Министерство образования Республики Беларусь

Учреждение образования

БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ
ИНФОРМАТИКИ И РАДИОЭЛЕКТРОНИКИ

Факультет компьютерных систем и сетей

Кафедра программного обеспечения информационных технологий

Дисциплина: Разработка программного обеспечения для мобильных платформ

ОТЧЕТ

По лабораторной работе №5

Тема работы: «Игра»

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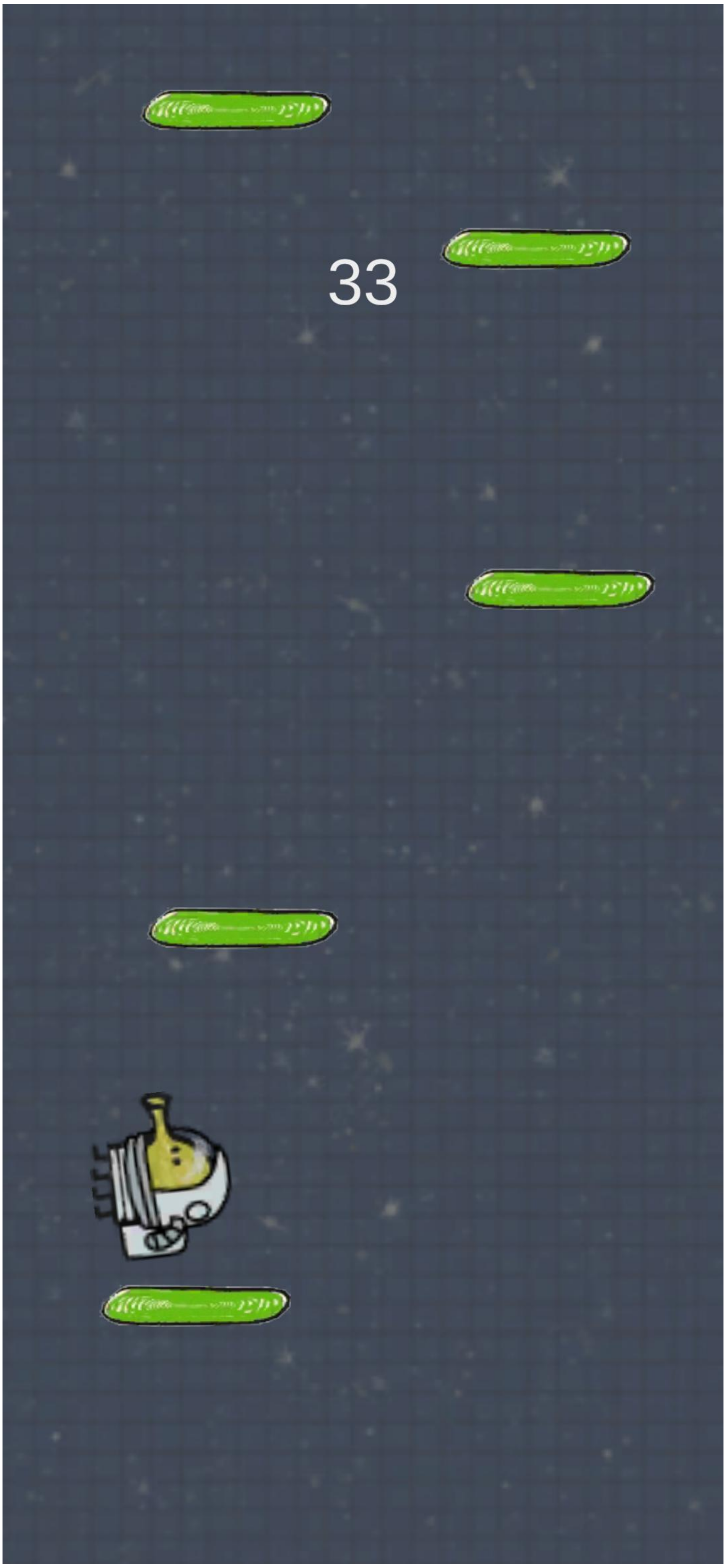
