SMART INDIA HACKATHON 2025
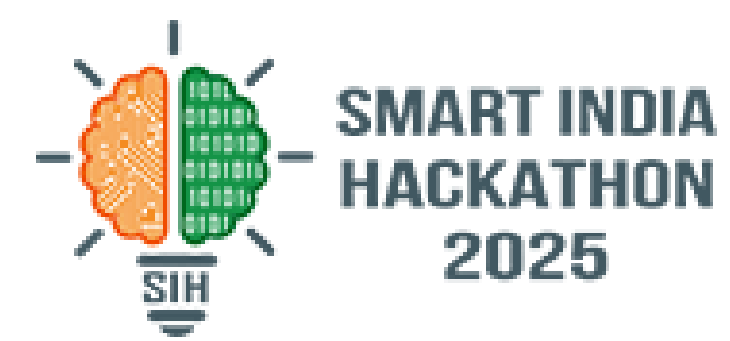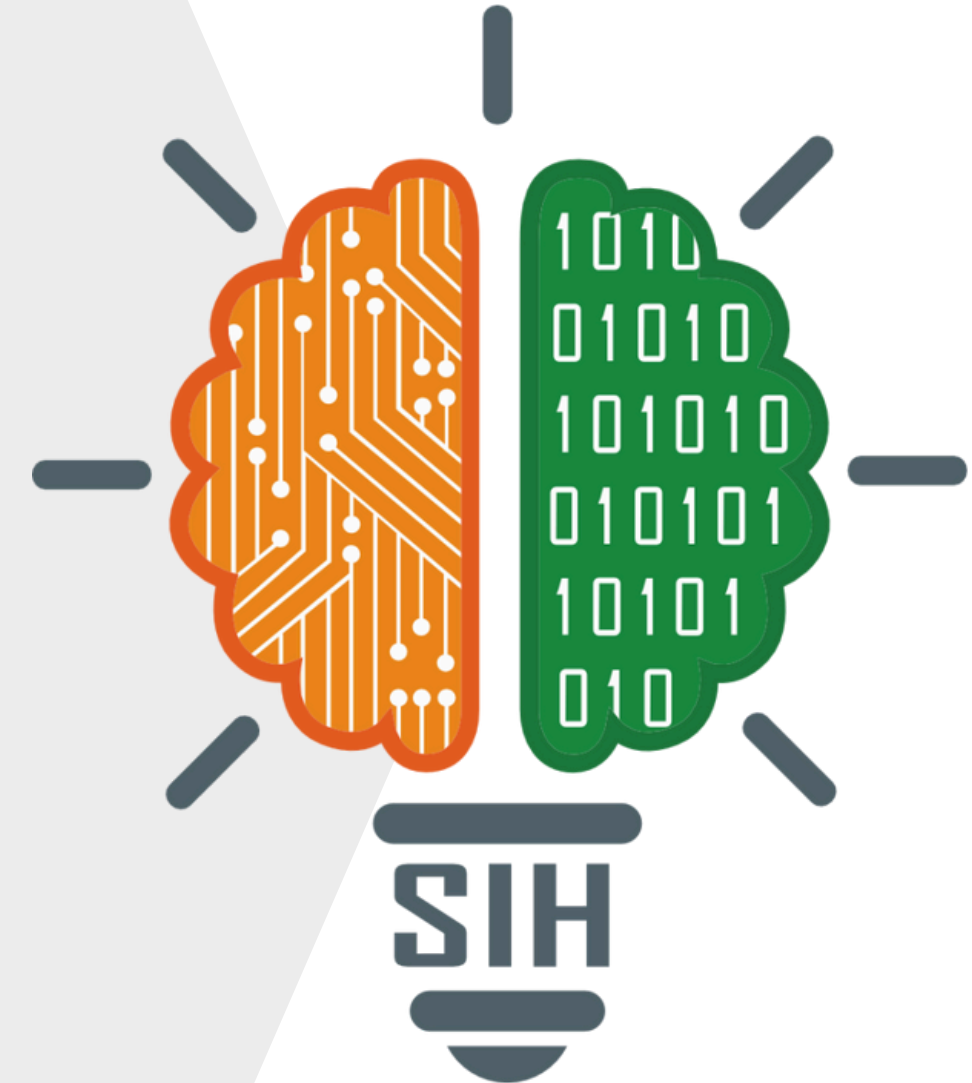## TITLE PAGE

