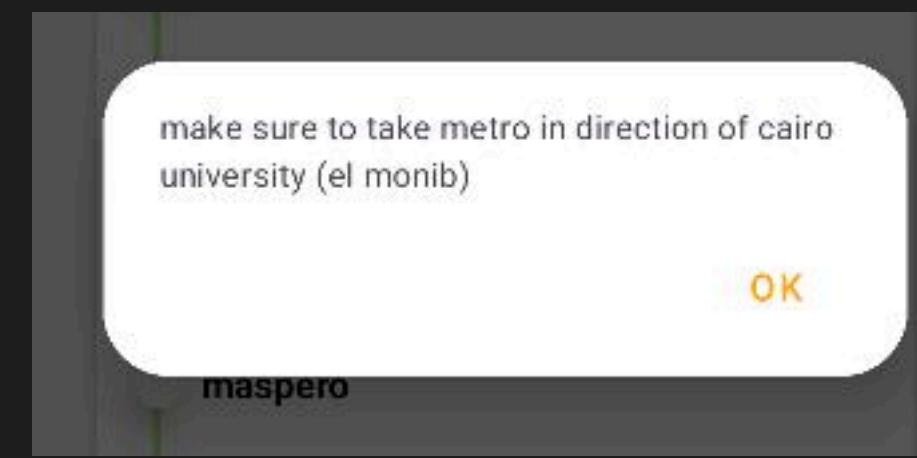


- the last path when user choose less transfer
- 2 → Navigate to the next path
  - 3 → the current path number
  - 4 → number of stations in the path
  - 5 → time to arrive the destination
  - 6 → price of metro ticket
  - 7 → line of the start station
  - 8 → line will be transferred to
  - 9 → line will be arrived at
  - 10 → Choose the displayed path , Start the trip by tracking user progress in the metro

# All routes screen

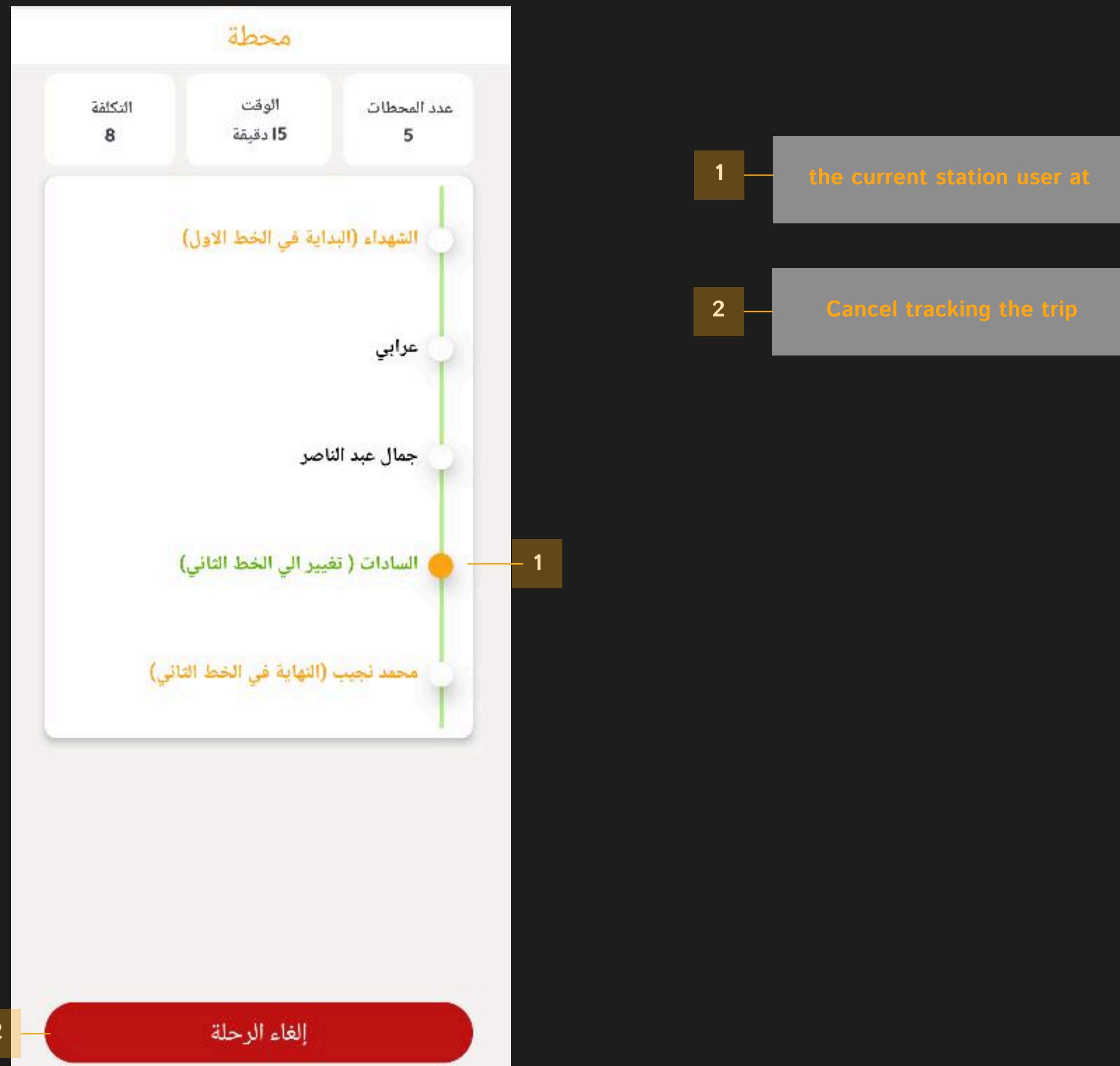


Appear when user click to start



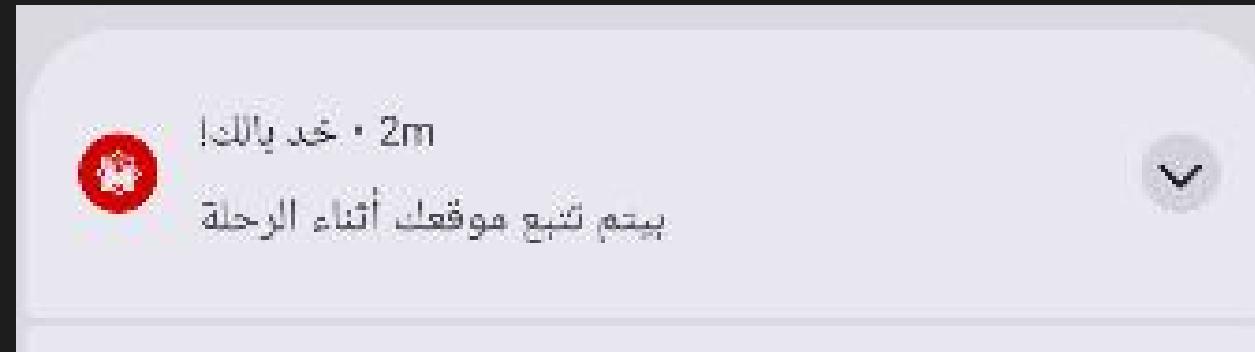
Appear when the line has  
the branch of kitkat , and  
the user will go in  
direction of rod elfarag  
corridor or cairo university

