How to use the MobilityPulse app?

A participant guide for the travel & time-use study

This guide explains how to set up the MobilityPulse app, how your trips are recorded, and what you need to do to review and complete your trip details. If anything looks different on your phone, the app may have been updated — the steps below still describe the general flow.

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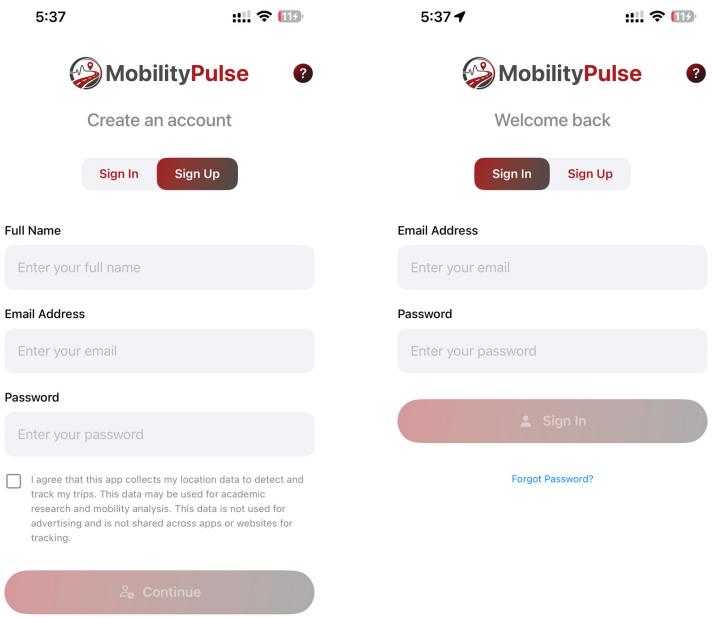
1. Creating your account

The first time you open MobilityPulse, you'll create an account or sign in. Tap the ? icon in the top corner at any time if you need help.

Sign up and sign in

On the Create an account screen, make sure Sign Up is selected, then:

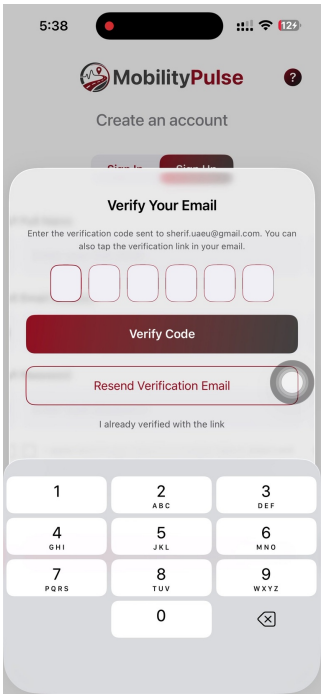
1. Enter your Full Name, Email Address and a Password.
2. Tick the consent checkbox to agree that the app collects your location data to detect and track your trips. Your data may be used for academic research and mobility analysis; it is not used for advertising and is not shared across apps or websites for tracking.
3. Tap Continue. If you already have an account, select Sign In, enter your email and password, and use Forgot Password? if you need to reset it.



Creating an account (left) and signing in (right)

Verify your email

After signing up, you'll receive a verification email. Either tap the link in the email, or enter the verification code on the Verify Your Email screen and tap Verify Code. If the email doesn't arrive, tap Resend Verification Email.



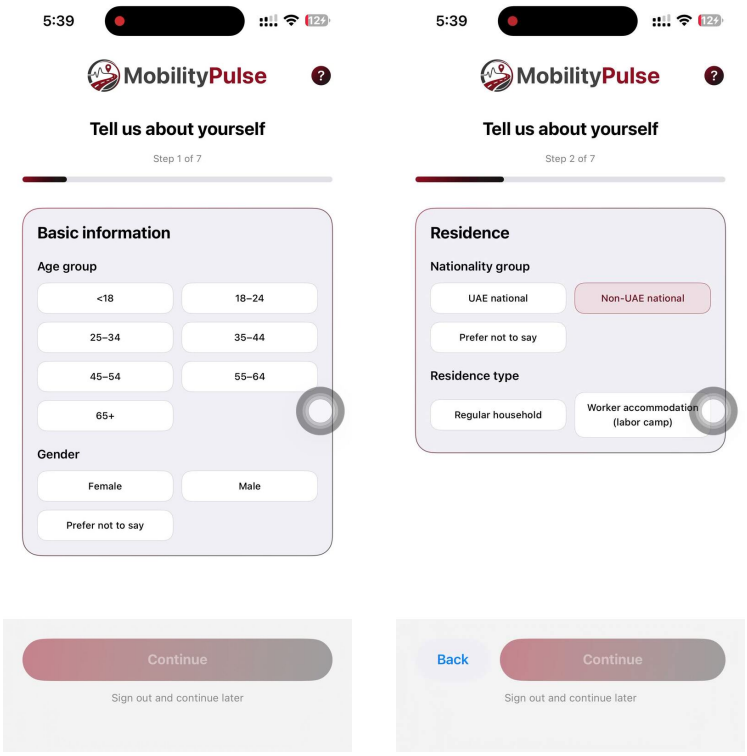
Verifying your email with a code or the emailed link

