



"Hey Google, show me the direction to Jalan Kuchai Lama."



"Calling Uncle Lim"



Hi, how can I help?



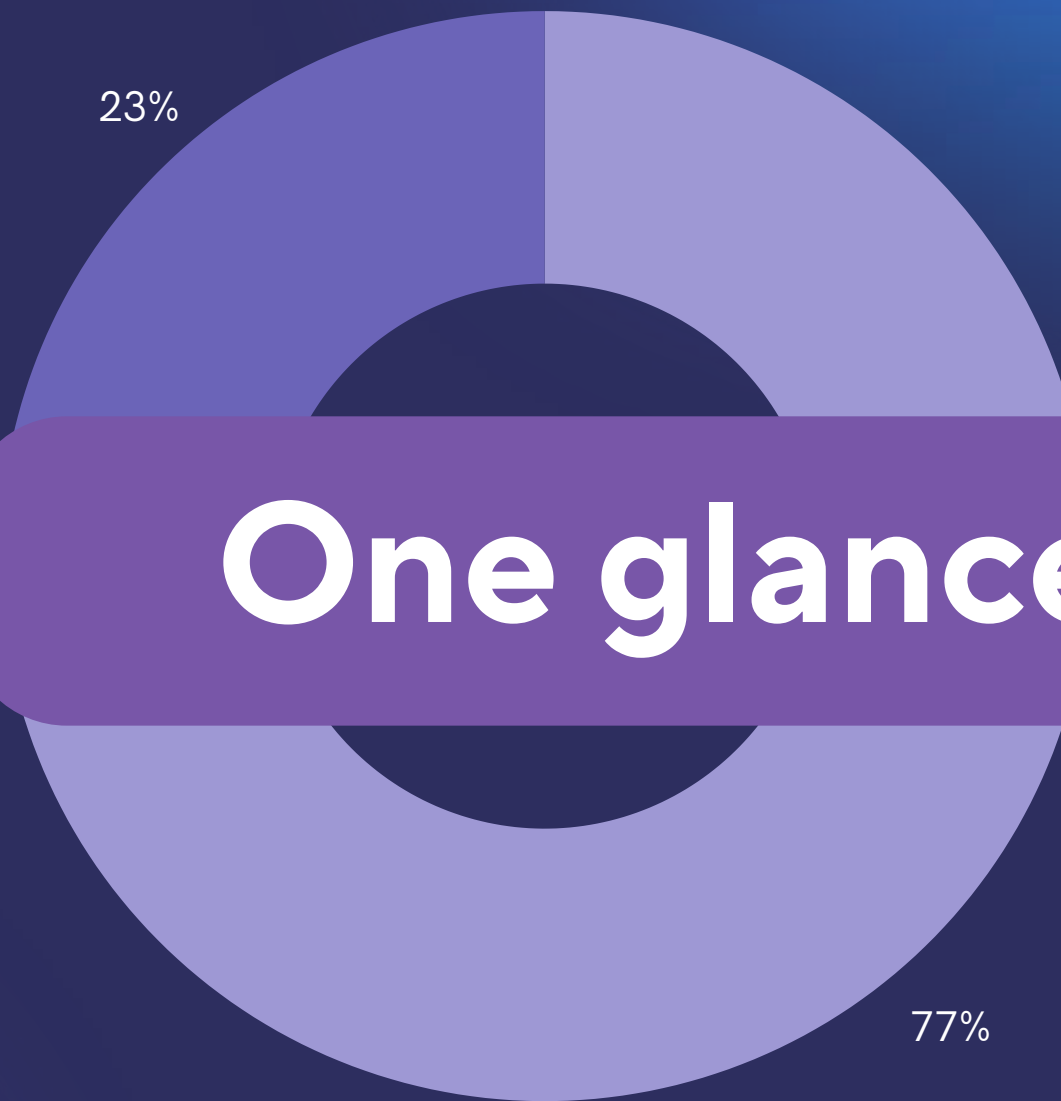
TALK TO TASK

TEAM 405 FOUND



Why this Matters?