Минск 2023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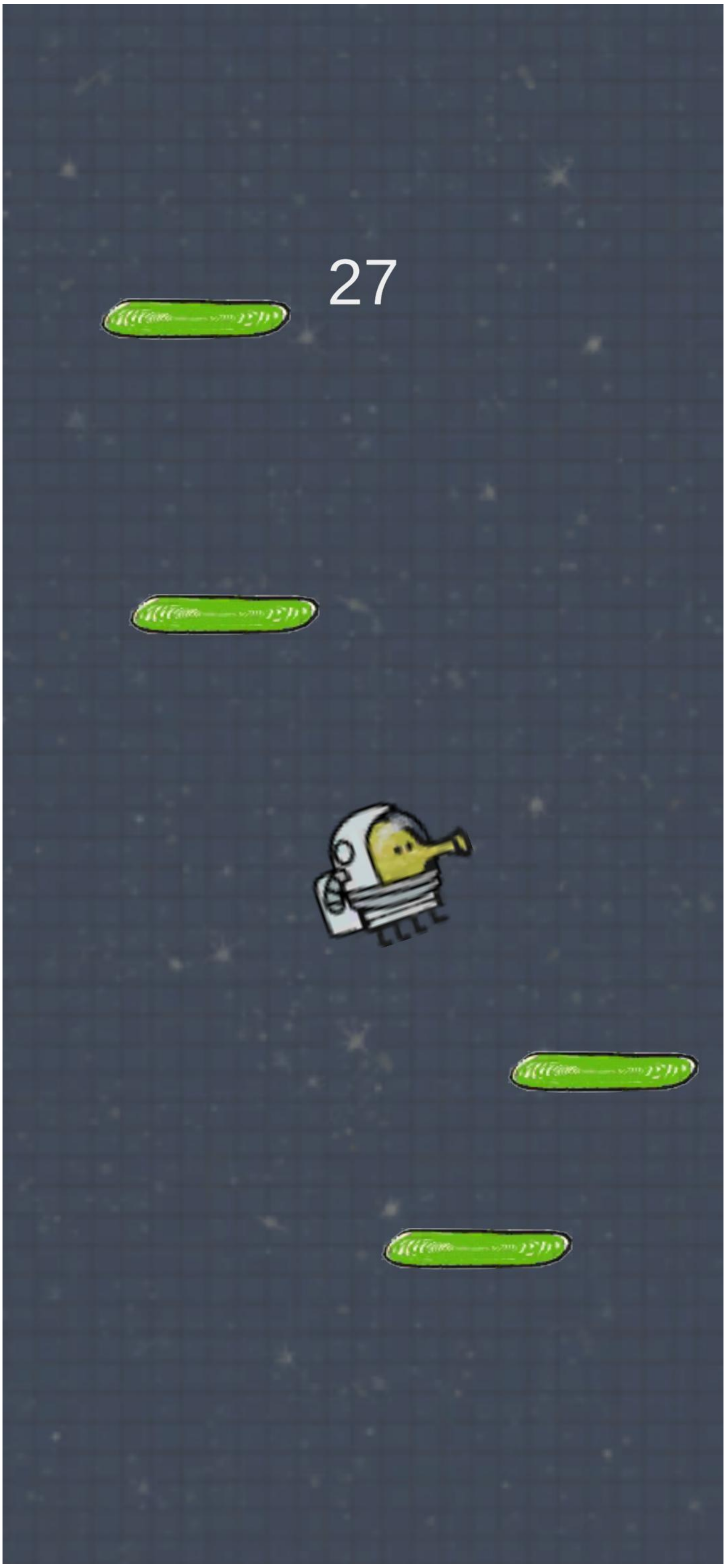
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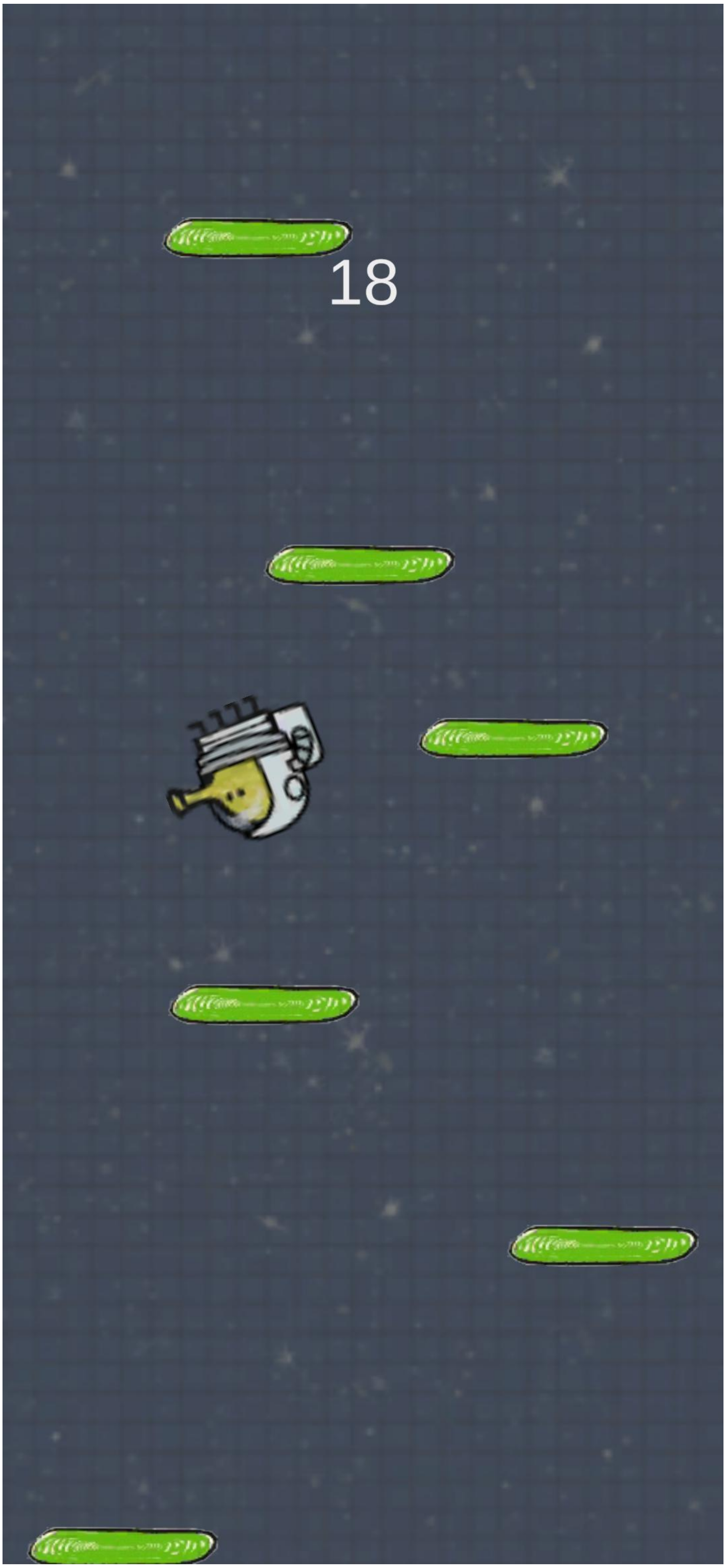
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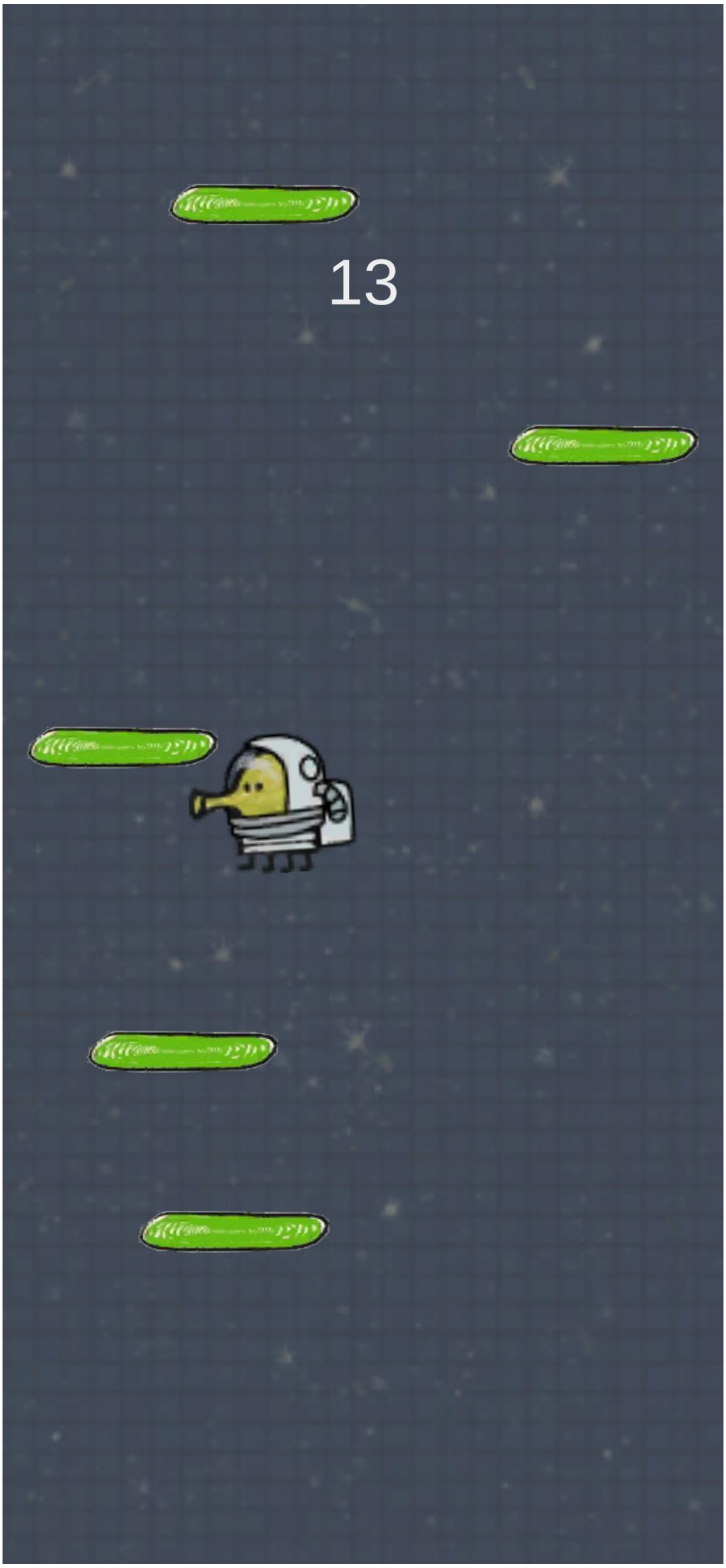

