## PathFounders
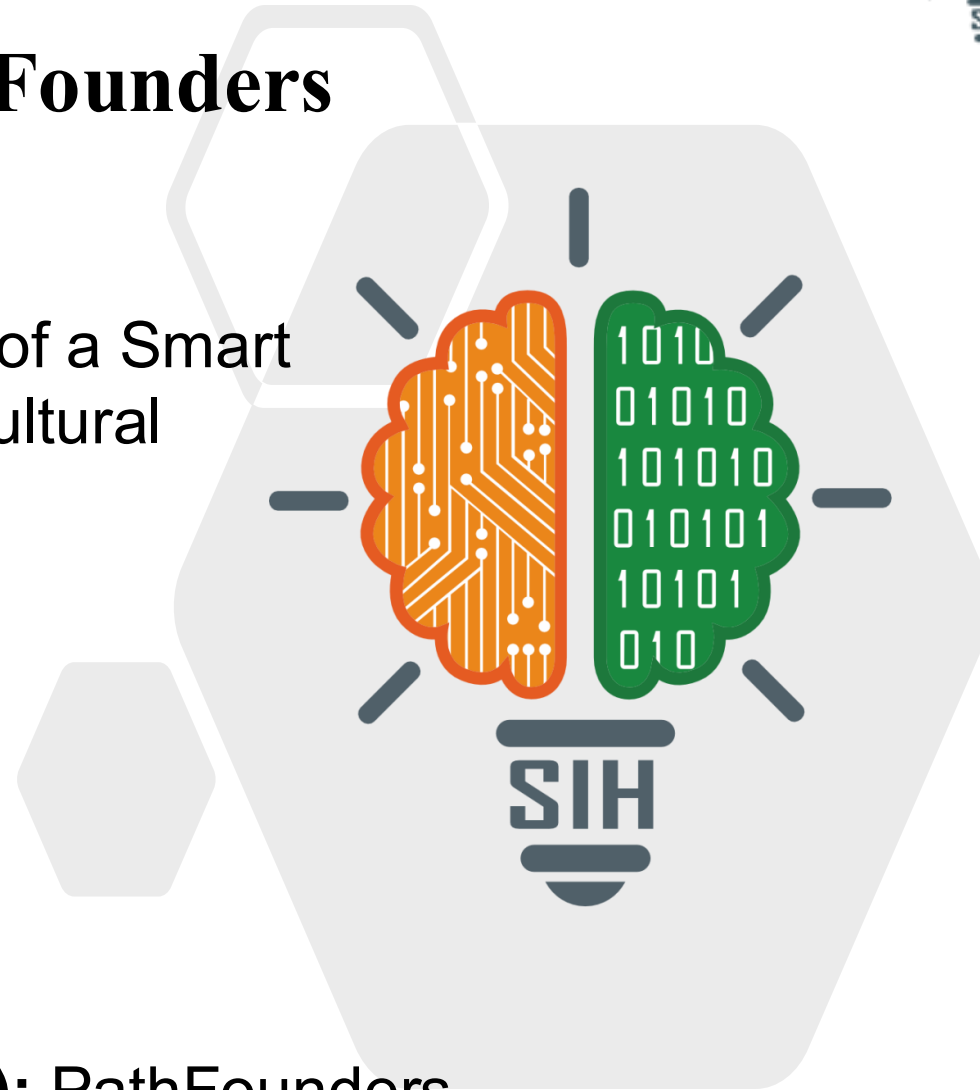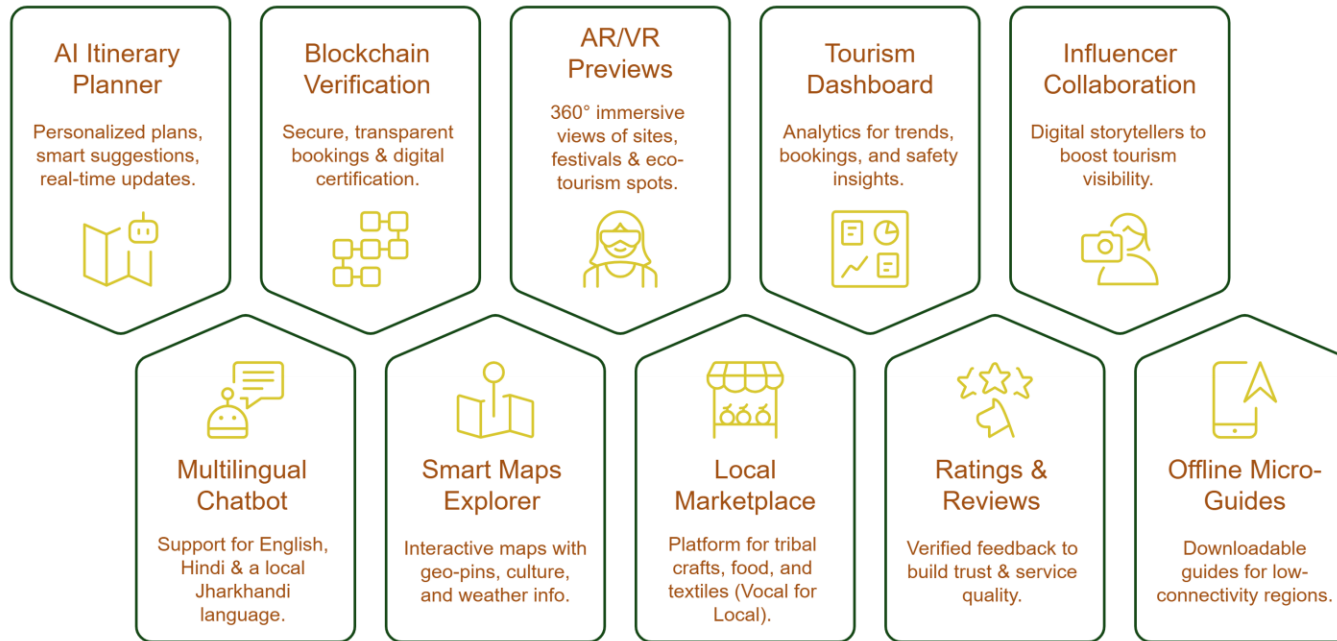
- **Problem Statement ID:** SIH25032