23%



Risk of road accident

Distracted Driving
25%



Others
75%

Factors of road accident

One glance can mean one life

Problem

Gaps in current AI Assistants

01

Text Input &
Screen Reading



02

Poor
understanding
of local speech

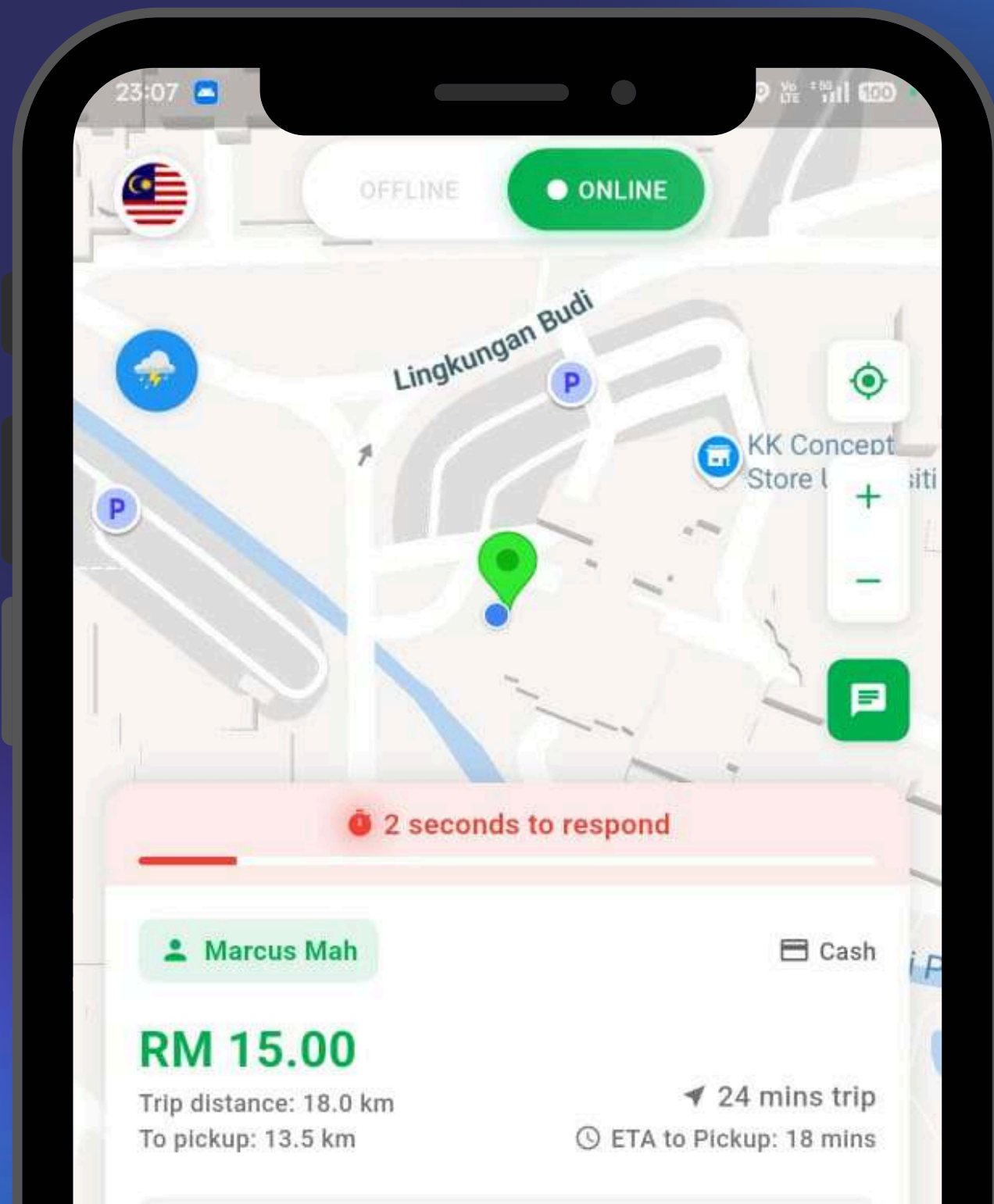


03

Harsh
Environments



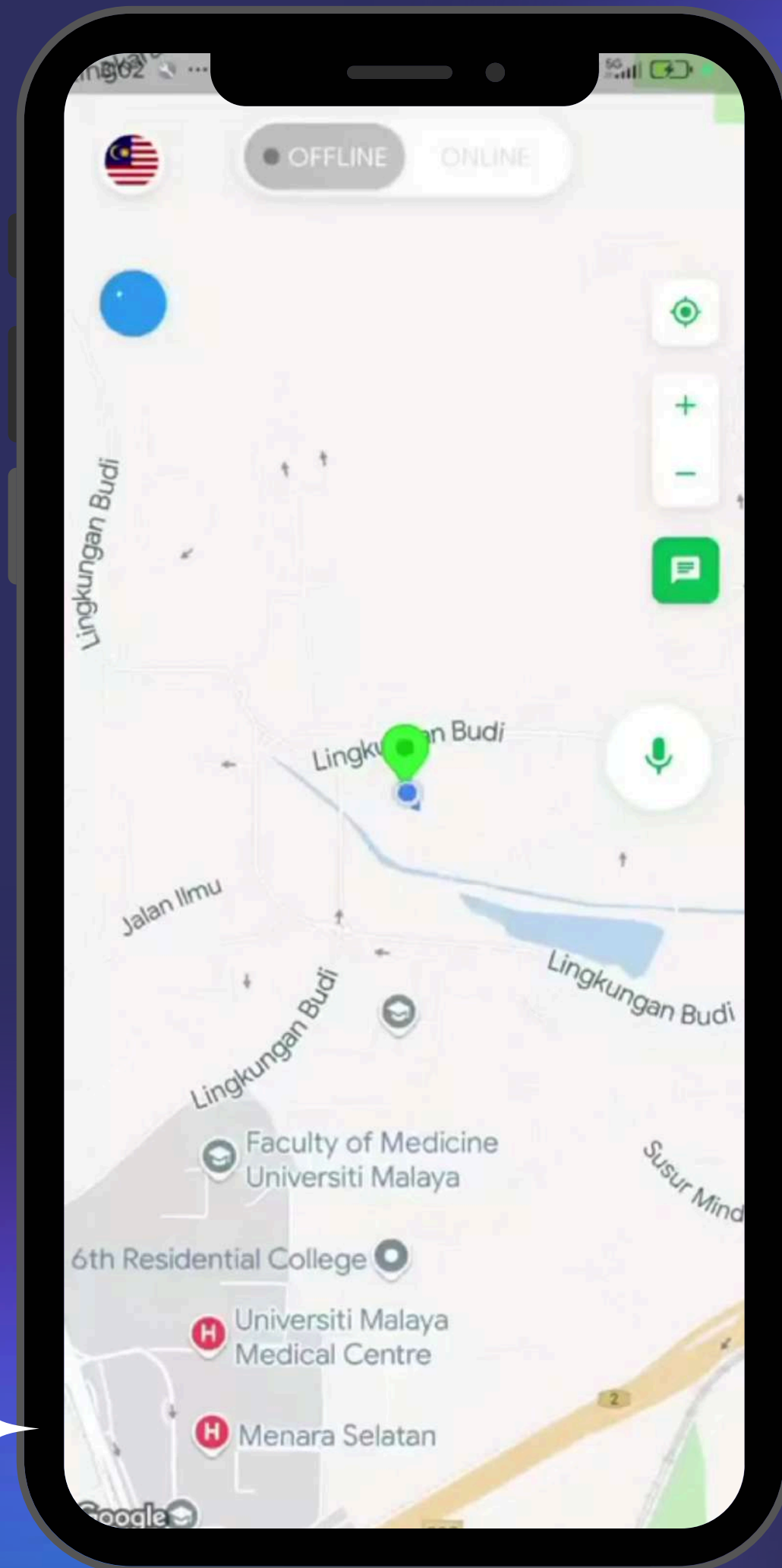
Our Solution



Listens in chaos

Understands how we speak

Replies out loud



CHALLENGE 1:

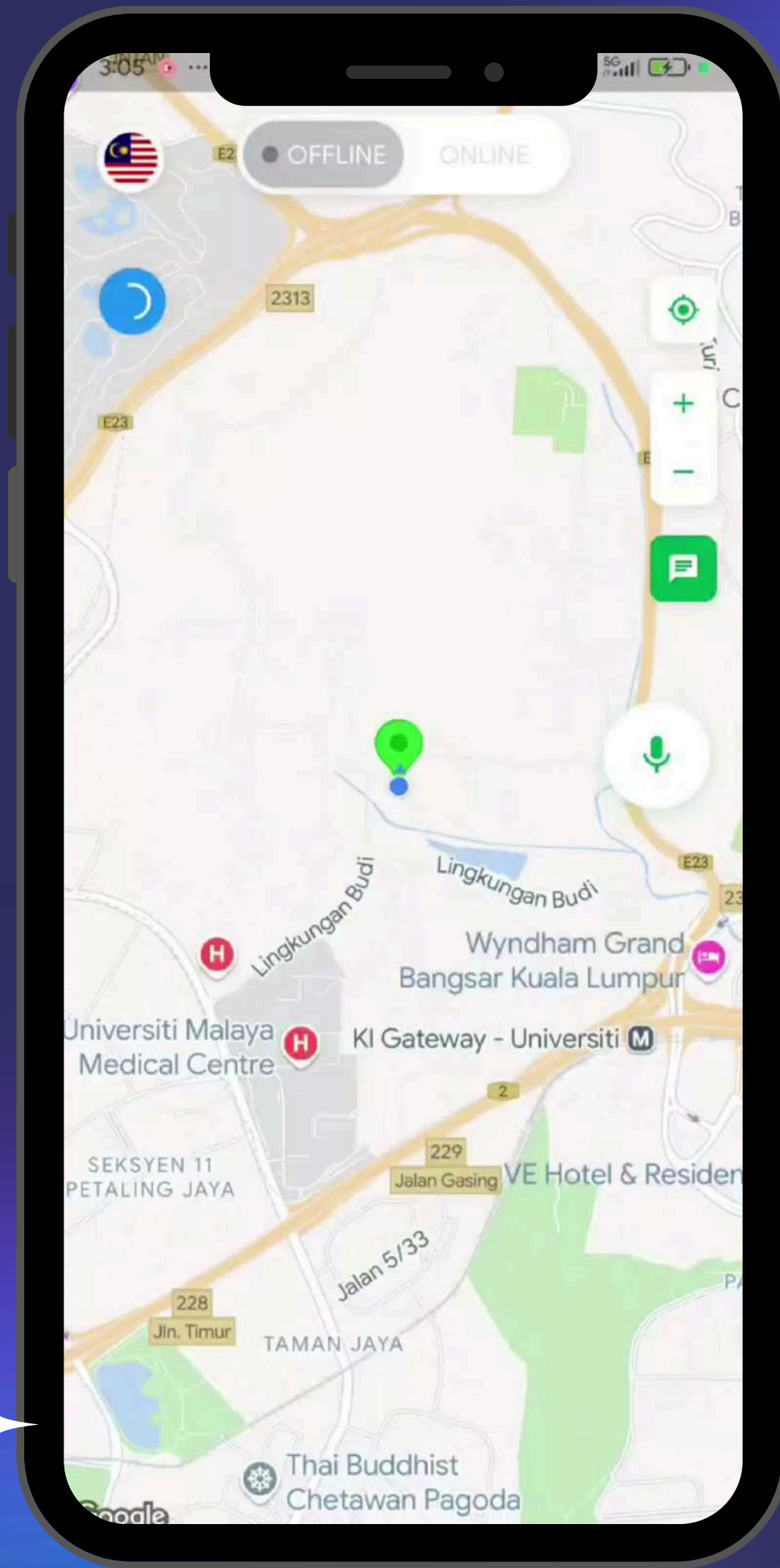
Harsh Environments

01 Heavy Traffic conditions (80–90db)

02 Rain and wind conditions

03 Urban environment sounds

04 Engine noise at various RPMs



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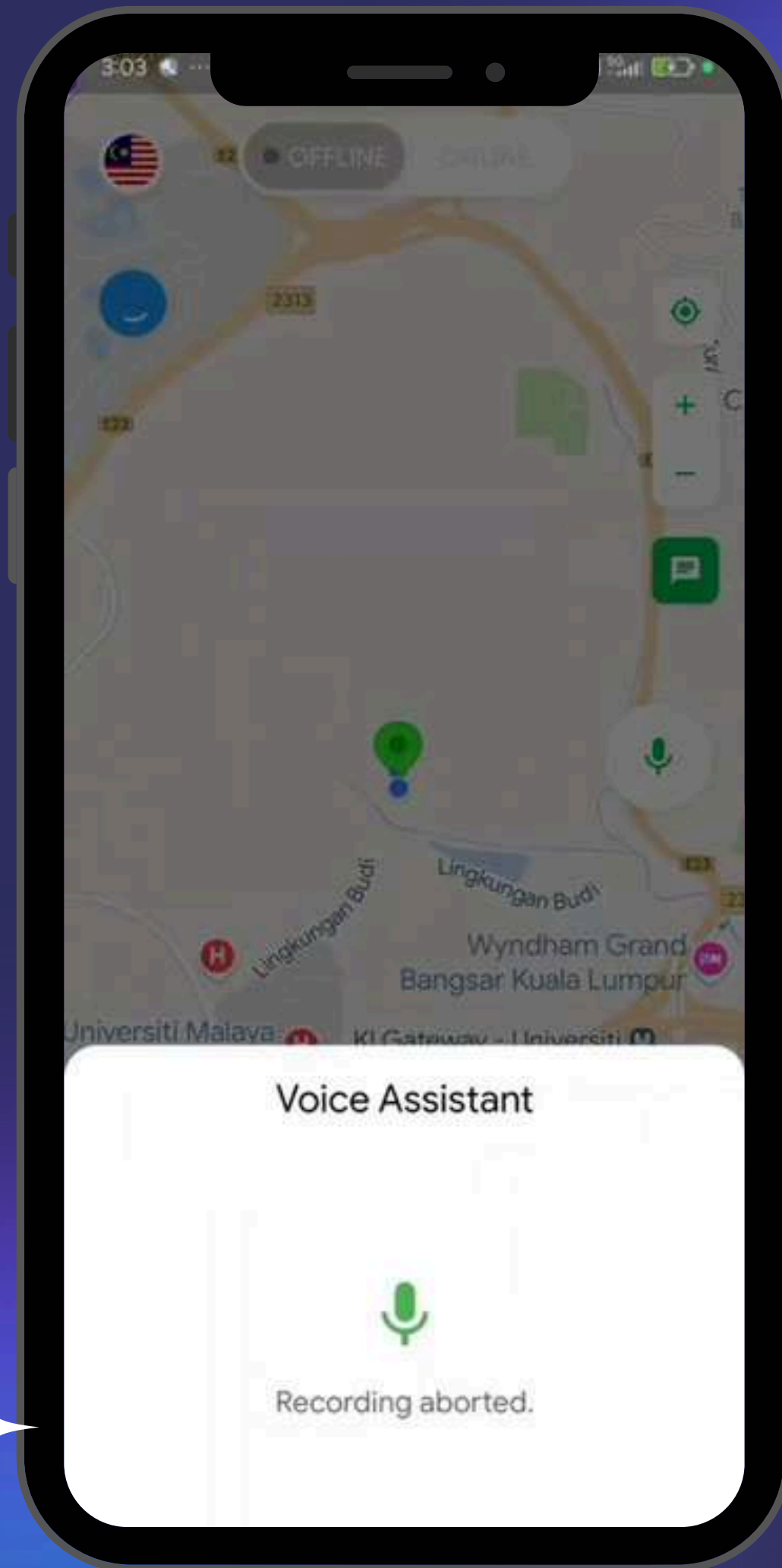
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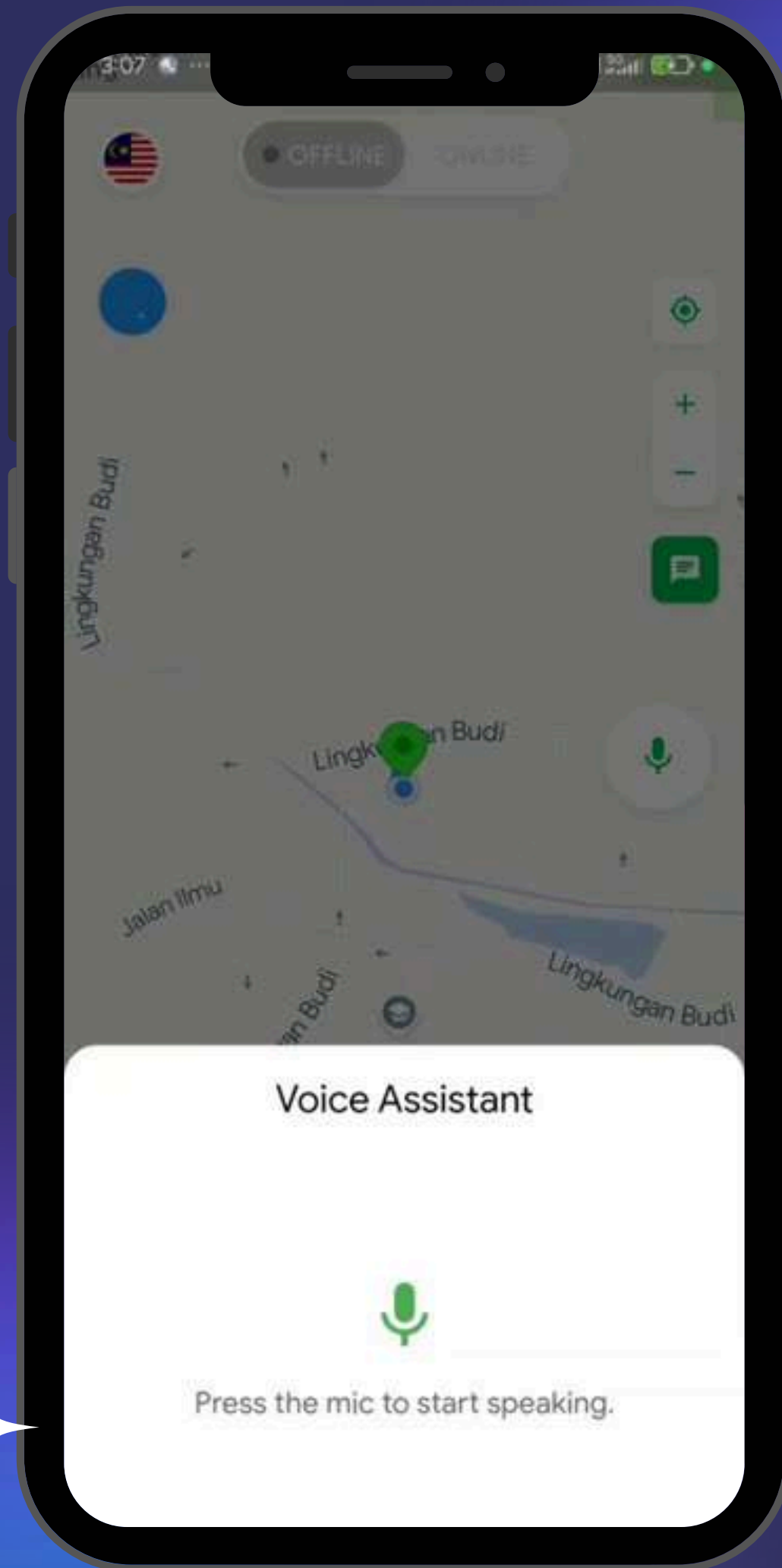
Harsh Environments

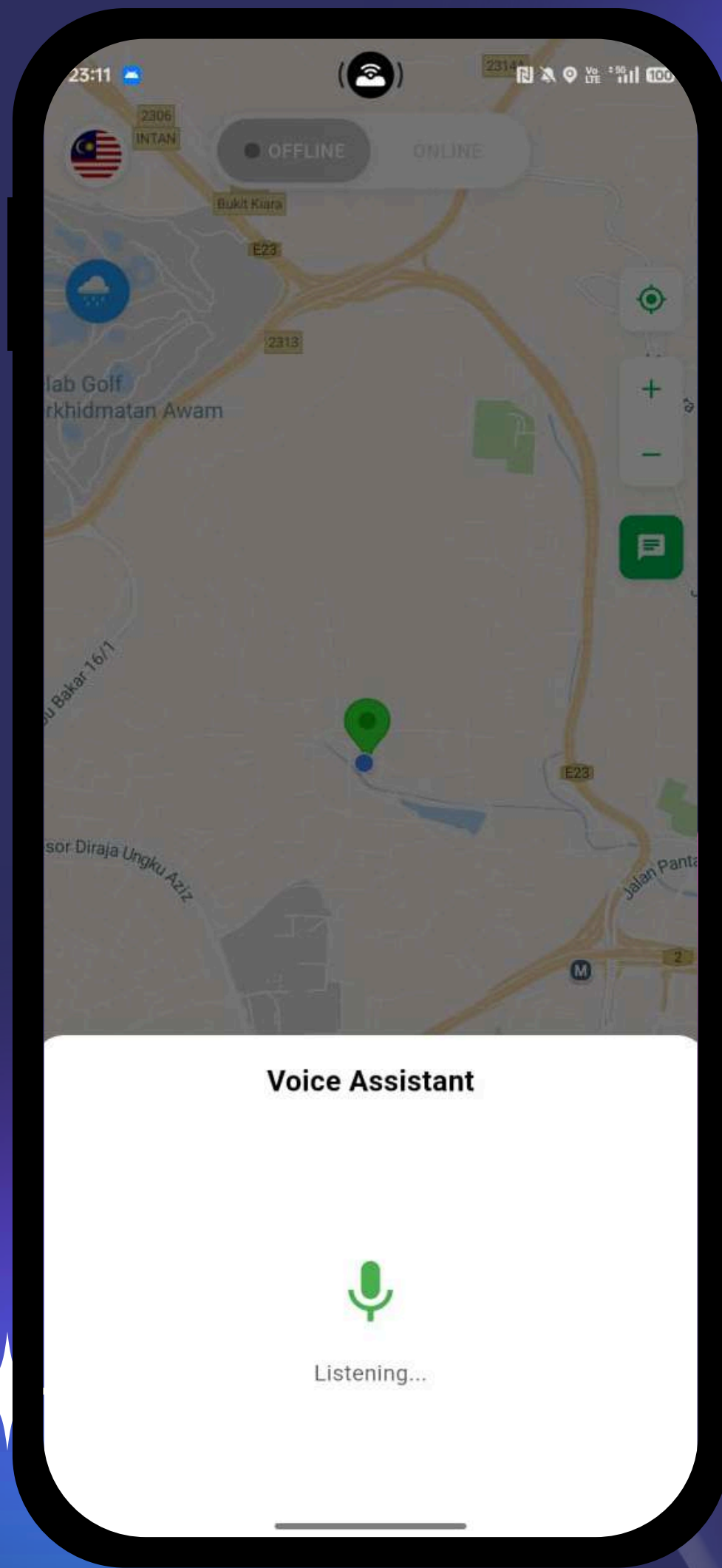
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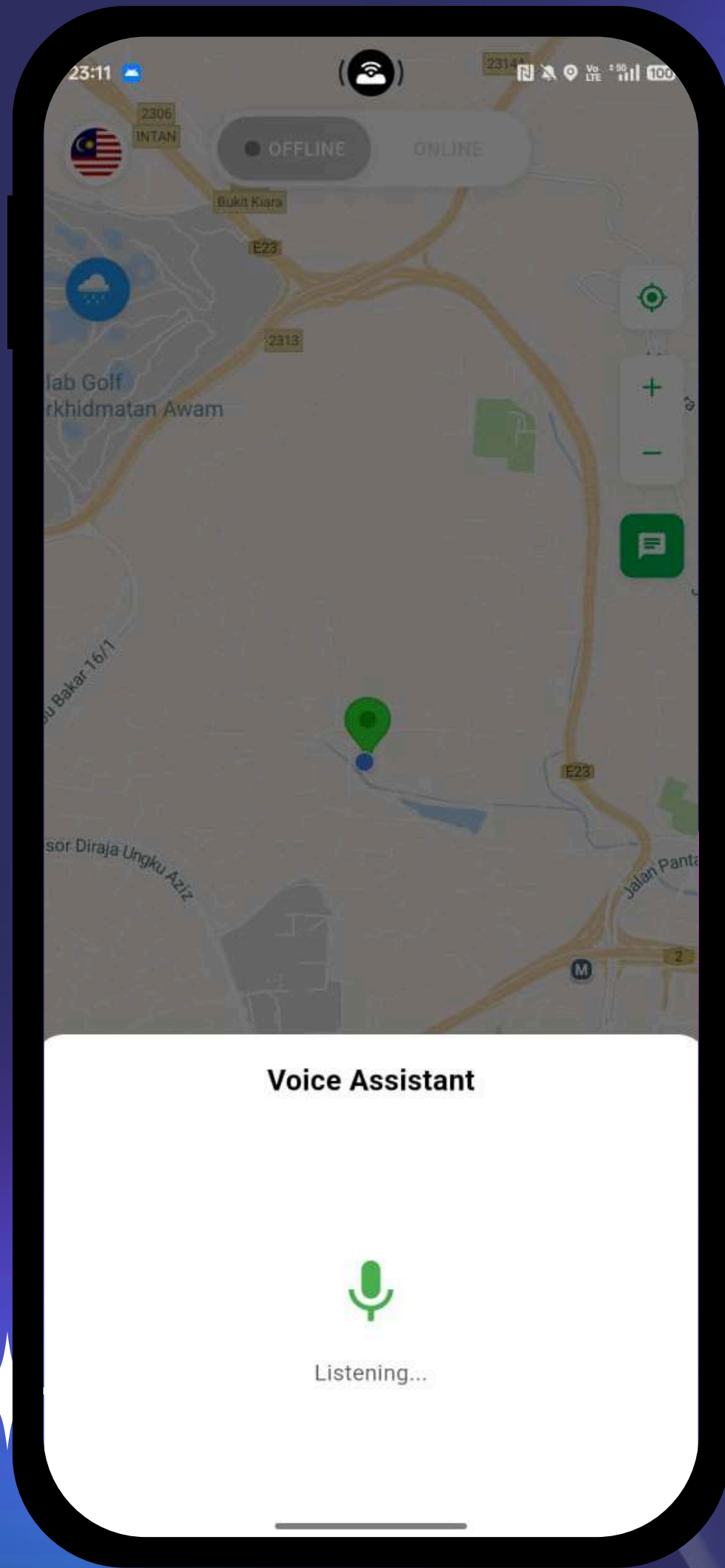
Harsh Environments



