LAB4

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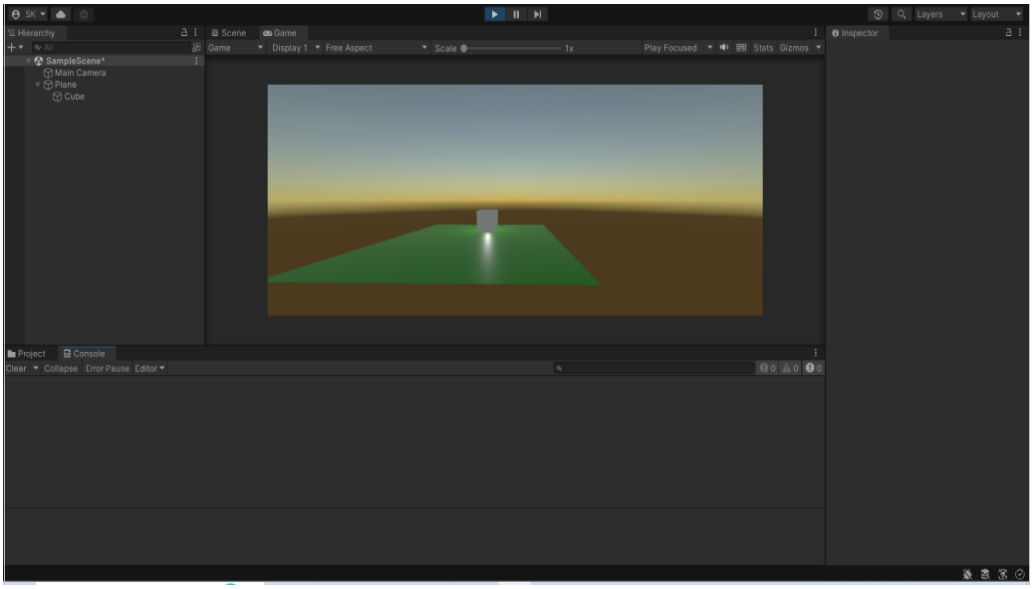
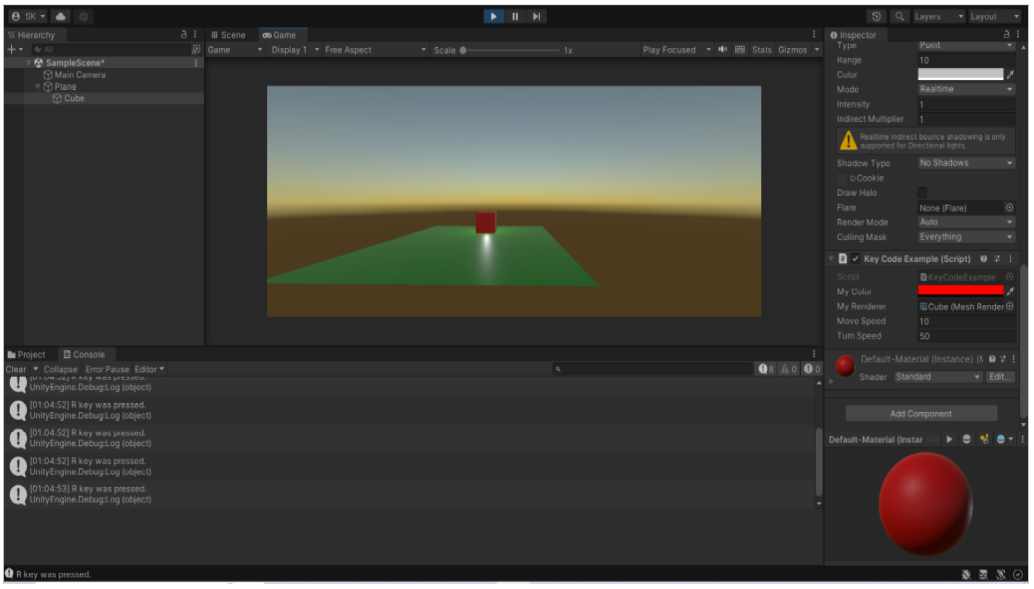
KEYCODE