# Trip progress screen

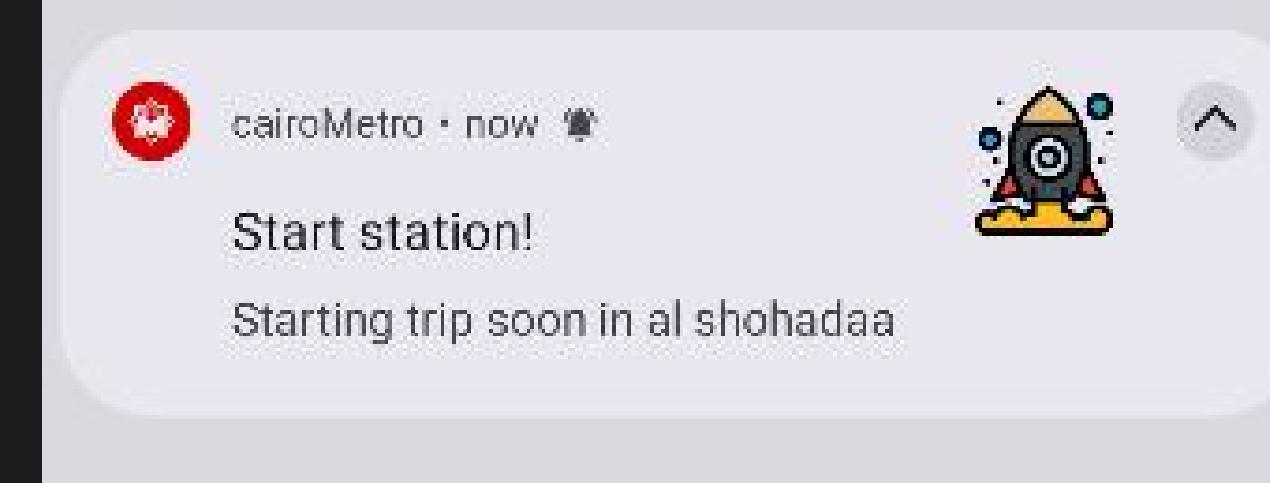


trip progress screen

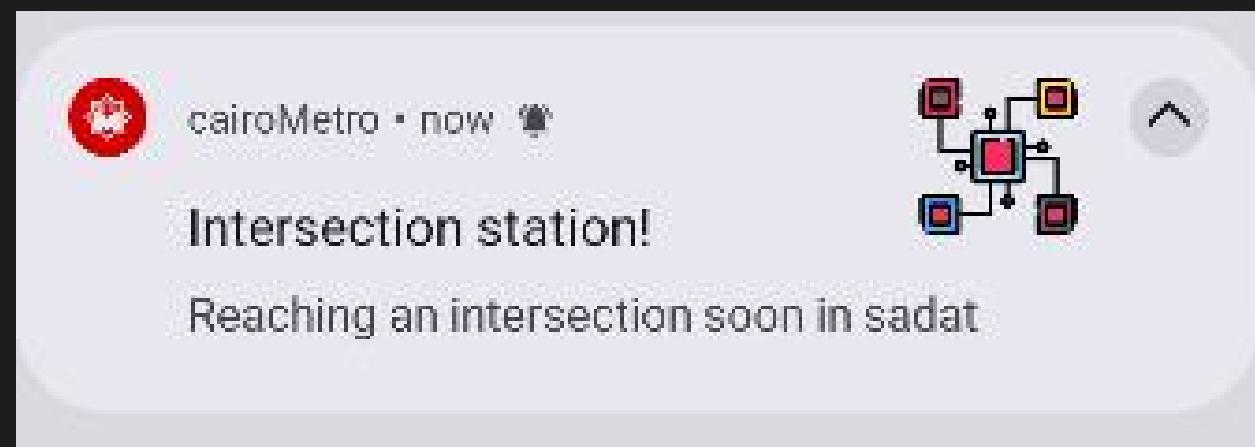
# Notifications



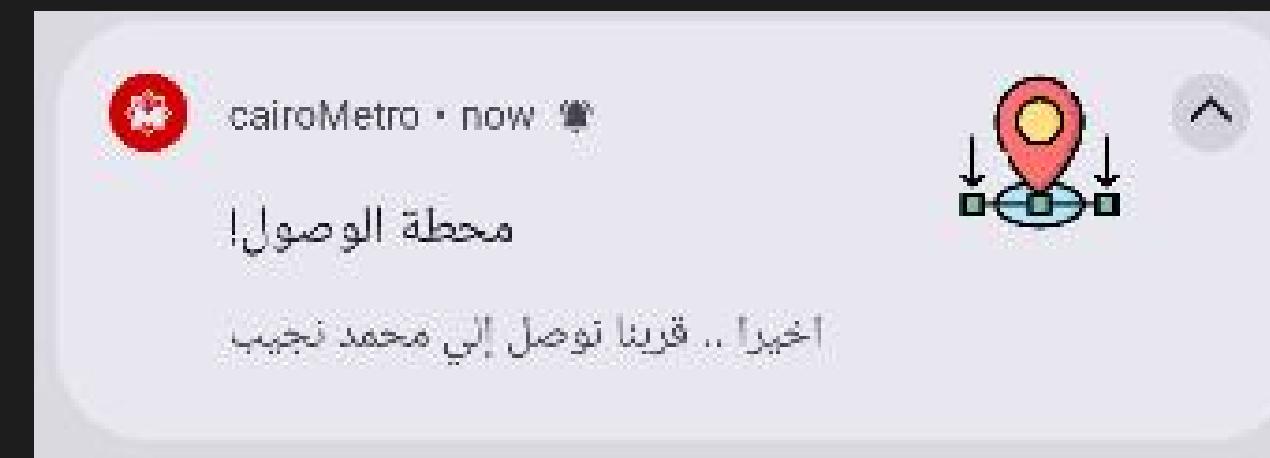
the notification will appear during  
all the trip tracking



appear when the user start the trip



appear when the user will be soon  
transfer from line to another



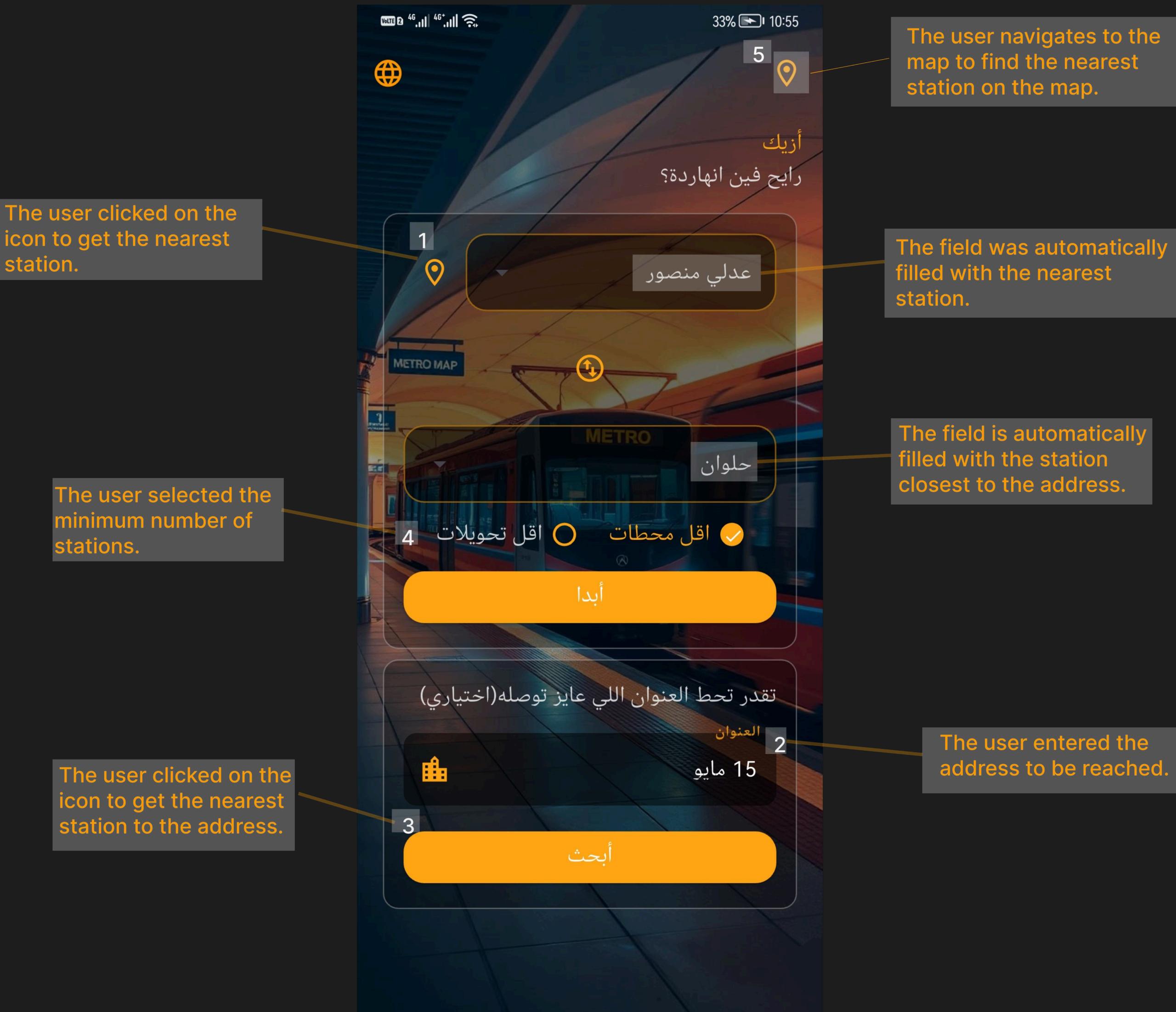
appear when the user will reach  
soon the destination

