

Project Report

Team Details

VR in Tourism

Group No. 27

- Satyarth Pandey (106119112)
- Rajneesh Pandey (106119100)
- Nikhil Murari (106119084)
- Aman Anand (106119010)



Problem Statement

Due to travel restrictions around the world, Global Tourism came to a halt, but the urge to travel didn't.

We addressed this problem by using Virtual Reality in the field of Tourism (Unity 3D).

One of the greatest strengths of VR is allowing the user to experience the feeling of "being there". Whilst regular images and videos can work well for showing what a destination has to offer, they don't often elicit an emotional response.

Design

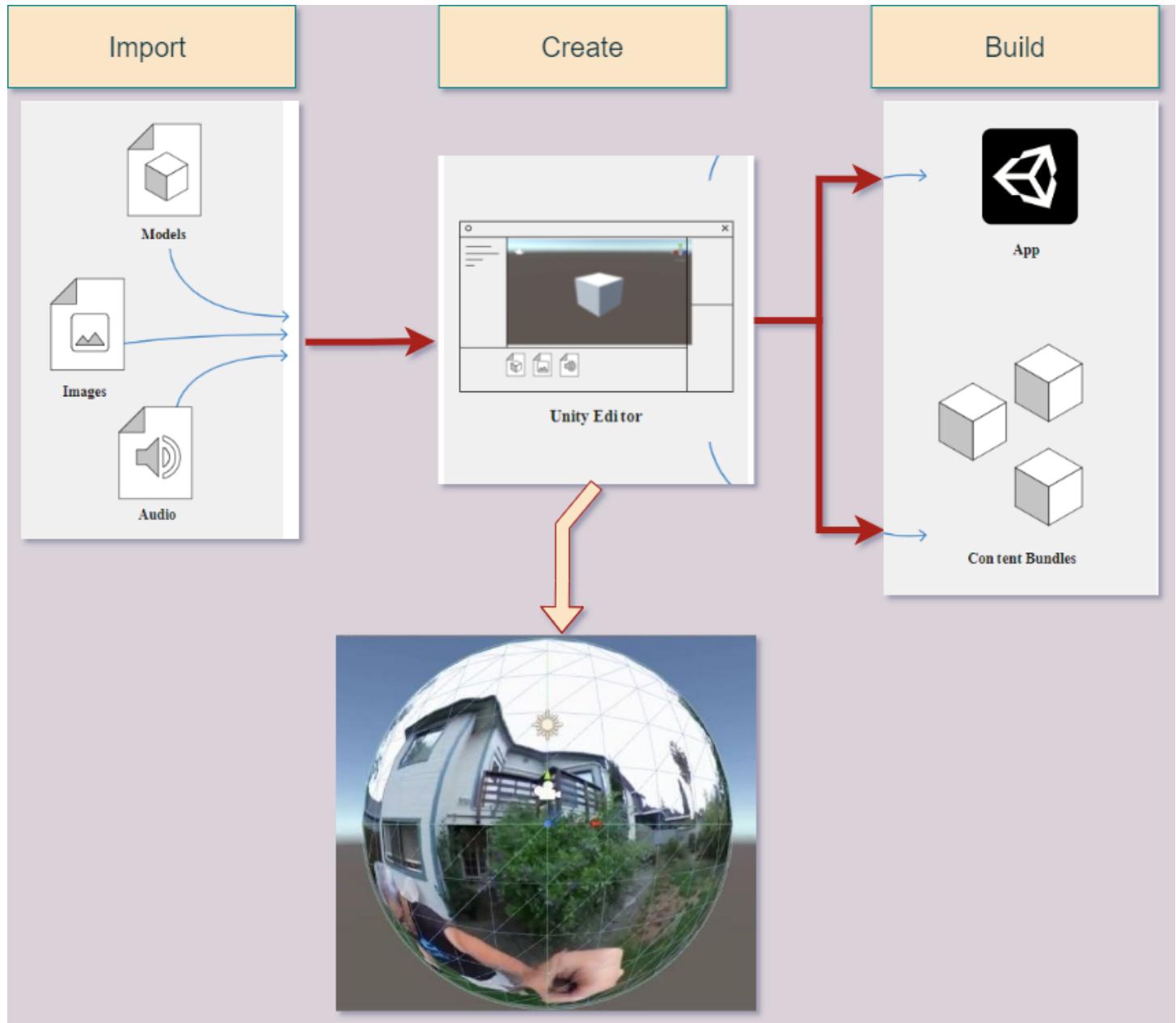
VR technology in tourism

VR can be used in many different ways in the tourism industry. The technology is evolving at a rapid rate and the use of VR within tourism is expanding along with the technology.

The main VR technologies that are used in the travel industry are VR tourism videos/photography.

- VR travel experiences by travel companies
- Virtual hotel tours by travel companies and hotels
- Technologies to make VR travel more realistic
- VR travel experiences for the elderly
- VR flight experiences
- Virtual experiences of landmark destinations
- Virtual booking interface

Block Diagram



Tools Used

Software: Unity 3D, VS Code, GitHub, Android Studio

Programming language: C# (mostly), ShaderLab (HLSL)

Packages: Unity Assets.

We Used Photospheres for virtual reality and also 3D Model Prefabs in it.

We build an Android App by Embedding the VR model built on unity to run.

Code Link and Instruction for Execution

Link :

<https://drive.google.com/drive/folders/1OcR4Q-5wJwG7CtTsCFHeJaKJHRIGGUW?usp=sharing>

