2D GAME

408850385鄭明佐 / 408850351徐雅玟

2D-game
Use Unity to make a 2D game.

To make 2D game which has a charactor can move and attack monsters.
Monster will attck player automatically.
object sketch:https://github.com/oppsmilo/2D-game/blob/main/diagram.png

Plan:

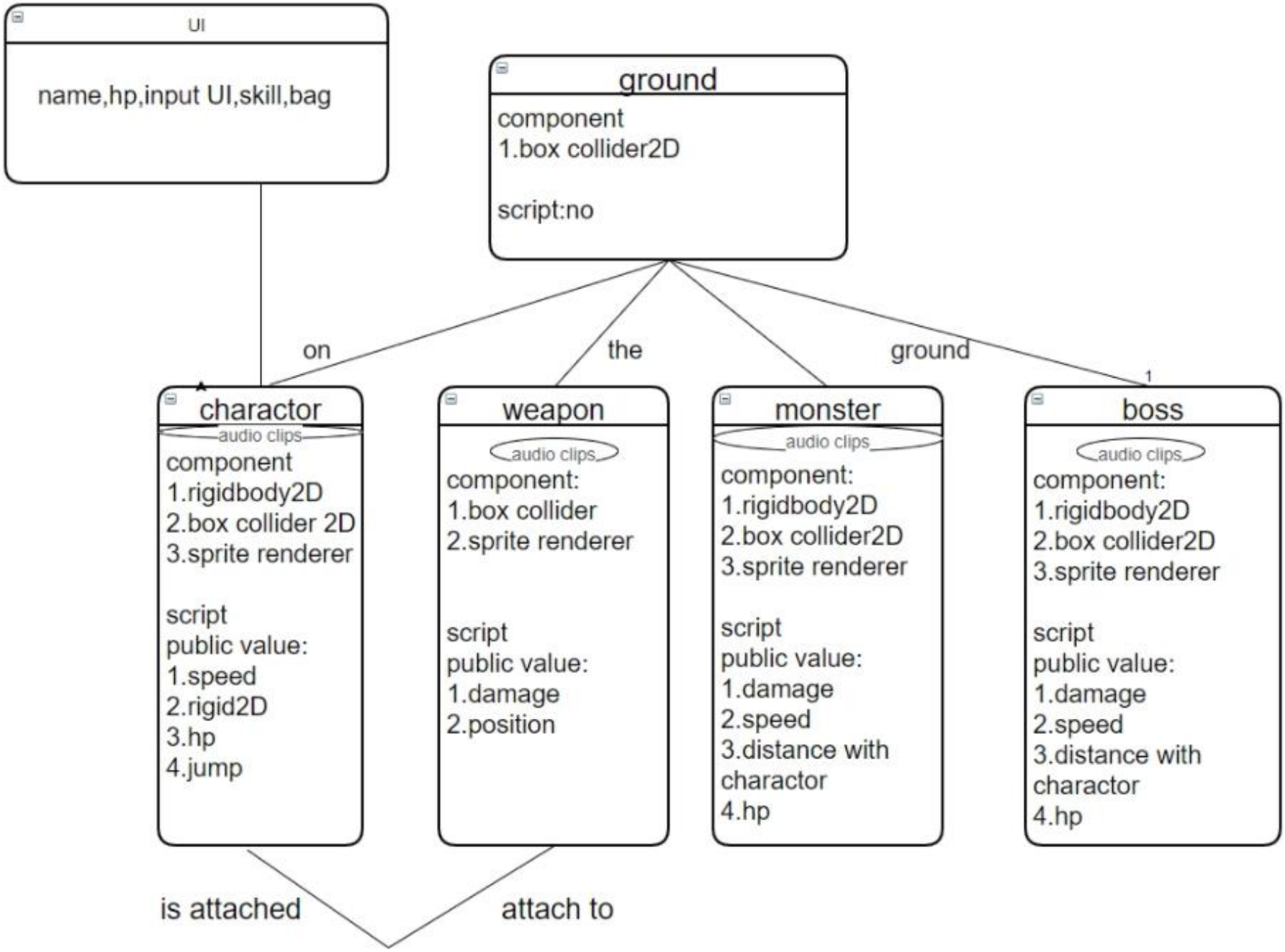
(1)charactor:
1.only one performance,
2.ability value only has hp and attack.
3.when charactor per level up(highest lv is 5),and him earn a new skill.

(2)level(關卡):
1.total 4 levels,there are normal monsters in 1~3 levels,level 4 has boss.
2.one scenes only has one equipment,you finish this game after you defeat the boss,
you still can go back to level 1 to level 4.

(3)monsters:
1.automatically move to the player until die.
2.after monster be killed,which has posibility to generate a equipment.
3.when monsters touch player,whose hp lower.
(4)boss:
1.automatically move to the player until die.
2..when monsters touch player,whose hp lower.

