

Project Report: 'Jnana Sanchari' (ಜ್ಞಾನ ಸಂಚಾರಿ)

An AI-Powered Karnataka Tourism Quiz Guide

Project by: Nandan Sagar **Competition:** MindMatrix (Kannada Rajyotsava Edition) **Technology:** Google AI Studio

1. Purpose & Connection to Karnataka

The Story: Celebrating Our State

This project was born from a desire to celebrate **Kannada Rajyotsava** in a modern and interactive way. Kannada Rajyotsava, celebrated on November 1st, marks the formation of our state, Karnataka—a land of rich history, vibrant culture, and breathtaking natural beauty.

The purpose of the '**Jnana Sanchari**' (**Knowledge Guide**) chatbot is to move beyond static web pages and create a dynamic, conversational companion that allows anyone to explore and learn about Karnataka's heritage. In a world of generative AI, we can now offer a personalized guide to everyone.

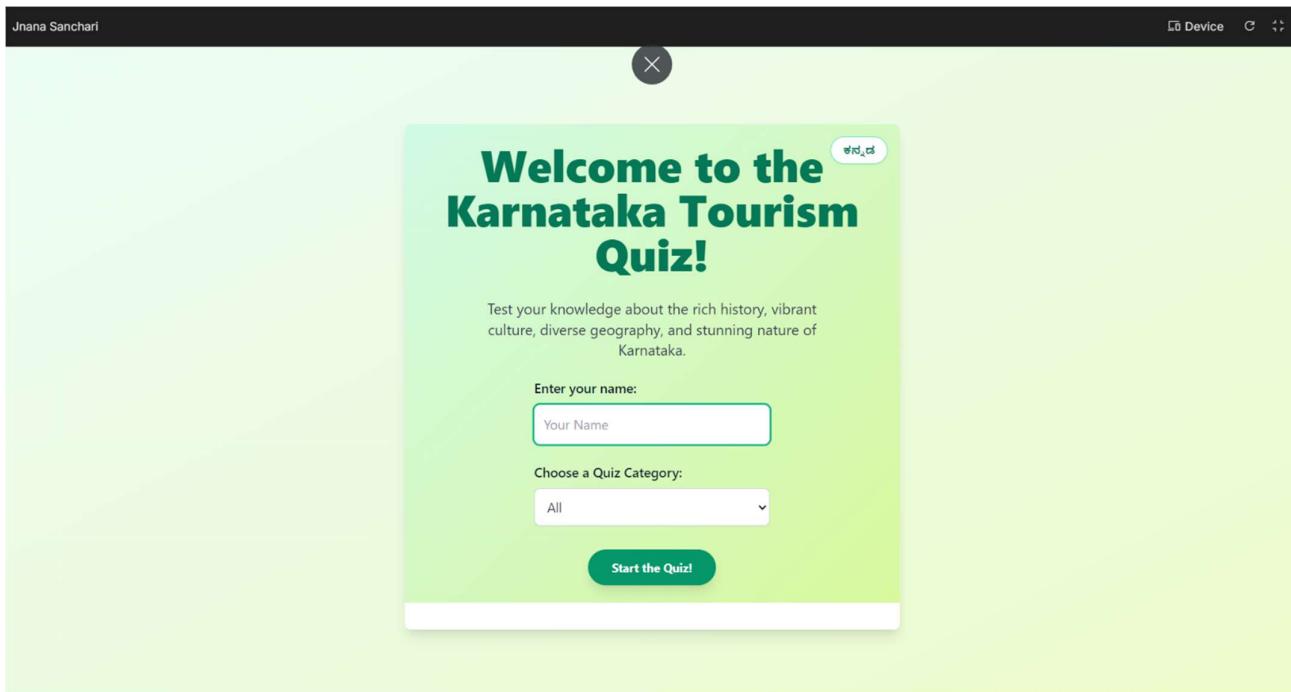
This app is a direct tribute to Karnataka. It operates in both **English and Kannada** (ಕನ್ನಡ), our state's official language, making it accessible to all. The entire theme, from the quiz categories to the AI's personality, is designed to instill a sense of pride and curiosity about our unique home.