2. Tell us about yourself (demographics)

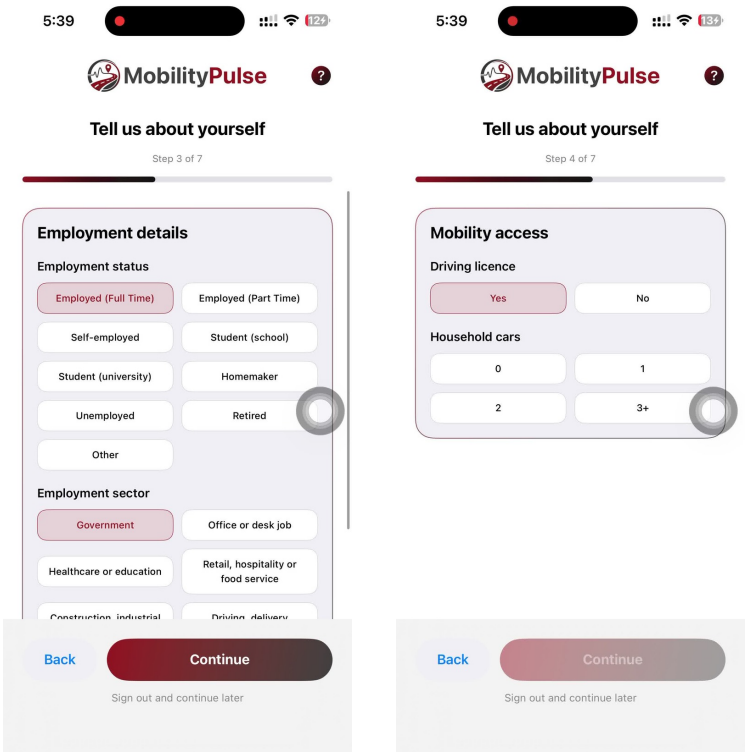
After verifying your email, you'll answer a short, one-time "Tell us about yourself" questionnaire. It has 7 steps, shown by the progress bar at the top. Your answers help the research team understand travel patterns across different groups. If you need to stop, tap "Sign out and continue later" — you can finish the remaining steps next time.

The 7 questionnaire steps

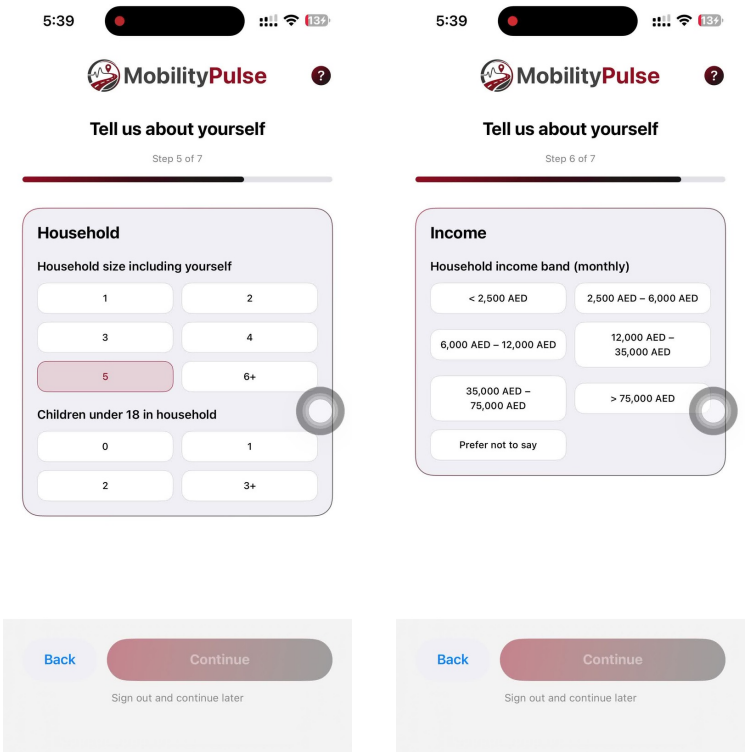
- Step 1 – Basic information: Age group (under 18 to 65+) and Gender (Female, Male, or Prefer not to say).
- Step 2 – Residence: Nationality group (UAE national / Non-UAE national) and residence type (Regular household, or Worker accommodation / labour camp).
- Step 3 – Employment: Employment status; and, if employed or self-employed, your employment sector.
- Step 4 – Mobility access: Whether you hold a driving licence, and how many cars your household has (0, 1, 2, 3+).
- Step 5 – Household: Household size including yourself (1 to 6+) and children under 18 (0, 1, 2, 3+).
- Step 6 – Income: Monthly household income band, from under 2,500 AED to over 75,000 AED.
- Step 7 – Remote work & online shopping: which days you work remotely and your usual hours, plus how often you shop online each week. Tap Finish to arrive at the Home screen.



