Lab Week 2

50.033 Game Design and Development

1004147 --- Riley Riemann Chin
Are you participating in the Weekly Lab competition? ~~Yes~~/No

Provide the YouTube/other platform link to your screen recording:
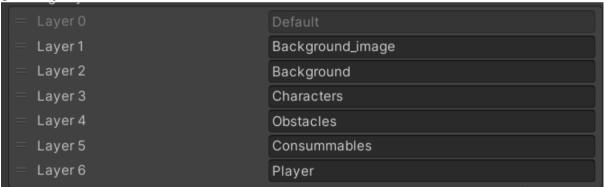https://youtu.be/LzXus-K0Nvc

Provide the link to your lab repository:
https://github.com/rileychin/50.033-Game-Dev-Labs/tree/lab2

Describe what you have done to achieve the desired checkoff requirement for this lab:
[Your **high level** description here]
- You don't need to be too specific. This is just to assist us when we check your repository
- Scripts added, Assets added if any
- General modifications that you have done: eg animating the enemies, implementing FSM for the NPCs, etc.

To add the background I had to adjust the sprite renderer properties for all new gameobjects.

Layer 0	Default
Layer 1	Background_image
Layer 2	Background
Layer 3	Characters
Layer 4	Obstacles
Layer 5	Consummables
Layer 6	Player

The earlier layers will be behind while the later layers will be in front.

After that to run the consumable mushroom to move left and right I used a state to keep track of whether it has touched the pipe or not. Note that when I have touched the pipe tag and not obstacles then it will change, to add a mushroom that will change when it touches obstacles the game object has to have another tag other than obstacles, because mushrooms will not change direction WHILE ON TOP OF OBSTACLES

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

void MoveMushroom(){
    if (endState != true){
        Vector2 nextPosition = rigidBody.position + speed * currentDirection.normalized * Time.fixedDeltaTime;
        rigidBody.MovePosition(nextPosition);
    }
    else{
        rigidBody.velocity = new Vector2(0,0);
    }
}

void OnCollisionEnter2D(Collision2D col){
    if (col.gameObject.CompareTag("Pipe")){
        Debug.Log(currDirectionState);
        if (currDirectionState == true){
            currentDirection = new Vector2(-1,0); //change mushroom direction
            currDirectionState = false;
        }
        else if (currDirectionState == false){
            currentDirection = new Vector2(1,0);
            currDirectionState = true;
        }
        Debug.Log(currDirectionState);
    }
    else if (col.gameObject.CompareTag("Player")){
        endState = true;
    }
}
```

If currDirectionState is true, that means the mushroom is moving right, else it means it is moving left and will change accordingly.

Only the consummableMushroom.cs has been added to control the mushroom and nothing else into the unity project. (Only for the mushroom)