# **Flutter app**

# **why flutter ?**

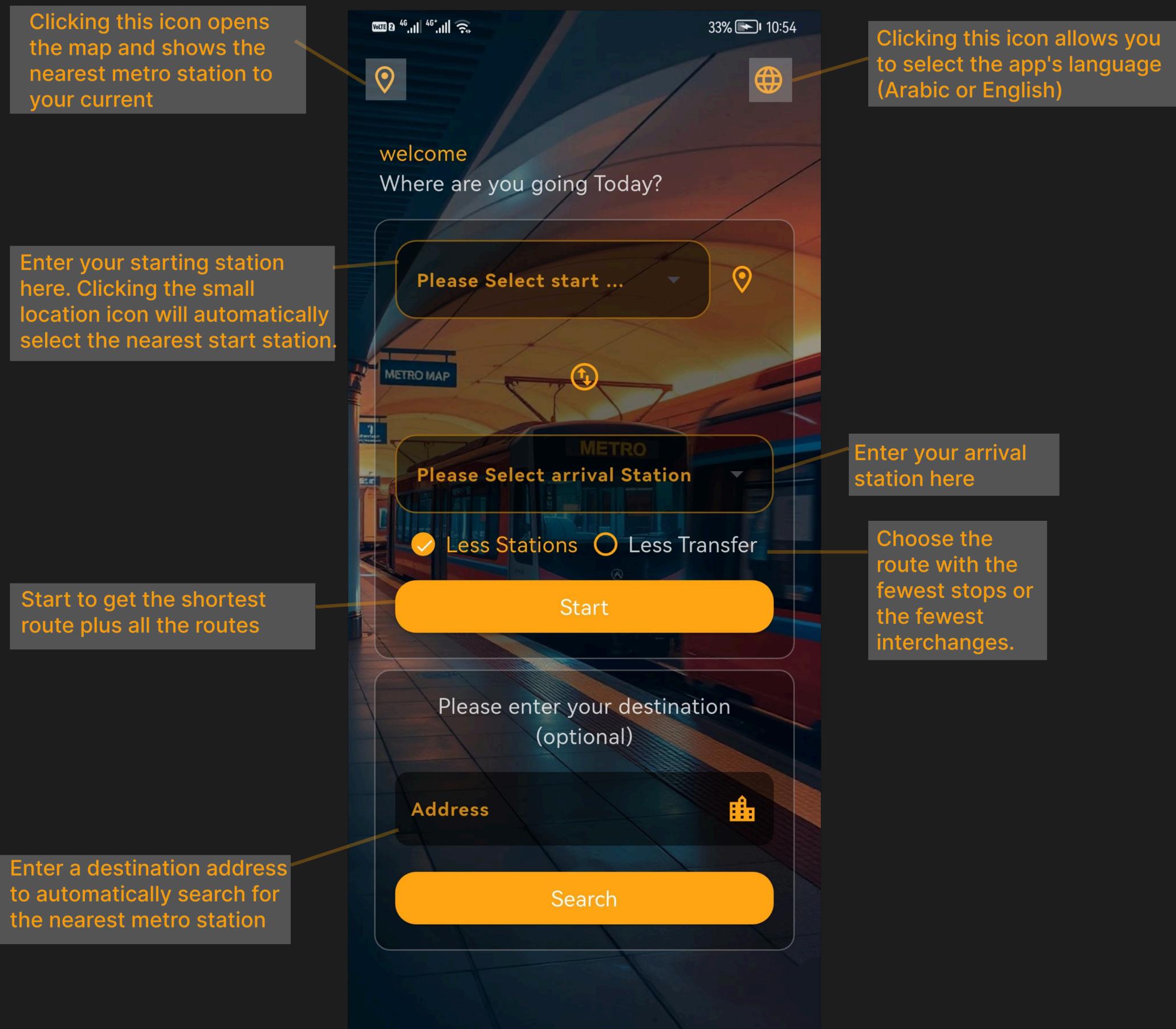
**The Cairo Metro App utilizes Flutter for its cross-platform capabilities, enabling a consistent user experience on both Android and iOS.**

# Home Screen

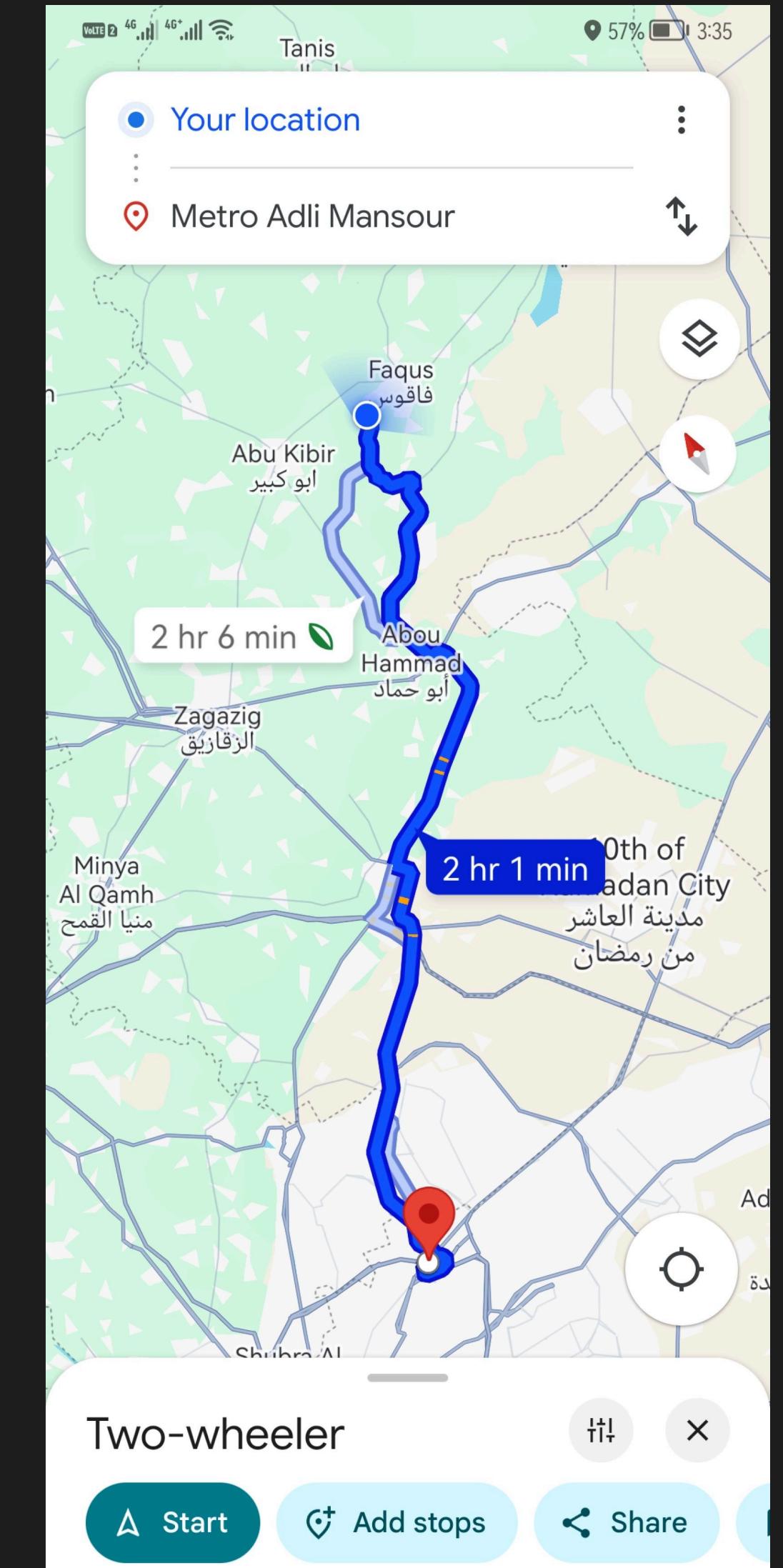
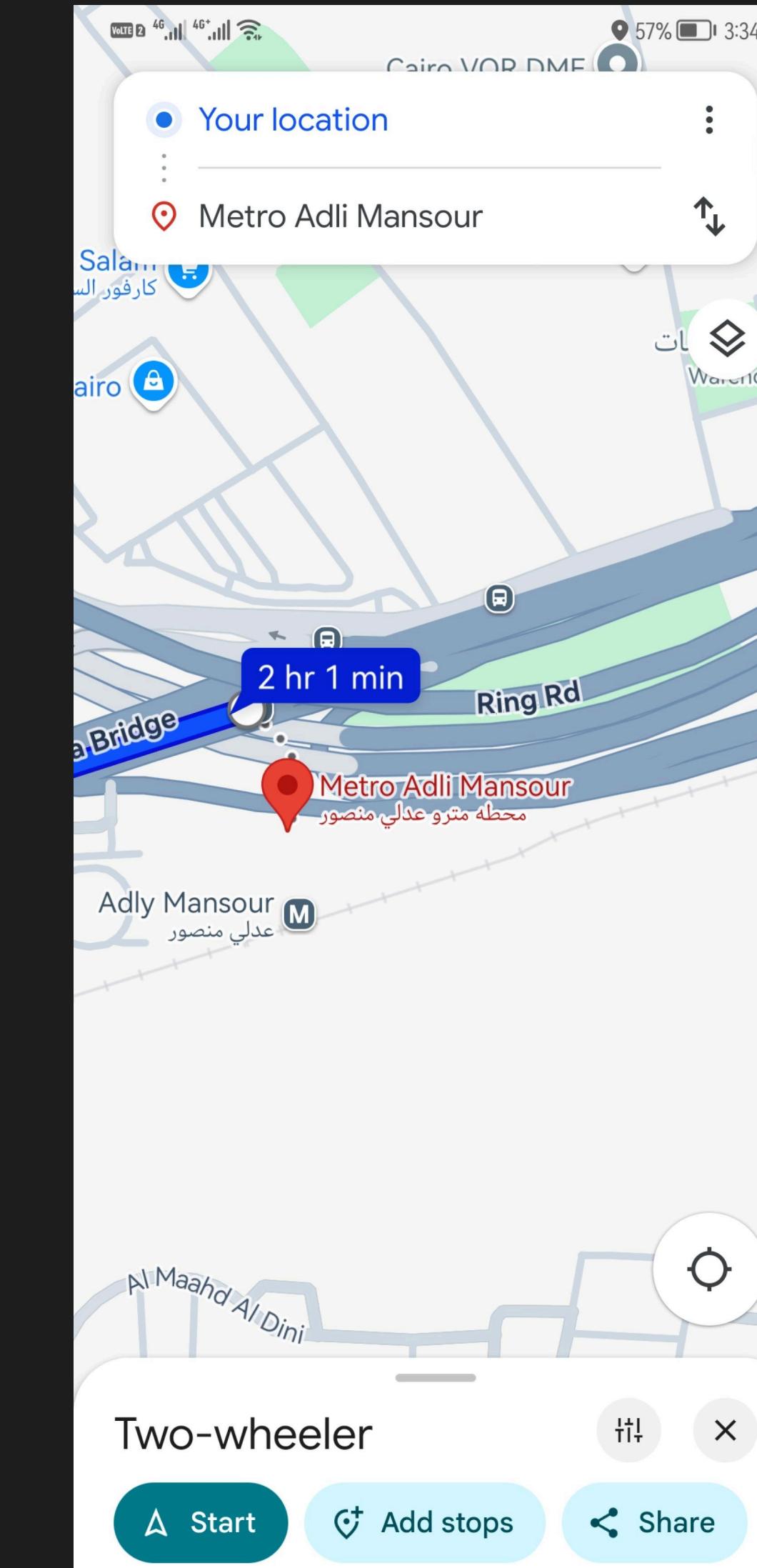
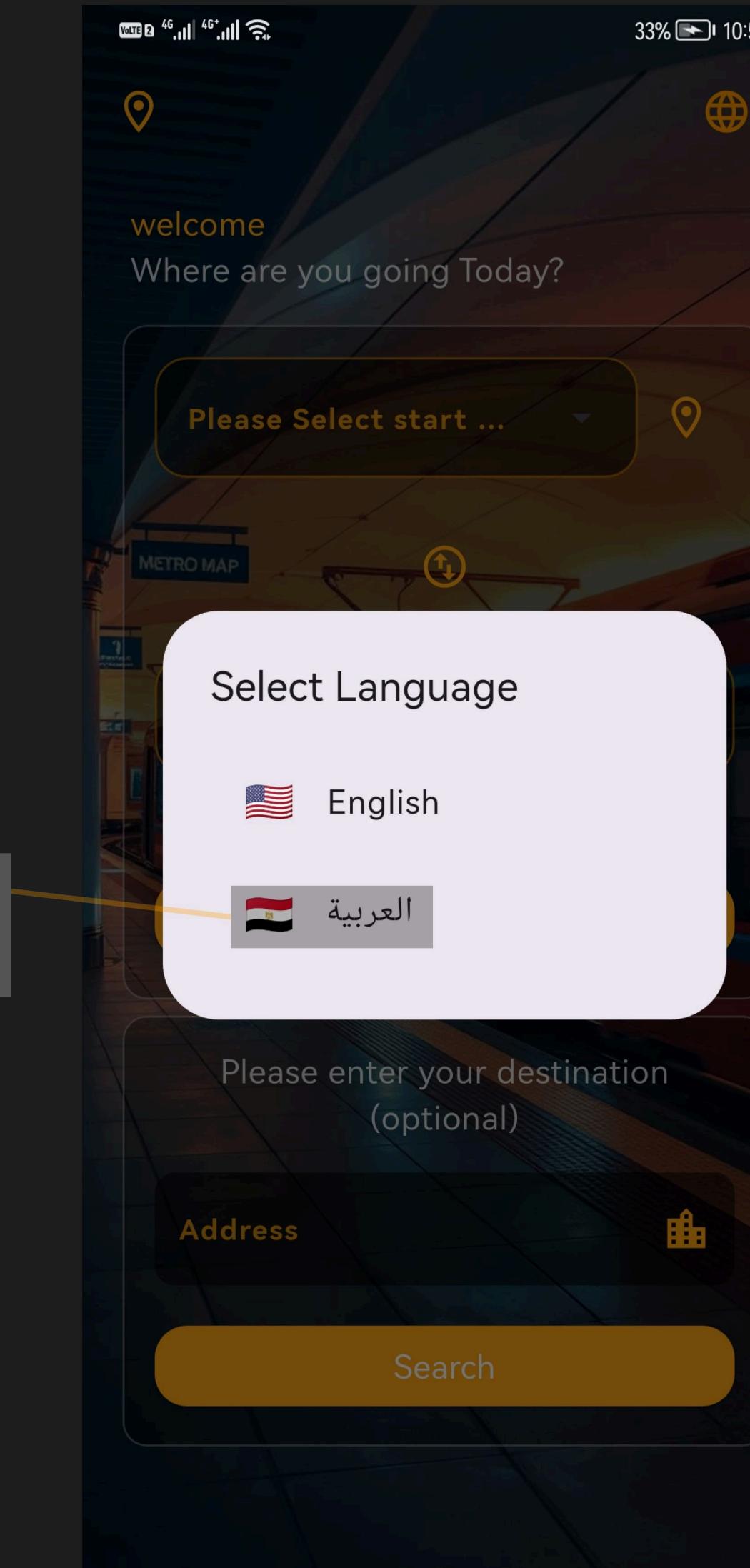