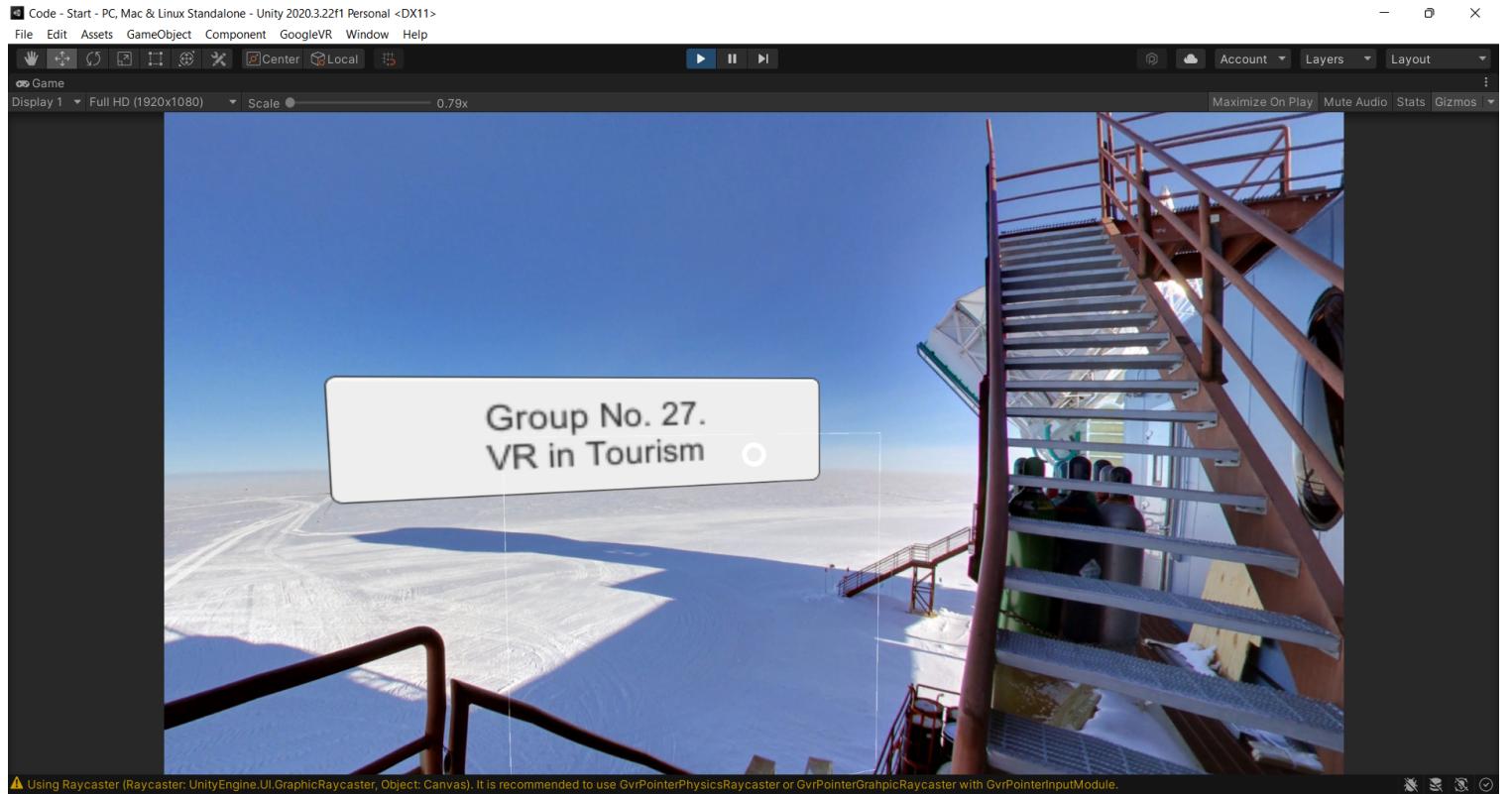