- Problem Statement ID –25061

- Problem statement title- Digitize and Showcase Monasteries of Sikkim

  for Tourism and Cultural Preservation

- Theme- travel & tourism

- PS Category- Software

- Team ID-

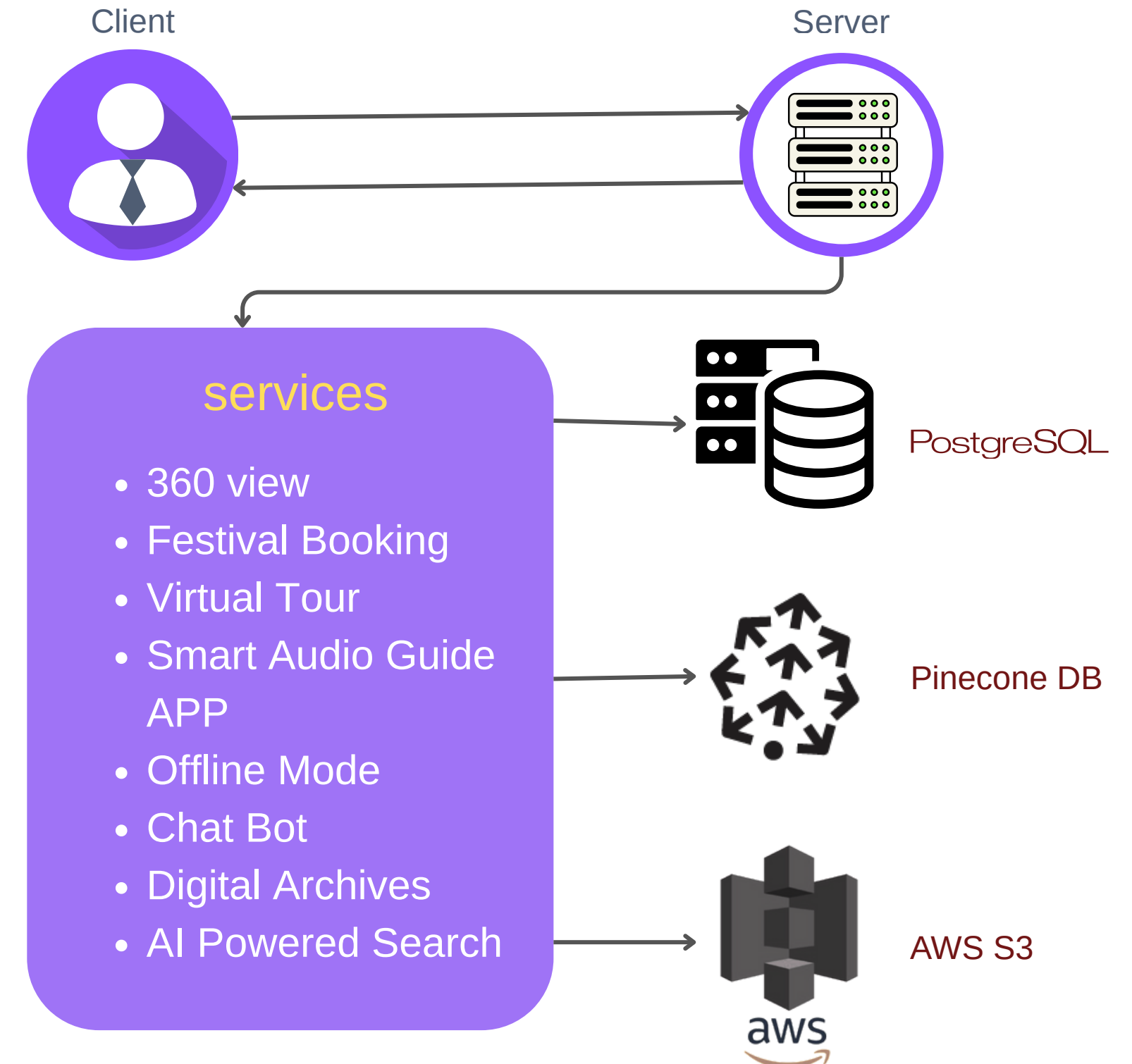- Team Name- Monknights

IDEA TITLE

Monknights

- ## PROPOSED SOLUTION

- **Goal:** Preserves cultural heritage through digitization and boosts tourism.
- **Features:** Interactive maps, audio guides, booking, an LLM bot, offline access, and AR storytelling.

