Unity Mini Start 016

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The Up coming 5 Mini tutorials will be about what I like to call the Pac-man principles. With these example scripts you should be able to create your own pac-man game.

- Place the pacman sprite in the middle of the screen
- Give it the name Tag Player
- Give it a Boxcollider2D and a rigidbody2D
- Make sure the Z axis box in constraints is selected.
- Set gravity to 0

Pac-man starts aways without movement before it starts to move in one direction. He moves only up down left and right so there 4 directions.

- Create a new script and call it Pmovement.
- Give this script to the player game Object.
- The script should look like this :

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

public class Pmovement : MonoBehaviour
{
public float PacmanSpeed;
public int movedir = 0;

public void Movingplayer()
{
if (Input.GetKeyDown(KeyCode.LeftArrow))
{
movedir = 1;
}
if (Input.GetKeyDown(KeyCode.RightArrow))
{
movedir = 2;
}
if (Input.GetKeyDown(KeyCode.DownArrow))
{
movedir = 3;
}
if (Input.GetKeyDown(KeyCode.UpArrow))
{
movedir = 4;
}
}
```

```
void Update()
{
Movingplayer();
if(movedir == 1)
{
transform.Translate(Vector2.left * PacmanSpeed * Time.deltaTime);
}
if (movedir == 2)
{
transform.Translate(Vector2.right * PacmanSpeed * Time.deltaTime);
}
if (movedir == 3)
{
transform.Translate(Vector2.down * PacmanSpeed * Time.deltaTime);
}
if (movedir == 4)
{
transform.Translate(Vector2.up * PacmanSpeed * Time.deltaTime);
}
}
}
```

We created a movedir int variable and set it to 0. A new function is created that will change this number on the press of one of the arrowkeys. This number is also the direction that pacman will move to as you can see in the update function. So 0 means not moving while 1,2,3,4, means moving in one of the four directions. Test it and see pac-man move.

In Mini tutorial 5 you learned how to change a sprite during runtime. We will do that again so packman uses four different sprites for all four directions. Change the script into this one :

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

public class Pmovement : MonoBehaviour
{
public float PacmanSpeed;
public int movedir = 0;

public Sprite pacright,pacleft,pacdown,pacup;

public void Movingplayer()
{
if (Input.GetKeyDown(KeyCode.LeftArrow))
{
movedir = 1;
this.GetComponent<SpriteRenderer>().sprite = pacleft;
}
if (Input.GetKeyDown(KeyCode.RightArrow))
{
movedir = 2;
this.GetComponent<SpriteRenderer>().sprite = pacright;
}
if (Input.GetKeyDown(KeyCode.DownArrow))
{
movedir = 3;
this.GetComponent<SpriteRenderer>().sprite = pacdown;
}
if (Input.GetKeyDown(KeyCode.UpArrow))
{
movedir = 4;
this.GetComponent<SpriteRenderer>().sprite = pacup;
}
}
```

```
void Update()
{
Movingplayer();

if(movedir == 1)
{
transform.Translate(Vector2.left * PacmanSpeed * Time.deltaTime);
}
if (movedir == 2)
{
transform.Translate(Vector2.right * PacmanSpeed * Time.deltaTime);
}
if (movedir == 3)
{
transform.Translate(Vector2.down * PacmanSpeed * Time.deltaTime);
}
if (movedir == 4)
{
transform.Translate(Vector2.up * PacmanSpeed * Time.deltaTime);
}
}
}
```

Drag the sprites to use into the inspectors window. We defined them in one line as public sprites. Whenever a direction number is picked the right sprite will be used. Now pac-man really moves up down left and right.