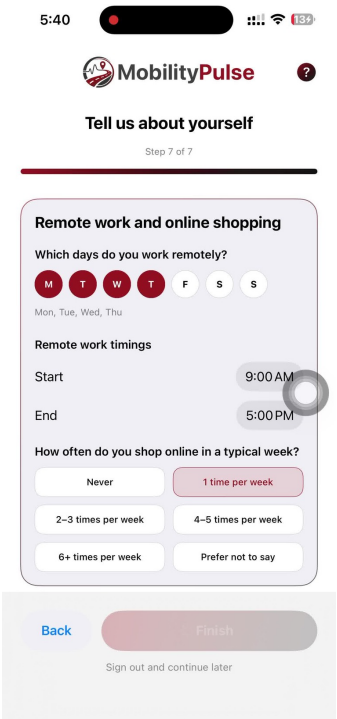
Step 1 – Basic information (left) and Step 2 – Residence (right)



Step 3 – Employment (left) and Step 4 – Mobility access (right)



Step 5 – Household (left) and Step 6 – Income (right)



Step 7 – Remote work and online shopping, with the Finish button

3. Navigating the MobilityPulse app

MobilityPulse runs quietly in the background and automatically records your trips. You interact with it mainly through the Home screen and the side menu.

The Home screen

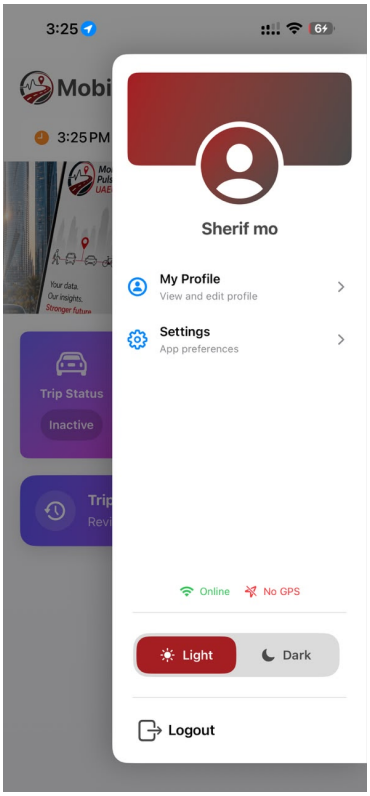
The Home screen shows the current date and time, a banner, and quick-action cards: Trip Status (Inactive, Detecting or Active), Trip Details (how many trips still need details — your Pending count — or “Completed”), Analytics, and Trip History.



The MobilityPulse Home screen

The side menu

Tap the menu icon (□) in the top corner of the Home screen to open the side menu. From here you can open My Profile, adjust Settings, switch between Light and Dark appearance, and Log out. The menu also shows your live connection status — Online / Offline — and whether GPS is currently available.