# Home Screen

Implemented to allow the user to: view nearby metro stations, access quick navigation options, and get an overview of all metro lines and available features.

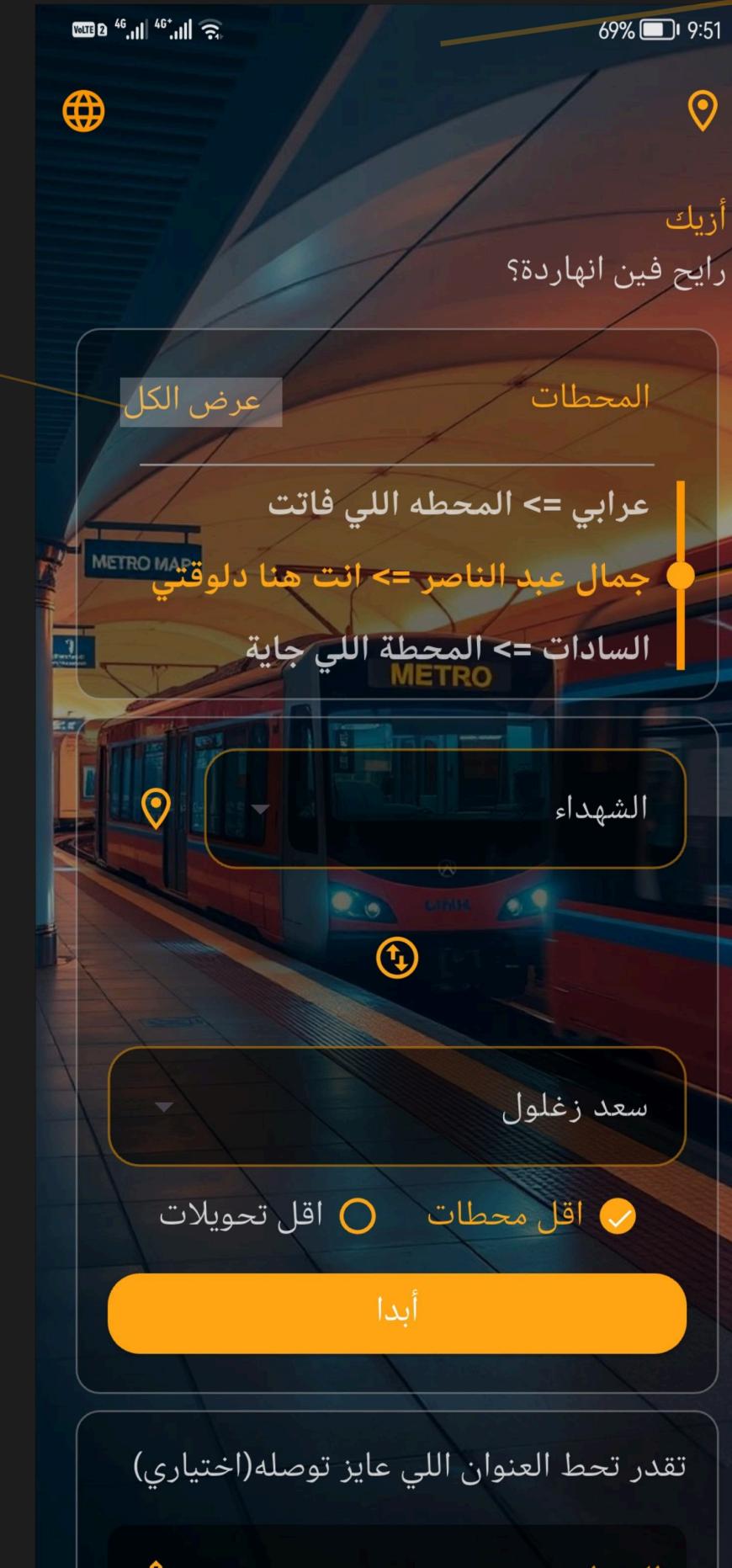


# Home Screen



# Home Screen

Implemented to allow the user to: receive a dialog pop-up showing the current station if live tracking is activated and the user navigates back to the Home screen, ensuring they stay informed about their journey's progress.



