Lab2_V2

1. Add Rigidbody 2D component
    i. Set Gravity Scale to 0.
2. Add Collider component
    i. Box Collider 2D.
3. Rigidbody 2D
    i. Body Type → Kinematic.
    ii. Constraints → Freeze Rotation Z.

4. Design a simple game based on the lesson learned in the class.
    - Wall
    - Picking item
    - Movable item
    - Static enemies.
    - Movable enemies.
    - Player

Code

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

public class Hexagon : MonoBehaviour {

  public static bool isMove = false;

  // Use this for initialization
  void Start () {
  }

  float speed = 5f;

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

```
    //WASD
    //Press Key D
    if (Input.GetKey (KeyCode.D)) {
        transform.position += new Vector3 (speed * Time.deltaTime, 0, 0);//x,y,z
    }

    if (Input.GetKey (KeyCode.A)) {
        transform.position += new Vector3 (-speed * Time.deltaTime, 0, 0);//x,y,z
    }

    if (Input.GetKey (KeyCode.W)) {
        transform.position += new Vector3 (0f, speed * Time.deltaTime, 0);//x,y,z
    }

    if (Input.GetKey (KeyCode.S)) {
        transform.position += new Vector3 (0f, -speed * Time.deltaTime, 0);//x,y,z
    }

    if(Input.GetKey(KeyCode.Q)) //Rotate
    {
        transform.Rotate(0,0, Time.deltaTime * 30);
    }
    else if(Input.GetKey(KeyCode.E)) //Rotate
    {
        transform.Rotate(0,0, -Time.deltaTime * 30);
    }

    timeLeft -= Time.deltaTime;
    if ( timeLeft < 0 )
    {
        GameOver();
    }
}

float timeLeft = 10f;
void GameOver(){
}
void OnCollisionEnter2D(Collision2D coll) {
    //If item is hit, it is then removed from a scene.
    if (coll.gameObject.tag == "item") {
        Destroy (coll.gameObject); //removed from a scene.
        score++;
```

```
        }
        if (coll.gameObject.tag == "enemy") {
            Hexagon.isMove = true;
            Destroy (this.gameObject);
        }
    }

    int score = 0;
    private GUIStyle guiStyle = new GUIStyle();
    void OnGUI() {
        guiStyle.fontSize = 60;
        guiStyle.normal.textColor = Color.white;
        GUI.Label(new Rect(10, 10, 100, 20), ""+score,guiStyle);
        GUI.Label(new Rect(200, 10, 100, 20), ""+(int)timeLeft,guiStyle);
    }
}
```

/********** Code for another enemy **********/

The enemy used this code will move when other enemies are hit.

/**********/

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

public class Hexagon : MonoBehaviour
{
            // Use this for initialization
            void Start () {
            }

            float speed = 3f;
```

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

            if(Hexagon.isMove){
                transform.position += new Vector3 (speed * Time.deltaTime, 0, 0);
            }
        }
}
```