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7 Wonders Of India: A 360° Virtual Tour Experience

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ABSTRACT:

Create a virtual tour using 360 VR technology to take visitors to some of India's most famous locations on an enthralling virtual adventure. Taj mahal architectural wonder of Konark sun temple sun-kissed grandeur Hampi ruins majestic historical site Gomateshwara statue monolithic wonder Khajuraho temples erotic sculptures Nalanda university institute of national importance golden temple holiest Sikh shrine.

Keywords: *history buffs, 360-degree virtual reality technology, cultural appreciation, captivating digital journeys, and India's wonders.*

I.INTRODUCTION

The 7 wonders of India represent some of the country's most iconic and culturally significant landmarks. Each expresses India's rich history, architectural brilliance and spiritual heritage from the majestic Taj Mahal to the ancient ruins of Hampi these wonders attract millions of visitors every year offering a glimpse into India's diverse cultural collages. however physical access to these sites is often limited by geographical financial or logistical constraints preventing many from experiencing their nobility technological advancements in virtual reality VR and 360 degrees immersive technologies offer a new solution to this problem whereby users can visit cultural heritage sites remotely with a remarkable degree of realism a 360 degrees virtual tour of the 7 wonders of India. can make accessibility equivalent to experience whereby users can interact with these monuments from anywhere in the world such a platform is not only an education and travel tool but is also key to digital preservation. so that these sites are enjoyed by future generations through this journey the paper brings to fore how digital advancement can revolutionize heritage tourism opening up India's architectural masterpieces to the masses while maintaining their historical value in an ever more digitalized world there is no commonly accepted list of 7 wonders of India that is universally applied or linked with 3D glasses the concept of 7 wonders of India may differ but it usually points to iconic structures such as the taj mahal golden temple Hampi and so on although 3d glasses are employed to improve the viewing experience of 3D material they are not generally employed to watch these landmarks in a 3d manner.

II. RELATED WORK

Viewing experiences and 3D glasses by using specialized lenses to filter light, 3D glasses are designed to create the appearance of depth and three dimensions. so that each eye perceives a slightly different image this technology is most often employed in cinema and other media. where images are projected onto screens although there are different kinds of 3D glasses e.g. polarized active shutter, they all operate on the principle of showing

two slightly different images to the eyes of the viewer 7 wonders of India and landmarks the term 7 wonders of India is usually used to describe a list of important historical architectural and cultural landmarks of the country. some of the landmarks that are most commonly covered under such lists are the taj mahal golden temple Hampi and so on these sites are usually watched in person or through images and videos yet not in a 3D manner that needs special glasses on the whole 3d glasses are not employed to watch 7 wonders of India since these sites are not presented in a 3D manner that needs special glasses the intention of 3d glasses is to upgrade the viewing experience of 3D material and not to view actual world landmark.

How it works photography high-res images shot with fisheye lenses or drones stitching PTGUI or adobe photoshop software combines images into one seamless panorama interactive platform embedded within websites or VR headsets for true immersion.

Benefits accessibility allows virtual travel for those who cannot travel. Physical education helpful for students and scholars researching Indian heritage preservation prevents physical degradation of monuments.For example google arts culture has 360-degree views of taj mahal and Hampi archaeological survey of India provides virtual tours of Khajuraho and Konark.

III. PROPOSED SYSTEM

In order to produce a rich and engaging virtual heritage experience the system suggested combines a range of elements all designed to enrich cultural tourism through technology.

site selection and content scope: Carefully select a combination of historical architectural and culturally significant heritage sites across India selection made on the basis of heritage significance tourist popularity accessibility and preservation priority.

360 degrees capture: Use high-definition 360 cameras attached to drones and handheld stabilizers for aerial and ground capture shoot dynamic immersive scenes that mimic real-world navigation.

cultural immersion and storytelling: Add cultural content like traditional music, local dance rituals and festivals to create emotional connect, record expert interviews with historian architects and local guides to create narrative-based experiences allow storytelling in various languages for diversity.