2. Core Features

The 'Jnana Sanchari' is more than a simple chatbot; it's a feature-rich educational tool.

2.1. Bilingual & Personalized Experience

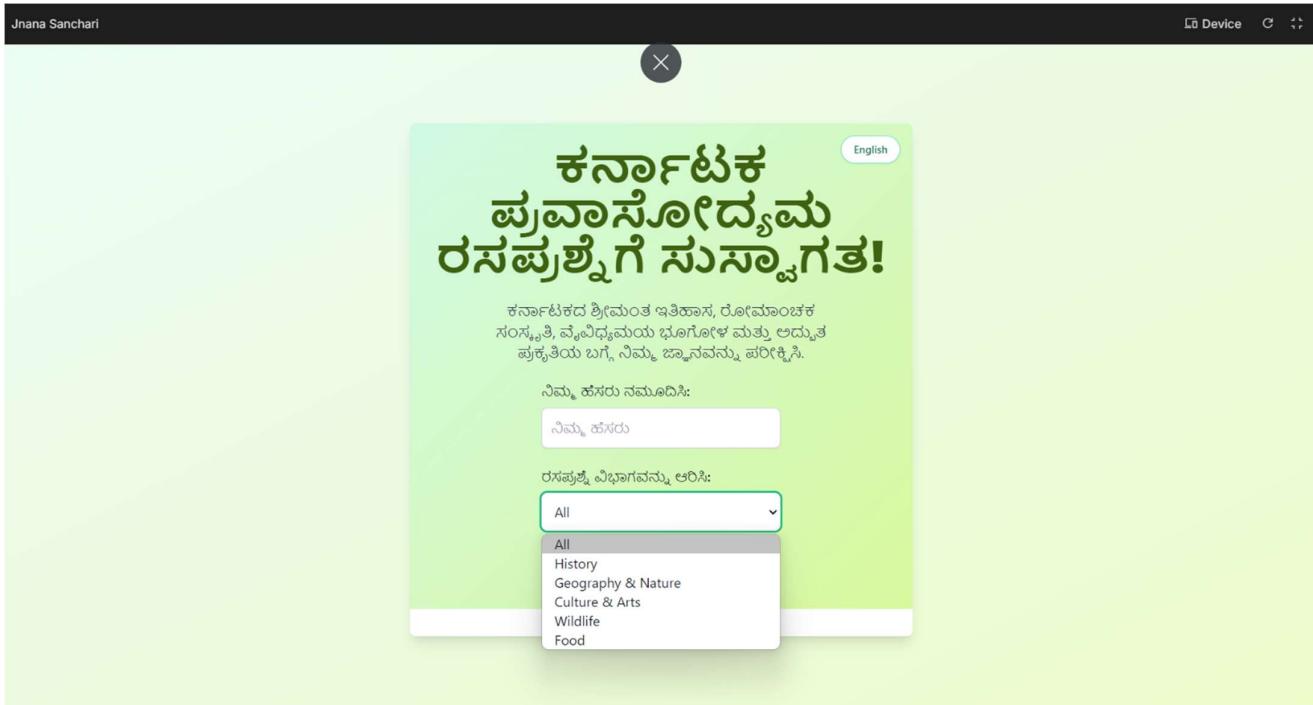
From the very first screen, the user is in control. They can choose their preferred language (English or Kannada) and enter their name for a personalized greeting throughout the quiz.



(Figure 1: The bilingual welcome screens)