- **Monastery360:** A digital platform with 360° virtual tours of Sikkim's monasteries.
- **Audience:** Multilingual support for tourists, researchers, and local communities.

A client-server architecture delivers services like virtual tours and AI search. It uses PostgreSQL for data, Pinecone DB for vector search, and AWS S3 for storage.

Client

Server

services

- 360 view
- Festival Booking
- Virtual Tour
- Smart Audio Guide APP
- Offline Mode
- Chat Bot
- Digital Archives
- AI Powered Search

PostgreSQL

Pinecone DB

AWS S3

aws

Monknights

1. Scalable Modular Architecture

Our backend is built with independent services for maps, bookings, and content. This modular approach ensures the system is highly resilient, easy to update, and ready to scale.

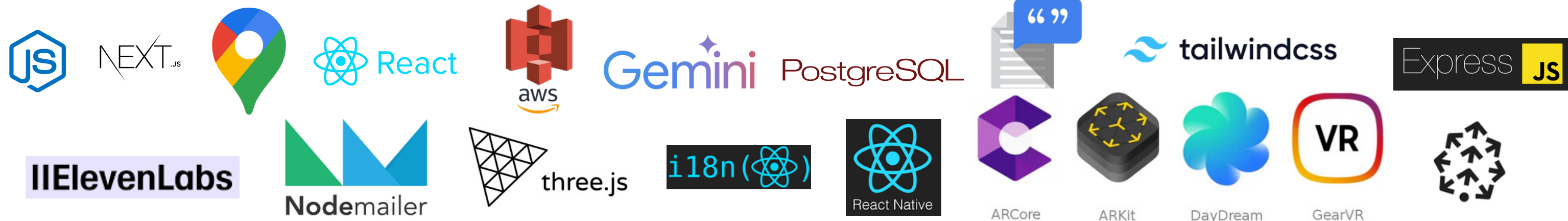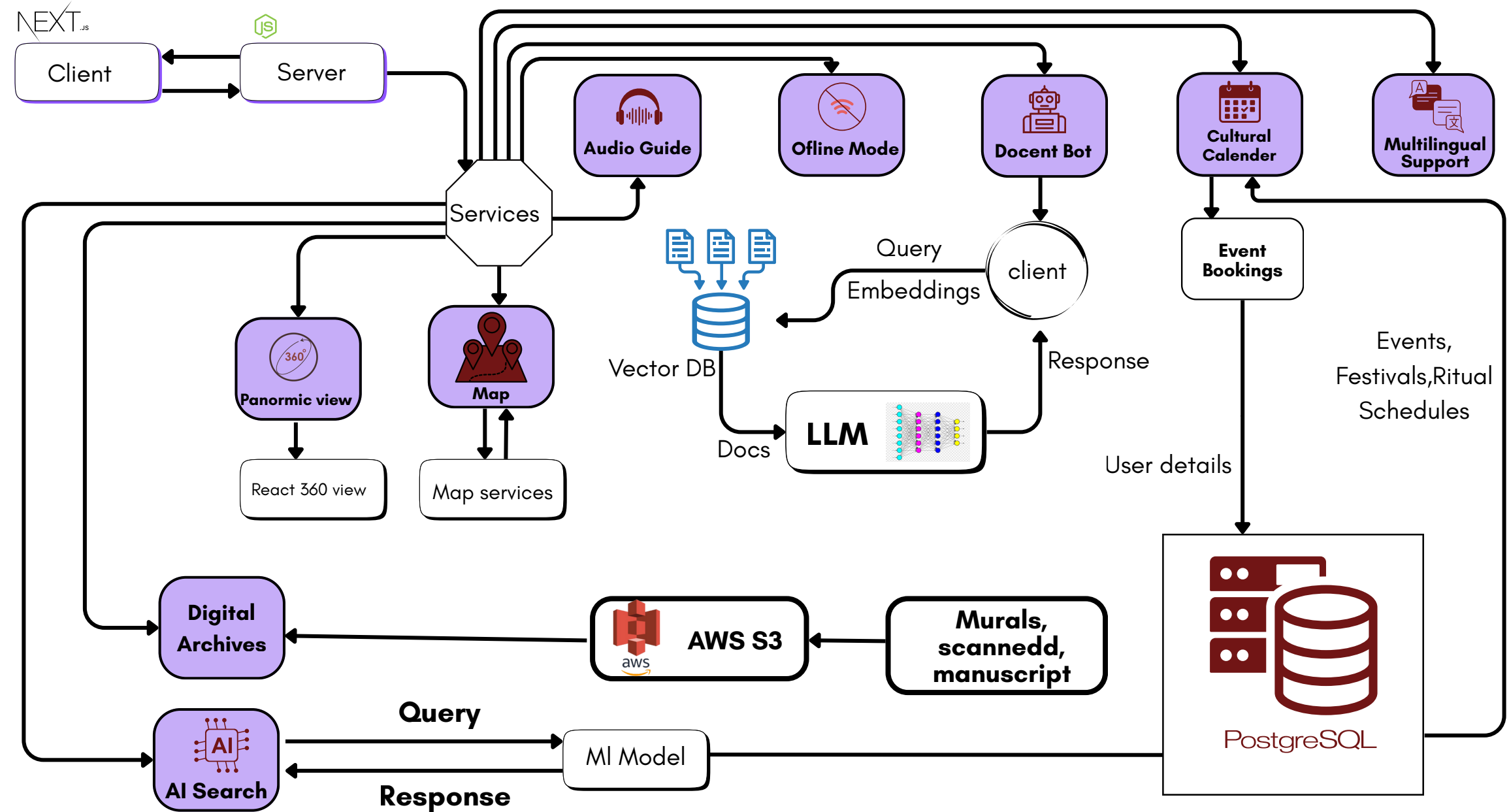## 2. Intelligent Archive Search