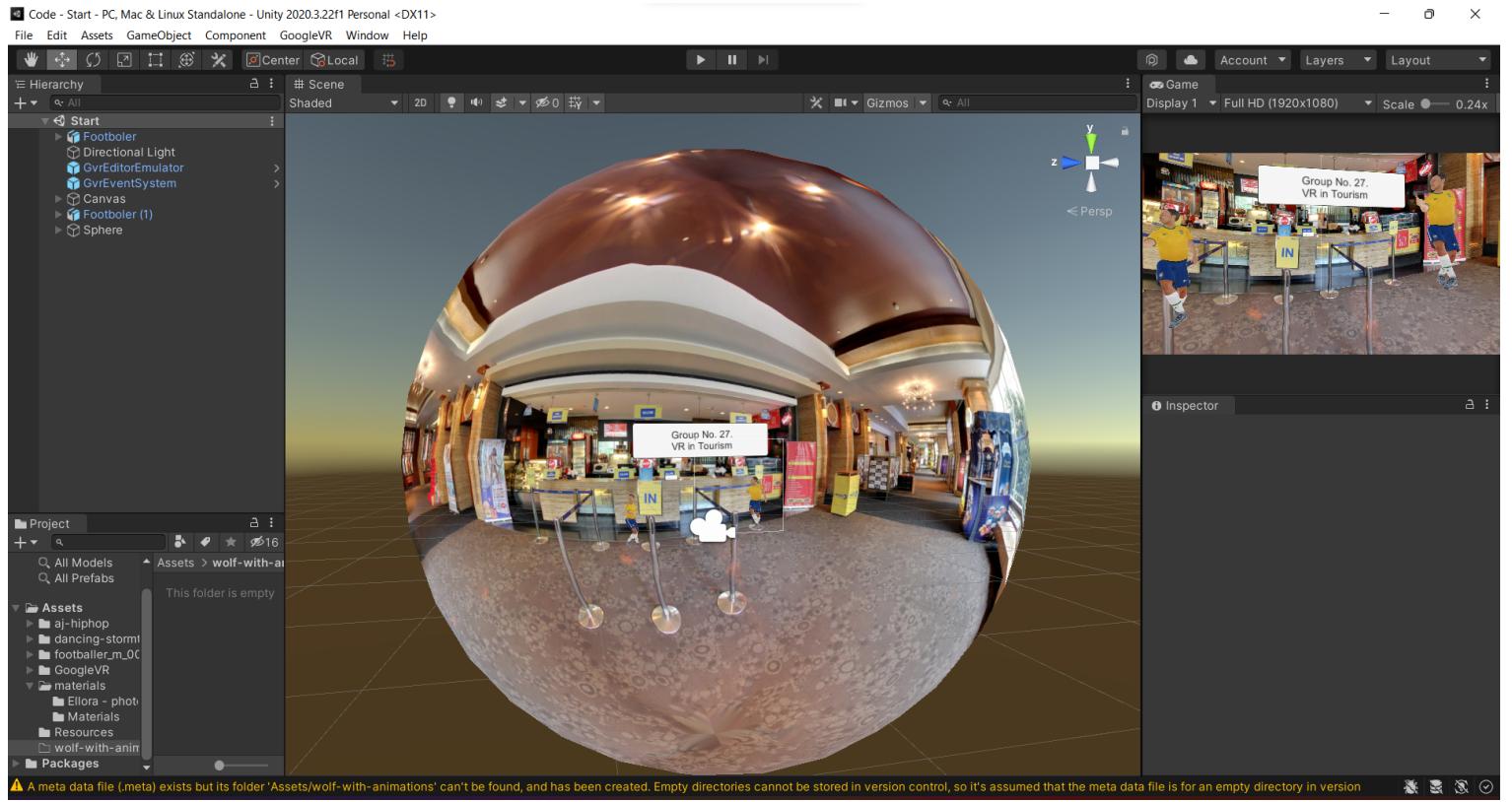
Instruction :

