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HW 7 Written Questions – Game Development

2. a) Describe Grid Snapping and Incremental Snap in Unity.

Grid snapping is a feature that helps position objects with precision by aligning them to a grid. It makes sure objects move in fixed increments. This facilitates placing and aligning assets without manual adjustments.

Incremental Snap refers to the ability to move, rotate, or scale an object by a fixed step size when using the Move, Rotate, or Scale tools. With incremental snap, every action performed on the object will follow a defined increment rather than moving or rotating freely by any arbitrary value.

3. a) Explain the ExecuteAlways attribute in Unity.

The ExecuteAlways attribute allows a script to execute in the Scene mode and Game mode. It is used whenever a developer needs to test the behavior of a script during the development of a game. It can be paired with Application.IsPlaying to determine if the script is executing in the Scene mode or Game mode (True means Game mode and False means Scene mode).

5. a) Explain the behavior of the linear interpolation (LERP) function in Unity. Be sure to explain each of the input parameters of the LERP function.

Linear interpolation, facilitated by the Lerp function, is used to generate smooth transitions of game objects as they move from one point to another. Lerp finds a value between a starting and an ending value based on a travel percentage (0 to 1).

Vector3.Lerp is used to smoothly move objects between positions. Vector3.Lerp(startPosition, endPosition, t) where startPosition is where you begin, endPosition is where you finish, and t is travel percentage, a value between 0 and 1 that indicates the progress of how far it has traveled.