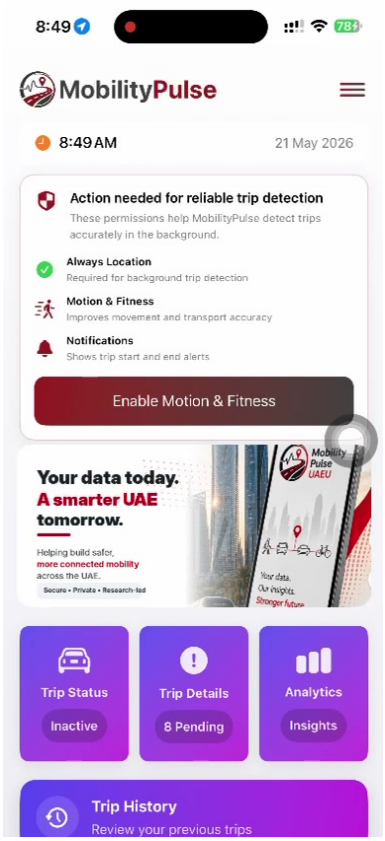


The side menu: profile, settings, connection status and logout

> **Tip** Keep an eye on the Online and GPS indicators. If you see “No GPS” for a long time, your trips may not be tracked correctly — see the Troubleshooting section at the end of this guide.

4. Setting up the app

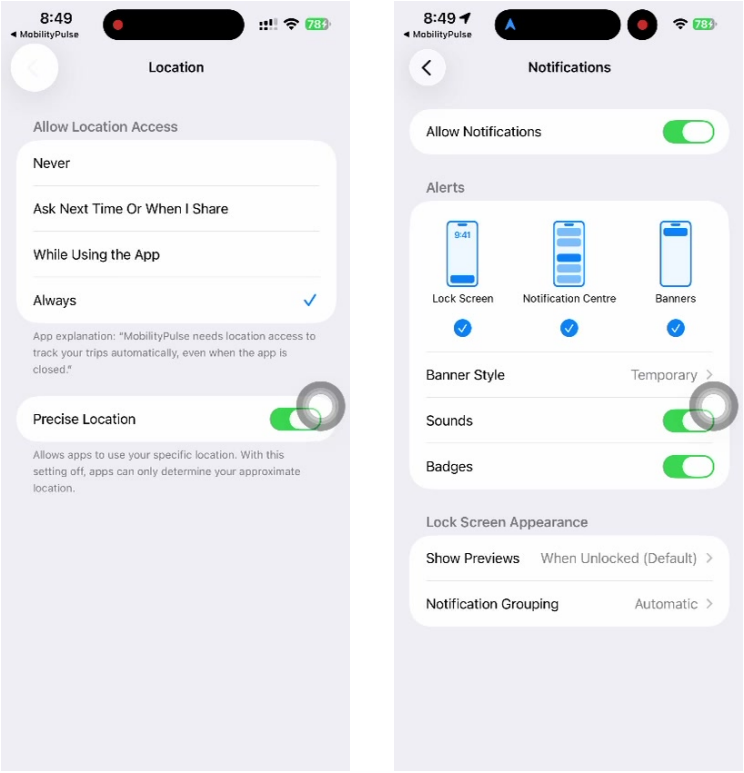
For MobilityPulse to detect your trips reliably, it needs a few permissions. When something important is missing, the Home screen shows a red “Action needed for reliable trip detection” banner with a button to grant the missing permission. Tap the button and follow the prompts.



The “Action needed” banner with the permissions checklist

Permissions to grant

1. Location – set to “Allow all the time” and “Precise”. This lets the app record your trips automatically, even when the app is closed.
2. Physical Activity. Improves movement and transport-mode accuracy (for example, telling walking from driving).
3. Notifications. Lets the app alert you when a trip starts and ends, and ask you to confirm detected trips.
4. Background activity. Allow background activity and exclude the app from battery optimisation so it keeps working in the background.



Setting Location to "Allow all the time" + "Precise" (left) and enabling Notifications (right)

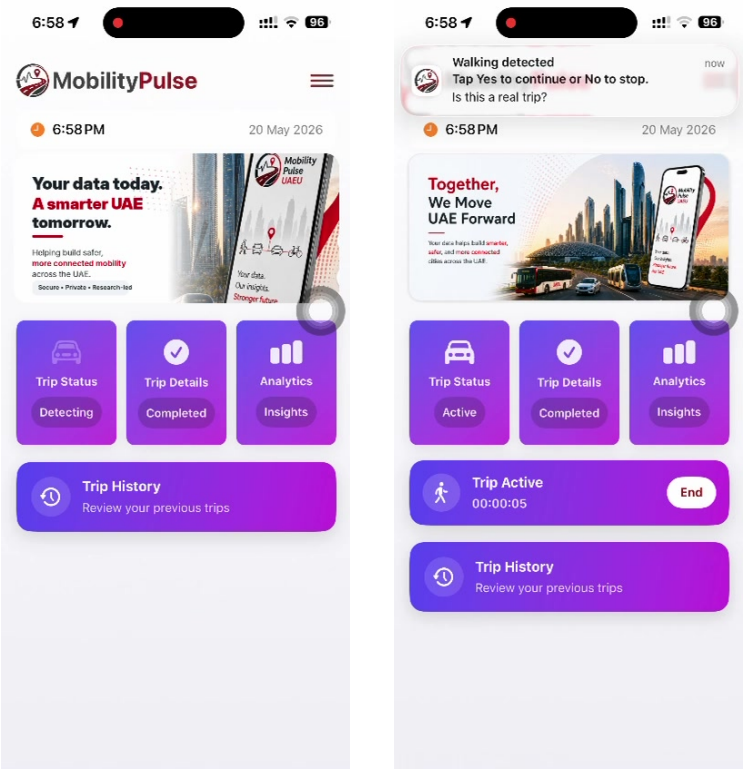
Important Make your first trip to activate tracking. After setup, simply head out on a short trip while your phone is connected to the internet. Once your first trip is recorded, MobilityPulse will keep tracking automatically. Carry your phone, keep it charged, and stay connected so your data uploads smoothly.

