AR/VR IN TRAVEL APP

Use of AR/VR in Travel Apps for Jharkhand

1. Introduction

Jharkhand is rich in natural beauty, tribal culture, and historical heritage, with sites such as Netarhat, Patratu Valley, Betla National Park, Hundru Falls, and Baidyanath Dham in Deoghar. However, many travelers are unaware of the cultural depth and hidden attractions due to limited digital engagement. An app integrating Augmented Reality (AR) and Virtual Reality (VR) can enhance tourism by providing immersive experiences, interactive guidance, and cultural storytelling.

2. How AR/VR Works in the App (pravas)

2.1 AR-Based Monument

Problem: Travelers often miss contextual information about monuments and sites.

* Solution: AR overlays provide 3D models, and historical facts when select that particular site
* pravas: At Betla Fort,when you select it the screen will show how it looked currently , along with historical facts.
* 2.2 Virtual Reality Tours
* Problem: Remote areas or seasonal conditions (monsoon floods, summer heat) limit access to sites.
* Solution: VR headsets or in-app VR mode provide immersive 360° tours of scenic spots.
* pravas: A traveler in Ranchi can experience a 360° Patratu Valley sunset or forest safari in Betla National Park from home.

2.3 AR Cultural Storytelling

* Problem: Jharkhand’s tribal festivals, handicraft materials and monuments underrepresented.
* Solution: AR brings cultural heritage alive with 3D animated characters, costumes, and products.
* pravas:selecting the sites can show you the famous and authenticate 3d models of products you can buy from local markets.

2.5 VR for Accessibility

* Problem: Elderly or differently-abled tourists cannot easily visit hilly terrains or remote caves.
* Solution: VR tours make inaccessible locations virtually available.
* Jharkhand Example: A VR tour of Parasnath Hill (Shikharji) helps those who cannot physically climb it.

3. How Travelers Access the AR/VR Features in Jharkhand

1. Download & Install: App available on Google Play Store/Apple App Store.
2. Enable Camera & Sensors: Required for AR camera.
3. Site selection Mode: select the particular site you desire to visit and get virtual tour to it with its historical facts and information.
4. VR Experience Mode: Switch to VR mode for 360° guided tours of Netarhat, Betla, Patratu, and tribal festivals.
5. Cultural Library: Access stored AR/VR content offline for regions with low connectivity.
6. Local marketplace: get the access to 3d models of products and handicrafts materials to make your trip memorable.

4. Summary

* AR/VR enhances tourism by making Jharkhand’s cultural and natural heritage interactive, immersive, and accessible.
* AR adds real-time experience storytelling at monuments and natural sites.
* VR enables remote exploration, cultural immersion, and accessibility for all travelers.
* Together, AR/VR can transform Jharkhand’s travel app into a digital tourism gateway, improving tourist engagement and promoting Jharkhand globally.

5. AR/VR App Flowchart

1. Traveler (User): Opens AR/VR mode in the app.
2. Mobile App (Camera/VR Mode):select site.
3. AR/VR Engine:display model and information.
4. Content Delivery: Fetches 3D models, cultural stories.
5. Immersive Output: User sees AR overlays on monuments (history, directions) or experiences VR tours (forests, festivals, valleys).