PROBLEM STATEMENT FOR VIRTUAL AI TOUR GUIDE.

ISSUE :

Tourists frequently struggle to explore new places effectively due to:

- **Lack of Real-Time Information:** Many travel apps provide pre-written content, which may not be relevant or updated. Visitors often miss out on hidden gems and real-time updates on events or closures.
- **Language Barriers:** Travelers face difficulty communicating with locals and understanding historical or cultural narratives due to language differences.
- **Impersonal Experience:** Generic travel guides do not adapt to individual preferences, leading to a lack of personalized recommendations.
- **Limited Accessibility:** Visually impaired and solo travelers find it harder to navigate unfamiliar places without assistance.
- **High Cost of Human Guides:** Hiring personal tour guides can be expensive, making it unaffordable for many travelers.

Objectives:

- Create an AI-powered virtual tour guide that provides real-time, interactive, and voice-assisted navigation.
- Offer multilingual support to help travelers communicate and understand cultural insights.
- Personalize recommendations based on user preferences, location, and interests.
- Improve accessibility for visually impaired users through voice-based assistance and object recognition.

Best Solution

- Use Natural Language Processing (NLP) for real-time conversations.
- Implement Computer Vision (CV) to recognize landmarks and provide historical context.
- Utilize GPS and AI-based recommendation systems for personalized travel suggestions.
- Integrate with text-to-speech (TTS) and speech-to-text (STT) for interactive guidance.