

KNIGHT GUIDE

EVERYONE DESERVES A JOURNEY

-By Team Checkmate

Problem statement

“Bridging the gap in travel accessibility and safety for people with disabilities”

- Lack of accessible infrastructure.
- Difficulty in communication.
- Safety concerns during travels.
- Limited awareness about accessibility needs.
- Health Issues.



OUR VISION !

Make travel easy and accessible for everyone.

Use smart technology for safety and comfort.

Remove barriers in tourism.

Empower disabled travelers to explore freely.



Proposed Solution

- A Digital platform (web-app) for trip planning.
- Emergency link-up with hospitals and NGOs.
- Integration of Google Maps and sensors for real-time navigation.
- Custom features for visually impaired, deaf, and mute travelers.
- User feedback and adaptive learning system.



THEME

How our project combines Generative Ai and Agentic Ai in Accessible Tourism

Generative AI	Agentic AI
<ul style="list-style-type: none">• Creates personalised travel plans for disabled tourists.• Converts text to speech to sign language for communication.• Generates voice and visual descriptions of tourist spots.	<ul style="list-style-type: none">• Ensures safety with automated emergency alerts.• Connects travellers with NGOs and hospitals in real time.• Adapts route based environment and accessibility.



KEY FEATURES

Voice-based navigation for the visually impaired

Sign-language translation for the deaf and mute

Smart wearable band for safety and tracking

AI travel assistant for route guidance and information

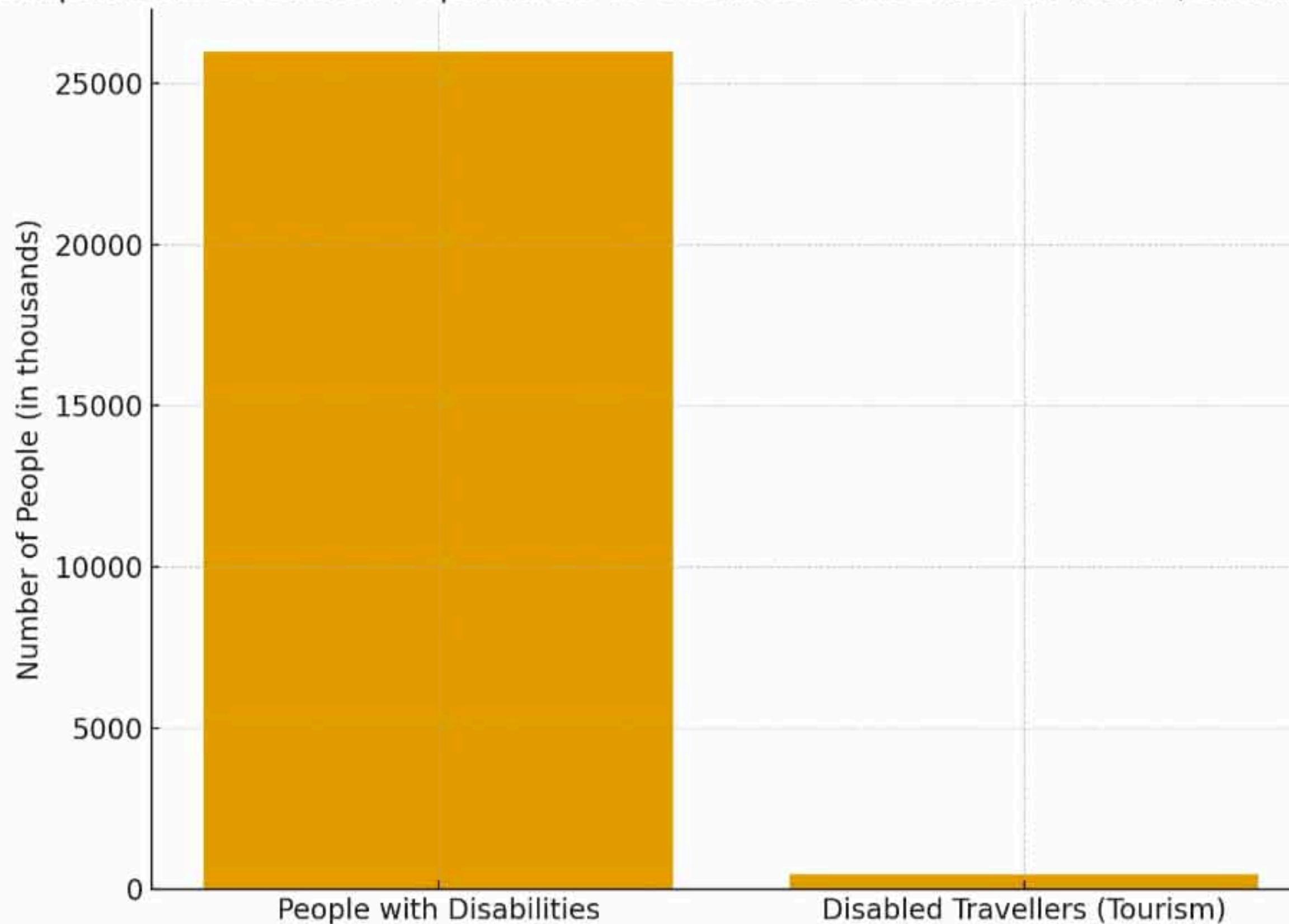
Accessibility score map marking easy-to-travel destinations