2.2. Dynamic & In-Depth Quiz System

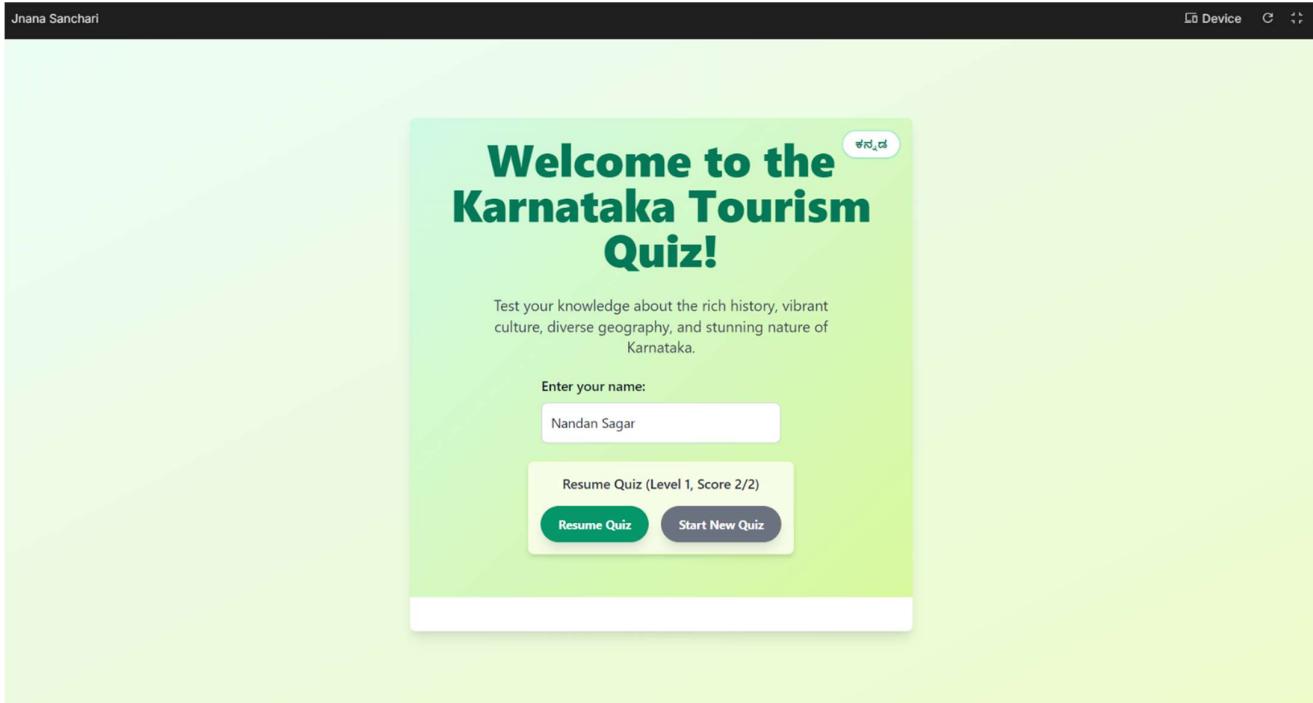
To provide a tailored experience, the user can select a specific **Quiz Category**, such as History, Geography & Nature, Culture & Arts, Wildlife, or Food. This allows them to focus on what interests them most.



(Figure 2: showing the category dropdown)

2.3. Stateful Session Management

The app respects the user's time. If a user closes the app mid-quiz, their progress (including their name, score, and level) is saved. Upon returning, they are given the choice to "**Resume Quiz**" or start a new one, a critical feature for a real-world application.

