AR TOURISM

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Abstract—Tourism is a rapidly evolving sector with travellers all over the world searching for new exciting experiences. Technological advances have changed the way we travel and these new developments promise an even more interactive and exciting experience. History plays an important role in the cultural representation of any place. So, to experience India, one has to visit the places with historical importance along with other places. So with this in mind, we propose a system with which the travellers can experience the destinations with historical significance, specifically those which were damaged or destroyed completely in their former glory. Our goal is to create a completely immersive experience for tourists all over the world with which they can learn the historical significance of a certain destination and experience it in its entire prestige. We intend to implement this using Augmented Reality (AR) which can give the users an insight into the exciting history of our country.

I. INTRODUCTION

History plays an important role in the cultural representation of any place. So, to experience India, one has to visit the places with historical importance along with other places. The travellers can experience the destinations with historical significance, specifically those which were damaged or destroyed completely in their former glory. This platform provides a completely immersive experience for tourists all over the world with which they can learn the historical significance of a certain destination and experience it in its entire prestige. We intend to implement this using augmented reality (AR) which can give the users an insight into the exciting history of our country.

II. PROBLEM DEFINITION

Tourists all over the world are in search of new experiences after being confined within their homes for almost two years. So our main purpose is to provide new experiences to travellers all around the world by developing an application where users could view historical monuments in their former glory using AR . There exist similar applications but exhibit AR models for monuments that are perfectly preserved and not the ones that are destroyed partially or completely.

III. OBJECTIVE OF THE PROPOSED SYSTEM

Objective of the proposed system is to build a platform for showcasing 3D models of monuments or heritage sites which were damaged or completely destroyed using augmented reality. The main objectives are to create a new and immersive experience for users through AR technology and to preserve the rich and varied history of our country by mapping out the places with historical significance using aforementioned methods.

IV. SYSTEM ARCHITECTURE

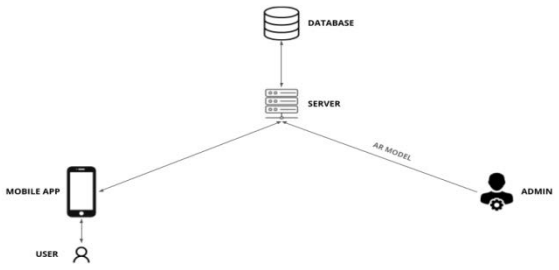

Fig. 1

Modules
1. Admin
2. User

This user can access information about various monuments through the application which connects to the database via a server.
The admin can add and update details about monuments and add new ar models.

V. SYSTEM WORKING

A. Working Mechanism

Customer enters the app and the app gathers the current location of the user. And based on this location a list of monuments or structures with historical significance will be listed whose AR models are available. When a user clicks on the desired AR model to be viewed then the camera will open and the app will start to detect plane surfaces to display the AR models and when a plane is detected the user has to click where on that surface the model is to be placed and the app will place the model in the desired place. When the AR model is displayed the historical information of that place and specifically that of the sculpture or model is narrated to the user. This will ensure an immersive experience as the user is viewing the AR model and listening to the history of that place simultaneously. With this app the user can compare the displayed AR model and the real world remains of the model side by side.

B. Functionality of the modules

➔ User Module

- Sign up for the application.
- Login with proper credentials.
- Get the list of monuments or structures whose AR models are available.
- Select a monument from the list.
- View the monument in AR.
- View or listen about the history associated with the respective monument.

➔ Admin Module

- Add new AR models.
- Add the historical information about the respective models.
- Maintain/update those models.
- View the list of all the monuments or structures listed in the platform.

C. ER diagram

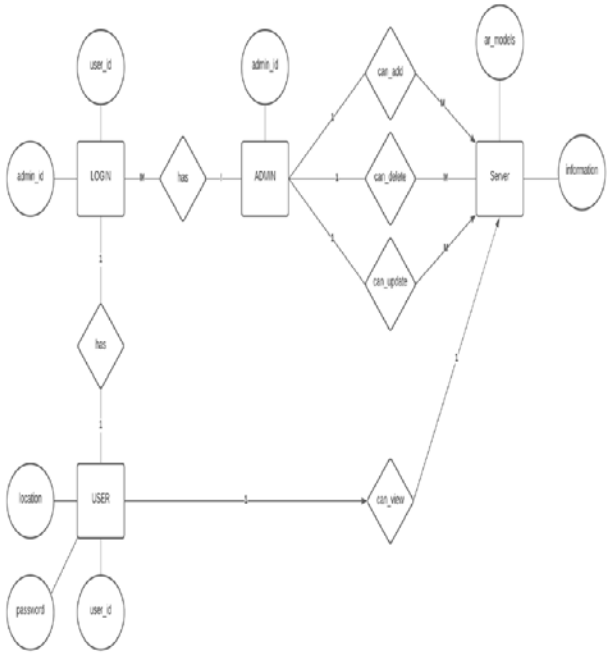

Fig. 2

VI. SIGNIFICANCE

One of the major significance of this application is that, with this platform we can make people all over the world aware and interested in the diverse history our country has. This will give a major boom to our tourism sector and also educate people how our ancestors lived during their time. Through our project we believe we can give tourists all over the world an immersive experience they have never seen before.

VII. CONCLUSION

This platform acts as a bridge between the real and virtual world and with this platform we can digitally conserve monuments or structures which have historical significance. With the help of our platform travellers all over the world can get to see and know about lesser known places with historical significance. This platform helps people know the importance in preserving structures with historical significance since it plays an important role in telling the future generations about our culture.

VIII. Relevance and Future work

The main relevance of our project is that with this platform we can make people all over the world aware and interested in the diverse history our country has. This will give a major boom to our tourism sector and also educate people how our ancestors lived during their time. Through our project we believe we can

give tourists all over the world an immersive experience they have never seen before.

Furthermore we can use this system and incorporate it into the metaverse where it has tremendous potential in the domain of MR(Mixed Reality) which is a combination of AR and VR. This system will also be tremendously helpful in the digital restoration and conservation of places with historical significance in India.

IX. References

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