(5) UI
1.bag and skill window
2.window can input english
(6)database:
1.record players pass time.
---
what to do:	how to do:
(1)charactor:	
1.get keyboard .	finished GetKey(KeyCode.arrow)
2.body shaking when move or attack.	animation control
3.when change left and right arrow,contral charactor facing director.	code
4.jump must be attached floor.	finished
(2)monster:	
1.when change left and right arrow,contral monsters facing director.	code
2.automatically move to the player.	code
(3)boss:	
1.automatically move to the player.	code
2.release skills at regular intervals.	code
3.if hp drop to fixed value,strengthen skill.	code
(4)UI:	
1.new UI	use unity

---
needed but unknown(continued search information)
1.scense swich
2.music and copyright
3.database


UI
name,hp,input UI,skill,bag
ground
component
1.box collider2D
script:no
on
the
ground
1
charactor
audio clips
component
1.rigidbody2D
2.box collider 2D
3.sprite renderer
script
public value:
1.speed
2.rigid2D
3.hp
4.jump
weapon
audio clips
component:
1.box collider
2.sprite renderer
script
public value:
1.damage
2.position
monster
audio clips
component:
1.rigidbody2D
2.box collider2D
3.sprite renderer
script
public value:
1.damage
2.speed
3.distance with charactor
4.hp
boss
audio clips
component:
1.rigidbody2D
2.box collider2D
3.sprite renderer
script
public value:
1.damage
2.speed
3.distance with charactor
4.hp
is attached
attach to

22 lines (17 sloc) | 554 Bytes

```
component:
1.rigidbody2D:be used to control some Physical variables ,
like

2.box colider2D:be used to display physical collision or
no physical collision

3.music:add Audio Source Component and
Audio Listener Component to other object.

4.UI:use unity funtion UI to make.


public value:
speed:Its move speed(x axis).
rigid2D:to control rigidbody2D value.
hp(UI):its health point,
use sprite renderer's sorting lay to make.
jump:value of jump strength
damage:attack value
position:charactor position
distance:monster or boss distance from a charactor.
```

player

monster2

monster1

```
if (Input.GetKey(KeyCode.LeftArrow))
{
    this.gameObject.transform.position -= new Vector3(speed, 0, 0);
}
if (Input.GetKey(KeyCode.RightArrow))
{
    this.gameObject.transform.position += new Vector3(speed, 0, 0);
}
```

```
bool isjumping;

void Update()
{
    if (Input.GetKeyDown(KeyCode.Space))
    {
        Instantiate(bulletPrefab, this.gameObject.transform.position, Quaternion.identity);
    }
    if (Input.GetKeyDown(KeyCode.UpArrow) && isjumping == false)
    {


void OnCollisionEnter2D(Collision2D coll)
{

    if (coll.gameObject.tag == "ground")
    {
        isjumping = false;
        print(isjumping);
    }
```

```
if (Input.GetKeyDown(KeyCode.Space))
{
    Instantiate(bulletPrefab, this.gameObject.transform.position, Quaternion.identity);
}
```

```
void Update()
{
    if (hp <= 0)
    {
        Destroy(this.gameObject);
    }
```

```
void OnTriggerEnter2D(Collider2D other)
{
    if (other.gameObject.tag == "bullet")
    {
        hp -= 5;
        print("monster" + hp);
        if (other.gameObject.transform.position.x > this.gameObject.transform.position.x)
        {
            rigid2D.AddForce(new Vector2(-20000, 50000.0f), ForceMode2D.Impulse);
            print("addForce");
        }
        else
        {
            rigid2D.AddForce(new Vector2(20000, 50000.0f), ForceMode2D.Impulse);
        }
        Destroy(other.gameObject);
    }
    else
        print("not bullet");
}
```

```
public class bullet : MonoBehaviour
{
    public float timer;
    // Start is called before the first frame update
    void Start()
    {
    }

    // Update is called once per frame
    void Update()
    {
    this.gameObject.transform.position += new Vector3(35f * Time.deltaTime, 0, 0);
    timer -= Time.deltaTime;
        if (timer <= 0)
            Destroy(this.gameObject);
    }
}
```

needed but haven't done(continued search information)

1.scense swich(use unityEngine.SceneManagement)

2.music and copyright(add Audio Source Component to Game Object，and insert music to Audio Clip)

3.release skills(haven't found)

4.database(haven't found)

5.when change left and right arrow,contral monsters facing director(use unity method rotation())

6.automatically move to the player(use codes to control)

7.if hp drop to fixed value,strengthen skill(use codes to control)

8.generate monster at random (use Instantiate (gameObject, transform.position, transform.rotation) and Random.Range（int min，int max）;)