[B-2] Scale the cube

Objective

To learn how to apply vector-based scaling to objects in Unity.

Tasks

1. Scripting Scale:
    a. Edit the “Scale” script to scale the object up and down using vector operations.
    b. The scaling should be controllable through user input (e.g., different keys to rotate around different axes).

Answer key next page!

Answer Key

```
using UnityEngine;

public class Scale_Solution : MonoBehaviour
{
    public float scaleSpeed = 0.5f;

    void Update()
    {
        if (Input.GetKey(KeyCode.UpArrow))
        {
            // Scale up uniformly
            transform.localScale += Vector3.one * scaleSpeed *
Time.deltaTime;
        }
        if (Input.GetKey(KeyCode.DownArrow))
        {
            // Scale down uniformly
            transform.localScale -= Vector3.one * scaleSpeed *
Time.deltaTime;
        }

        // Prevent negative scaling
        transform.localScale = new Vector3(
            Mathf.Max(transform.localScale.x, 0.1f),
            Mathf.Max(transform.localScale.y, 0.1f),
            Mathf.Max(transform.localScale.z, 0.1f)
        );
    }
}
```

Starter Code

```
using UnityEngine;

public class Scale : MonoBehaviour
{
    public float scaleSpeed = 0.5f;
```

```
    void Update()
    {
        // Implement scaling logic using vector operations
    }
}
```