

[B-2] Spin a cube

Objective

Understand and effectively use Unity's 3D coordinate system by creating a simple 3D maze.

Challenge Statement

1. Scripting Rotation:
 - a. Edit the “Spin” script to rotate the object using vector operations.
 - b. The rotation should be controllable through user input (e.g., different keys to rotate around different axes).

Extra Challenge

- Rotate the cube in world space.
 - In other words, regardless of the orientation of the cube, when you press the “up” arrow key, the cube should rotate directly upwards.

Answer key next page!

Answer Key

```
using UnityEngine;

public class ObjectRotation : MonoBehaviour
{
    public float rotationSpeed = 100.0f;

    void Update()
    {
        float rotateX = Input.GetAxis("Vertical") * rotationSpeed *
Time.deltaTime;
        float rotateY = Input.GetAxis("Horizontal") * rotationSpeed *
Time.deltaTime;

        transform.Rotate(Vector3.up, rotateY, Space.World);
        transform.Rotate(Vector3.right, rotateX, Space.World);
    }
}
```

Starter Code

```
using UnityEngine;

public class ObjectRotation : MonoBehaviour
{
    public float rotationSpeed = 100.0f;

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