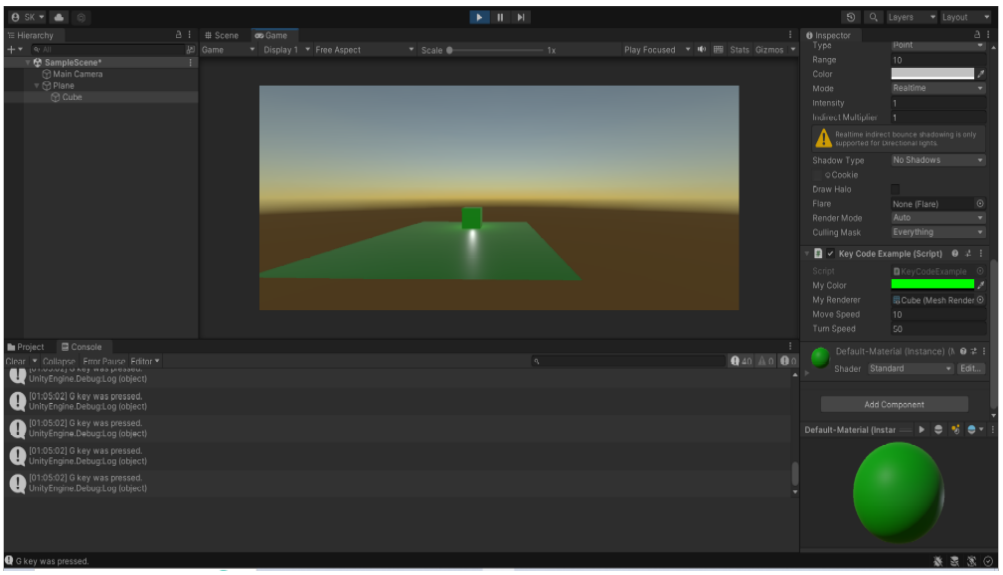
```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class KeyCodeExample : MonoBehaviour
{
    public Color myColor;
    public Renderer myRenderer;
    private Light myLight;
    public float moveSpeed = 10f;
    public float turnSpeed = 50f;
    void Start()
    {
         myLight = GetComponent<Light>();
    }
    void Update()
    {
        if (Input.GetKey(KeyCode.R))
        {
            Debug.Log("R key was pressed.");
            myColor = new Color(1,0,0,0);
            myRenderer.material.color = myColor;
        }

        if (Input.GetKey(KeyCode.B))
        {
            Debug.Log("B key was pressed.");
            myColor = new Color(0,0,1,0);
            myRenderer.material.color = myColor;
        }

        if (Input.GetKey(KeyCode.G))
        {
            Debug.Log("G key was pressed.");
            myColor = new Color(0,1,0,0);
            myRenderer.material.color = myColor;
        }

        if (Input.GetKey(KeyCode.Space))
        {
            Debug.Log("Space key was pressed.");
            myLight.enabled = !myLight.enabled;
        }

        if (Input.GetKey(KeyCode.UpArrow))
        {
            Debug.Log("UpArrow key was pressed.");
            transform.Translate(Vector3.forward * moveSpeed * Time.deltaTime);
        }
        if(Input.GetKey(KeyCode.DownArrow))
        {
            Debug.Log("DownArrow key was pressed.");
```

```
            transform.Translate(-Vector3.forward * moveSpeed * Time.deltaTime);
        }
        if(Input.GetKey(KeyCode.LeftArrow))
        {
            Debug.Log("LeftArrow key was pressed.");
            transform.Rotate(Vector3.up, -turnSpeed * Time.deltaTime);
        }
        if(Input.GetKey(KeyCode.RightArrow))
        {
            Debug.Log("RightArrow key was pressed.");
            transform.Rotate(Vector3.up, turnSpeed * Time.deltaTime);
        }

    }
}
```

