COMSATS University Islamabad (Lahore Campus)

<Lab Task 3> – SPRING 2024

Course Title:	Game Development	Course Code:	CSC495	Credit Hours:	3
Course Instructor/s:	Saira Aslam	Program	BSE		
Submission Deadline	**11:55 pm, 20-3-2024**	**Maximum Marks:**	**50**		

Important Instructions / Guidelines:

- Submit a 10 seconds video, 4 screenshots, and all your scripts in Lab Assignment 1 submission at google classroom
- Paste your screenshots and scripts inside Lab Assignment-1 submission file provided

Question No 1.

CLO: <3>; Bloom Taxonomy Level: *<Apply>* **[80]**


Game
Game
Display 1
Full HD (1920x1080)
Scale
0.31x
Play Maximized
Stats
Gizmos
HeliCopter Game
Play
POLICE


Game
Game
Display 1
Full HD (1920x1080)
Scale
0.31x
Play Maximized
Stats
Gizmos
Score: 0


Scene
Pivot
Global
2D
POLICE


Game
Game
Display 1
Full HD (1920x1080)
Scale
0.31x
Play Maximized
Stats
Gizmos
Game Over
Reload
POLICE

bulletScript.cs

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

public class bulletScript : MonoBehaviour
{
    public GameObject explosion;
    [SerializeField]
    public static bool collided = false;
    // Start is called before the first frame update
    void Start()
    {

    }

    // Update is called once per frame
    void Update()
    {
        transform.Translate(0,0,1);
    }
    public void OnCollisionEnter(Collision col)
    {
        if(col.gameObject.name.StartsWith("Enemy"))
        {
            Destroy(col.gameObject); //destroy the enemy
            Instantiate(explosion,transform.position,transform.rotation);
            collided = true;
        }
        Destroy(transform.gameObject); //destroy bullet clone
    }
}
```

enemyScript.cs

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

public class enemyScript : MonoBehaviour
{
    public GameObject heli;

    // Start is called before the first frame update
    void Start()
    {

    }
```

```
    // Update is called once per frame
    void Update()
    {
        transform.Translate(0,0,0.8f);
        transform.LookAt(heli.transform);
    }
}
```

helicopterScript.cs

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
using UnityEngine.SceneManagement;
using UnityEngine.UI;
public class hellicopterScript : MonoBehaviour
{
    public GameObject muteButton;
    public GameObject unmuteButton;

    public Text scoreText;

    public float score = 0;

    public static bool muteflag;

    public AudioSource audio;

    // public bulletScript enemy;
    public GameObject bullet;
    // Start is called before the first frame update
    void Start()
    {
        audio = GetComponent<AudioSource>();
        scoreText.text = "Score: "+score.ToString();
        if(muteflag == true)
        {
            audio.mute = true;
            muteButton.SetActive(false);
            audio.volume = 0;
        }
        else
        {
            audio.mute = false;
            unmuteButton.SetActive(false);
            audio.volume = 1;
        }
```

```
}

public void mutegame()
{
    audio.mute = true;
    muteButton.SetActive(false);
    unmuteButton.SetActive(true);
    AudioListener.volume = 0;
    muteflag = true;
}
public void unmutegame()
{
    if(muteflag == true)
    {
        audio.mute = false;
        muteButton.SetActive(true);
        unmuteButton.SetActive(false);
        AudioListener.volume = 1;
        muteflag = false;
    }
}

// Update is called once per frame
void Update()
{
    if(Input.GetKey(KeyCode.LeftArrow))
    {
        transform.Rotate(0,-1,0);
    }
    if(Input.GetKey(KeyCode.RightArrow))
    {
        transform.Rotate(0,1,0);
    }
    if(Input.GetKey(KeyCode.UpArrow))
    {
        transform.Translate(0,0,1);
    }
    if(Input.GetKey(KeyCode.DownArrow))
    {
        transform.Translate(0,0,-1);
    }

    if(Input.GetKey(KeyCode.W))
    {
        transform.Translate(0,1,0);
    }
    if(Input.GetKey(KeyCode.S))
    {
        transform.Translate(0,-1,0);
```

```
        }
        if(Input.GetKey(KeyCode.Space))
        {
            Instantiate(bullet,transform.position,transform.rotation);
            if(bulletScript.collided)
            {
                score += 10;
                scoreText.text = "Score: "+score.ToString();
                bulletScript.collided = false;
            }
        }
    }
    public void OnCollisionEnter(Collision col)
    {
        if(col.gameObject.name.StartsWith("Enemy"))
          SceneManager.LoadScene(0);
    }
}
```

enemyLauncherScript.cs

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

public class enemyLauncherScript : MonoBehaviour
{
    public GameObject enemy;
    // Start is called before the first frame update
    void Start()
    {
        for(int i=0; i<=9; i++)
        {
            Vector3 enemyPos = new
Vector3(Random.Range(10,2000),Random.Range(10,200),Random.Range(100,1500));
            Instantiate(enemy,enemyPos,transform.rotation);
        }
    }

    // Update is called once per frame
    void Update()
    {

    }
}
```

audioScript.cs

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

public class audioscript : MonoBehaviour
{
    public GameObject mutebutton;
    public GameObject unmutebutton;
    public AudioSource muteaudio;
    public static bool muteflag;
    // Start is called before the first frame update
    void Start()
    {
        muteaudio = GetComponent<AudioSource>();
        if (muteflag == true)
        {
            muteaudio.mute = true;
            mutebutton.SetActive(false);
            muteaudio.volume = 0;
        }

        if (muteflag == false)
        {
            muteaudio.mute = false;
            unmutebutton.SetActive(false);
            muteaudio.volume = 1;
        }

    }
    public void mutegame()
    {
        muteaudio.mute = true;
        mutebutton.SetActive(false);
        unmutebutton.SetActive(true);
        muteflag = true;
        AudioListener.volume = 0;
    }
    public void unmutegame()
    {
        if (muteflag == true)
        {
            muteaudio.mute = false;
            mutebutton.SetActive(true);
            unmutebutton.SetActive(false);
            muteflag = false;
            AudioListener.volume = 1;
        }
```

```
    }

    public void playlevel1()
    {
        SceneManager.LoadScene(1);
    }
}
```