

GAME DEVELOPMENT CODES

LP1:

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class CharacterController : MonoBehaviour
{
    public float move = 5f;
    public float jump = 5f;
    private Rigidbody2D rb;
    void Start()
    {
        rb = GetComponent<Rigidbody2D>();
    }
    void Update()
    {
        Vector3 movement = new Vector3(Input.GetAxis("Horizontal"), 0f, 0f);
        transform.position += movement * Time.deltaTime * move;
        if (Input.GetKeyDown(KeyCode.Space))
        {
            rb.AddForce(new Vector3(0f, jump), ForceMode2D.Impulse);
        }
    }
}
```

LP2:

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
using UnityEngine.UI;

public class GameController : MonoBehaviour
{
    public Button b1;
    public Button b2;
    public Button b3;
    public Button b4;
    public Button b5;
    public Button b6;
    public Button b7;
    public Button b8;
    public Button b9;
    public int msg;
    public Text message;
    int target = 0;
    void Start()
    {
        target = Random.Range(1, 9);
        b1.onClick.AddListener(()=>action(1));
        b2.onClick.AddListener(()=>action(2));
        b3.onClick.AddListener(()=>action(3));
        b4.onClick.AddListener(()=>action(4));
        b5.onClick.AddListener(()=>action(5));
        b6.onClick.AddListener(()=>action(6));
        b7.onClick.AddListener(()=>action(7));
        b8.onClick.AddListener(()=>action(8));
        b9.onClick.AddListener(()=>action(9));
    }
    public void action(int msg)
    {
        target = Random.Range(1, 9);
        if (msg == target)
        {
            message.text = "Congrats!!";
        }
    }
}
```

```
    }  
    else  
    {  
        message.text = "Try again, Value was : "+target;  
    }  
}  
}
```

LP3:

```
using System.Collections;
using System.Collections.Generic;
using System;
using UnityEngine;
public class ClockController : MonoBehaviour
{
    const float sec = -6f;
    public Transform Pivot;
    void Update()
    {
        var time = DateTime.Now;
        if (Pivot != null)
            Pivot.localRotation = Quaternion.Euler(0f, 0f, sec *time.Second);
    }
}
```

LP4:

```
using System.Collections;
```

```
using System.Collections.Generic;
```

```
using UnityEngine;
```

```
public class Grid2D : MonoBehaviour
```

```
{
```

```
    public GameObject square;
```

```
    public int Width = 5;
```

```
    public int Height = 5;
```

```
    public float padding = 1.3f;
```

```
    void Start()
```

```
    {
```

```
        SpawnGrid();
```

```
    }
```

```
    void SpawnGrid()
```

```
    {
```

```
        for (int x = 0; x < Width; x++)
```

```
        {
```

```
            for (int y = 0; y < Height; y++)
```

```
            {
```

```
                Vector2 spawn = new Vector2(x * padding, y * padding);
```

```
                Instantiate(square, spawn, Quaternion.identity, transform);
```

```
            }
```

```
        }
```

```
    }
```

```
}
```

LP5:

```
using System.Collections;
using UnityEngine;
public class SpawnSquare : MonoBehaviour
{
    public GameObject Prefab;
    public float Interval = 2.0f;
    void Start()
    {
        Prefab.transform.position = new Vector2(100, 100);
        StartCoroutine(SpawnAndDestroy());
    }
    IEnumerator SpawnAndDestroy()
    {
        while (true)
        {
            Vector2 spawn = new Vector2(Random.Range(-8.0f, 8.0f), Random.Range(-4.0f, 4.0f));
            GameObject square = Instantiate(Prefab, spawn, Quaternion.identity);
            yield return new WaitForSeconds(Interval);
            Destroy(square);
        }
    }
}
```

LP6:

```

using System.Collections.Generic;
using UnityEngine;

public class ColorChanger : MonoBehaviour
{
    public List<Color> colors;
    private int index = 0;

    void Update()
    {
        if (Input.GetMouseButtonDown(0) &&
Physics2D.Raycast(Camera.main.ScreenToWorldPoint(Input.mousePosition), Vector2.zero).collider !=
null)
            GetComponent<SpriteRenderer>().color = colors[index = (index + 1) % colors.Count];
    }
}

```

(OR)

```

using System.Collections.Generic;
using UnityEngine;

public class ColorChanger : MonoBehaviour
{
    public List<Color> colors;
    private int currentColorIndex = 0;
    void Update()
    {
        if (Input.GetMouseButtonDown(0))
        {
            Vector2 mousePosition =
Camera.main.ScreenToWorldPoint(Input.mousePosition);
RaycastHit2D hit = Physics2D.Raycast(mousePosition, Vector2.zero);
if (hit.collider != null && hit.transform == this.transform)
        {
            currentColorIndex = (currentColorIndex + 1) % colors.Count;
            GetComponent<SpriteRenderer>().color = colors[currentColorIndex];
        }
    }
}

```

}

}

}