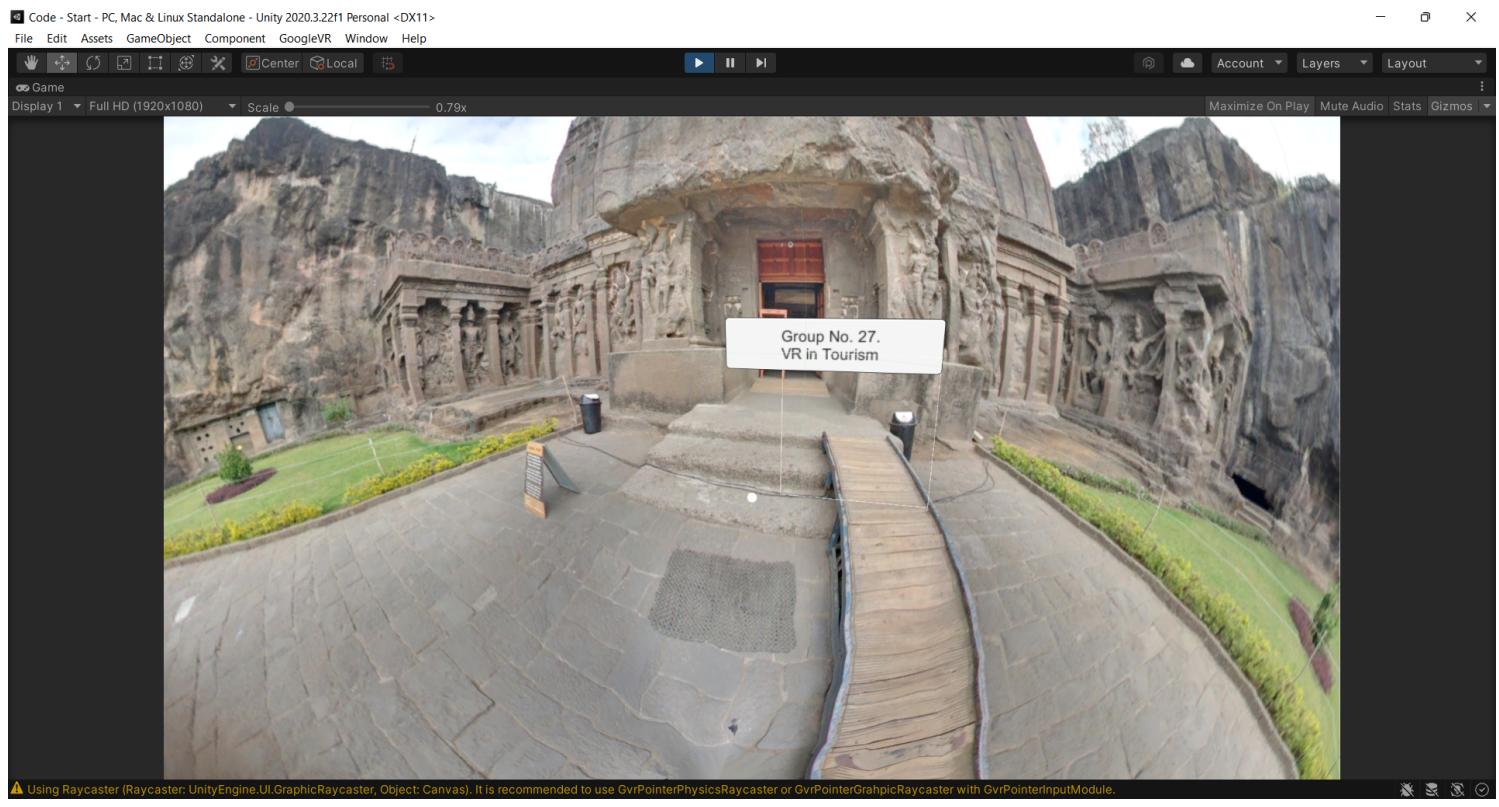
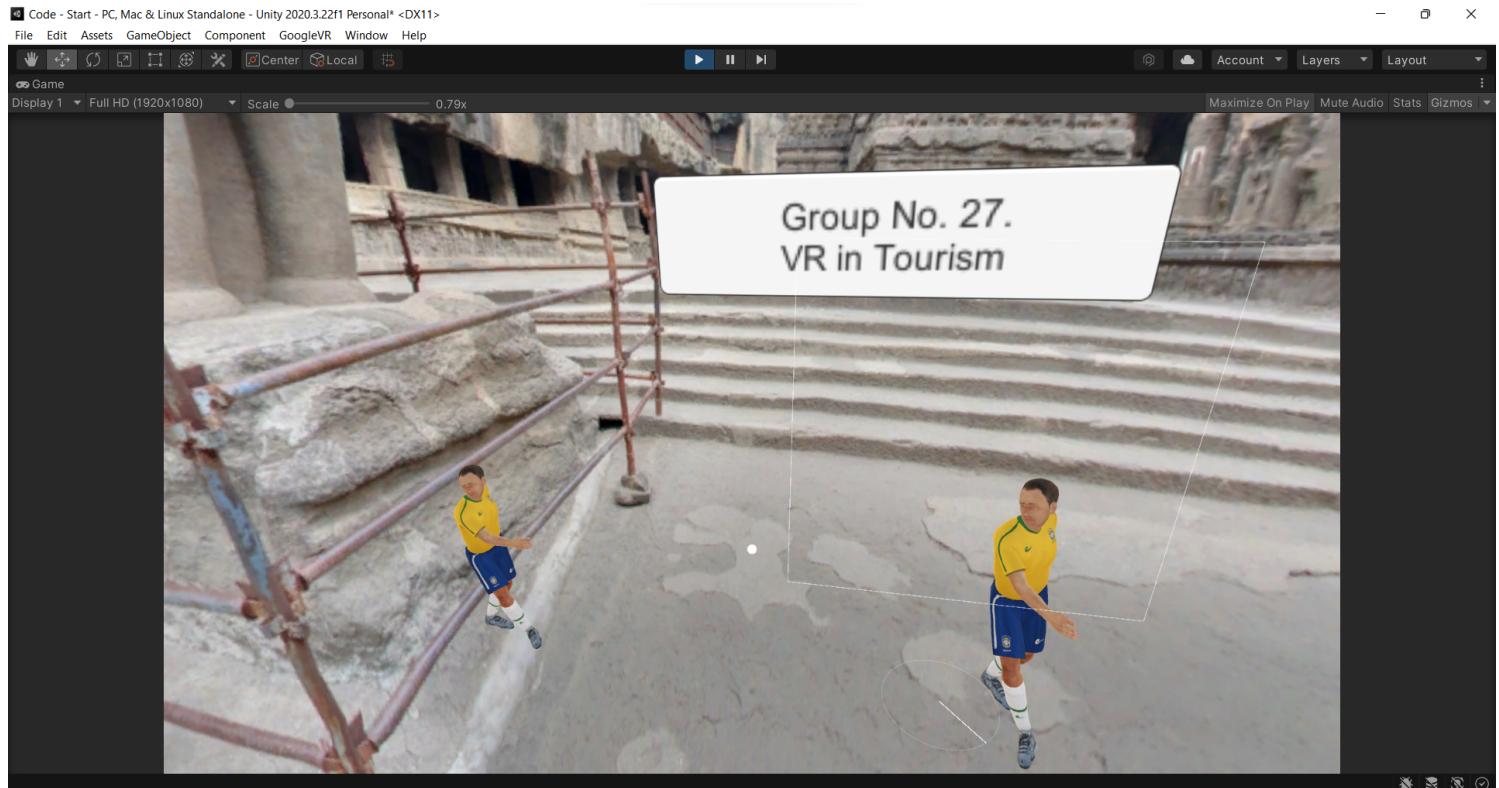
- Extract the code and Open it in Unity 3D
- All the required packages will be downloaded automatically by unity
- Select the main camera from the scene Hierarchy window and start the Simulation.