69%
Loudness
Reduction
Effectiveness

99%

STOI Score



CHALLENGE 1:

Harsh Environments



69%

Loudness
Reduction
Effectiveness

99%

STOI Score

CHALLENGE 2:

Dialect and accent recognition

我哋去食啦

Let's go eat lah

Jom gi makan

சாப்பிட
போகலாம்



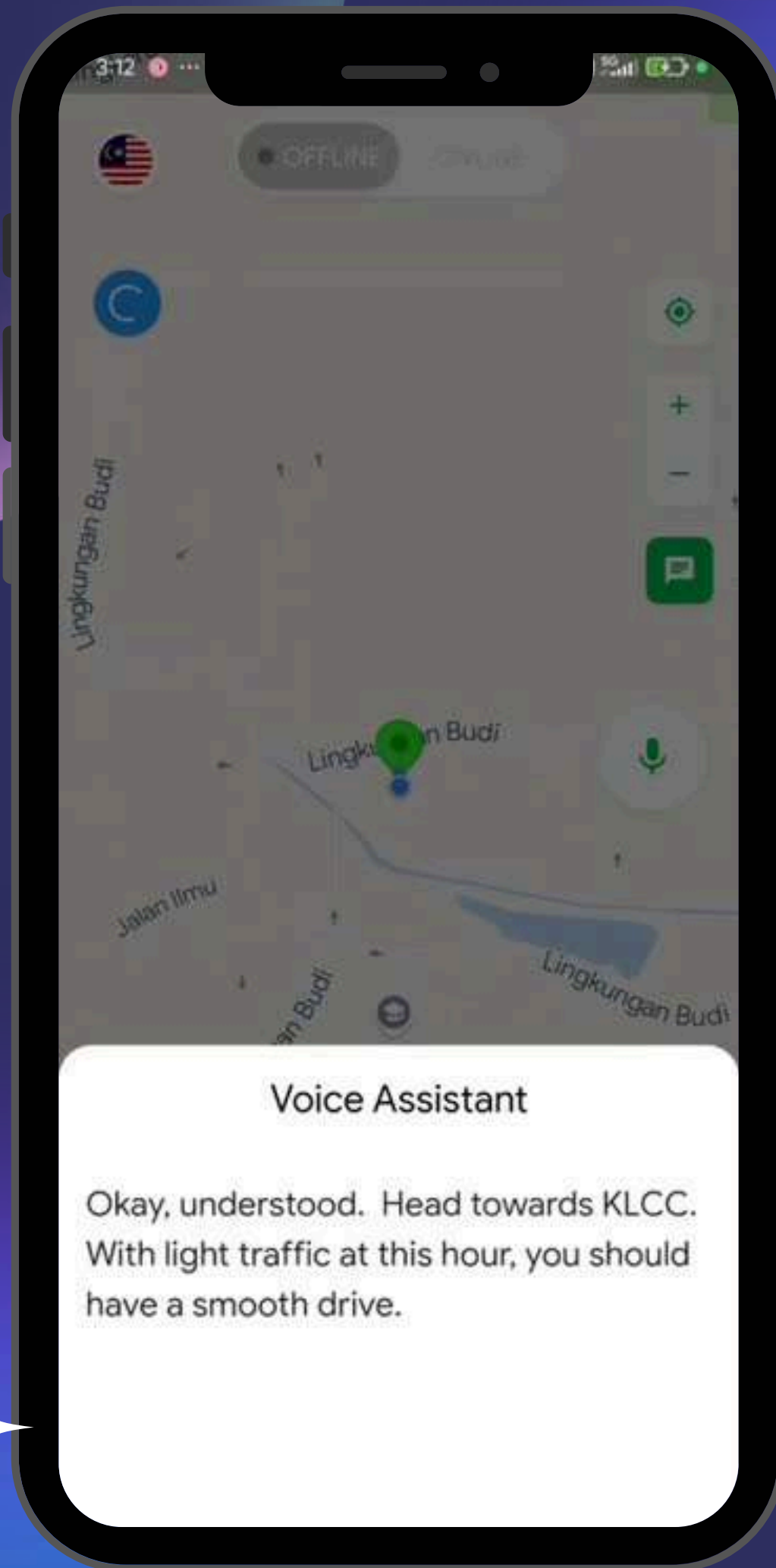
CHALLENGE 2:

Dialect and accent recognition

“我要去KLCC。”

Translation : “I want to go KLCC.”

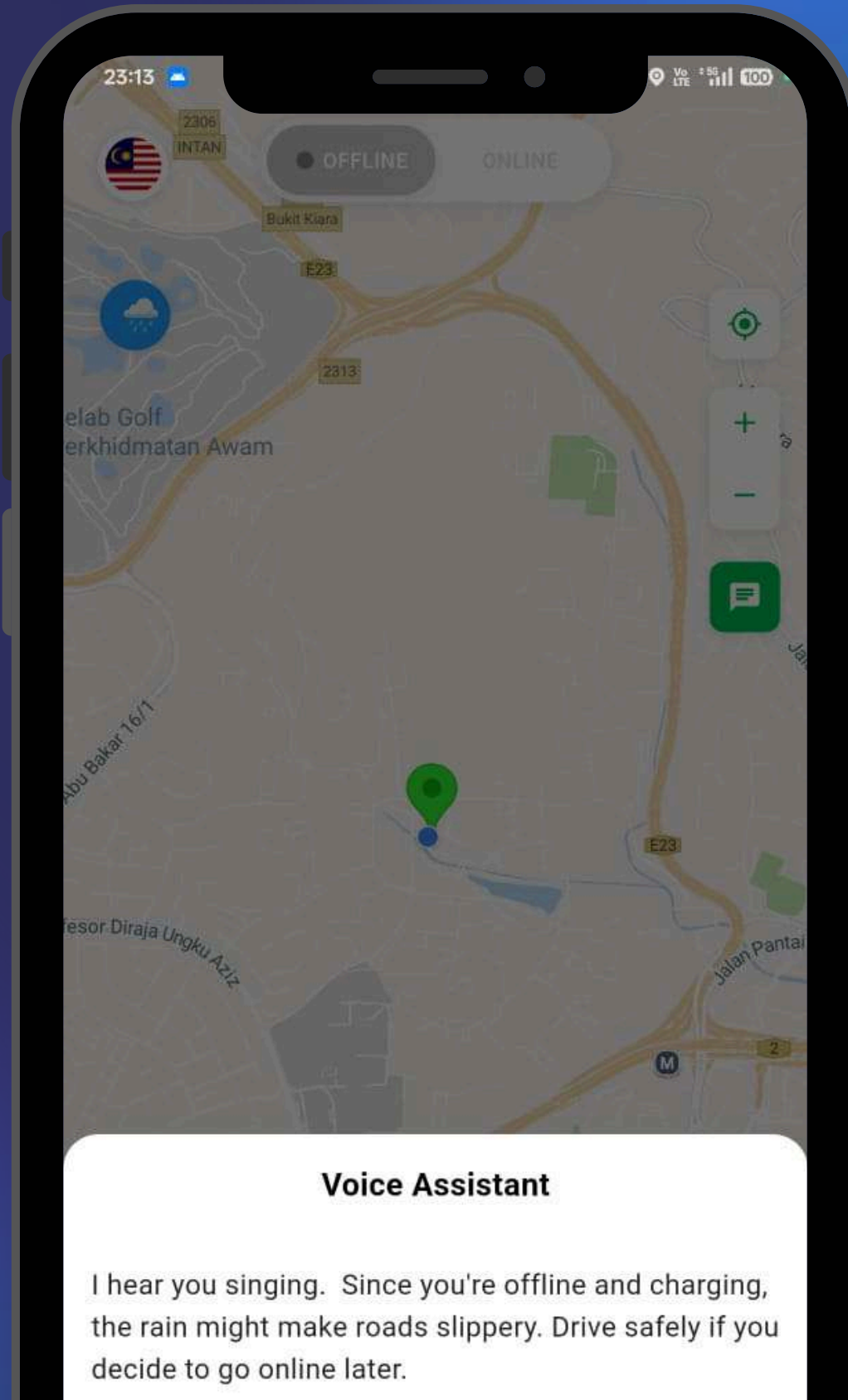
Cantonese → English



CHALLENGE 2:

Dialect and accent recognition

our App



Can understand

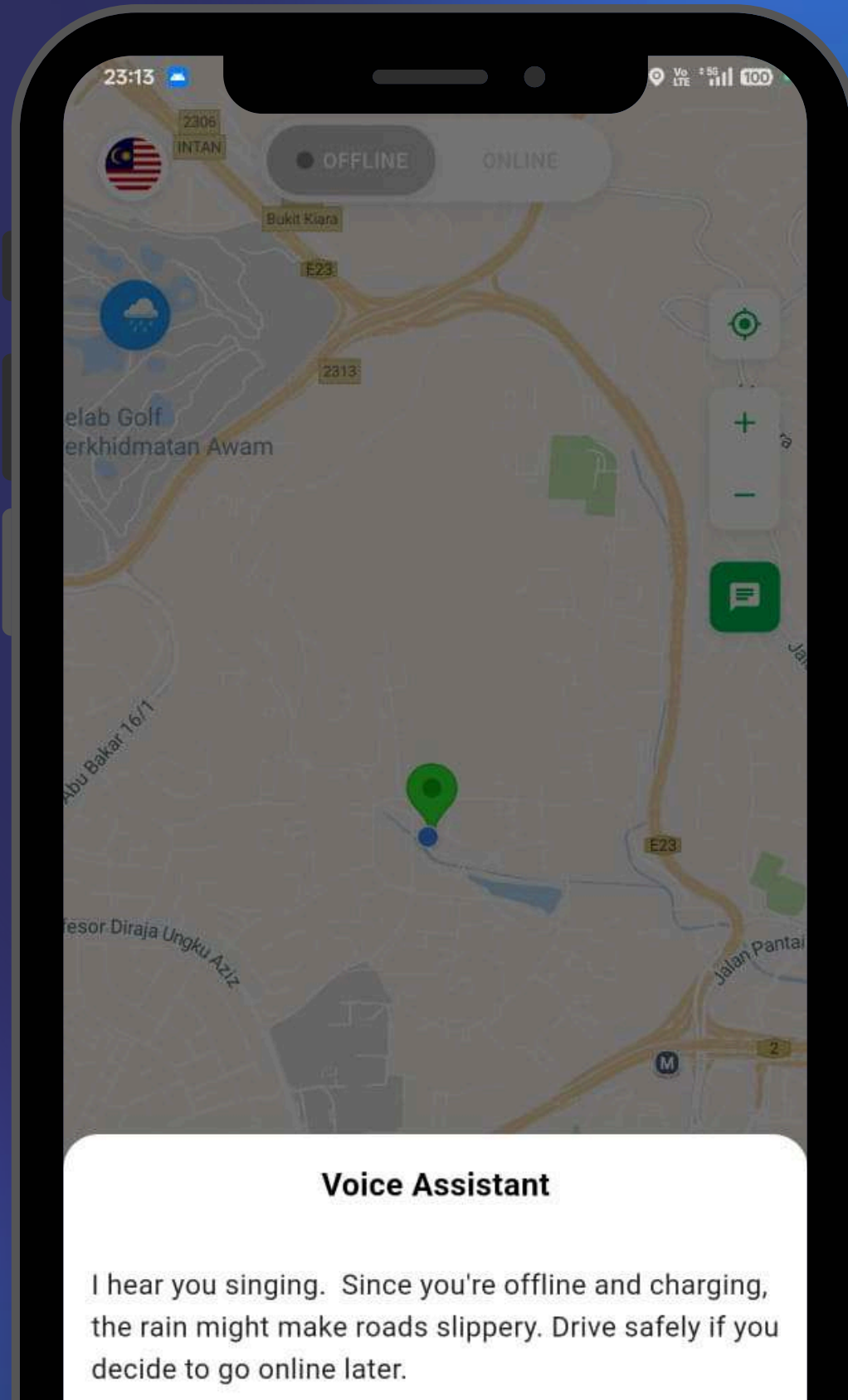
Dialects: Cantonese & Hokkian

Mixed language sentences &
Regional accents

CHALLENGE 2:

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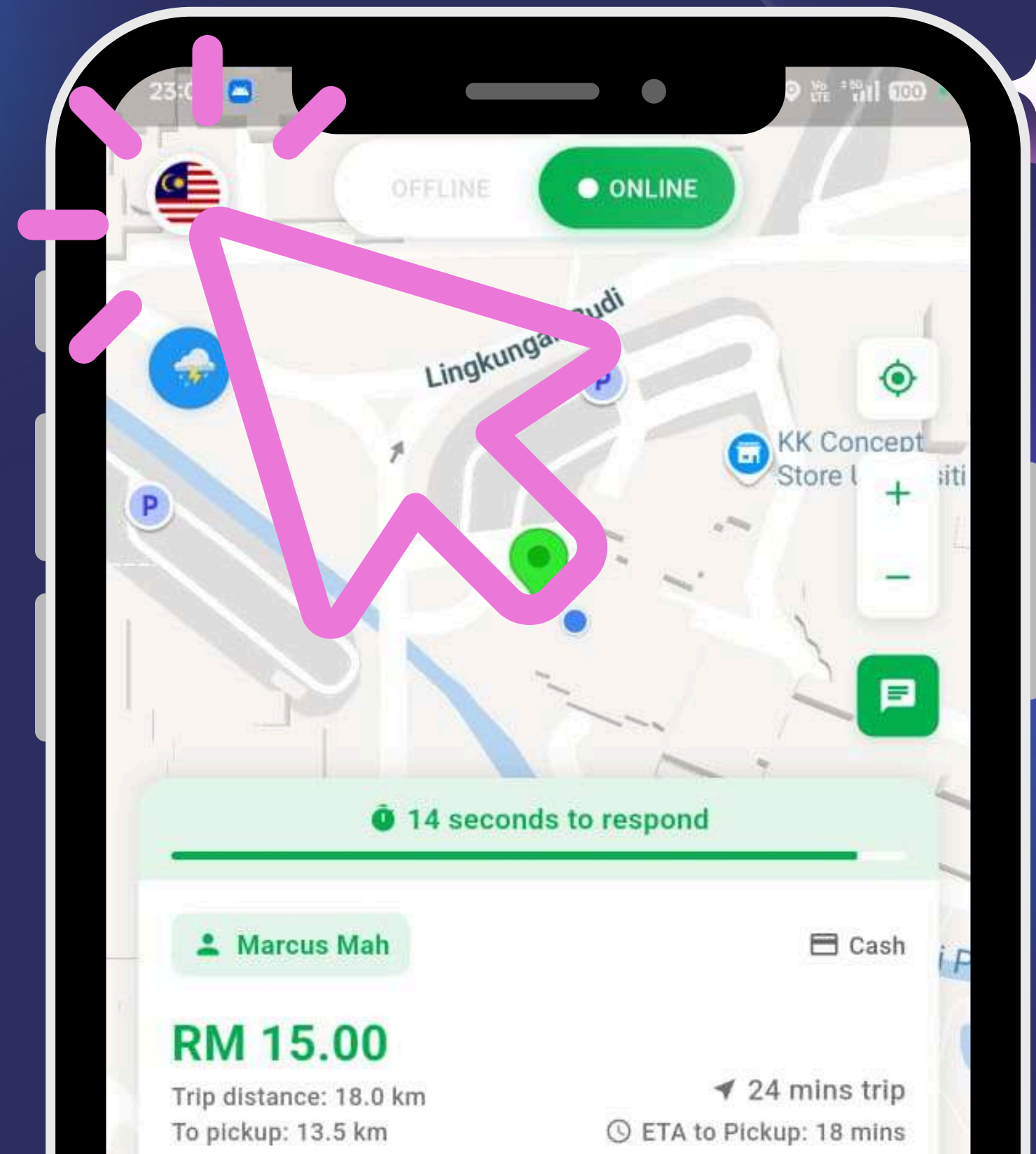
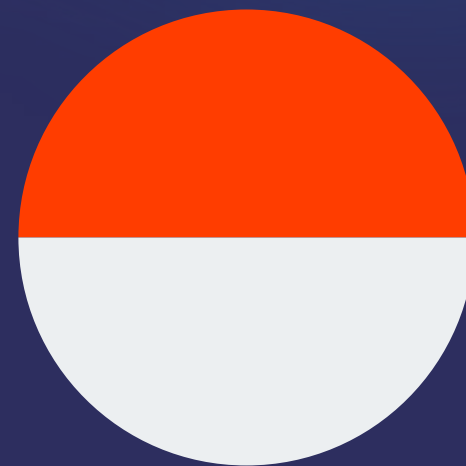
97.8%

Malaysian Fine-Tuned

CHALLENGE 2:

Dialect and accent recognition

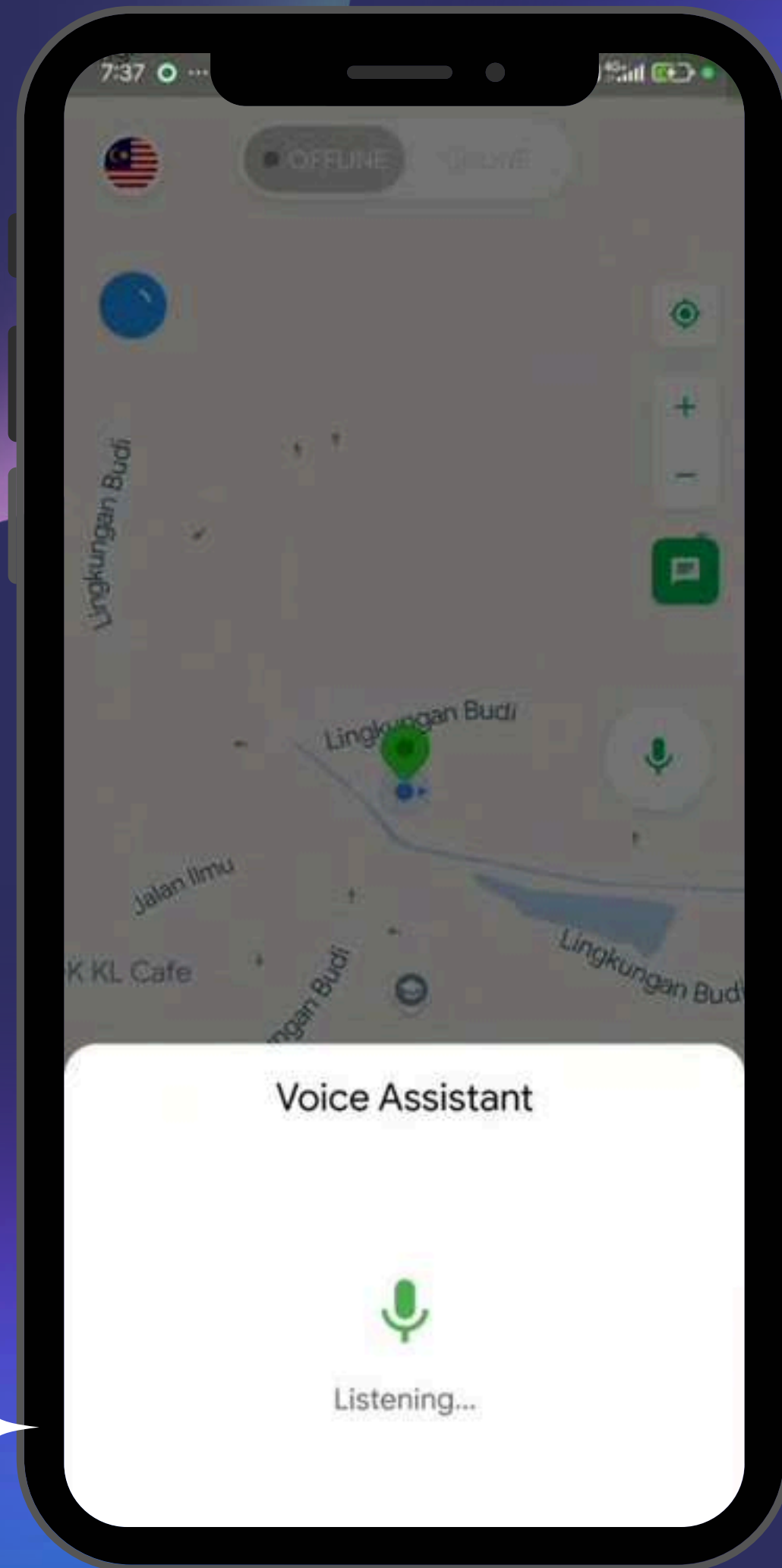
Multilingual &
Location-Aware



CHALLENGE 3:

Partial & Messy Input Handling

“May I have the uh... best place to get ready for..yeah like.. is there any breakfast shop .. for for nearby”



How we made it work



Front End

Flutter



FastAPI

Back End

Python

FastAPI

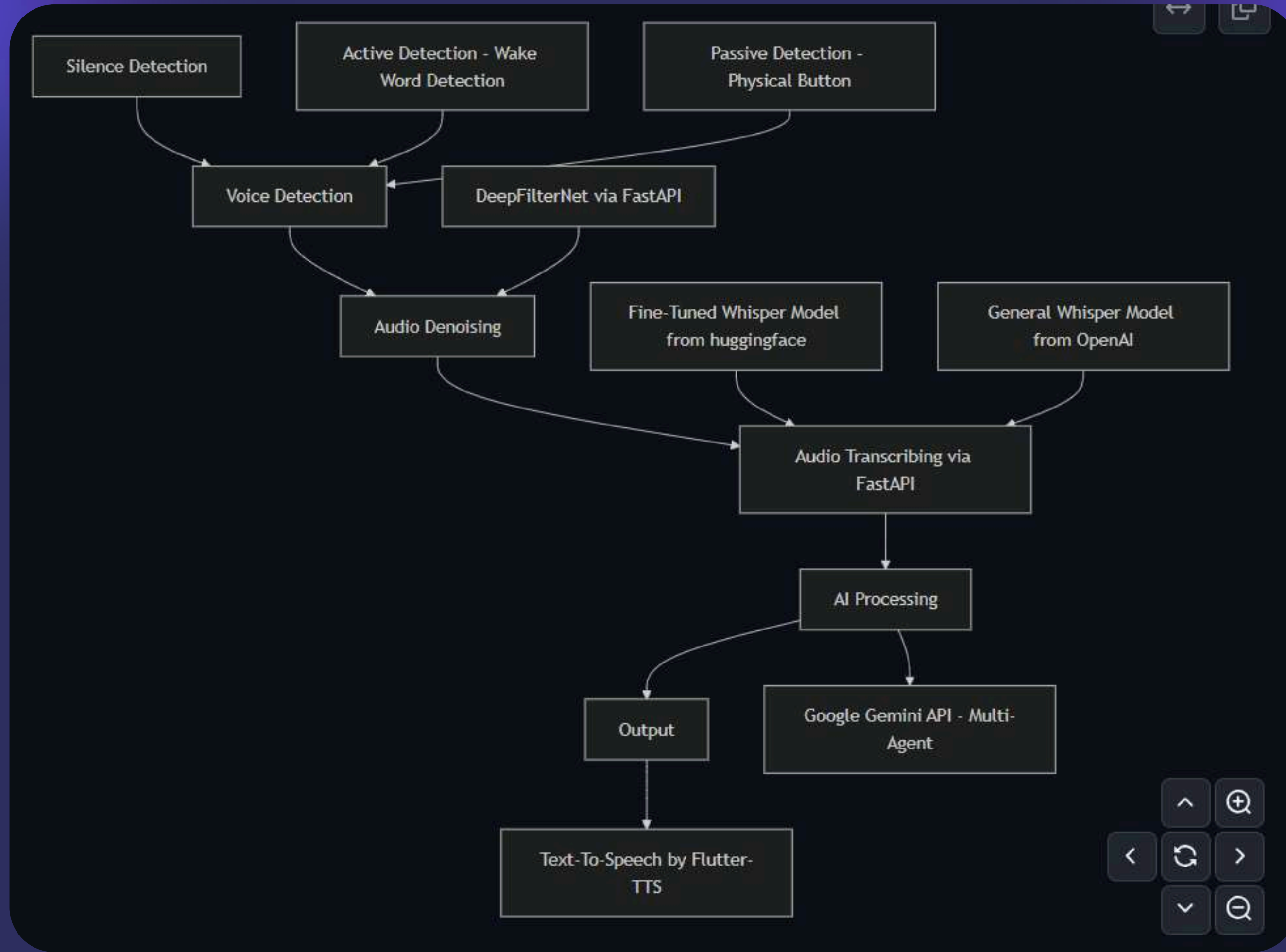
Google
Gemini

External APIs

Google Map API

Google Gemini API

How we made it work



Ours Works – ✨ Where Others Fail

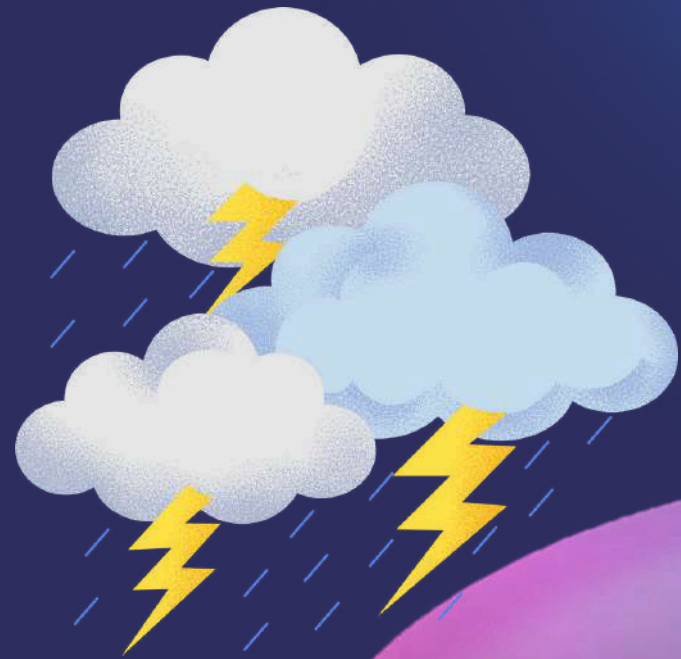
"Aiyo, this road very jam. Got other way ah?"