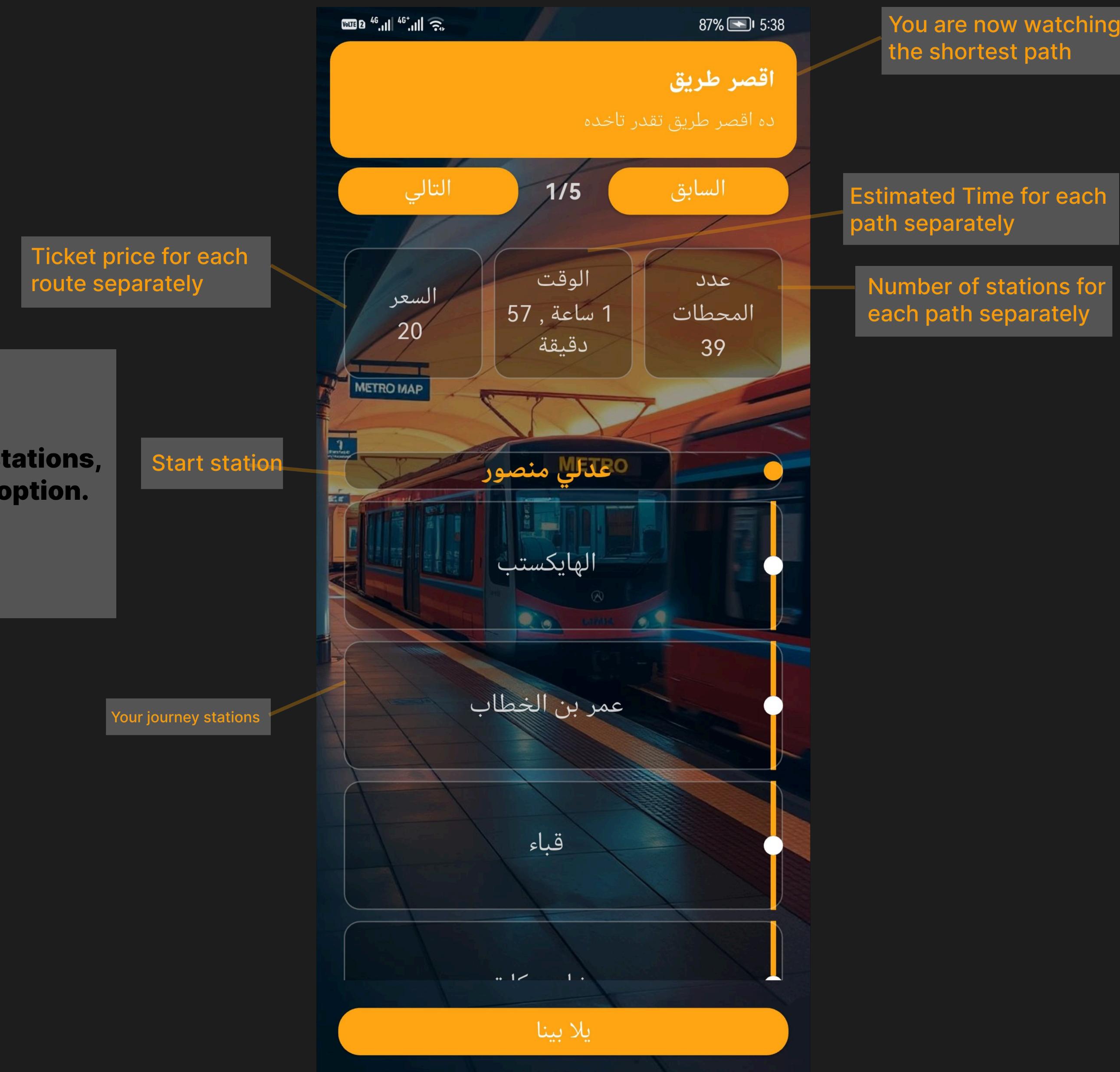
When the user presses  
the view all goes the live  
track page again.

If the journey is active and the user  
presses the Back button, the app  
automatically redirects them to the  
Home page.

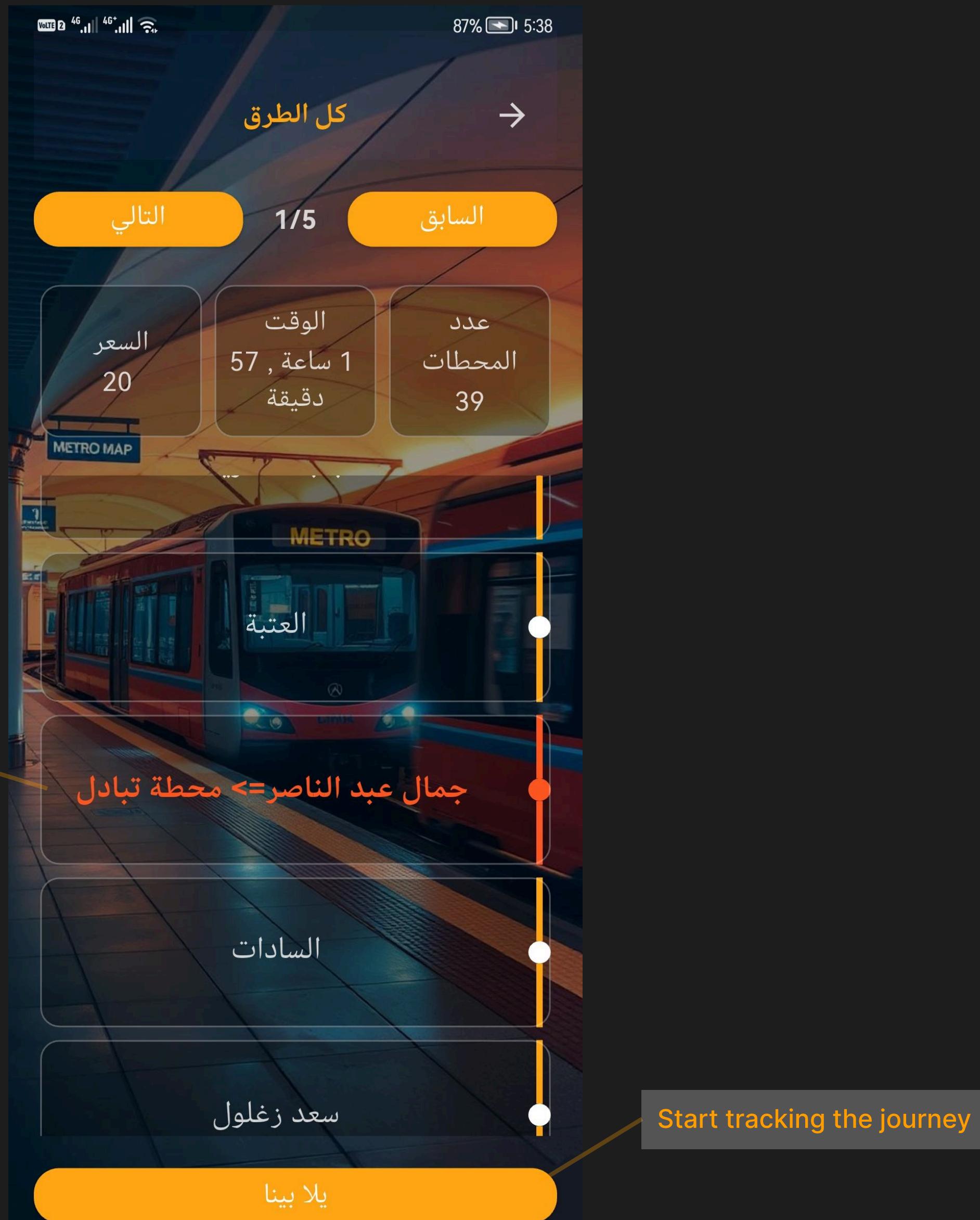
A dialog will pop up showing  
the name of the current station.

# All routes Screen

Implemented to allow the user to: view all possible routes between the selected stations, including estimated travel time, total cost, and number of stations for each route option.



# All routes Screen



# All routes Screen



# Trip progress Screen

The page displays updated information including the current station, next station, and the number of remaining stations.