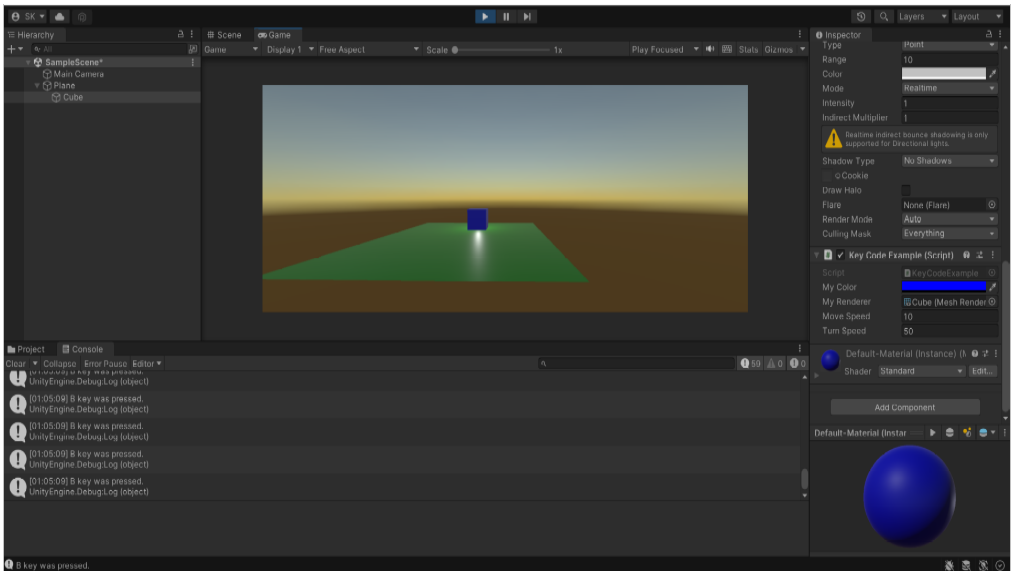
OUTPUT

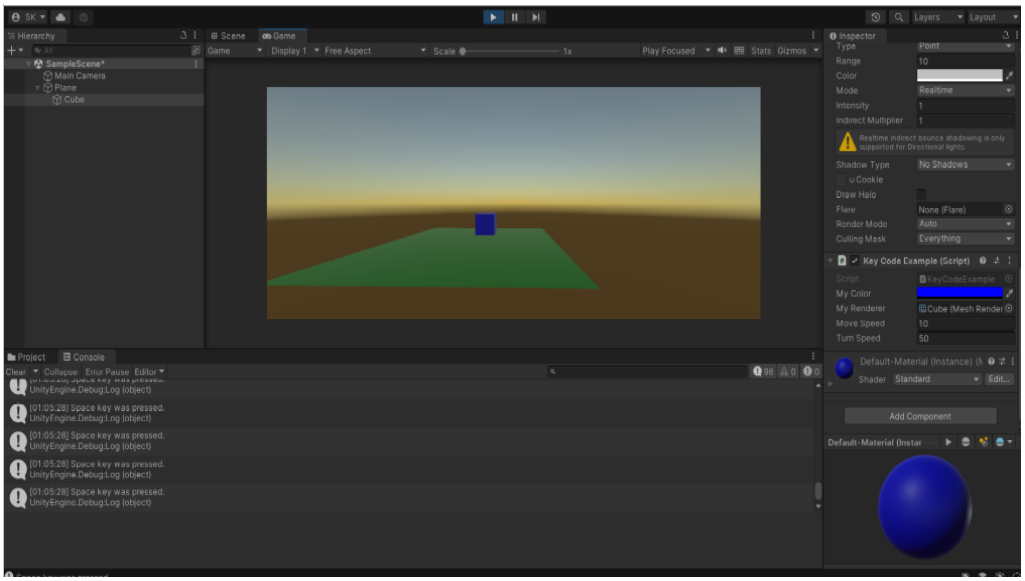




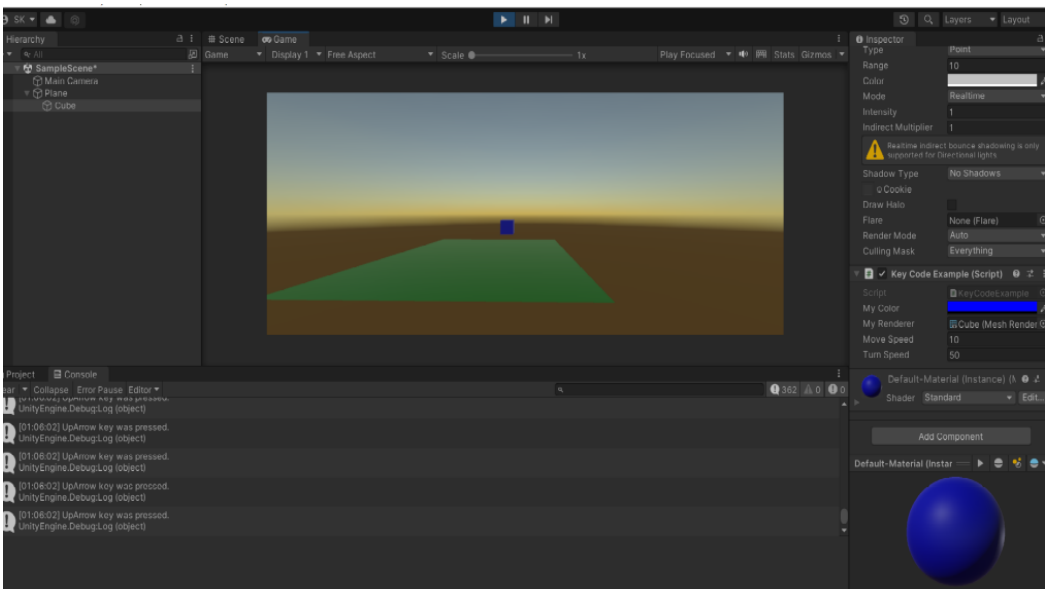


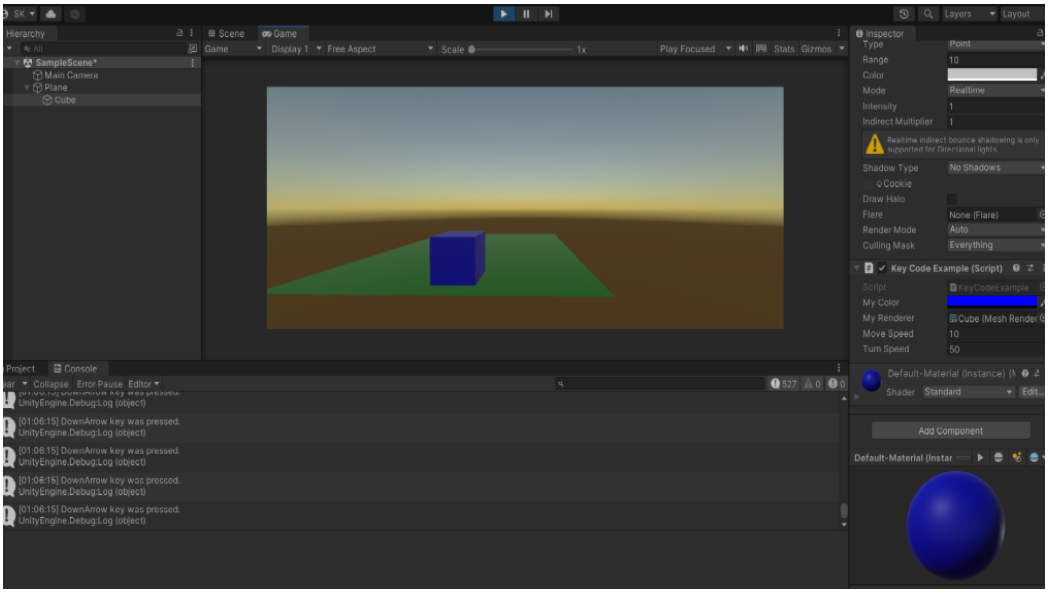
ENABLING AND DISABLING COMPONENTS

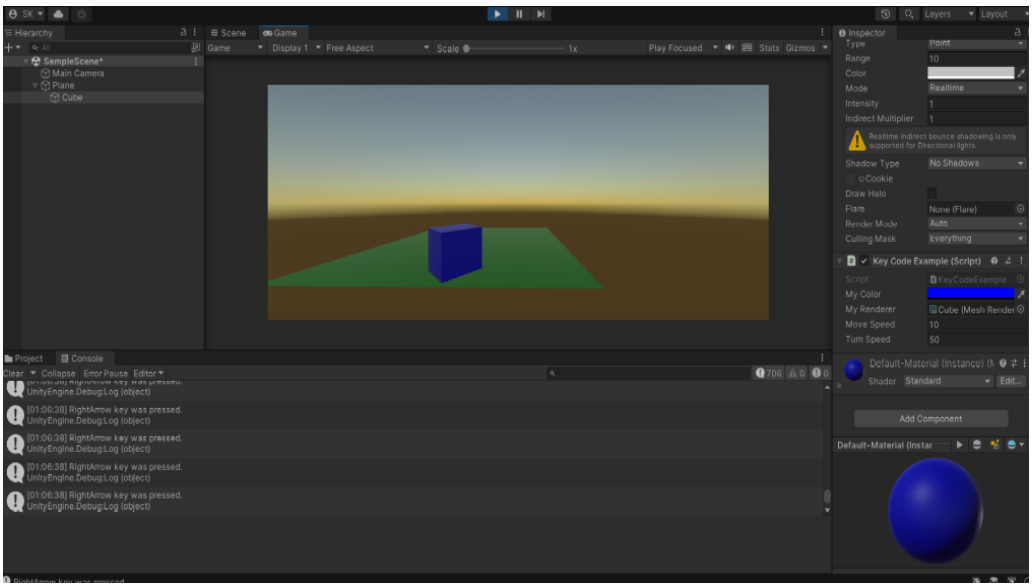


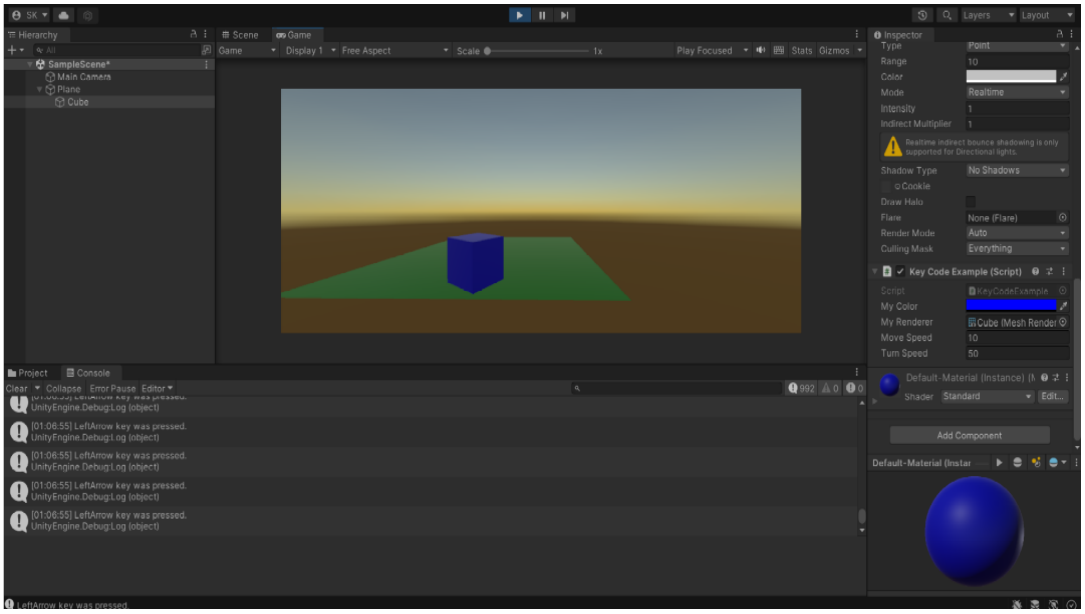


TRANSLATE AND ROTATE





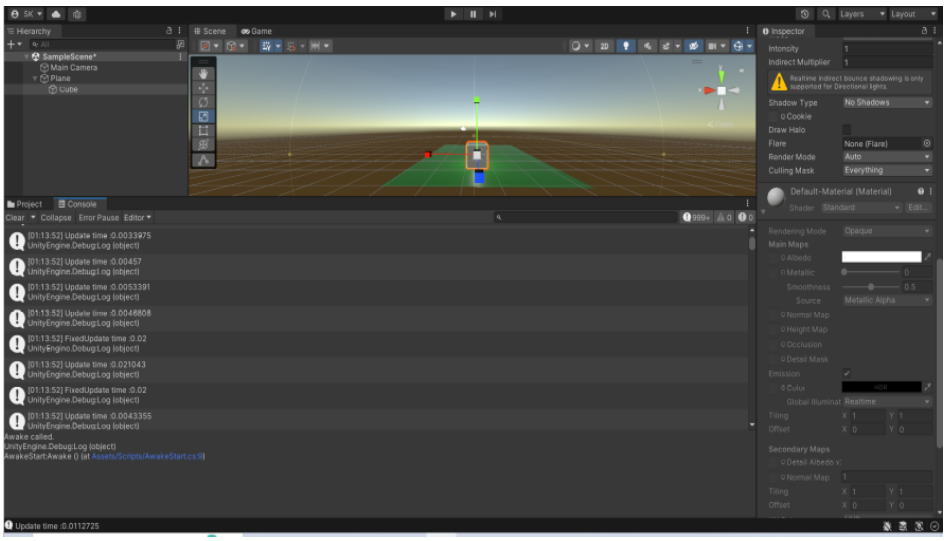




AWAKE AND START

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

