#5-07ソースコード

MainCtrl.cs

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

public class MainCtrl : MonoBehaviour {

  enum GAMEMODE {
    TITLE,
    PLAY,
    END
  };

  GAMEMODE nowmode;

  public Transform titleInfoGroup;
  public Player player;
  public Transform goalMarker;
  public Transform endInfoGroup;
  public Transform esaGroup;


  // Use this for initialization
  void Start() {
    nowmode = GAMEMODE.TITLE;
    titleInfoGroup.gameObject.SetActive(true);
  }

  // Update is called once per frame
  void Update() {
    switch (nowmode) {
      case GAMEMODE.TITLE:
        //titleモードのときにここのプログラムが動く
        if (Input.GetButtonDown("Jump")) {
          nowmode = GAMEMODE.PLAY;
          //タイトルロゴなどを消す
          titleInfoGroup.gameObject.SetActive(false);
          //プレイヤーを動かす
          player.IsStop = false;
        }
        break;

      case GAMEMODE.PLAY:
        if(player.transform.position.x > goalMarker.position.x) {
          nowmode = GAMEMODE.END;
          player.IsStop = true;
          endInfoGroup.gameObject.SetActive(true);
        }
        break;

      case GAMEMODE.END:
        if (Input.GetButtonDown("Jump")) {
          nowmode = GAMEMODE.TITLE;
          titleInfoGroup.gameObject.SetActive(true);
          endInfoGroup.gameObject.SetActive(false);
          for(int i = 0; i < esaGroup.childCount; ++i) {
```

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            esaGroup.GetChild(i).gameObject.SetActive(true);
          }
          player.Reset();
        }
        break;
    }
  }
}
```

Player.cs

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

public class Player : MonoBehaviour {
  int score;      //スコア

  public UnityEngine.UI.Text scoreValue;

  float downSpeed;    //落下速度
  Rigidbody2D rb;     //物理演算コンポーネント
  Animator animCtrl;  //アニメーションコントロール
  AudioSource audioSource;    //オーディオコンポーネント

  public AudioClip[] sounds;

  public bool IsStop;   //停止モード

  // Use this for initialization
  void Start() {  //初期化処理
    rb = GetComponent<Rigidbody2D>();
    animCtrl = GetComponent<Animator>();
    audioSource = GetComponent<AudioSource>();

    Reset();
  }

  // Update is called once per frame
  void Update() {
    if (IsStop) return;

    RaycastHit2D hit;
    //下方向チェック
    hit = Physics2D.Raycast(transform.position + new Vector3(-0.32f, -0.32f), Vector2.right,
0.64f);
    if (hit.transform != null) {
      downSpeed = 0;      //すぐ下がってめり込んでしまうのに対処
      animCtrl.SetBool("IsGround", true);
      if (Input.GetButtonDown("Jump")) {  //ジャンプのボタン判定
        downSpeed = 6.5f;
        transform.Translate(Vector3.up * 0.01f);    //ジャンプしてもRaycastに引っかかってしまう対策
        audioSource.PlayOneShot(sounds[0]);
      }
    } else {
      animCtrl.SetBool("IsGround", false);
      downSpeed += -0.3f;     //落下速度をどんどん早くする
    }

    hit = Physics2D.Raycast(transform.position + new Vector3(0.34f, 0.26f), Vector2.down,
```

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0.52f);
    if (hit.transform != null) {
      //障害物に当たった
      animCtrl.SetBool("IsIdle", true);
    } else {
      //障害物に当たっていない
      animCtrl.SetBool("IsIdle", false);
    }

    Vector2 nowpos = rb.position;
    nowpos += new Vector2(1, downSpeed) * Time.deltaTime;
    rb.MovePosition(nowpos);

    animCtrl.SetFloat("DownSpeed", downSpeed);
  }

  private void OnTriggerEnter2D(Collider2D collision) {
    collision.gameObject.SetActive(false);
    score += 1;     //スコア1点加算
    scoreValue.text = score.ToString(); //スコアの表示
    audioSource.PlayOneShot(sounds[1]);

  }

  public void Reset() {
    downSpeed = 0;
    score = 0;
    scoreValue.text = score.ToString(); //スコアの表示
    IsStop = true;
    animCtrl.SetBool("IsIdle", true);
    transform.position = new Vector3(-1.5f, -1.427f, 0);
  }
}
```