

PlayerAttack.cs

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/*
*****
    Como Fua - Beat 'em Up game prototype
    By James Romero. Made with Unity
    2021
*****
*/

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

// All the posible attacking states that the player's character can have,
// including no attack at all ("NONE" state)
public enum ComboState
{
    NONE,
    PUNCH1,
    PUNCH2,
    PUNCH3,
    KICK1,
    KICK2
}

////////////////////////////////////
//
// This class handles the attack/combo system for the player's character
//
////////////////////////////////////

public class PlayerAttacks : MonoBehaviour
{
    // Reference to the helper class that handles which animation to play given
    // the player's actions
    private CharacterAnimation player_anim;

    // Players will have only a few seconds to quickly perform a combo
    // So this is to know when a combo is starting for activating the timer
    private bool activate_timer_to_reset;

    // Default time that the player will have to perform a combo (in seconds)
    private float default_combo_timer = 0.4f;

    private float current_combo_timer;

    private ComboState current_combo_state;

    // Awake is called when the script instance is being loaded //////////
    void Awake()
```

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{
    player_anim = GetComponentInChildren<CharacterAnimation>();
}
////////////////////////////////////

// Start is called before the first frame update //////////
void Start()
{
    current_combo_timer = default_combo_timer;
    current_combo_state = ComboState.NONE;
}
////////////////////////////////////

// Update is called once per frame //////////////////////////
void Update()
{
    // If the game isn't paused, handle the combo system given the player's
inputs
    if (!PauseControl.game_is_paused)
    {
        ComboAttacks();
        ResetComboState();
    }
}
////////////////////////////////////

// ComboAttacks will process the player's input and establish the attack
state that its character will adopt ////
void ComboAttacks()
{
    if (Input.GetKeyDown(KeyCode.J)) // For Punching
    {
        if( current_combo_state == ComboState.PUNCH3 ||
            current_combo_state == ComboState.KICK1 ||
            current_combo_state == ComboState.KICK2 )
        {
            return; // To prevent it to try kicking when pressing the button
too fast, causing a bug
        }

        current_combo_state++; // Combo state starts at "NONE" and goes to
every punch when pressing J repeatedly
        activate_timer_to_reset = true; // Start running the timer to break
or continue the combo
        current_combo_timer = default_combo_timer;

        // Play the corresponding punching animation given the current
character attack state
        if(current_combo_state == ComboState.PUNCH1)
        {

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        player_anim.Punch1();
    }

    if (current_combo_state == ComboState.PUNCH2)
    {
        player_anim.Punch2();
    }

    if (current_combo_state == ComboState.PUNCH3)
    {
        player_anim.Punch3();
    }
}

if (Input.GetKeyDown(KeyCode.K)) //For Kicking
{
    if ( current_combo_state == ComboState.KICK2 ||
        current_combo_state == ComboState.PUNCH3 )
    {
        return; //if current attack is kick2 or punch3 simply return
because there's no combo to perform
    }

    if (current_combo_state == ComboState.NONE ||
        current_combo_state == ComboState.PUNCH1 ||
        current_combo_state == ComboState.PUNCH2 )
    {
        current_combo_state = ComboState.KICK1; //chain the kicks when
idle, punch1 or punch2
    }
    else if (current_combo_state == ComboState.KICK1)
    {
        current_combo_state++; //If pressing quickly chain the 2nd kick
    }

    activate_timer_to_reset = true; // Start running the timer to break
or continue the combo
    current_combo_timer = default_combo_timer;

    // Play the corresponding kicking animation given the current
character attack state
    if (current_combo_state == ComboState.KICK1)
    {
        player_anim.Kick1();
    }
    if (current_combo_state == ComboState.KICK2)
    {
        player_anim.Kick2();
    }
}

```

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    }

}

// Combo Attacks
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////

//Players will have only a few seconds to quickly perform a combo
////////////////////////////////////////////////////////////////

void ResetComboState()
{
    if (activate_timer_to_reset) //this is only true when we start an attack
with a button press
    {
        current_combo_timer -= Time.deltaTime; //time to perform a combo
will start running down

        if (current_combo_timer <= 0f) //if we ran out of time
        {
            current_combo_state = ComboState.NONE; //the combo is cancelled

            activate_timer_to_reset = false;
            current_combo_timer = default_combo_timer;
        }
    }
} // Reset combo state
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

}

```

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