public class AwakeStart : MonoBehaviour
{
		void Awake()
		{
			Debug.Log("Awake called.");
		}
		void Start()
		{
			Debug.Log("Start called.");
		}
}
```

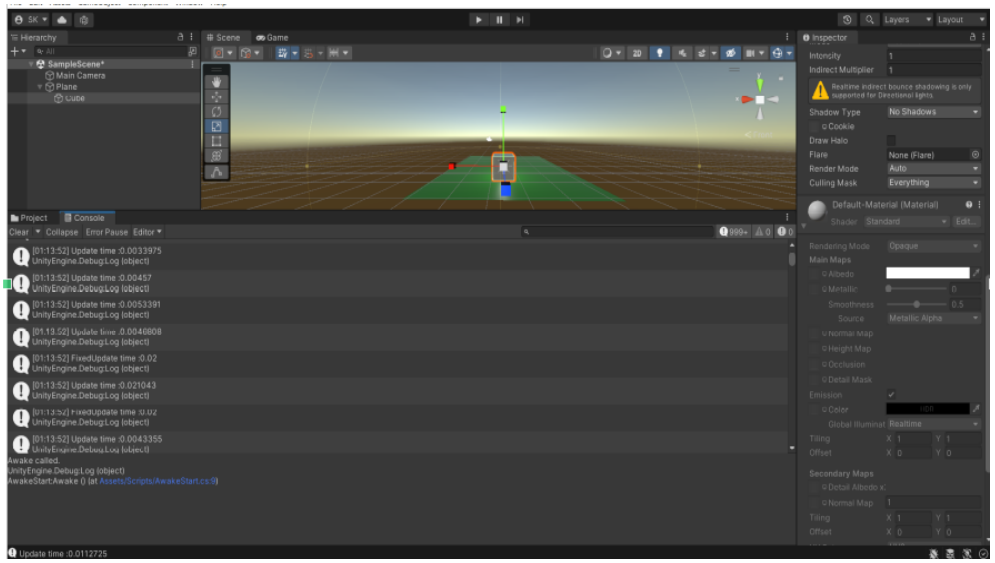
OUTPUT



FIXED UPDATE AND UPDATE

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

public class UpdateTime : MonoBehaviour
{
	void FixedUpdate()
	{
		Debug.Log("FixedUpdate time :" + Time.deltaTime);
	}
	void Update()
	{
	Debug.Log("Update time :" + Time.deltaTime);
	}
}
```