"Bro, hantar saya pergi Mid Valley, can?"

"Next stop, Sunway."



NO MATTER



Harsh Environment



Different dialects
and accents



Disfluent speech

NOW THEY CAN UNDERSTAND YOU



Harsh Environment



Disfluent speech



Different dialects
and accents

IMPACT ON COMMUNITY



Reduced risk of
accidents

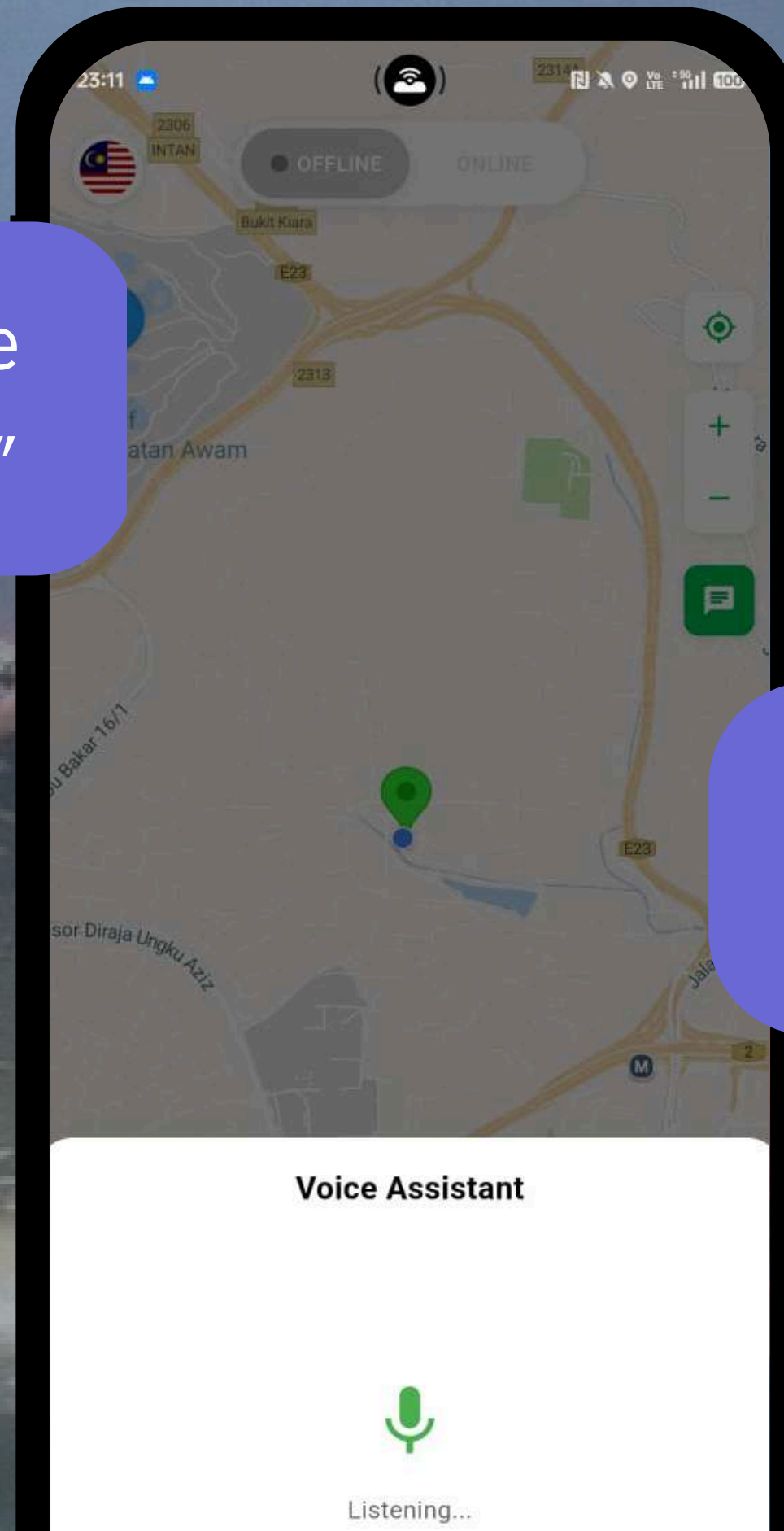