5. How your trips are recorded

MobilityPulse detects trips automatically using your phone's location and motion sensors. You don't normally need to start or stop anything — just carry your phone. The Trip Status card tells you what the app is doing.

Trip status: Inactive → Detecting → Active

- Inactive — you are stationary and no trip is in progress.
- Detecting / Confirming — the app has sensed movement and is checking whether a real trip has started.
- Active — a trip is being recorded. A live Trip Active banner appears with a running timer and an End button.



Trip Status moving from “Detecting” (left) to an “Active” trip with a live timer (right)

Confirming and ending a trip

When movement is detected, the app may send a notification such as “Walking detected – Is this a real trip?” Tap Yes to continue recording, or No to stop. A trip usually ends on its own once you’ve been stationary for a while; you can also tap End. You’ll then get a “Trip Completed” notification showing the distance and duration.



The “Trip Completed” notification with distance and duration

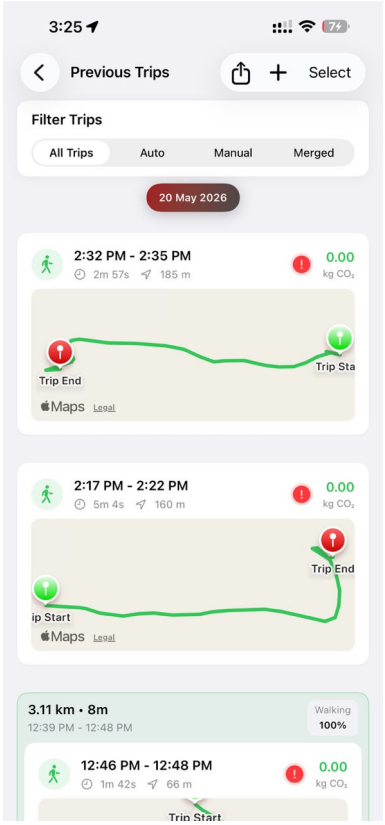
> **Note** It is normal for the app to occasionally miss a trip or record a short, unrealistic one. You can fix these later from Trip History — see Section 7.

6. Reviewing your trips (Trip History)

Tap Trip History on the Home screen to open Previous Trips. Here you’ll find every recorded trip, grouped by day, each shown as a card with a map of the route.

What a trip card shows

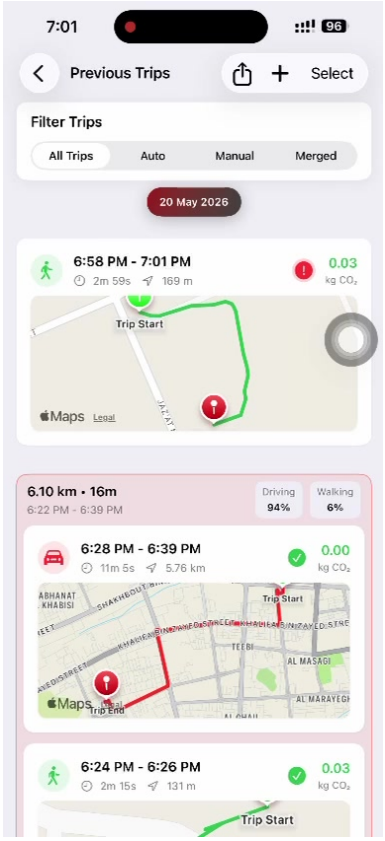
- Mode icon and time — e.g. a walking figure with “2:32 PM – 2:35 PM”.
- Duration and distance — e.g. “2m 57s · 185 m”.
- CO2 estimate — the carbon emissions for that trip (0.00 kg for walking or cycling).
- Route map — with green “Trip Start” and red “Trip End” markers.
- Status icon — a red “!” means details are still pending; a green check means complete.