OUTPUT

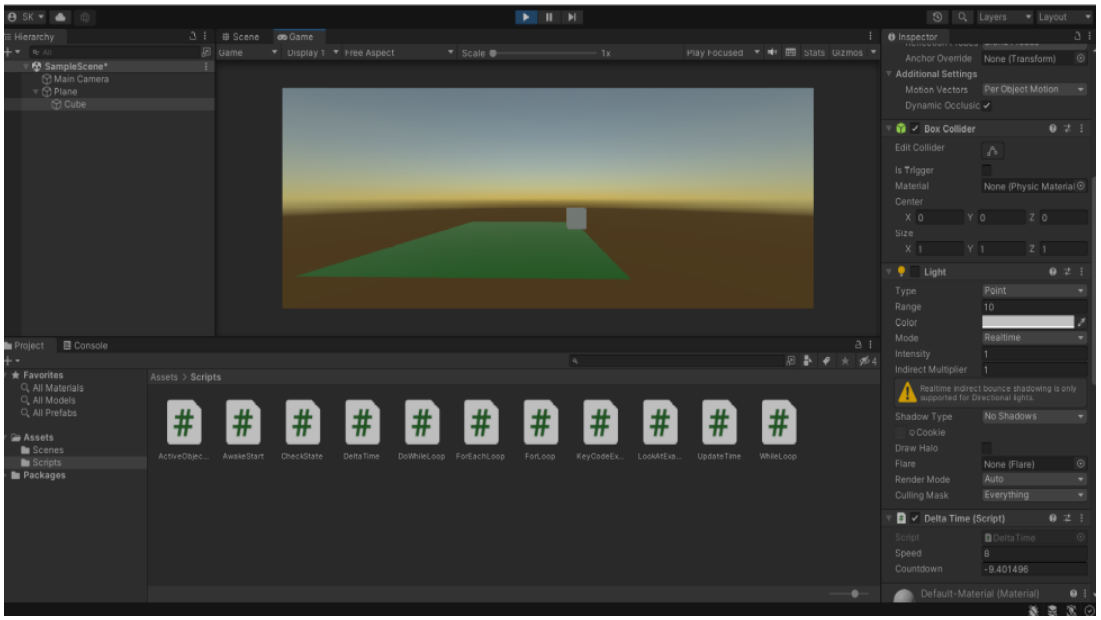


TIME.DELTATIME()

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
public class DeltaTime : MonoBehaviour
{

	public float speed = 8f;
	public float countdown = 3.0f;
	void Start()
	{
		GetComponent<Light>().enabled = true;
	}
	void Update()
	{
		countdown -= Time.deltaTime;
		if(countdown <= 0.0f)
		{
			GetComponent<Light>().enabled = false;
		}
		if(Input.GetKey(KeyCode.RightArrow))
			transform.position += new Vector3(speed * Time.deltaTime, 0.0f,
0.0f);
	}
}
```

OUTPUT

After 3 seconds



DEBUG.LOG()

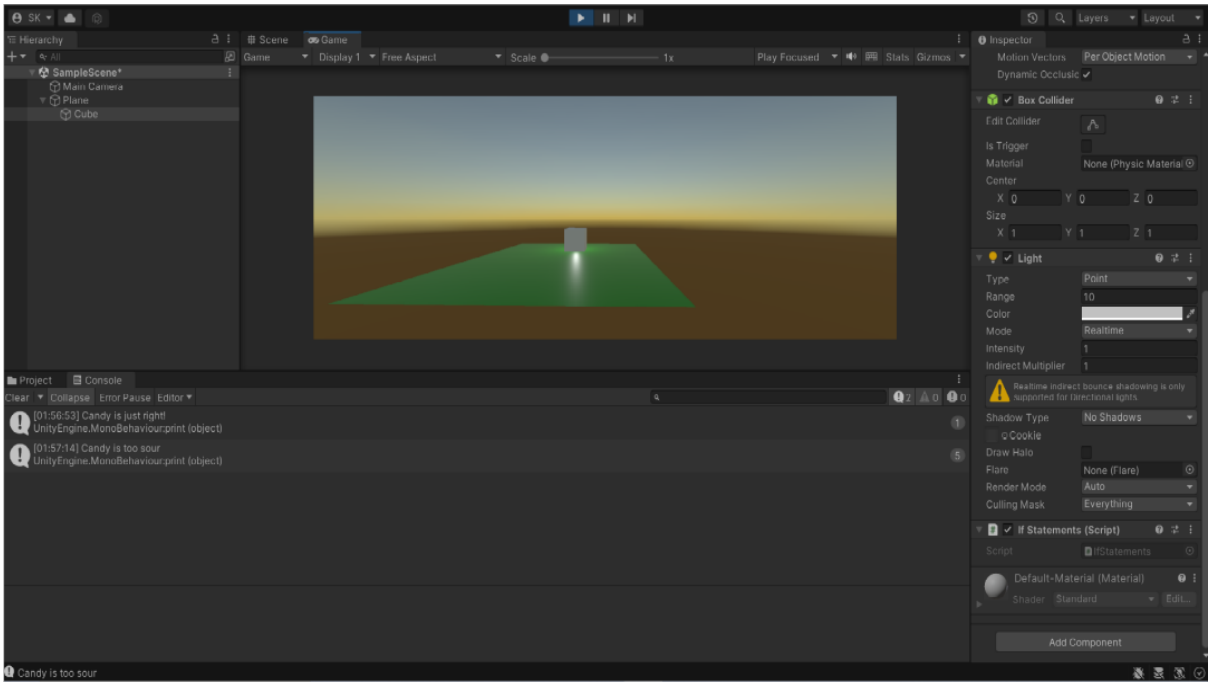
Shown in KeyCode() example

IF CONDITION()

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
public class IfStatements : MonoBehaviour
```

```
{
	float candy = 80.0f;
	float sweet = 70.0f;
	float sour = 30.0f;
	// Start is called before the first frame update
	void Start()
	{
	}
	// Update is called once per frame
	void Update()
	{
		if(Input.GetKeyDown(KeyCode.Space))
			TasteTest();
		candy -= Time.deltaTime * 5f;
	}
	void TasteTest()
	{
		if(candy > sweet)
		{
			print("Candy is too sweet");
		}
		else if(candy < sour)
		{
			print("Candy is too sour");
		}
		else
		{
			print("Candy is just right!");
		}
	}
}
```