To Run on Mobile

- Users can also download and install the **apk file** on an Android device and enjoy the experience with a **VR headset** like Google Cardboard.

Sample Test Case





⚠ Using Raycaster (Raycaster:UnityEngine.UI.GraphicRaycaster, Object: Canvas). It is recommended to use GvrPointerPhysicsRaycaster or GvrPointerGraphicRaycaster with GvrPointerInputModule.

Code - Start - PC, Mac & Linux Standalone - Unity 2020.3.22f1 Personal <DX11>

File Edit Assets GameObject Component GoogleVR Window Help



Hierarchy



All



Start

- ▶ Footboler
- Directional Light
- GvrEditorEmulator
- GvrEventSystem
- ▶ Canvas
- ▶ Footboler (1)
- ▶ Sphere



Project



Favorites

- All Materials
- All Models
- All Prefabs

Assets

- ▶ aj-hiphop
- ▶ dancing-stormtrooper
- ▶ footballer_m_001_unity (1)
- ▶ GoogleVR
- ▶ materials
- Resources
- wolf-with-animations
- ▶ wolf-with-animations
- ▶ CameraView
- ▶ gg
- ▶ Home_Base_Groove
- ▶ Insideout
- ▶ Inverse Sphere
- ▶ LMNTRIX
- ▶ melody
- ▶ NSC3
- ▶ PlayerMovement
- ▶ South
- ▶ SphereChanger
- ▶ Start
- ▶ Street View 362
- ▶ Swiss
- ▶ Udaipur
- ▶ uvshader 1
- ▶ Wind-Mark_DiAngelo-1940285615



Assets

Assets

- ▶ aj-hiphop
- ▶ dancing-stormtrooper
- ▶ footballer_m_001_unity (1)
- ▶ GoogleVR
- ▶ materials
 - ▶ Ellora - photospheres
 - ▶ Materials
 - ▶ Resources
 - wolf-with-animations
- ▶ Packages



How it is different from the existing apps?

This App can run on any Android device (Apk file attached with code)which gives a fully immersive experience with VR Headset to the user.

Users can customize the location which they want to experience.

This model targets real-world places build on the photosphere which brings the user experience closer to reality.

Contribution of each member of the team.

Code :

Photosphere and Animations: Rajneesh Pandey (106119100).

Dancing Footballer: Satyarth Pandey (106119112).

Models in Photosphere :

Ellora: Nikhil Murari (106119084)

Street View: Aman Anand (106119010)

Android App: Rajneesh Pandey, Satyarth Pandey

PPT: Rajneesh Pandey, Satyarth Pandey, Nikhil Murari.

Report: Rajneesh Pandey, Satyarth Pandey.

Video Link :

<https://drive.google.com/drive/folders/1csKioKE1pT3Gy1ObbhiNPiHBZrPpb9L?usp=sharing>