Final Year B. Tech. CSE Augmented Reality and Virtual Reality

Assignment No. 7

# Submitted by:

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**Title:** Develop Virtual Reality Application.

**Aim:** To understand the steps for developing Virtual Reality Application.

**Conclusion:** Thus, we have understood the steps and developed Virtual Reality Application.

# FAQs:

1. **What is XR Interaction Toolkit?**

* The XR Interaction Toolkit is a Unity package that provides ready-to-use components for developing interactive AR and VR experiences.
* It includes features like object grabbing, teleportation, UI interaction and ray-based selection, making it easier to implement user interactions without writing complex scripts.

# What is XR Plugin Management?

* XR Plugin Management is a Unity system that simplifies the integration of XR hardware and software by managing platform-specific XR plugins.
* It provides an interface to enable and configure XR providers like OpenXR, ARKit and ARCore, ensuring cross-platform compatibility while reducing manual setup efforts.

# What is the use of Mesh Renderer and Mesh Filter components?

* **Mesh Filter:** Assigns a 3D mesh (shape) to a GameObject, defining its geometry.
* **Mesh Renderer:** Takes the mesh from the Mesh Filter and renders it in the scene, applying materials, lighting, and visual effects. Together, they control how a 3D object appears in a Unity environment.

# What is the use of XR Grab Intractable component?

* The XR Grab Interactable component allows objects in XR environments to be picked up, moved, and interacted with.
* It supports direct grabbing with controllers or hand tracking, as well as remote interactions using raycasting.
* It also includes settings for movement constraints, physics-based interactions and attach points for a more immersive experience.