Platform development: Develop a mobile app and responsive web platform to publish the VR content, provide intuitive navigation searching bookmarking and share capabilities integration with social networks for content distribution and user participation.

3D Modelling and VR building: Create photo-realistic 3d models using tools such as blender unity or unreal engine utilize VR building software to enable interactive exploration of the environments by the users.

User interaction and analytics: Implement user feedback mechanisms real-time interaction such as quizzes or tours and personalization options utilize analytics to track user behaviour duration of engagement and patterns of interaction.

Collaborations and outreach: Collaborate with tourism ministries archaeological organizations and educational institutions organize awareness campaigns via online advertisements educational courses and digital tourism festivals.360 degree capture rendering utilization of drones 360 degrees cameras and photogrammetry for high-resolution photography integration with google street view or bespoke VR rendering virtual tour platform web-based interface html5 web GL three JS mobile or

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VBackend databases and cloud storage for high-resolution media, as well as VR support for Oculus Google Cardboard interactive hotspots for historical information audio guides and augmented reality overlays user analytics to monitor engagement augmented reality AR features historical reconstructions e.g. how Hampi looked during its prime, including 3D models of artifacts with detailed descriptions, multimedia integration, audio commentary in various languages, video documentaries, and expert interviews.

IV. ARCHITECTURE

Fig 1: Architecture depicts a web application system that has several interconnected elements. The user accesses the system via the frontend which interacts with the backend and API services and authentication service provides secure access by authenticating .the users credentials the user upon authentication can make a request for information which is processed by the system and utilized to query a centralized database the users input involves choosing a particular state which refines the data retrieval from the database according to the chosen state appropriate data classified as wonders is retrieved and made available to the user all this process guarantees a safe and organized course of information from user input to the output fig1 system architecture

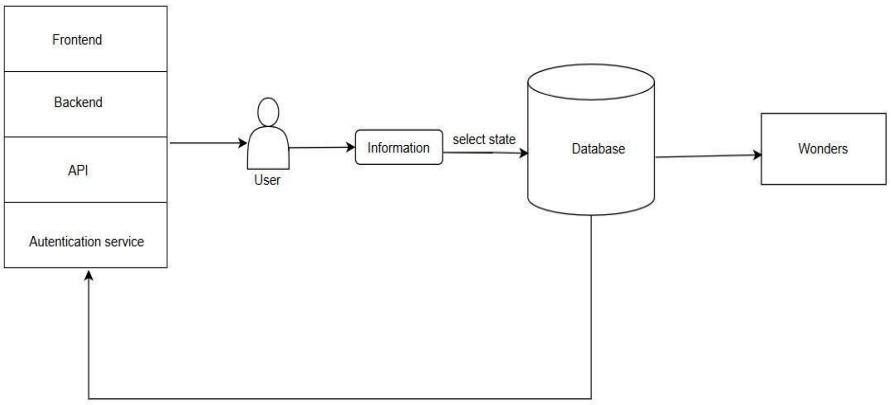

Fig1: System Architecture

Data Collection:

Data collection on-site 360-degree photography and lidar scanning coordination with historical accuracy development frontend unity 3dweb XR for VR react.js for web backend node.js using firebase my SQL for data management user testing and feedback pilot test with students historians and tourists iterative enhancements on the basis of UX feedback expected outcomes improved accessibility for distance education ,virtual tour culture through digital archiving enhanced tourist engagement before after visit

V.IMPLEMENTATION

The 7 wonders of India 360 virtual tour where users travel around India world famous custom sites in high-definition 3d on VR or AR glasses photorealistic 3d modelling Virtual surround audio and interactive storytelling come together in this

project to deliver the exciting virtual tourism skill main implementation details.

Module Split up:

Selection of the 7 Wonders of India: The following sites feature in the virtual tour taj mahal Agra iconic white marble mausoleum Hampi Karnataka remains of the Vijayanagara empire Konark sun temple Odisha ancient chariot-shaped temple Khajuraho temples Madhya Pradesh renowned for intricate erotic sculptures Nalanda university Bihar ancient seat of learning Gomateshwar statue Karnataka-statue of unity golden temple Amritsar holiest Sikh shrine.