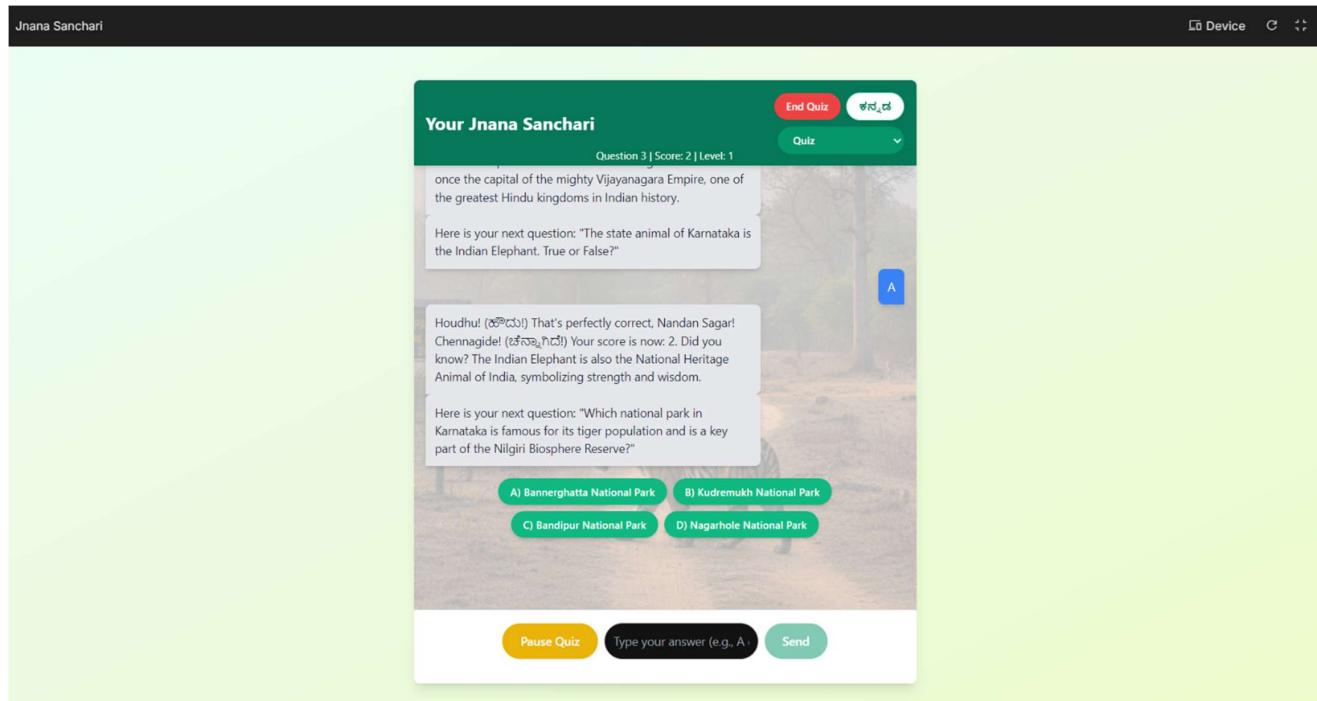
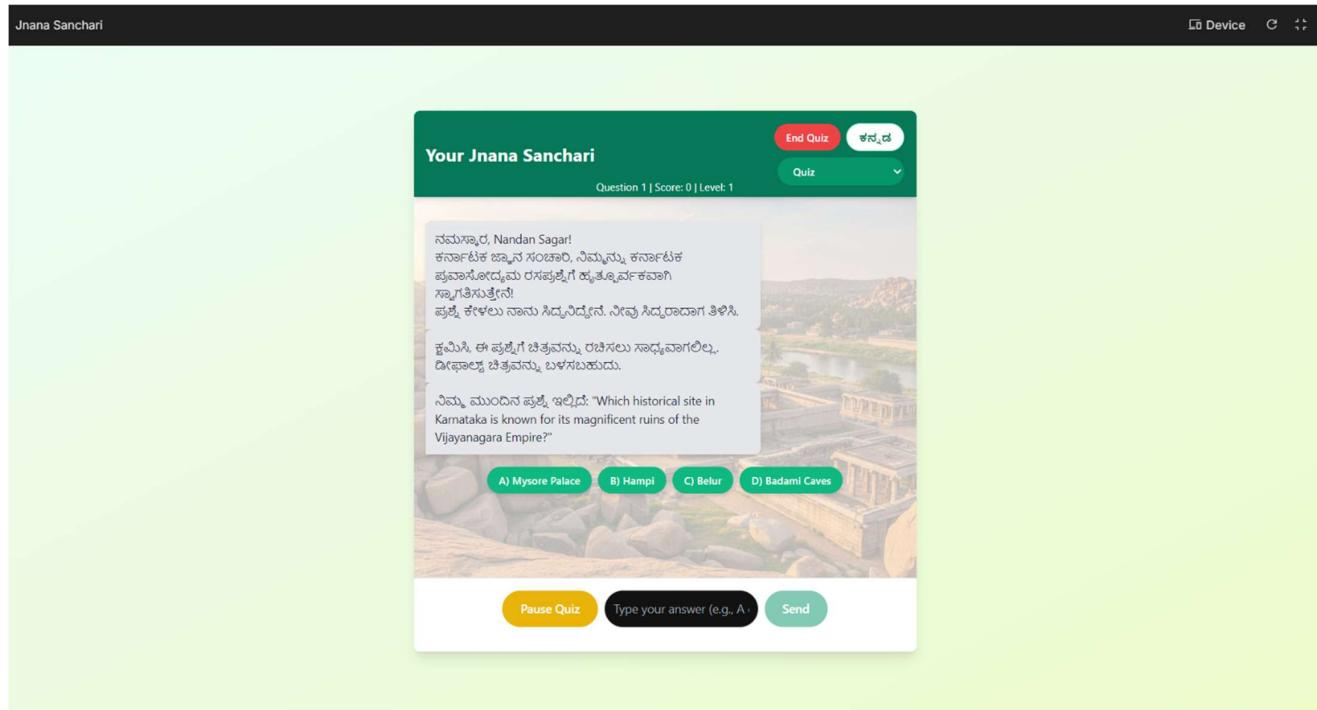