The Previous Trips list with route maps, CO2 estimates and status icons

Filtering and merged trips

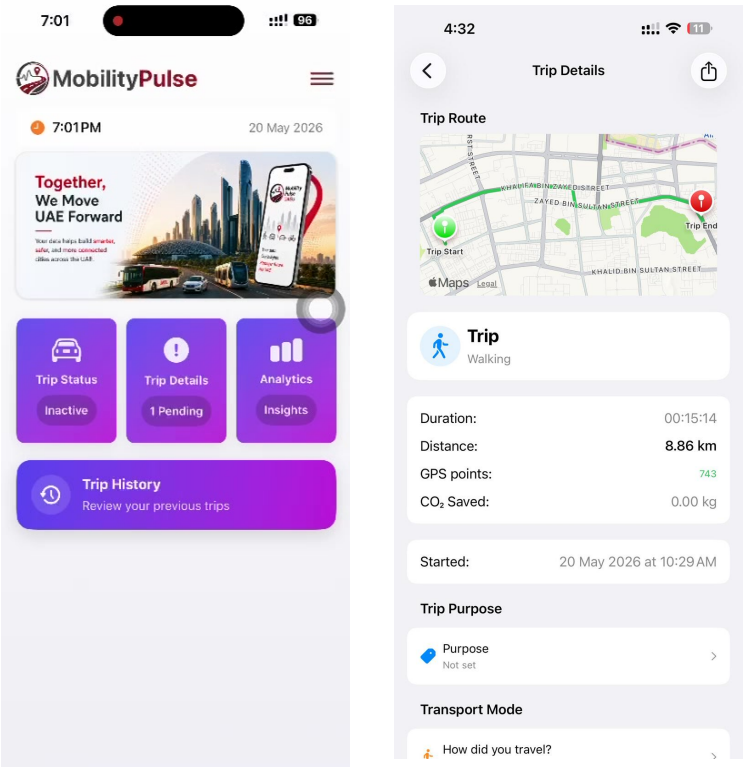
Use the filter bar at the top to show All Trips, Auto (automatically detected), Manual (trips you added or confirmed), or Merged trips. A merged trip groups several segments that belong to one journey — for example a trip that was 94% driving and 6% walking — and shows each leg with its own mode and map.



A merged journey broken into segments, each with its own mode share and route

7. What you need to do: complete your trip details

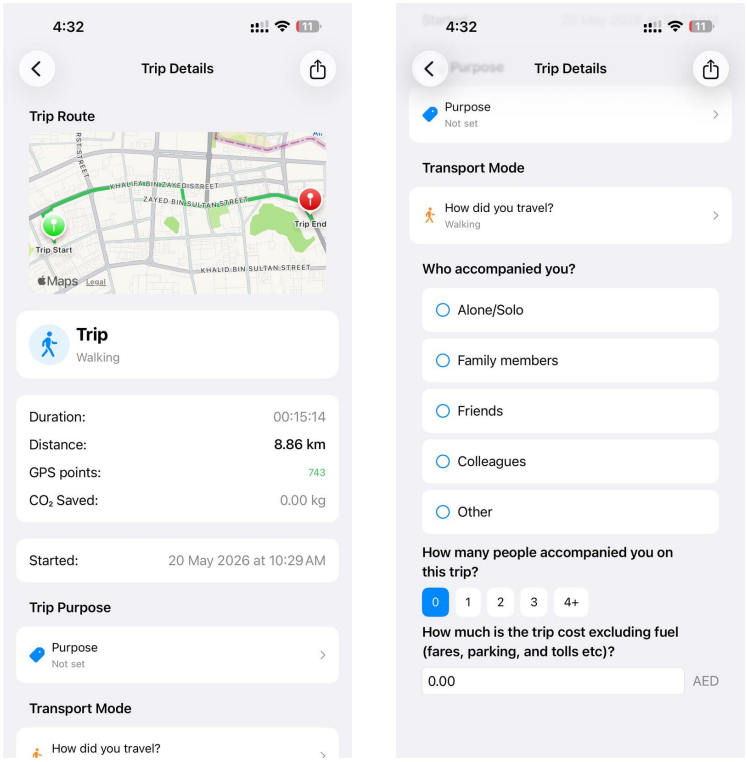
This is the main task for participants. For each recorded trip, you confirm how you travelled and why, plus a few extra details. The Home screen's Trip Details card shows how many trips are still Pending. Your goal is to bring this down to Completed.



