

## Project: Create a Basic PC VR Shooting Game in a Jungle Environment

Develop a simple, interactive VR shooting game set in a jungle environment. The player must shoot at targets while exploring or interacting within the virtual jungle. This project should highlight your skills in PC VR development, environment design, object interaction, and basic game logic.

### Requirements:

#### 1. Platform:

- The game must be developed for **PC VR**.
- Use **Unity**.
- Support popular VR headsets like Oculus Rift, HTC Vive, or Valve Index.

#### 2. Core Features:

- **Jungle Environment:**
  - Create a **detailed jungle environment**, including trees, plants, and other jungle elements (e.g., rocks, waterfalls).
  - The environment should feel immersive, with appropriate lighting, sound effects, and background ambiance (e.g., jungle sounds like birds and animals).
- **Player Interaction:**
  - Implement a **VR weapon** (e.g., a bow and arrow, gun, or crossbow) that the player can aim and shoot at targets.
  - Use **VR controllers** for aiming, shooting, and reloading.
- **Target Objects:**
  - Design at least **three types of targets**, such as:
    - **Stationary targets** (e.g., targets placed on trees).
    - **Moving targets** (e.g., targets swinging from vines or flying creatures).
    - **Interactive targets** that may trigger animations or environmental effects when hit.
- **Score System:**
  - Implement a simple **scoring system**.
  - Provide feedback when a target is hit (e.g., sound effects, visual effects like a target exploding or disappearing).

#### 3. Core Mechanics:

- **Shooting Mechanism:**
  - Use **VR controller inputs** for firing weapons (e.g., trigger for shooting, grip button for reloading).
  - Ensure smooth aiming and shooting mechanics, with responsive VR controls.
- **Basic Physics:**
  - Targets should react when hit (e.g., shattering, flying off, or triggering animations like a fruit splattering).

- **Immersive Sound and Lighting:**
  - Use **ambient sound effects** and **dynamic lighting** to create a natural jungle feel.
  - Add sounds for shooting, hitting targets, and ambient jungle noise (e.g., birds, wind, water).
- 4. **Bonus Features (Optional):**
  - **Target Variety:** Create **smart targets** that dodge or change speed when the player aims at them.
  - **Weapon Variety:** Add different weapon types (e.g., multiple firearms or bows) with different mechanics and damage output.
  - **Jungle Exploration:** Allow the player to move through the jungle (using teleportation or smooth locomotion) to reach new shooting positions or areas with different target types.
- 5. **Deliverables:**
  - A working **PC VR build** of the game, supporting a popular headset like Oculus Rift, HTC Vive, or Valve Index.
  - A **demo video** (1-2 minutes) showcasing the gameplay and features.

#### **Evaluation Criteria:**

- **Gameplay mechanics:** How well the shooting mechanics are implemented, including VR interactions.
- **Environment design:** Quality and immersion of the jungle environment, with attention to detail in sound and visual effects.
- **Creativity:** Innovative target designs, environmental interactions, and creative use of the jungle theme.
- **Technical skills:** Proficiency in VR controls, physics, and environment building.
- **User Experience:** Fluidity of gameplay, ease of controls, and overall immersion in the jungle.