Technology stack: VR platforms google cardboard web VR, AR Applications unity 3d AR core web 360 tours utilizing portals such as Matterport or bespoke web GL solutions.

User experience design: Wear 3d glasses VR headset or AR smartphone choose a wonder from interactive menu walk around in 360 zoom and tap hotspots learn through ai guide historical trivia architectural specifications share experience take screenshots or video for social media.

Monetization accessibility: Freemium model free basic tour paid premium options expected tours museum school partnerships educational VR kits offline mode downloadable tours for remote locations. Increased accessibility virtual tours eliminate geographical and economic barriers enabling individuals across the globe to experience India’s cultural heritage anywhere.

Educational value schools and universities can use virtual reality VR experience to make lessons Come alive providing immersive and interactive learning experiences. Tourism promotion by providing interactive previewing of India's monuments virtual tours are able to appeal to international visitors and increase interest in tourism. Cultural conservation preservation of India's rich cultural heritage for future generations by digitally preserving monuments protects them from deterioration or destruction.

VI. ALGORITHM

Step 1: Setup HTML structure

- Define the basic HTML structure with <head> and <body>.
- Include required styles and the jQuery library.

Step 2: Style the page with CSS

- Set body background, font sizes, and positioning for popup boxes.
- Assign individual positions to different popups (Uttar Pradesh-txt, Bihar-txt, etc.) using position: absolute for placement.
- Style. hide class to be used for all popup elements.
- Style image sizes and heading fonts.

Step 3: Add popup content

- Create div elements for each state representing a wonder (Taj Mahal, Golden Temple, etc.).
- Inside each div, add:
- Name of the place
- An Image
- A clickable link to a detailed page.

Step 4: Insert map

- Embed the image of India (indiamap1.jpg) with an image map.
- Define clickable area regions for different states using coords and shape.

Step 5: Hide all elements with a hidden class (popup’s). For each marker-<state> (area elements on the map) Use mouse move event to hide all popups (hide)

Step 6: Handle multiple clickable regions Karnataka has two wonders (Gomateshwara and

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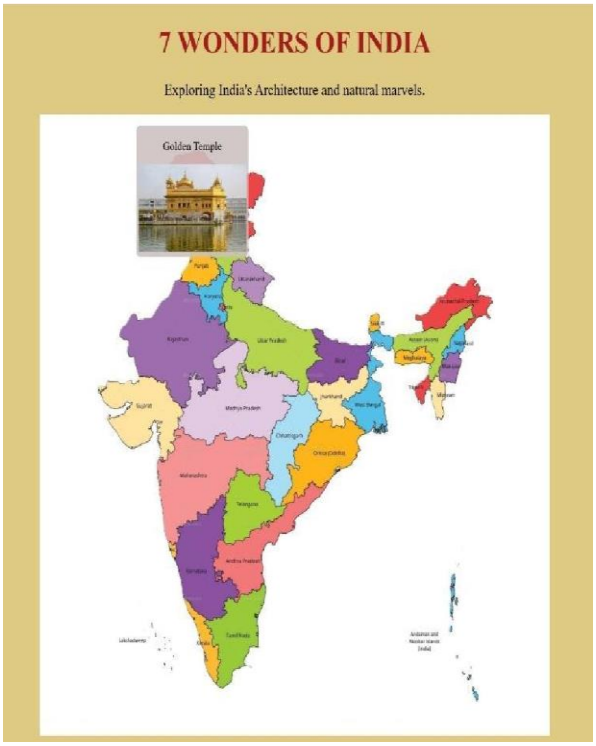
Hampi), so two overlapping s share the same class. The jQuery logic still applies correctly, toggling the same popup box showing both wonders.

