

## Memory Helper Game

### Introduction

In this game, you can get 16 different cards to open and match them. First, the cards will be closed and you can open the first one and then remember what was it then you look for the other one and once you find your matching card then it will save it and after getting 8 pairs game will be over. This game is created in Unity 2d platform and 8 sprites were used. Firstly, the Blank image was moved to the hierarchy and then its script was written with defining game objects and other functions. Same as the blank image, we will create a controller to handle everything and did coding in both C# file and game start when pressed play.

Here are some images for better clarification

```
C:\> Users > Dell > My project > Assets > scripts > mainblank.cs
1  using System.Collections;
2  using System.Collections.Generic;
3  using UnityEngine;
4
5  public class mainblank : MonoBehaviour
6  {
7      GameObject controller;
8      public Sprite[] fronts;
9      public Sprite back;
10     SpriteRenderer show;
11     public bool match = false;
12
13     public int frontsIndex;
14     public void OnMouseDown()
15     {
16         if(match == false)
17         {
18             if(show.sprite == back)
19             {
20                 if(controller.GetComponent<Controller>().cardfront() == false)
21                 {
22                     show.sprite = fronts[frontsIndex];
23                     controller.GetComponent<Controller>().Addvisiblefront(frontsIndex);
24                     match = controller.GetComponent<Controller>().matched();
25                 }
26             }
27         }
28     }
```

```

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

public class Controller : MonoBehaviour
{
    GameObject blanks;
    List<int>frontindexes=new List<int> {0,1,2,3,4,5,6,7,0,1,2,3,4,5,6,7};
    public static System.Random rnd = new System.Random();
    public int shuffle = 0;
    int[] visible = {-1,-2};

    void Start()
    {
        int originallength = frontindexes.Count;
        float y = 3.4f;
        float x = -3.3f;
        for(int i = 0; i < 15; i++)
        {
            shuffle = rnd.Next(0, (frontindexes.Count));
            var temp = Instantiate(blanks, new Vector3(
                x, y, 0 ),
                Quaternion.identity);
            temp.GetComponent<mainblank>().frontsIndex = frontindexes[shuffle];
            frontindexes.Remove(frontindexes[shuffle]);
            x = x + 4;
            if (i == (originallength/8))
            {
                y = 1.5f;
                x = -7.3f;
            }
        }
    }
}

```

Game Over