- **Problem Statement:** Development of a Smart Digital Platform to Promote Eco & Cultural Tourism in Jharkhand

- **Theme:** Travel & Tourism

- **PS Category:** Software

- **Team ID:** 58248

- **Team Name(Registered On Portal):** PathFounders

# AI-POWERED ECO & CULTURAL TOURISM PLATFORM FOR JHARKHAND

SMART INDIA HACKATHON 2025

## Proposed Solution:

**AI Itinerary Planner**
Personalized plans, smart suggestions, real-time updates.

**Blockchain Verification**
Secure, transparent bookings & digital certification.

**AR/VR Previews**
360° immersive views of sites, festivals & eco-tourism spots.

**Tourism Dashboard**
Analytics for trends, bookings, and safety insights.

**Influencer Collaboration**
Digital storytellers to boost tourism visibility.

**Multilingual Chatbot**
Support for English, Hindi & a local Jharkhandi language.

**Smart Maps Explorer**
Interactive maps with geo-pins, culture, and weather info.

**Local Marketplace**
Platform for tribal crafts, food, and textiles (Vocal for Local).

**Ratings & Reviews**
Verified feedback to build trust & service quality.

**Offline Micro-Guides**
Downloadable guides for low-connectivity regions.
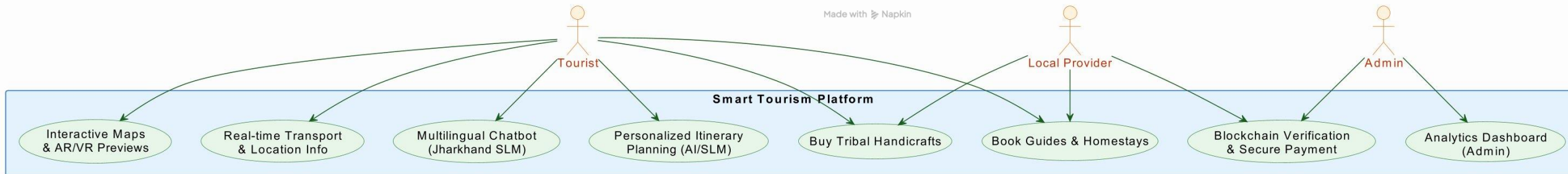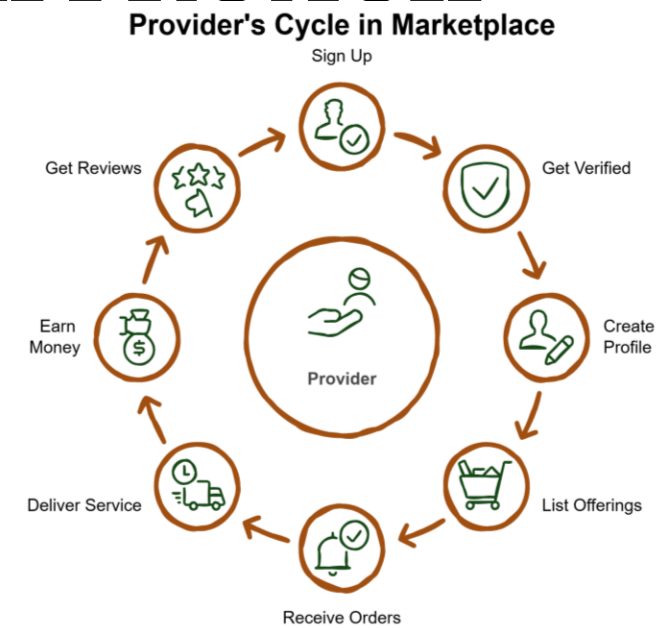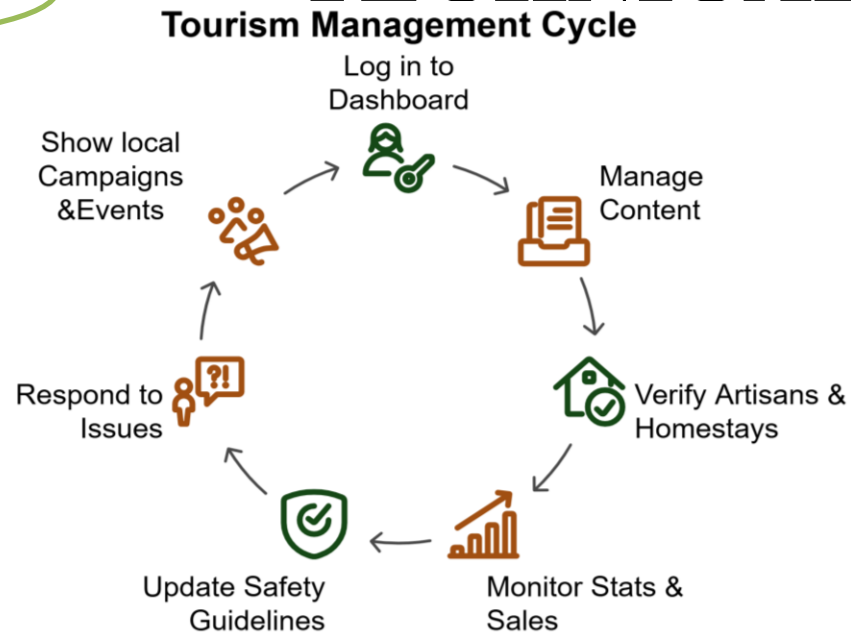
**How to plan and enjoy a trip?**

**Open Portal**
Select language for navigation

**Explore Destinations**
Discover potential travel spots and activities