The Trip Details card shows pending trips (left); open any trip to add its details (right)

Step by step

1. Open a pending trip. From Trip History, tap a trip with a red “!” (or tap the Trip Details card and pick a pending trip).
2. Confirm how you travelled under “How did you travel?” Choose the transport mode (see list below).
3. Choose the trip purpose — why you made the trip (see list below).
4. Say who travelled with you — alone, family, friends, colleagues or other — and how many people.
5. Add the trip cost excluding fuel (fares, parking, tolls) in AED, if any. For driving, choose the vehicle so the app can estimate CO2 accurately. Then tap Save.



The Trip Details screen: route, distance, duration and CO2 (left); below it you set the purpose, mode, who travelled with you and the cost (right)

Modes, purposes and companions

Transport modes: Car · Bus · Walk · Bike · Taxi / Ride-share · Micromobility (e-scooter) · Other.

Trip purposes: Work (to/from workplace); Work trip (meeting, site visit, delivery); School (primary or secondary); University / College; Shopping (retail and errands); Personal business / appointment (doctor, bank, government office); Social / leisure / recreation; Other.

Who accompanied you: Alone/Solo · Family members · Friends · Colleagues · Other — plus how many people travelled with you.

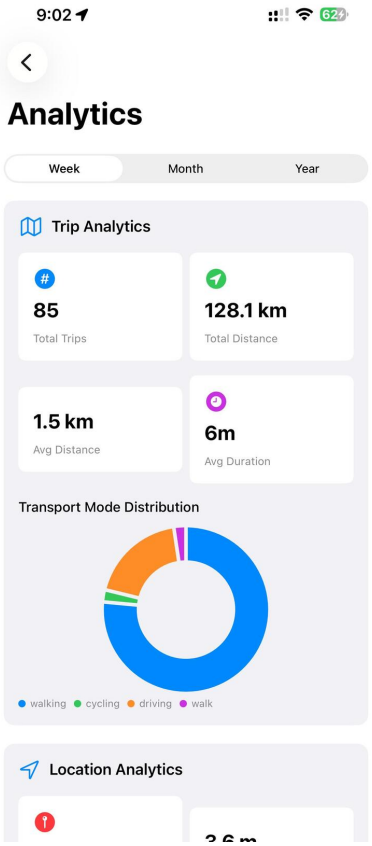
You can reopen any trip and change its mode, purpose, companions or cost at any time. If the app recorded a trip that isn't real, open it and mark it as Other / not a valid trip, or remove it, rather than leaving it pending.

> **Reminder** MobilityPulse will send you reminders for trips that still need details. Completing all of them is what successfully finishes your participation.

8. Analytics & environmental impact

The Analytics card gives you insights into how you travel and the impact of your trips. Use the Week / Month / Year toggle at the top to change the time period. It brings together Trip Analytics (Total Trips, Total Distance, averages and a Transport Mode Distribution chart), Location Analytics and Performance Analytics.

Your environmental impact — CO2 saved, distance travelled and trips completed — is also available from your profile's Impact quick action. Every trip you walk or cycle instead of driving helps reduce emissions.



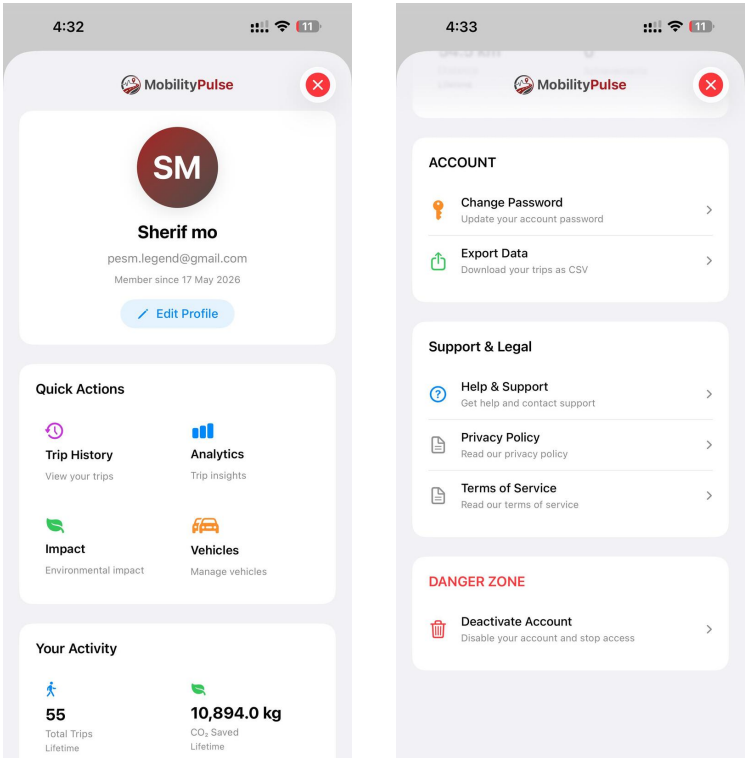
The Analytics screen, with trip totals and the Transport Mode Distribution chart

