## **SMART INDIA HACKATHON 2025**



**Problem Statement ID-25061** 

**Problem Statement Title-Digitize and Showcase** 

Monasteries of Sikkim for Tourism and Cultural

**Preservation** 

**Theme- Travel and Tourism** 

**PS Category-** Software

**Team ID** 

**Team Name-** NHK.ai





## **MONASTERY 360**

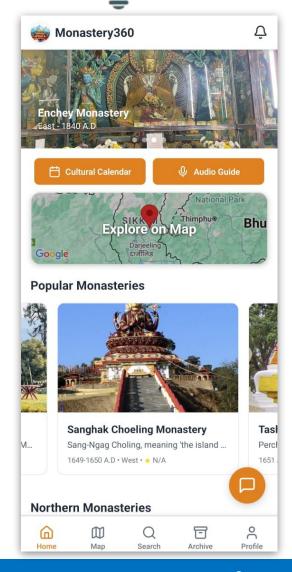
# SMART INDIA HACKATHON 2025

#### **Proposed Solution:**

Monastery360 is a comprehensive, AI-powered mobile application designed to be the ultimate digital companion for exploring the spiritual and cultural heritage of Sikkim. Our solution is a one-stop platform that addresses all aspects of a visitor's journey, from pre-trip planning to on-site exploration and historical discovery.

#### **Key Features:**

- All-in-One Information: Centralized data on monasteries, eliminating the need for scattered searches.
- **Immersive Exploration**: Audio guides and 360-degree virtual tours enhance the on-site and pre-visit experience.
- **Community Building:** Features for reviews, bookings, and rewards foster engagement and connection.
- **RAG-based Chatbot:** An intelligent chatbot that provides nuanced information and assists with bookings.
- Gamified Experience: Reward points and badges encourage exploration and deeper engagement.
- **Digital Preservation:** A dedicated digital archive section to preserve Sikkim's rich history.
- **360-degree Virtual Tours:** A unique, immersive feature that allows users to virtually walk through monasteries.



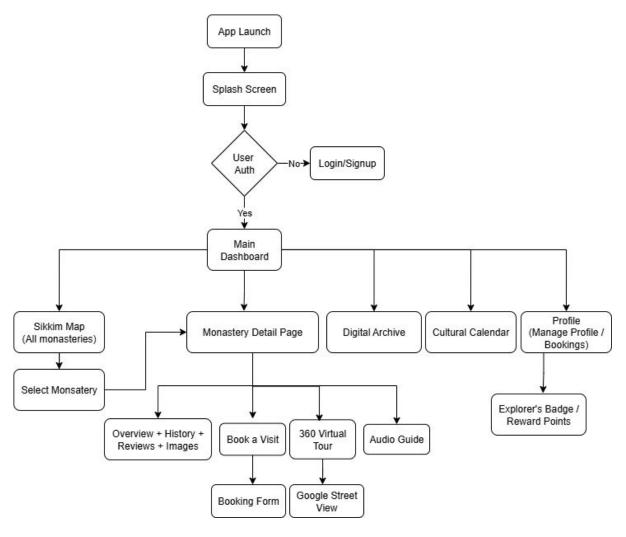


### **TECHNICAL APPROACH**



#### **Technologies Used:**

- Mobile app: Expo + React Native (TypeScript), expo-router, React Navigation
- **UI/animations**: React Native Reanimated, Lucid Icons
- Maps & geo: react-native-maps / expo-maps, expo-location, Google Maps (SDK + Street View)
- Backend & data: Supabase (Postgres, Auth, Storage)
   with session via AsyncStorage and RLS policies
- Al/assistant: Retrieval over monastery data with Gemini
   1.5 Flash integration
- Internationalization: i18next (English, Hindi, Nepali)
- Build & delivery: Expo Application Services (EAS), env-driven config (.env via app.config.js)
- Hardware: Android/iOS smartphones with GPS and internet; speaker/headphones for audio guide





## **FEASIBILITY AND VIABILITY**



#### **Feasibility:**

- **Technical:** The app relies on established technologies (mobile platforms, cloud databases) and newer technologies of LLMs and AI.
- **Operational:** The team has the necessary skills. Partnerships with the Sikkim Tourism Department will streamline data collection.
- **Economic:** Initial development costs are manageable, with multiple long-term revenue streams planned.

#### **Strategies to Overcome Challenges:**

- Data Collection: Collaborate with local authorities and implement a community-driven contribution model with content verification.
- **User Adoption:** Launch targeted marketing campaigns and highlight the unique AI chatbot and 360° tours.
- **Monetization:** Explore a blend of partnerships with local businesses, government grants, and a premium subscription option.

#### **Challenges & Risks:**

- **Data Collection:** Ensuring accuracy and completeness of monastery data and high-quality 360° images.
- User Adoption: Gaining traction in a competitive market and encouraging new users to download the app.
- **Monetization:** Finding a non-intrusive business model that doesn't compromise the user experience.

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## **IMPACT AND BENEFITS**





#### **Single Source of Truth**

A centralized, authoritative database for all monastery information



#### **Enriched Experience**

Immersive audio guides and seamless booking create a meaningful journey



#### **Preserving Heritage**

Digital archives ensure the preservation of Sikkim's intangible heritage



#### **Economic Boost**

Drives revenue for local businesses and communities through increased tourism



#### **Multilingual support**

ensures accessibility for diverse audiences, including Sikkim communities and international tourists.



#### Aligned with Digital India

We support the "Digital India", using technology to promote cultural heritage and domestic tourism



## RESEARCH AND REFERENCES



#### **Reference Links**

<u>https://www.sikkimdarshan.com/</u> -> Information on Monasteries
<u>http://sikkimeccl.gov.in/EcclHomePage.aspx</u> -> Information on Monasteries
<u>https://eap.bl.uk/search?query=sikkim+monastery+</u> -> Digital Archives
<u>https://maps.google.com</u> -> Location and Virtual Tours of Monasteries