VII. RESULTS:

Fig 2: shows the overall India map

fig2 displays the general India map the fig 2 represents India map in this map we have all states and there are only 6 states which includes wonders of India in this we have used the html style.css and java script for popup wonders when we hover the cursor on the state where the wonder exist it shows popup of existed wonder and its image when we clicked on that image it shows the brief description of the wonder



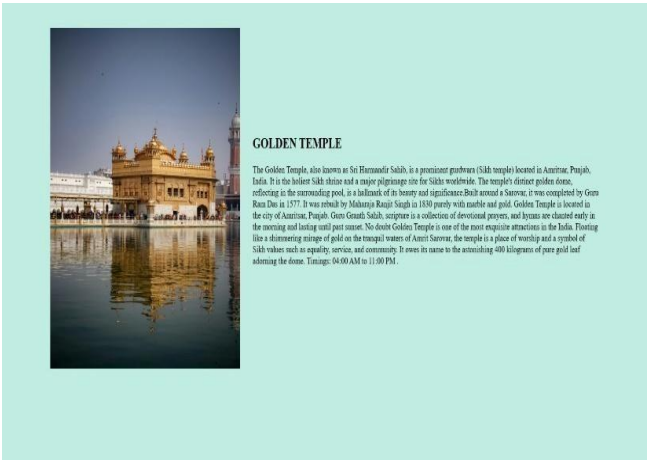


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Fig3: Popup of Golden Temple

Fig 3: indicates popup of golden temple when we place cursor on Punjab state it shows the wonder i.e. golden temple and we clicked on that specific image it displays the description of wonder clearly as fig4

Fig 4**:** Popup of Taj Mahal

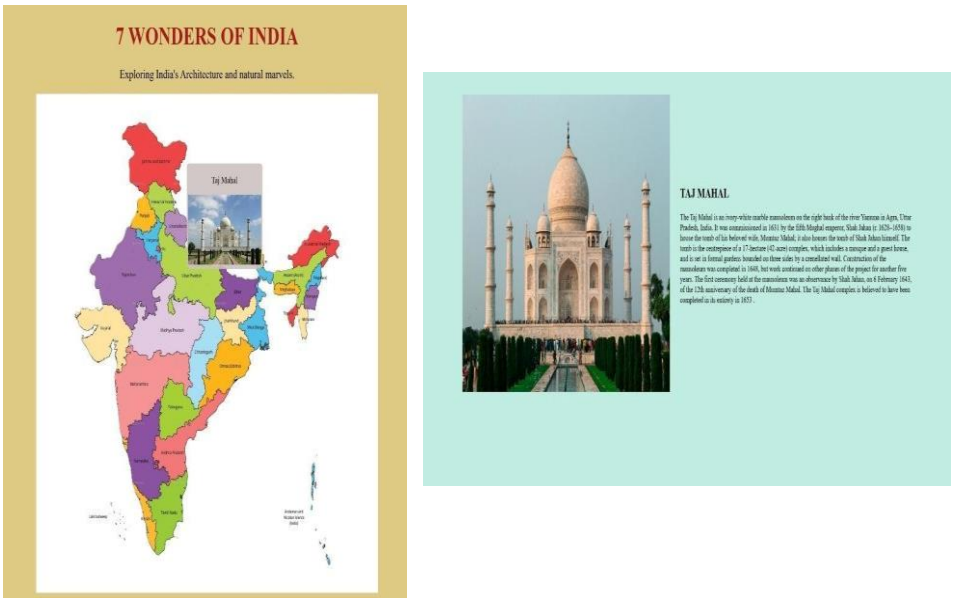

Fig 4: Illustrates popup of taj mahal when we place cursor over Uttar Pradesh state it shows the wonder i.e. taj mahal and we clicked on that specific image it displays description of wonders

VIII. CONCLUSION

The 7 wonders of India are a symbol of India's rich heritage and 360-degree virtual tours increase their global visibility through the use of technology that India conserves. its heritage and make it accessible to the further world the inclusion of a 360 degrees virtual tour experience increases accessibility and interaction so people around the world can view these wonders virtually. such technology initiatives conserve heritage facilitate tourism and aid scholarly research by making available immersive interactive learning spaces for the future the growth of virtual reality VR and augmented AR would further reshape heritage tourism with ai guided in depth contextual narratives and real time historical reconstructions therefore blending India's architectural grandeur with cutting-edge pioneer technology ensures its preservation and worldwide appreciation for future generations .

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