A separate AI model unlocks our digital archives. It enables deep content search on items like murals and manuscripts, revealing connections and details previously hidden.

3. Immersive & Accessible Experience

We deliver an engaging experience with 360° panoramic views, interactive maps, and audio guides. Offline mode and multilingual support ensure it is accessible to all visitors.

4. Forging a Digital Bridge

We use sustainable technology to build an efficient digital bridge. This minimizes waste and maximizes opportunity, connecting global visitors with local commerce in a seamless, impactful way.

Monknights

FEASIBILITY AND VIABILITY

- Interactive map
- Cultural calendar
- Local transport integration

- Smart audio guide
- Sacred temple
- Boost local economy

First phase → **Second phase** → **Third phase** → **Fourth phase**

- 360 immersive view
- Digital achieves
- Docent bot

- Festival booking
- Offline map
- Narrated walkthroughs
- AR/VR
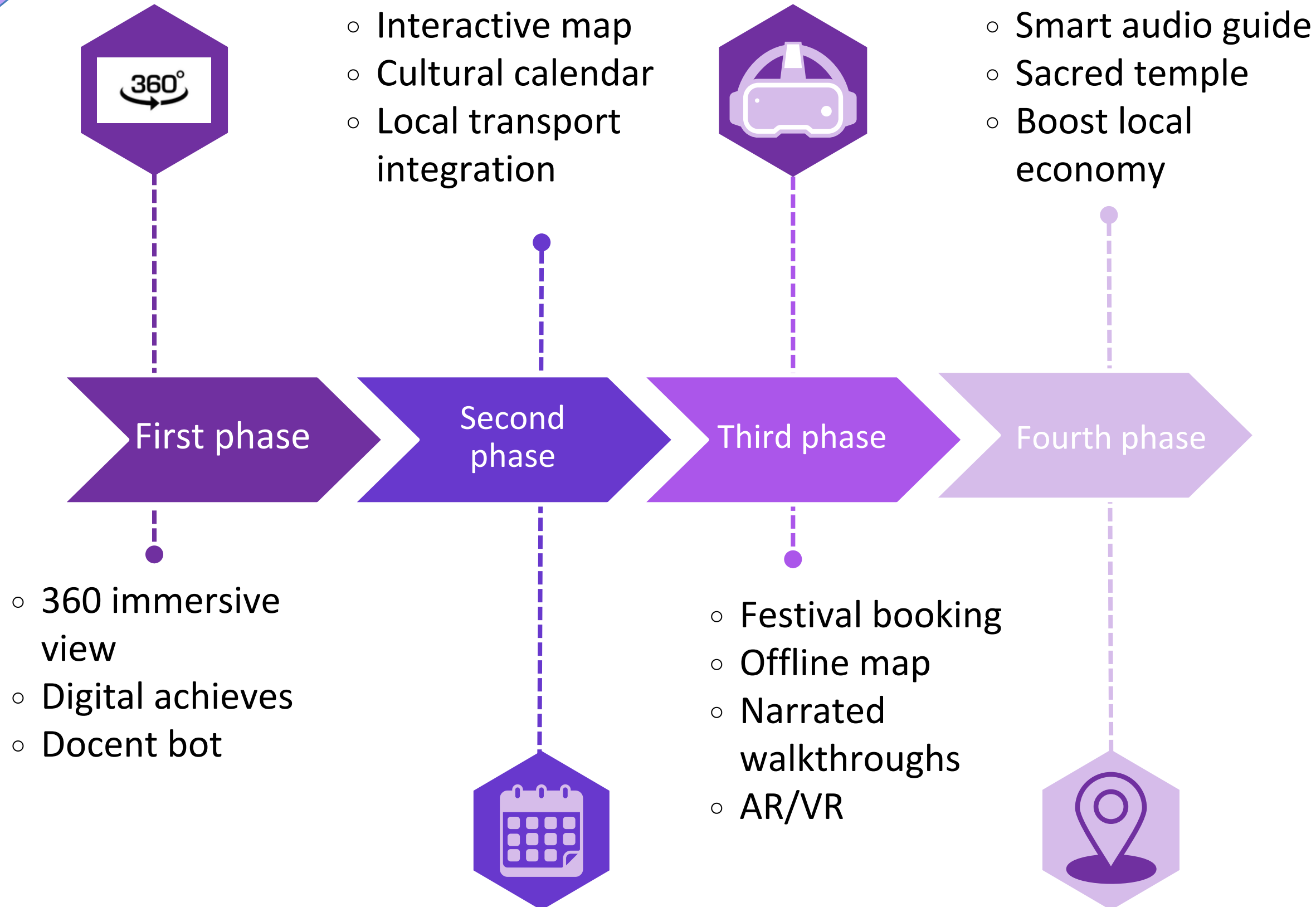
Innovative Option With Market Demand
Technical readiness, 360° imaging, AI search, interactive maps, Scalability, Growth, more monasteries, archives, services, Key challenges, Remote connectivity, Quality digitization, maintenance, Sustainability, Tourism revenue, preservation goals, government support.