**Plan with AI**
Use AI to create a personalized itinerary

**Shop Local Crafts**
Support local artisans and find unique souvenirs

**Check Safety Info**
Ensure a safe and secure travel experience

**Ask Chatbot**
Get instant assistance and answers to queries

**Use Case Diagram - Smart Digital Tourism Platform (Jharkhand)**

Made with Napkin

Tourist — Local Provider — Admin

**Smart Tourism Platform**

- Interactive Maps & AR/VR Previews
- Real-time Transport & Location Info
- Multilingual Chatbot (Jharkhand SLM)
- Personalized Itinerary Planning (AI/SLM)
- Buy Tribal Handicrafts
- Book Guides & Homestays
- Blockchain Verification & Secure Payment
- Analytics Dashboard (Admin)

# TECHNICAL APPROACH

SMART INDIA HACKATHON 2025

**Tourism Management Cycle**



Log in to Dashboard → Manage Content → Verify Artisans & Homestays → Monitor Stats & Sales → Update Safety Guidelines → Respond to Issues → Show local Campaigns &Events

**Provider's Cycle in Marketplace**



Sign Up → Get Verified → Create Profile → List Offerings → Receive Orders → Deliver Service → Earn Money → Get Reviews — Provider

## TECHNOLOGY



**Smart Digital Tourism Platform**

**Tourist Device**
«frontend»
Mobile/Web App
(React + Tailwind)

**Server (Cloud or Local)**
«backend»
Backend API
(Node.js + Express)

«db»
Database
(PostgreSQL/MongoDB)

«slm»
SLM Engine
(Jharkhand-specific)

«blockchain»
Blockchain Connector

**External Services**
Payment Gateway

AR/VR Previews

Transport API
(Real-time Data)