(Figure 3: The "Resume Quiz" screen)

2.4. Interactive & Immersive UI

The quiz is not just text. It features a modern, clean UI with:

- **Clickable Answer Buttons (A, B, C, D)** for fast interaction.
- **Live Score & Level Tracking** displayed in the header.
- **Bilingual AI Responses** that congratulate the user (e.g., "Houdhu! (ಹೌದು!)") and provide interesting "Did you know?" facts with each answer.



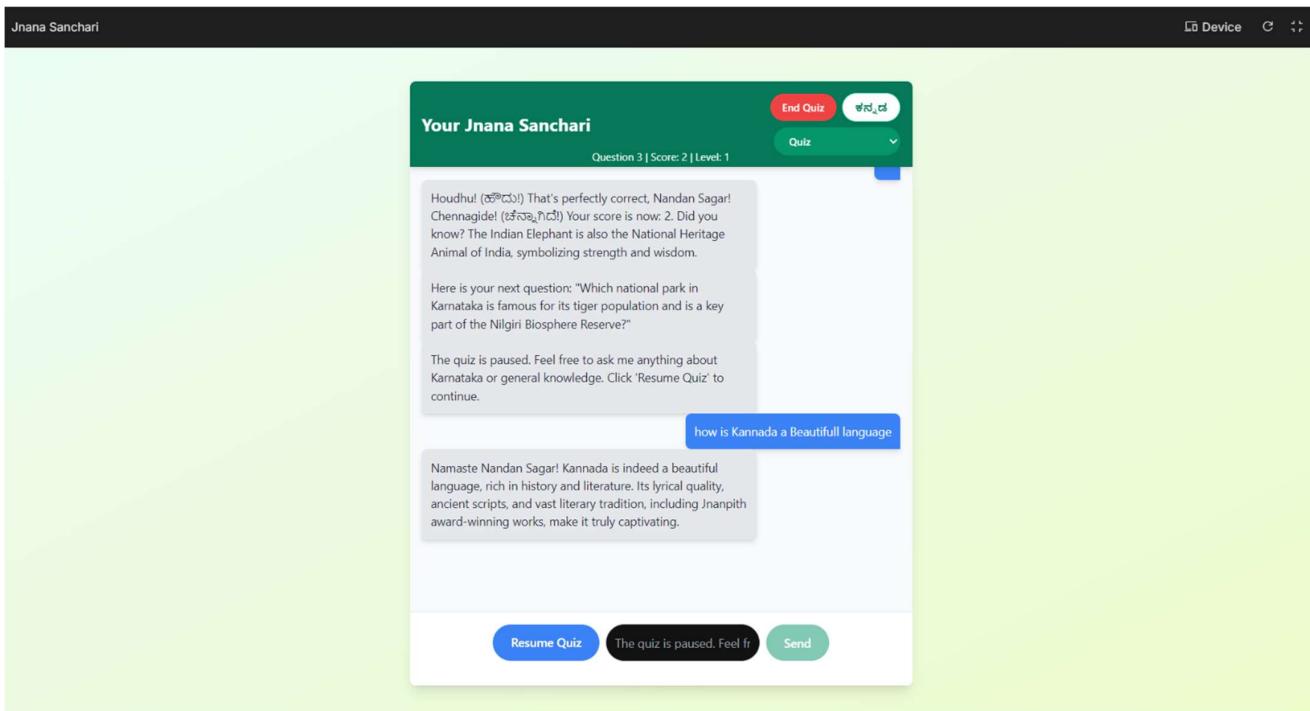
(Figure 4&5: The main quiz interface with clickable buttons and bilingual AI response)

2.5. Key Feature: Dual-Mode AI (Quiz & Q&A)

This is the app's most powerful feature. The user can click "**Pause Quiz**" at any time. The app seamlessly transitions from a "Quiz Master" to a "General Knowledge Guide."