Volunteer & caretaker matching system

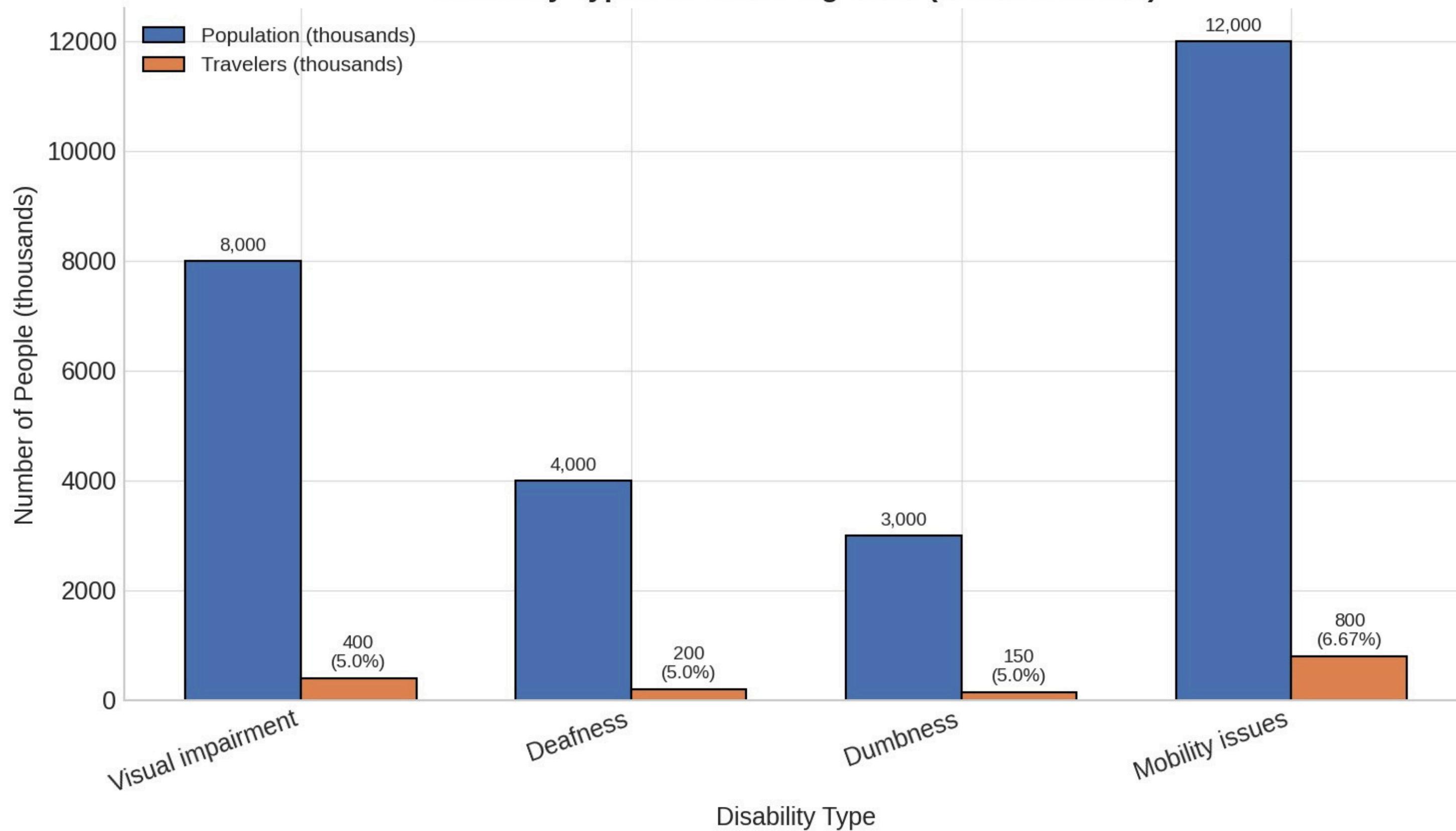
Disabled Travel



Comparison: Disabled Population vs Disabled Travellers in India (Simulated Data)



Disability Types vs Travelling Ratio (Simulated Data)



TECHNOLOGY STACK

Website	HTML, CSS, Javascript, React
Backend	NvidiaNemo, Python, MySQL
Navigation	Open source API keys
Accessibility	Speech-text, Text-speech API
Ai Assistant	GPT 4

PARTNERSHIPS & COLLABORATIONS

Hospitals: Training caretakers and ensuring medical backup

NGOs: Volunteer guides and awareness programs

Tourism Boards: Certifying accessible destinations

Local Communities: Promoting inclusion and safety

Safety & Accessibility Map: Our AI-powered map identifies and rates destinations based on accessibility using color codes

Wearable Tech Companies (Fitbit / Noise): Integrating health monitoring features to track travelers' physical well-being and provide real-time alerts to caretakers

Social Impact

- Promotes equal tourism opportunities.
- Increases employment for caretakers and guides.
- Encourages awareness of accessibility needs.
- Builds confidence and independence among travelers.



FUTURE SCOPE

Integrating AI-driven route prediction

Expanding to international destinations

Enable solo travelling with AI- assisted safety monitoring and real-time emotional and health tracking.

CHALLENGES IN ACCESSIBLE TOURISM

- 1. Navigation & Safety Challenges**
- 2. Lack of Awareness & Training**
- 3. Data Availability**

“ACCESSIBILITY IS NOT A PRIVILEGE, IT'S A RIGHT.”

THANK YOU!!

Team Members-

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