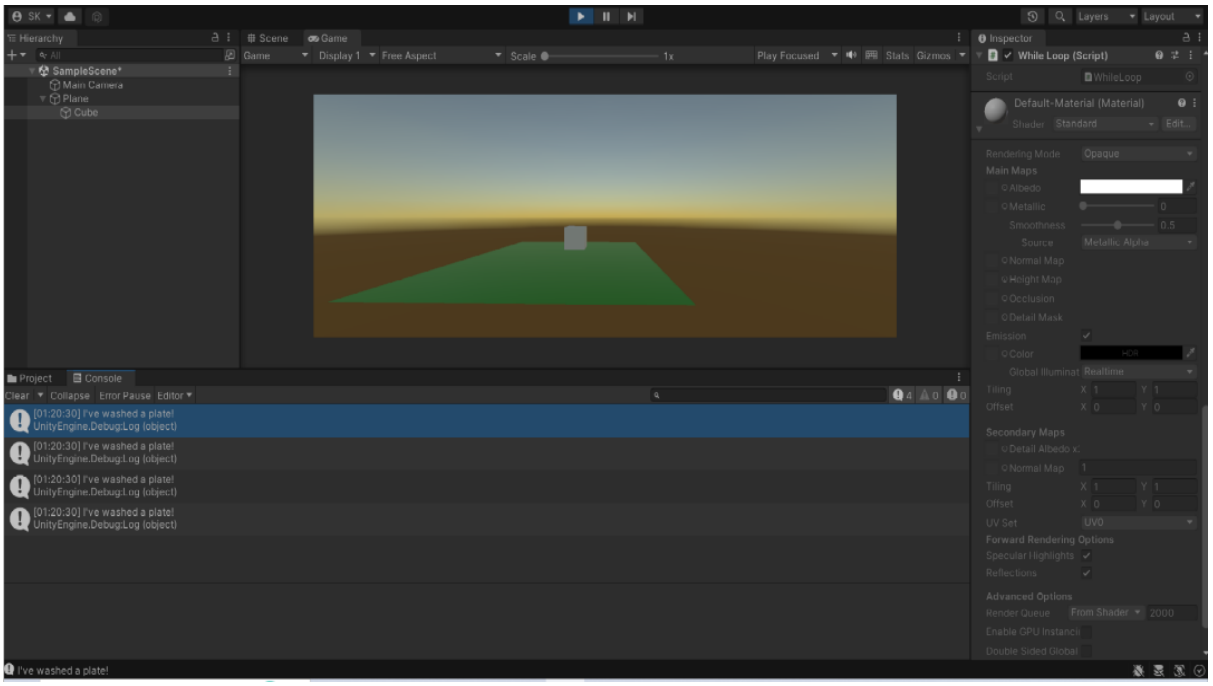
OUTPUT



WHILE LOOP

```
using UnityEngine;
using System.Collections;
public class WhileLoop : MonoBehaviour
```

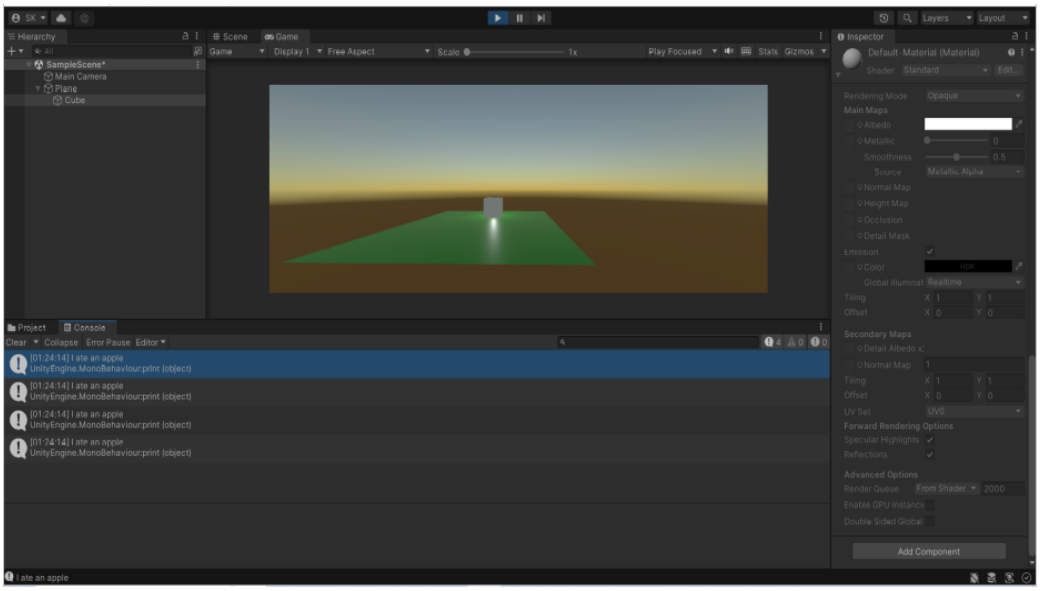
```
{
	int platesInTheSink = 4;
	void Start ()
	{
		while(platesInTheSink > 0)
		{
			Debug.Log ("I've washed a plate!");
			platesInTheSink--;
		}
	}
}
```