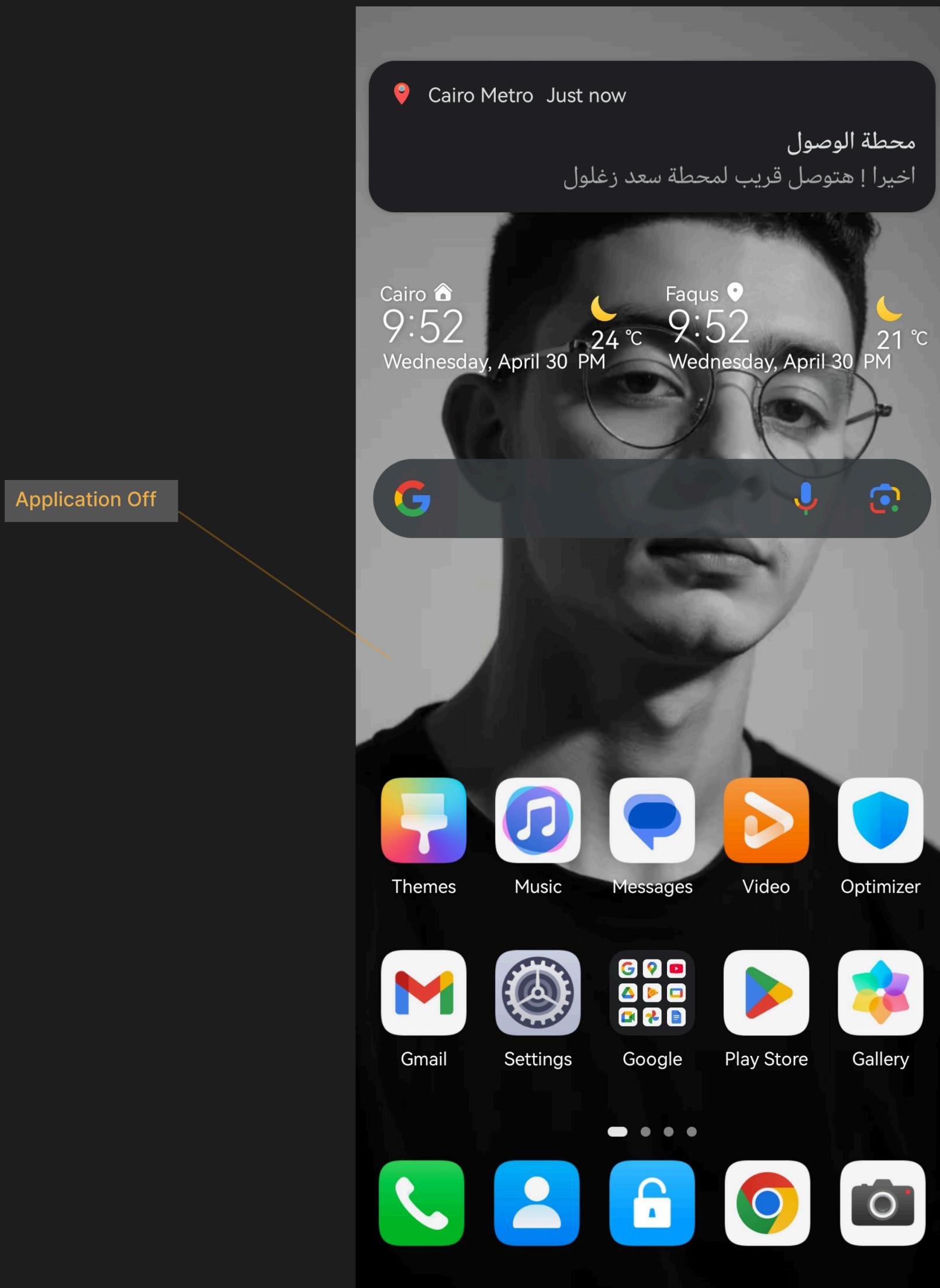


The current station color changes to orange so that the user clearly knows that he has reached it.