9. Profile & settings

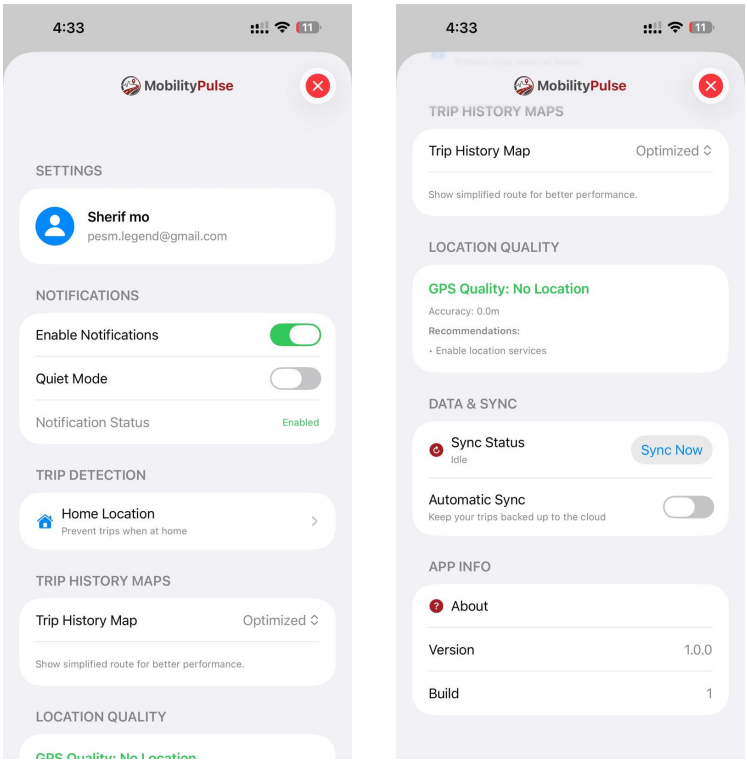
Open My Profile to manage your account. It shows your name and email, an Edit Profile button, Quick Actions (Trip History, Analytics, Impact and Vehicles) and Your Activity — your lifetime totals, such as total trips and total CO2 saved.

Account and Settings

From the Account screen you can Change Password, Export Data (download your trips as a CSV file), open Help & Support, Privacy Policy and Terms of Service, or Deactivate Account (Danger Zone). The Settings screen lets you fine-tune notifications and Quiet Mode, set your Home Location, choose Optimized Trip History Maps, check Location Quality, and manage Data & Sync (Sync Now / Automatic Sync).



My Profile with Quick Actions and lifetime activity (left); the Account screen (right)



The Settings screen: notifications, trip detection, maps, location quality and data sync

Home Location = privacy you control Set your Home Location and trips that start or end at home simply aren't recorded — an easy way to keep your home address private while still taking part. Researchers only ever see anonymised, aggregated patterns; your email and phone are never exposed to them.

10. Troubleshooting & help

- “No GPS” — make sure Location is set to Allow all the time + Precise, you are not in airplane mode, and you are not indoors with a weak signal for long periods.
- “Mobile Data is Turned Off” — the app needs internet to upload trips. Turn on mobile data or connect to Wi-Fi, then reopen the app.
- Trips not appearing — open the app while connected to the internet and wait a short while; recently finished trips can take a little time to process.
- Missing permissions — if the red “Action needed” banner appears, tap it and grant the requested permission (see Section 4).
- Signed out unexpectedly — your account is active on one device at a time; simply sign in again on the device you’re using.

Thank you for participating!

We appreciate your contribution to this travel and time-use study. We hope you find MobilityPulse easy to use and informative. For any assistance, contact the study team at mobilitypulse@uaeu.ac.ae — United Arab Emirates University, Al Ain, UAE.