DO WHILE LOOP

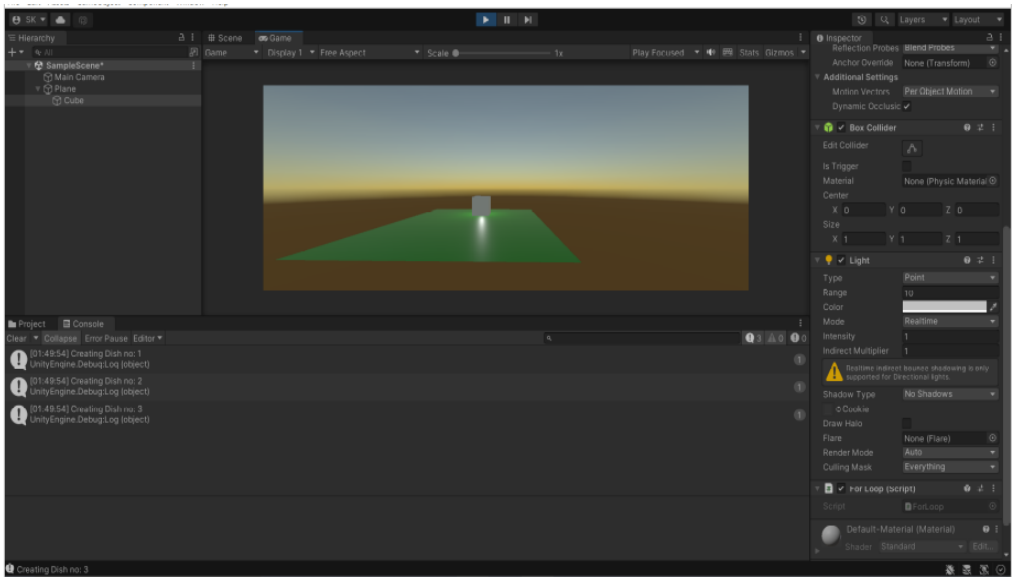
```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class DoWhileLoop : MonoBehaviour
{
	void Start()
	{
		int apples = 4;
		do
		{
			print ("I ate an apple");
			apples--;
		}while(apples>0);
	}
}
```

OUTPUT



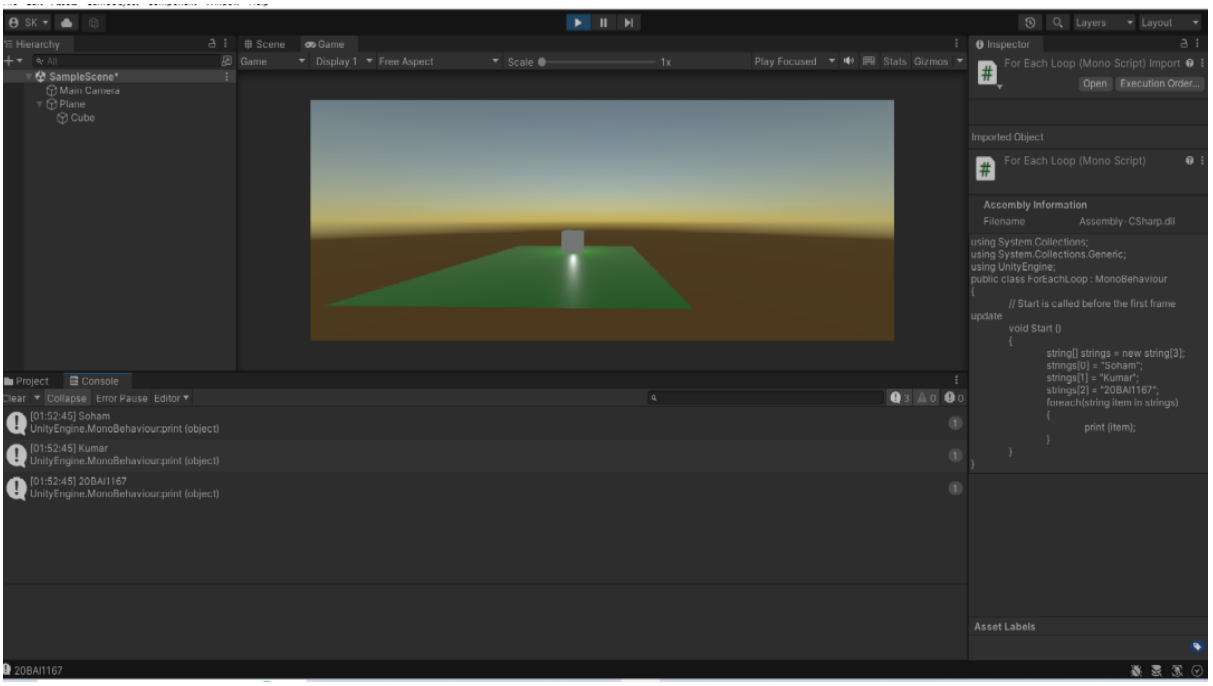
FOR LOOP

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

public class ForLoop : MonoBehaviour
{
	int numDish = 3;
	void Start ()
	{
		for(int i = 0; i < numDish; i++)
		{
			Debug.Log("Creating Dish no: " + (i+1));
		}
	}
}
```



FOREACH LOOP

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
public class ForEachLoop : MonoBehaviour
{
	// Start is called before the first frame update
	void Start ()
	{
		string[] strings = new string[3];
		strings[0] = "Soham";
		strings[1] = "Kumar";
		strings[2] = "20BAI1167";
		foreach(string item in strings)
		{
			print (item);
		}
	}
}
```