# Trip progress Screen

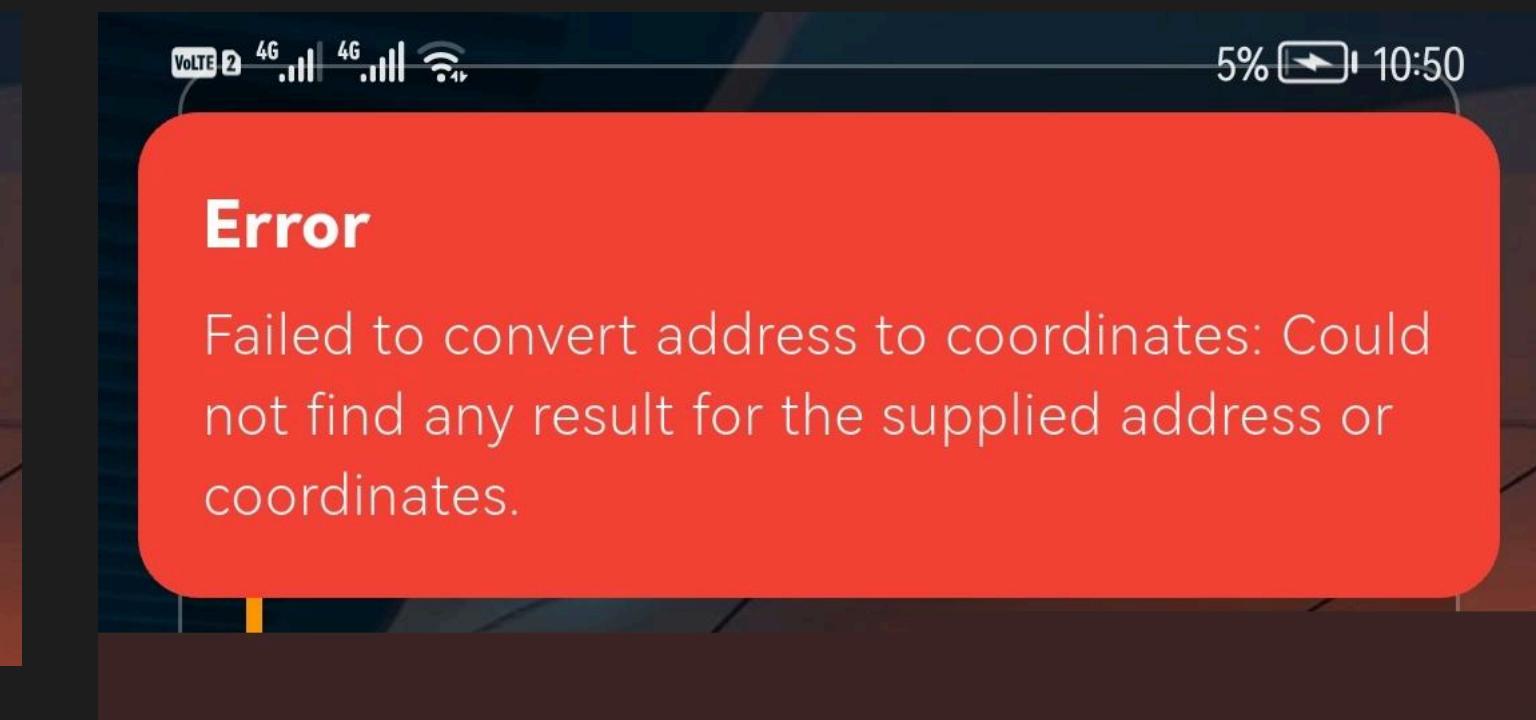
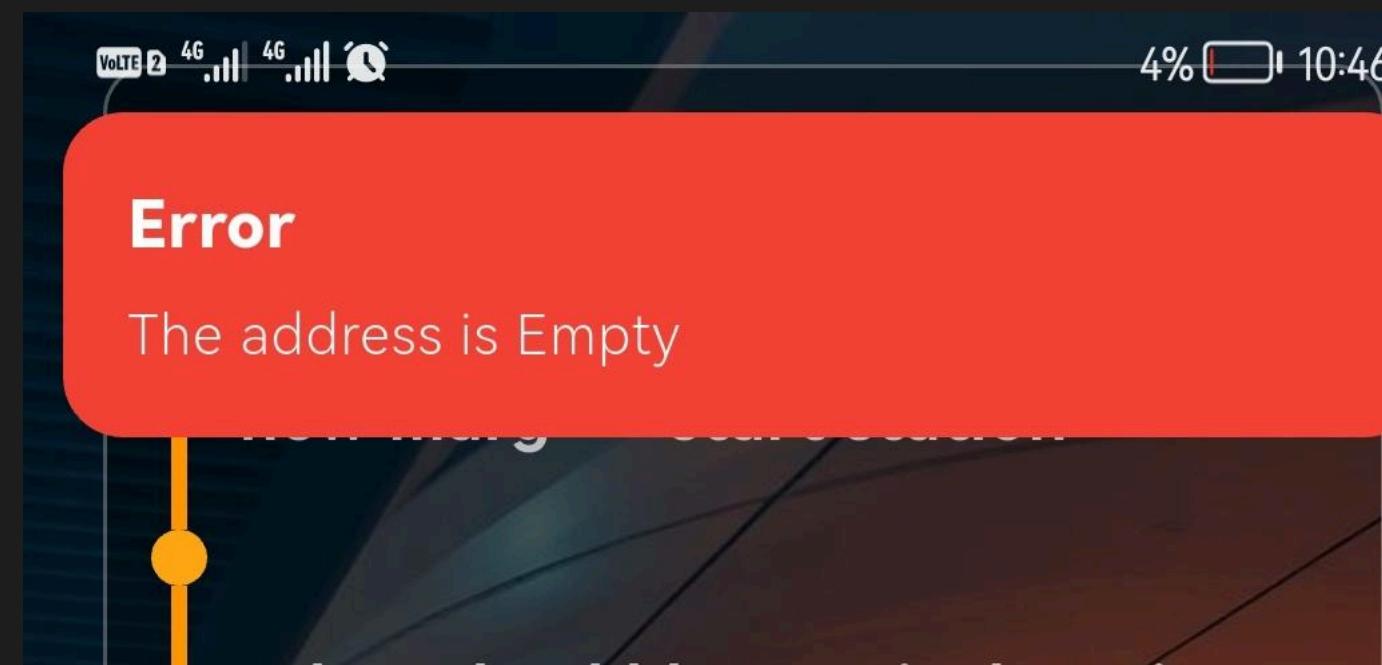
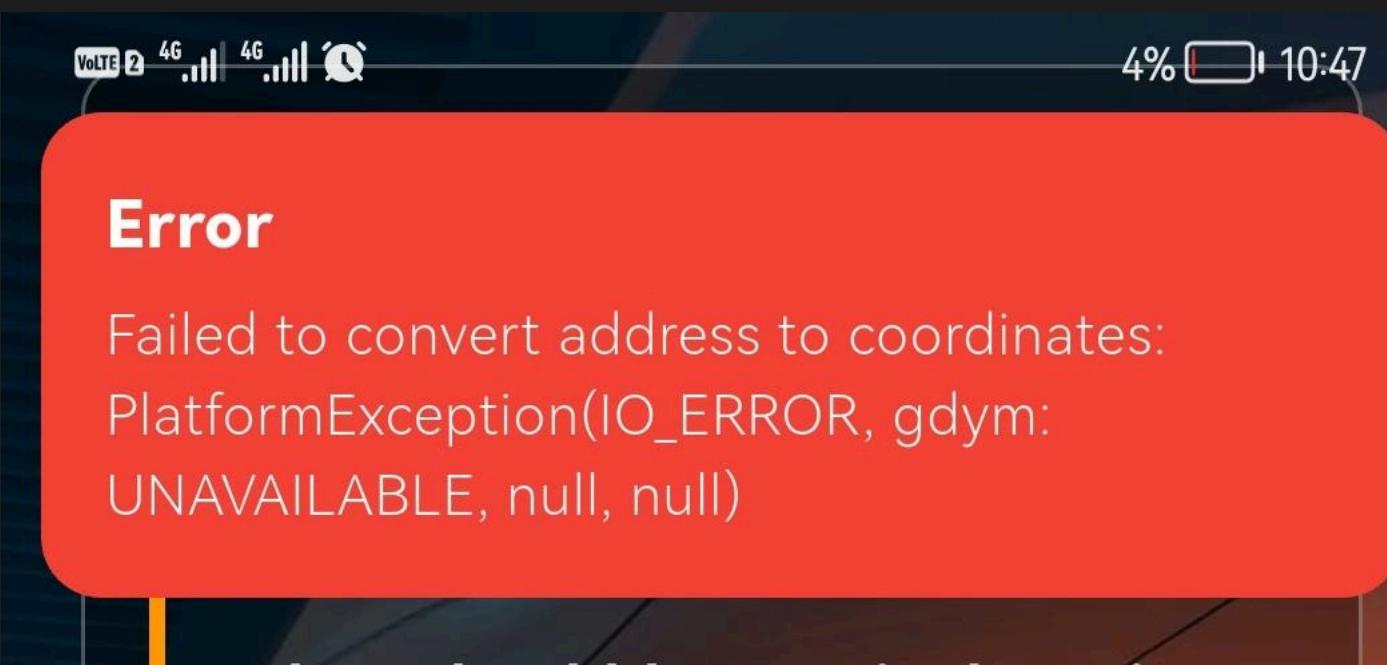
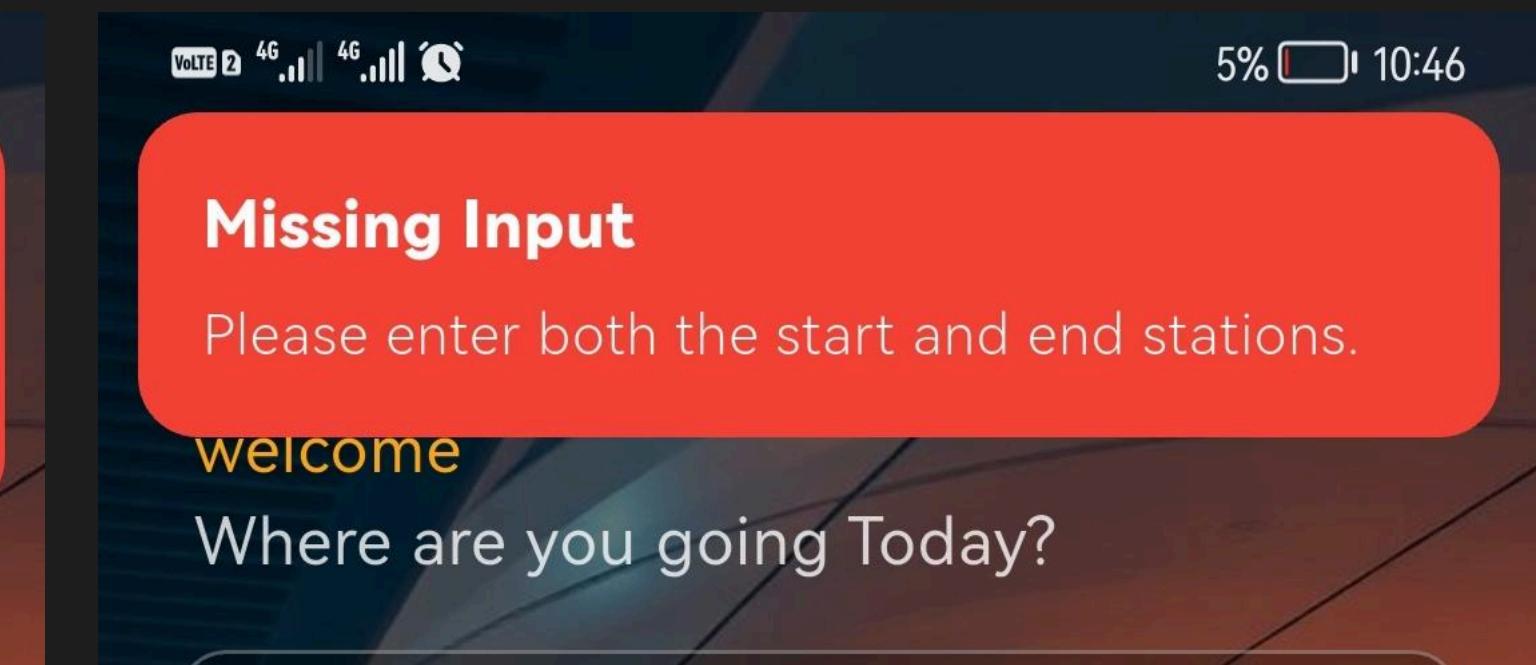
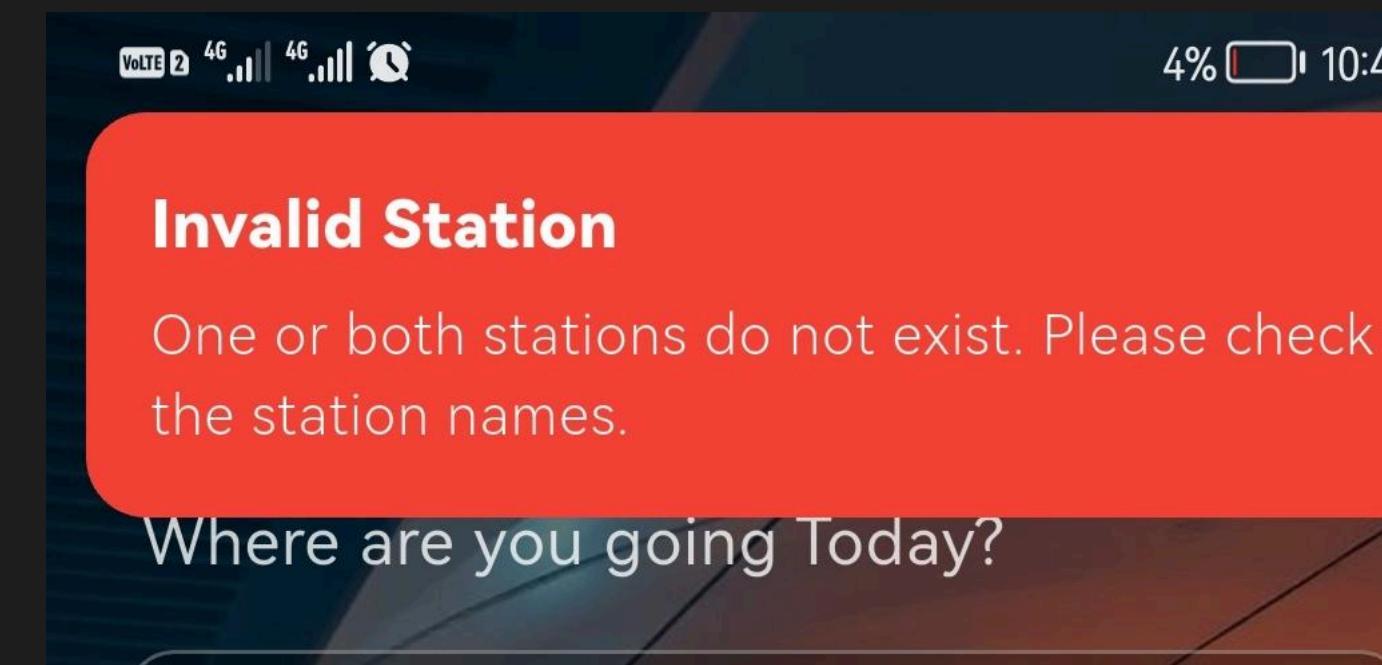
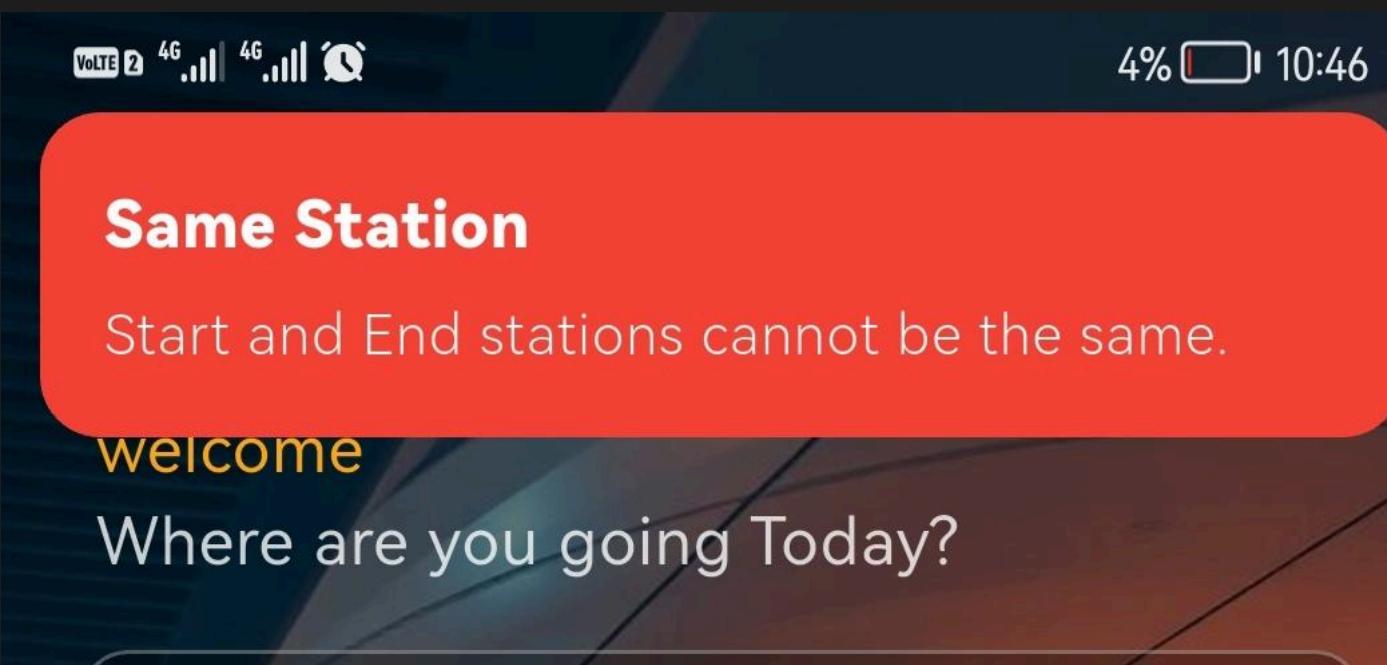