- In **Pause Mode**, the user can ask *any* conversational question (e.g., "How is Kannada a beautiful language?").
- The AI will provide a full, detailed answer.
- When ready, the user clicks "**Resume Quiz**" and the app returns to the *exact* question they left off, with their score intact.

This dual-mode functionality creates a true, all-in-one exploration tool.



(Figure 6: The "Pause/Q&A" mode in action)

3. Design Process & User Flow

The app was designed as a two-screen application to ensure a simple and intuitive user journey. The entire process was built using the app builder in Google AI Studio, with a single, highly-detailed prompt defining the app's logic and state management.

User Flow Diagram:

1. **START (Screen 1: Welcome)**
 - User selects language (English/Kannada).
 - User enters their name.
 - User selects a Quiz Category.
 - User clicks "Start the Quiz!"
 - (*If returning, user sees Figure 3 and can "Resume Quiz"*)
2. **QUIZ LOOP (Screen 2: Chat)**
 - AI greets user by name and asks Q1 (e.g., Figure 4).
 - User clicks an answer button (A, B, C, D).

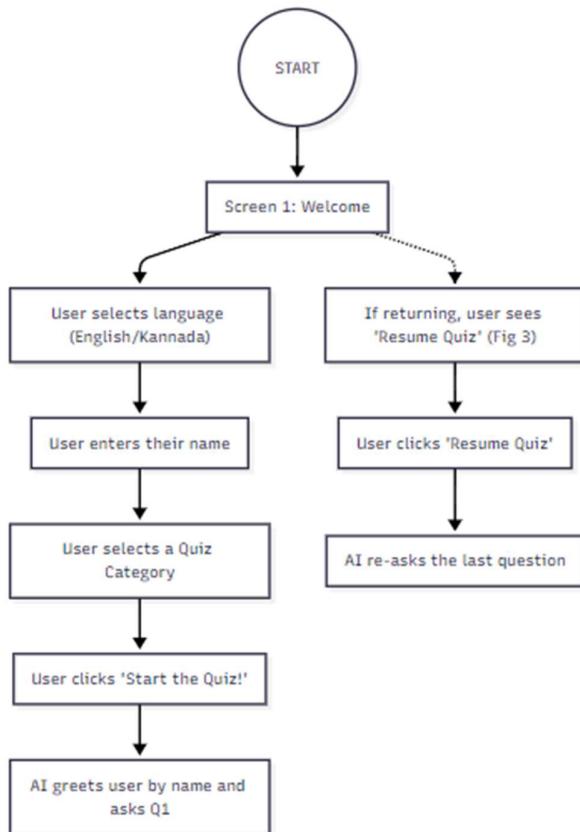
- AI responds: "Correct/Incorrect," gives a fact, and updates the score (e.g., Figure 4).
- AI asks the next question.
- (*This loop repeats*)

3. PAUSE FLOW (Screen 2: Chat)

- User clicks "Pause Quiz."
- AI responds: "Quiz is paused. Feel free to ask me anything..." (e.g., Figure 5).
- User types a general question (e.g., "how is Kannada a beautiful language").
- AI provides a conversational answer.
- User clicks "Resume Quiz."
- AI re-asks the last question, and the **QUIZ LOOP** continues.

4. END

- User clicks "End Quiz" in the header.
- AI provides a final score and a "Thank you" message.



(Figure 7: Visual User Flow)

4. Conclusion

'Jnana Sanchari' achieves its goal of being more than just a chatbot. It is a personalized, bilingual, and state-aware educational companion. By leveraging the power of generative AI in Google AI Studio, this app provides a single platform where users can both test their knowledge in a fun quiz and get their deepest questions about Karnataka answered. It is a true celebration of our state's past, present, and future, all powered by today's most innovative technology.