Maps API
(Leaflet.js/Geo)

3

# FEASIBILITY AND VIABILITY
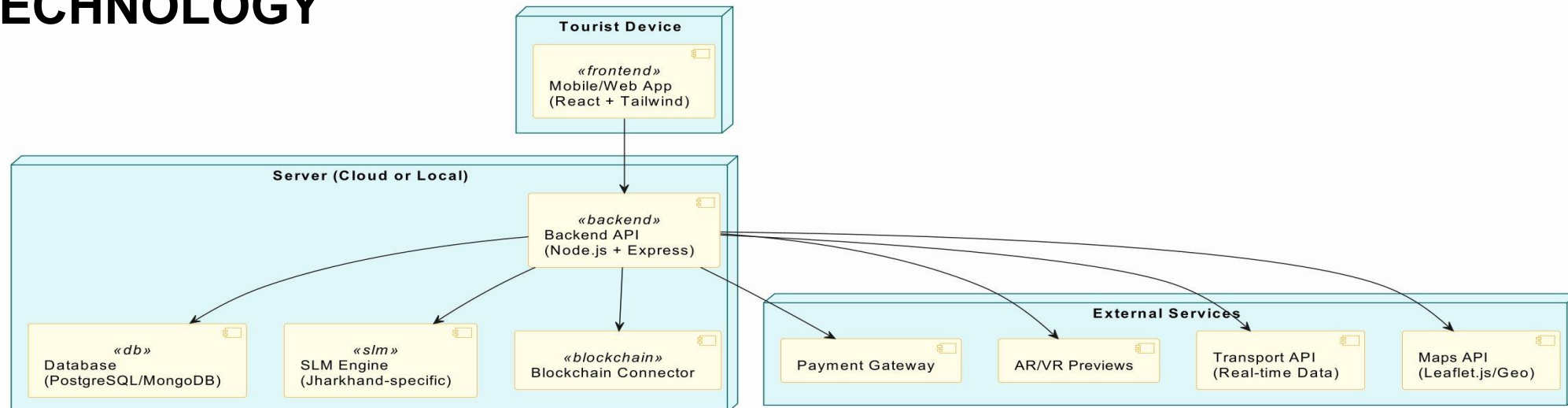
## Feasibility

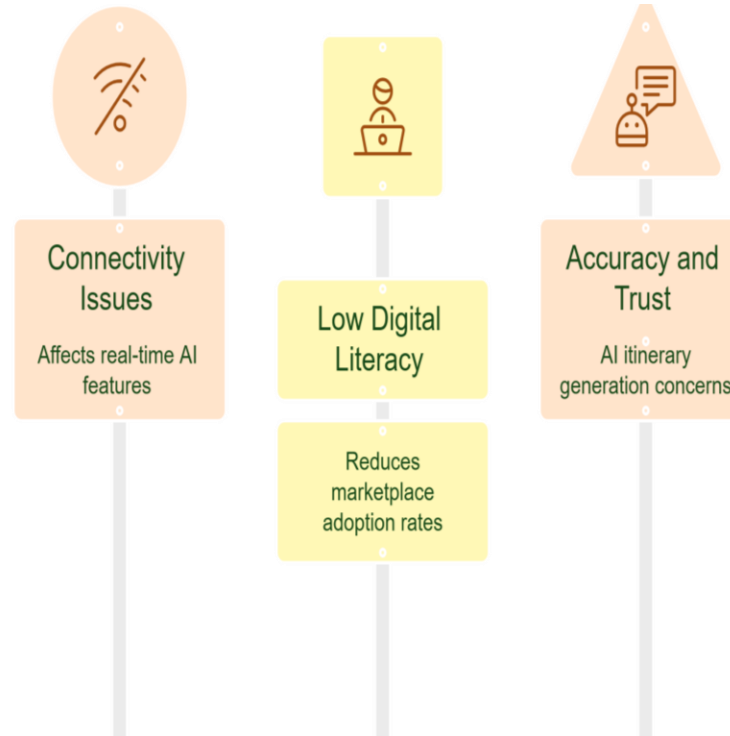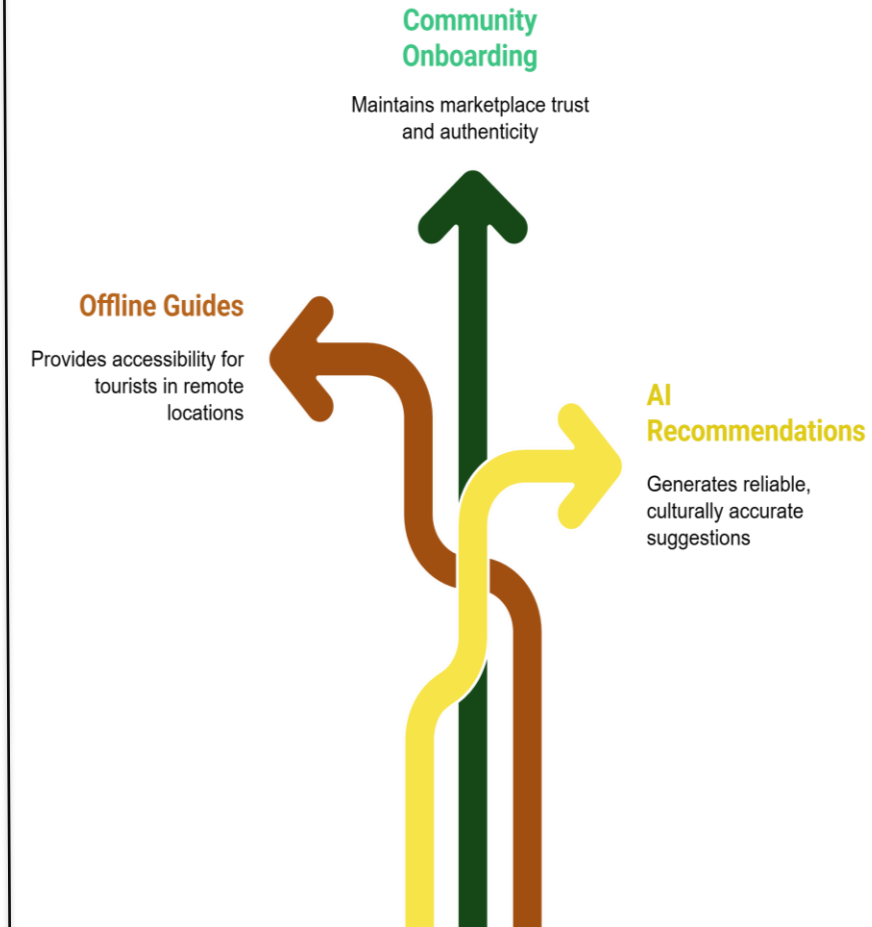| | |
|---|---|
| Core Modules | Multilingual Support, Destination Explorer, AI-Powered Itinerary Planner, Smart Chatbot, Local Marketplace, and Analytics Dashboard —already under active development. |
| AI Features | Leverages open APIs (maps, weather) and existing ML/NLP models. |
| Architecture | Lightweight and scalable. |
| Design | Modular frontend-backend design. |
| Adaptation | Easy for tourism portals in other states or regions. |

## Challenges and Risks

**Connectivity Issues**
Affects real-time AI features

**Low Digital Literacy**
Reduces marketplace adoption rates

**Accuracy and Trust**
AI itinerary generation concerns

## Strategies to overcome

**Community Onboarding**
Maintains marketplace trust and authenticity

**Offline Guides**
Provides accessibility for tourists in remote locations

**AI Recommendations**
Generates reliable, culturally accurate suggestions

# IMPACT AND BENEFITS

## Overall Benefits

Social: Preserves culture & empowers communities

Economic: Boosts livelihoods & tourism revenue

Environmental: Promotes eco-tourism & sustainability

Future Impact: AR/VR, digital payments & real-time services

## Tourists

Hassle-free Trip Planning with real-time recommendations.

Reliable Travel and weather Information

Immersive Eco-Cultural Experiences through curated destinations and local artisan interactions.

## IMPACT AND BENEFITS

## Government and Officials

Access to Data-Driven Insights

Promotes Sustainable Tourism

Facilitates Monitoring and Planning

## Local Communities

Direct Engagement via Marketplace

Verified Profiles

Increased Income Opportunities and recognition of tribal culture and heritage.

# RESEARCH AND REFERENCES

- Jharkhand Tourism official portal.
- Articles on eco-tourism and tribal culture in Jharkhand.
- Research papers on AI-powered tourism solutions.
- Studies on blockchain-based verification systems.
- Inspirations: Incredible India, Airbnb Experiences, MakeMyTrip AI Assistant.

**Team -**
- Varun Narayan Jain
- Vaishnavi Kaushal
- Charvi Gupta
- Archisha Garg
- Pratham Mishra
- Shaurya Aggarwal

**GitHub:** Jharkhand Tourism
**Video Presentation:** Jharkhand Tourism Prototype