# Notifications

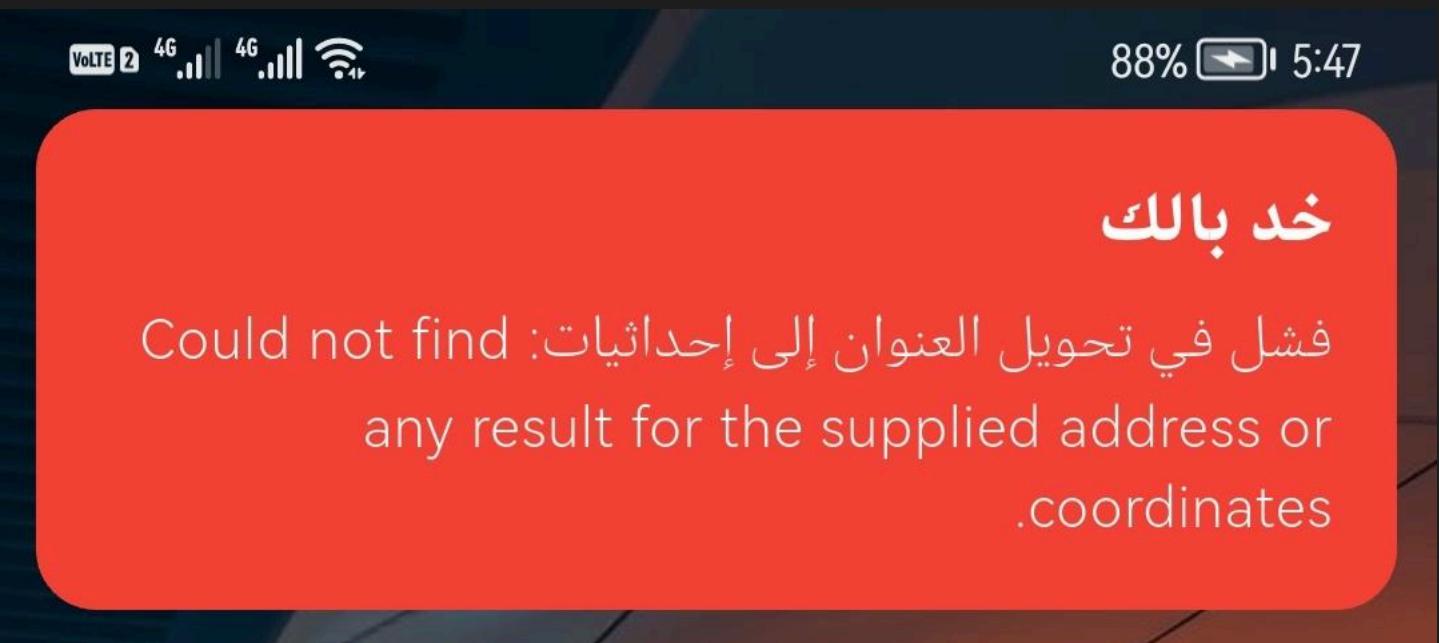
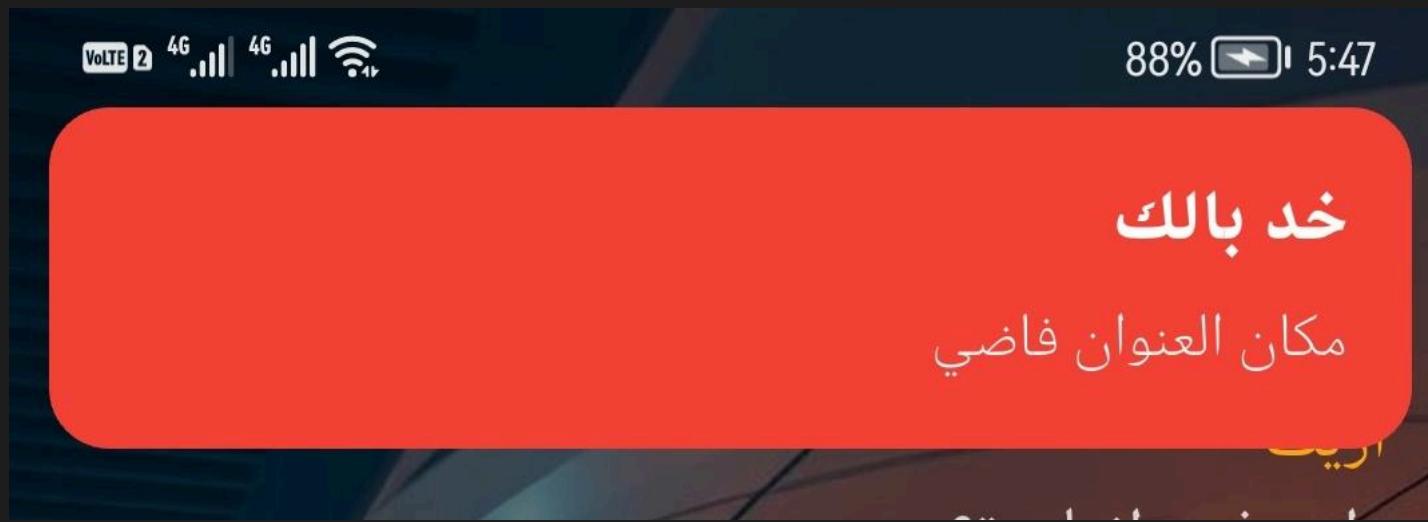


# Errors

**some clear error messages that help users to correct an invalid or missing information.**



# Errors



# **Future Work**

# summery

The Cairo Metro App enhances public transport efficiency through user-friendly features such as real-time tracking, multi-language support, and ticket pricing information. Its intuitive design allows users to navigate the metro system with ease, making it a vital tool for commuters in Cairo.

- 🚀 Integrate an in-app ticket payment feature, allowing users to purchase tickets directly within the app. Upon successful payment, the app will generate either a unique code or a QR code for easy access and verification.
- 🚀 Enable users to add multiple consecutive stations to customize their journey and view more accurate route suggestions.
- 🚀 Introduce a dark/light mode option and revamp the overall user interface to deliver a more modern and intuitive user experience.
- 🚀 Add a feature to select the operating country, so the app can be used beyond Egypt and easily adapted for other regions in the future.

**Thank you  
RAMD team**