Increase
Productivity

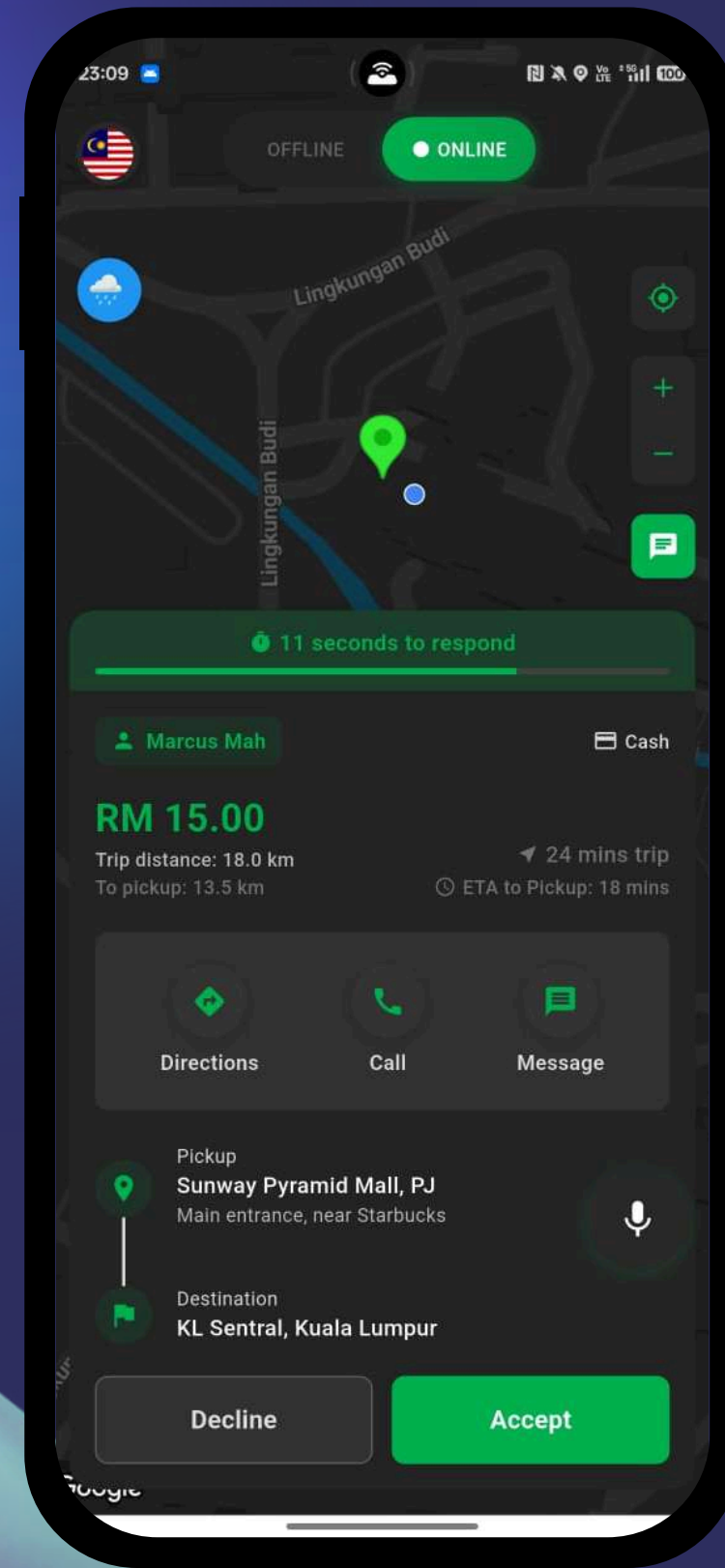
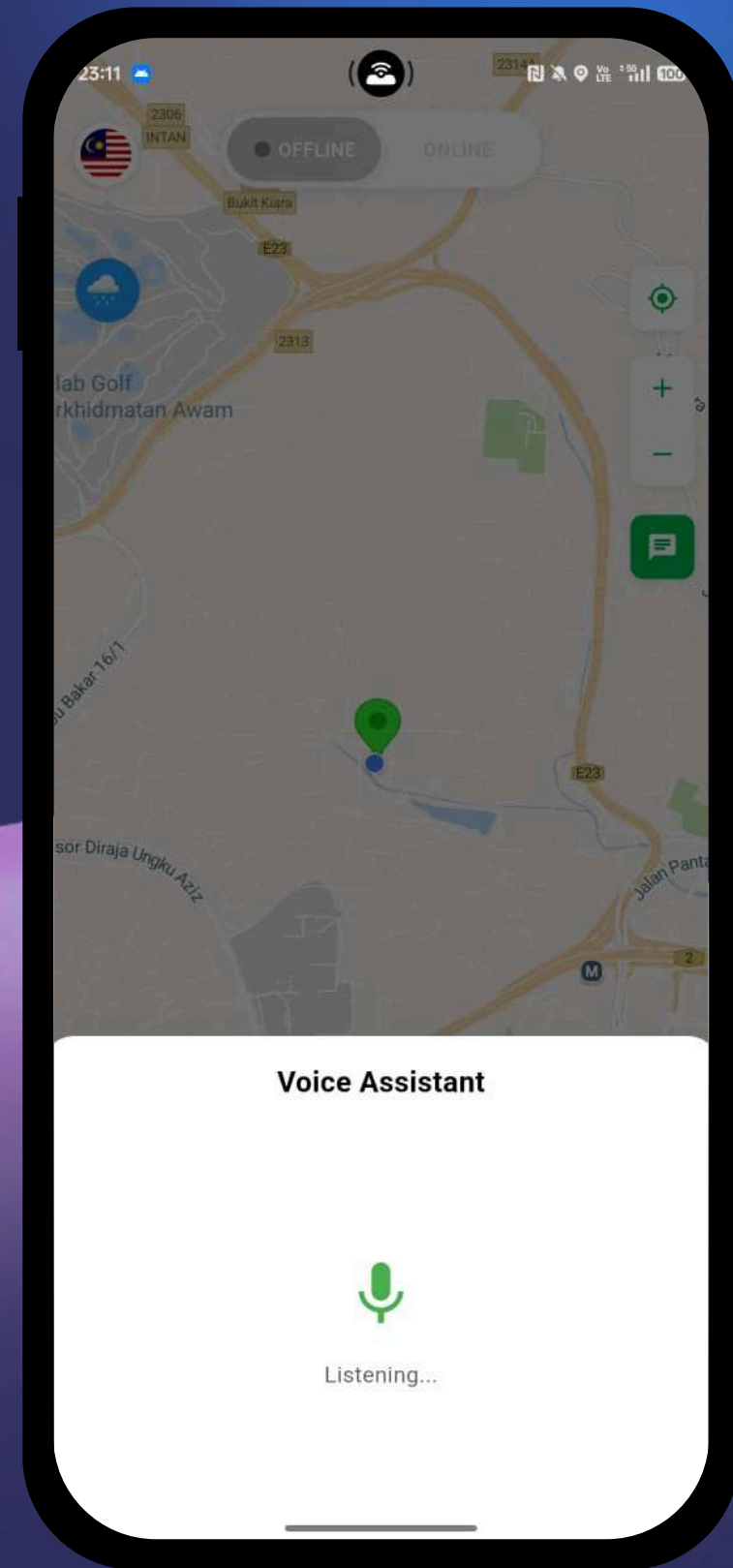
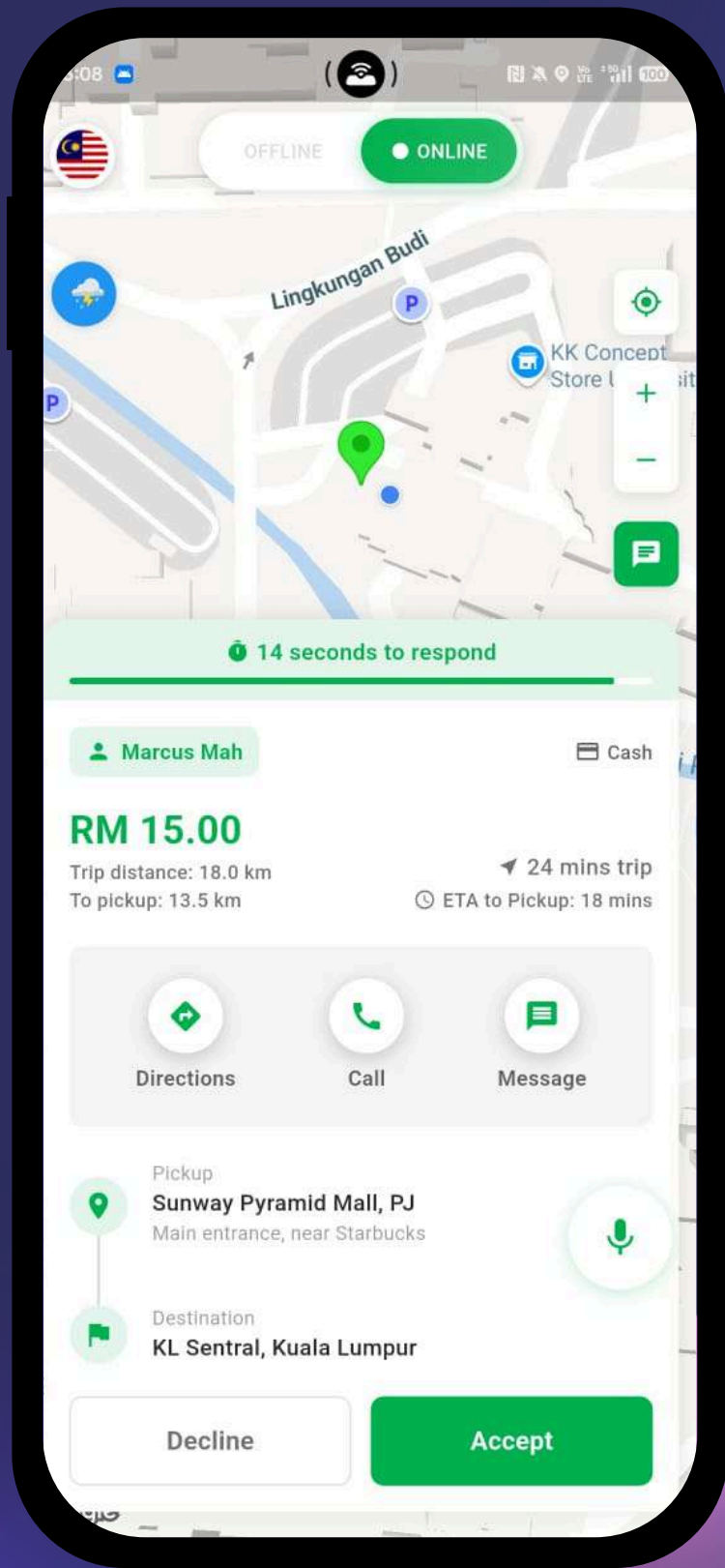
REMEMBER?

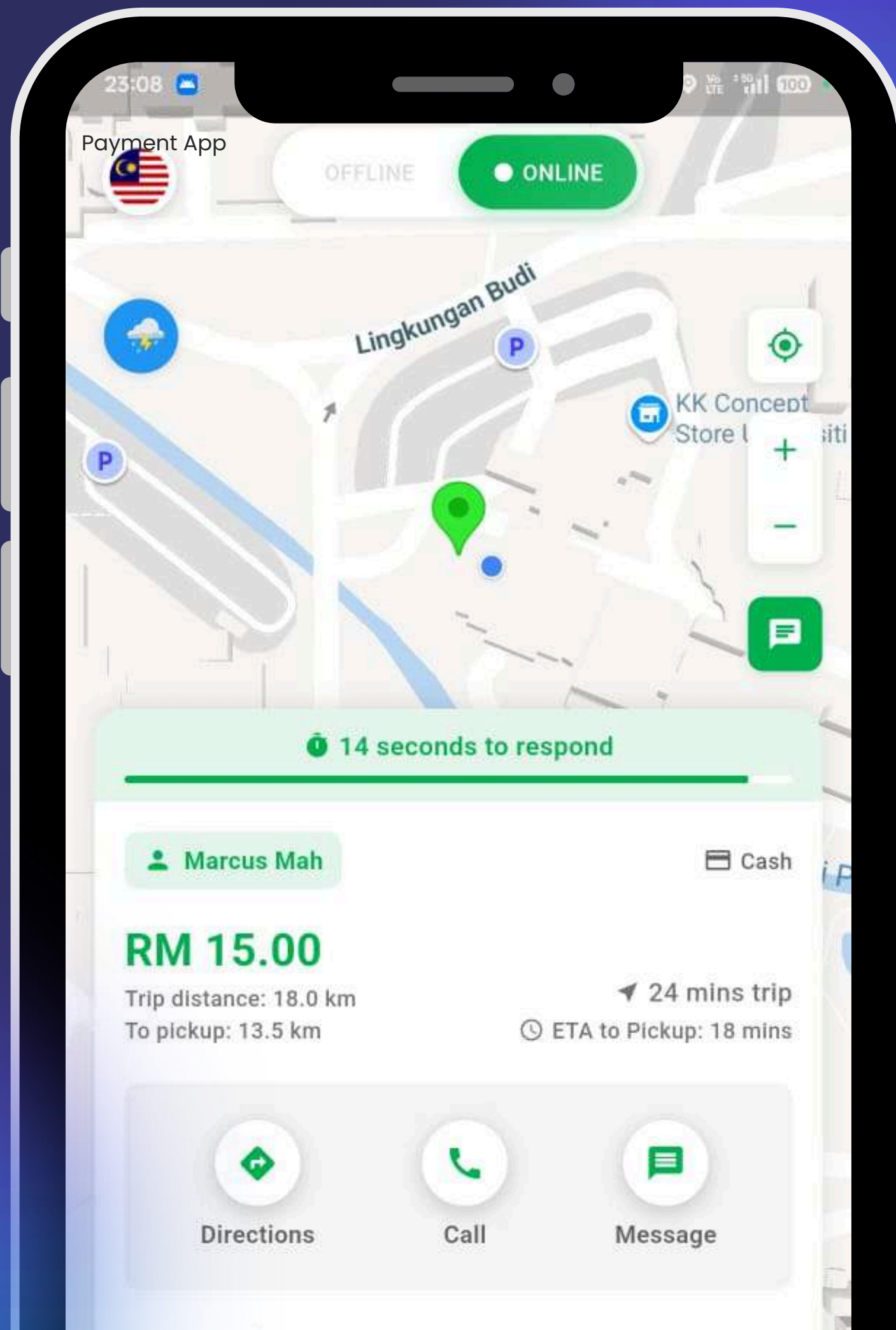


"Hey Google, bring me
to Jalan Kuchai Lama."



"Alright, setting directions
to Jalan Kuchai Lama."





Thank
You!



TEAM 405 FOUND