Operational feasibility
We transform the traditional site visit into an interactive dialogue with the past. Our platform is designed to be effortlessly simple, allowing any user to naturally ask questions and discover the hidden stories behind our ancient heritage.

Technical feasibility
The solution is highly feasible, leveraging robust managed services like AWS S3 and Pinecone. This modern tech stack ensures scalability, reliability, and minimal maintenance overhead.

IMPACT AND BENEFITS

Enhances Visitor Experience (360 View)

Makes tours more interactive and educational with AR and audio guides. This immersive approach helps bring the rich history and stories of each location to life.

Provides Global Access

Allows anyone worldwide to explore the monasteries virtually. It effectively removes geographical and physical barriers for researchers, students, and cultural enthusiasts.

Grows Local Economy

Creates more business for hotels, guides, and local shops. This increased economic activity directly supports local livelihoods and encourages sustainable community development.

Boosts Tourism

Attracts more visitors and makes trip planning easier. By providing a one-stop platform for virtual tours and information, it simplifies the entire travel experience.

Solves Practical Problems

Offers offline maps and AI search for areas with poor connectivity. The platform's smart features also help overcome common issues like language barriers and information overload.

Preserves Heritage

Digitally saves priceless murals and manuscripts from being lost. This digital archive protects these invaluable artifacts from physical decay and makes them accessible for future generations.

RESEARCH AND REFERENCES

Ecclesiastical Affairs Department

This site allegedly lists the monasteries in South Sikkim, offering historical and administrative data for research and reference in heritage studies.
http://sikkimeccl.gov.in/history/Monasteries/South/SouthDistrictMonasteryList.aspx0

Sikkim Monasteries Guide

An interactive map platform showcasing the spatial distribution of monasteries across Sikkim, facilitating visualization of their locations for planning and reference.
https://preview--sikkim-monasteries-guide.lovable.app/map

Hotel Buddha Park Residency

Home page for Hotel Buddha Park Residency, Ravangla, Sikkim — highlighting accommodation, views of Mt. Kanchendzonga, proximity to the Buddha Park and serene Himalayan ambience.
https://hotelbuddhaparkravangla.com/home.html

Google Maps

Google Maps developer portal — provides APIs, SDKs, documentation and tools for building location-aware applications and embedding maps in web/mobile projects.
https://developers.google.com/maps

React-360-view

A demo / documentation site for React 360 (formerly React VR) — a framework by Facebook for building immersive 360° and virtual-reality user interfaces on the web
https://rajeevgade.github.io/react-360/