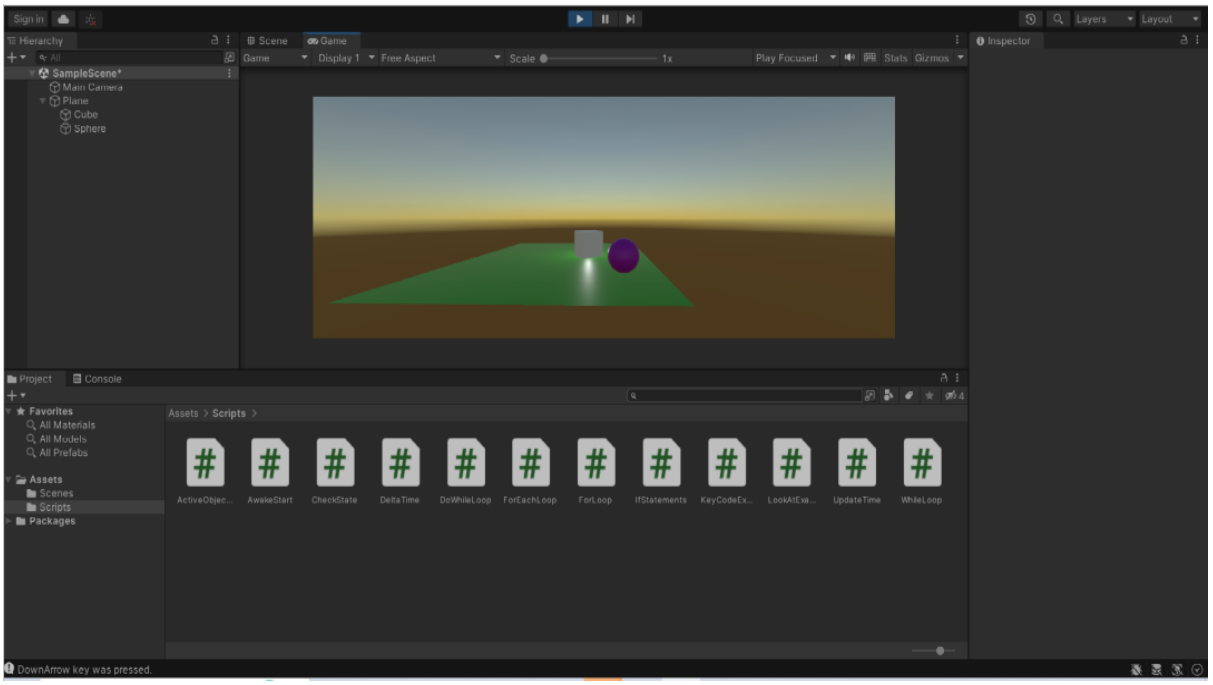


LOOKAT()

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

public class LookAtExample : MonoBehaviour
{
    public Transform target;
    void Start()
    {
    }
    // Update is called once per frame
    void Update()
    {
        transform.LookAt(target);
    }
```

}

OUTPUT



The box is moving towards sphere with uparrow pressed.

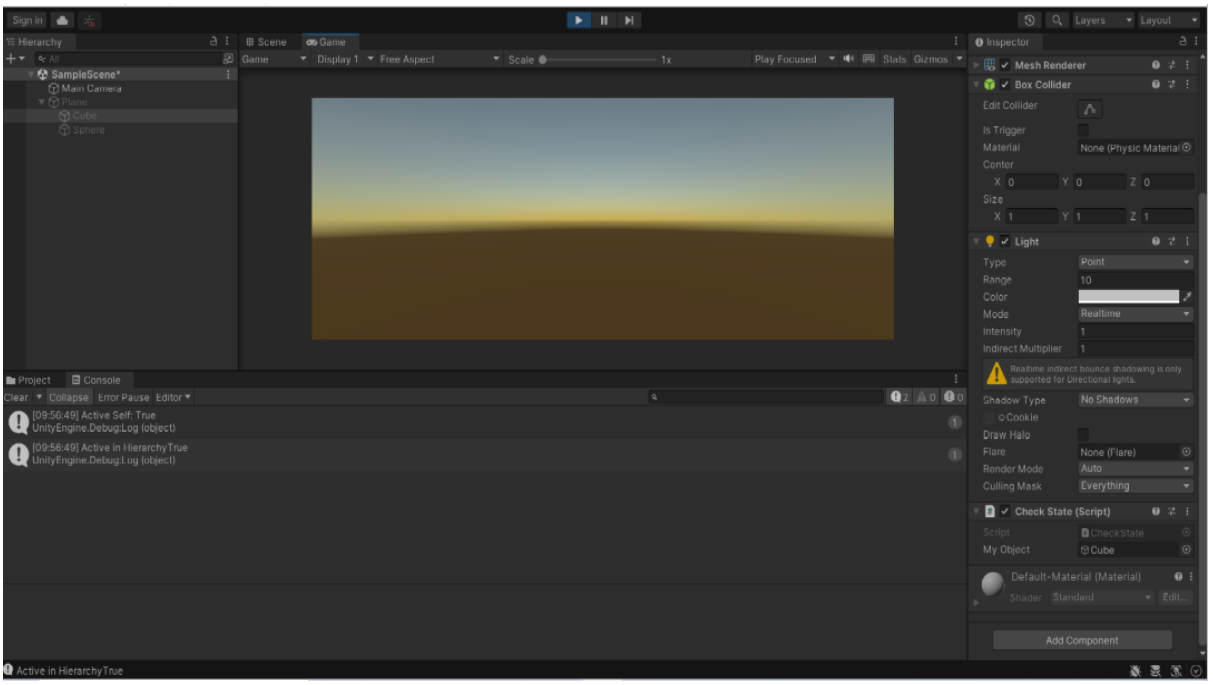
DE- ACTIVATING OBJECTS

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


public class ActiveObjects : MonoBehaviour
{
    void Start()
    {
        gameObject.SetActive(true);
    }
    void Update()
    {
        if(Input.GetKey(KeyCode.Tab))
        {
            gameObject.SetActive(false);
        }
    }
}
```

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

public class CheckState : MonoBehaviour
{
    public GameObject myObject;


    void Start ()
    {
```

```
        Debug.Log("Active Self: " + myObject.activeSelf);
        Debug.Log("Active in Hierarchy" + myObject.activeInHierarchy);
    }
```

OUTPUT



GAME PLAY LINK:

https://drive.google.com/drive/folders/1XZ-b9DpwRAMmPNfAkSiKhrYaD7syHI6a?usp=share_link