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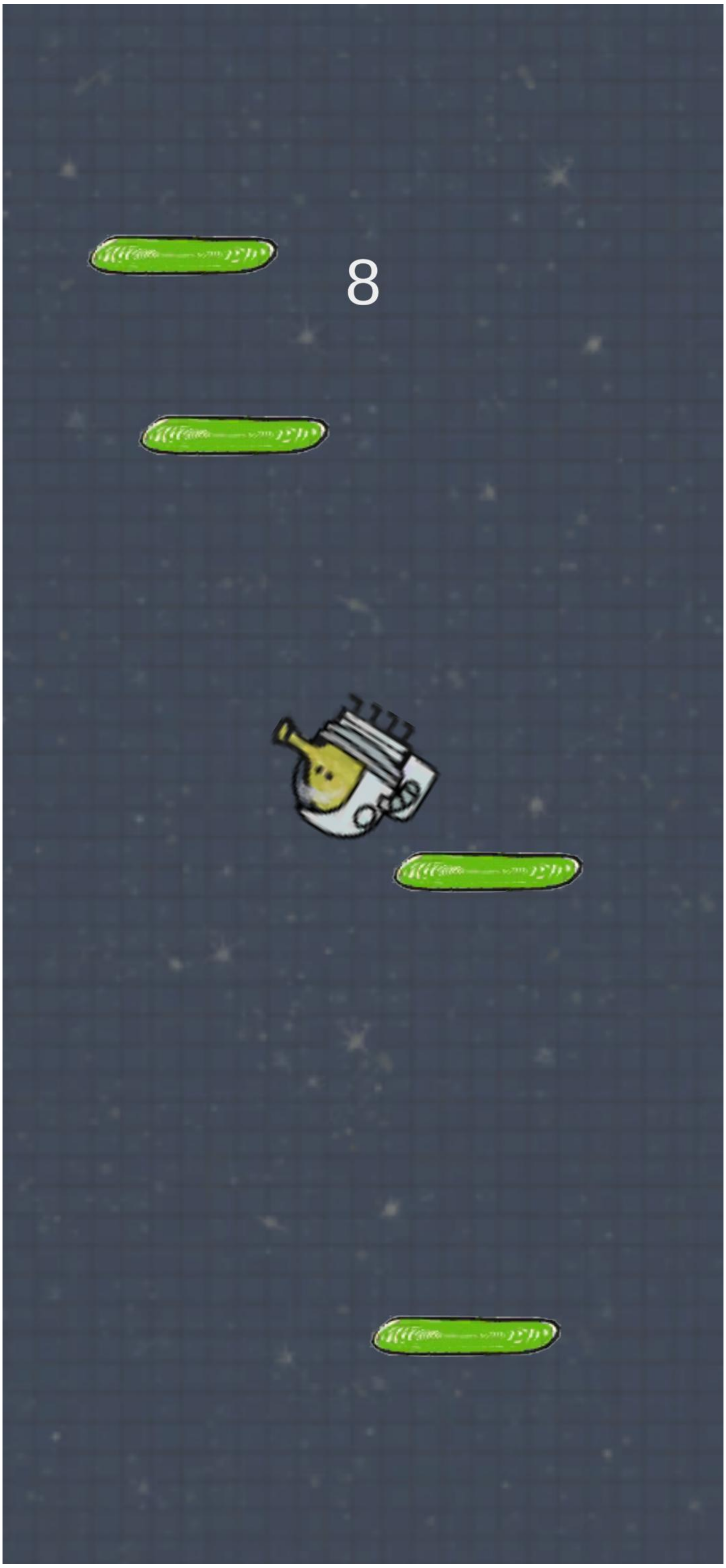

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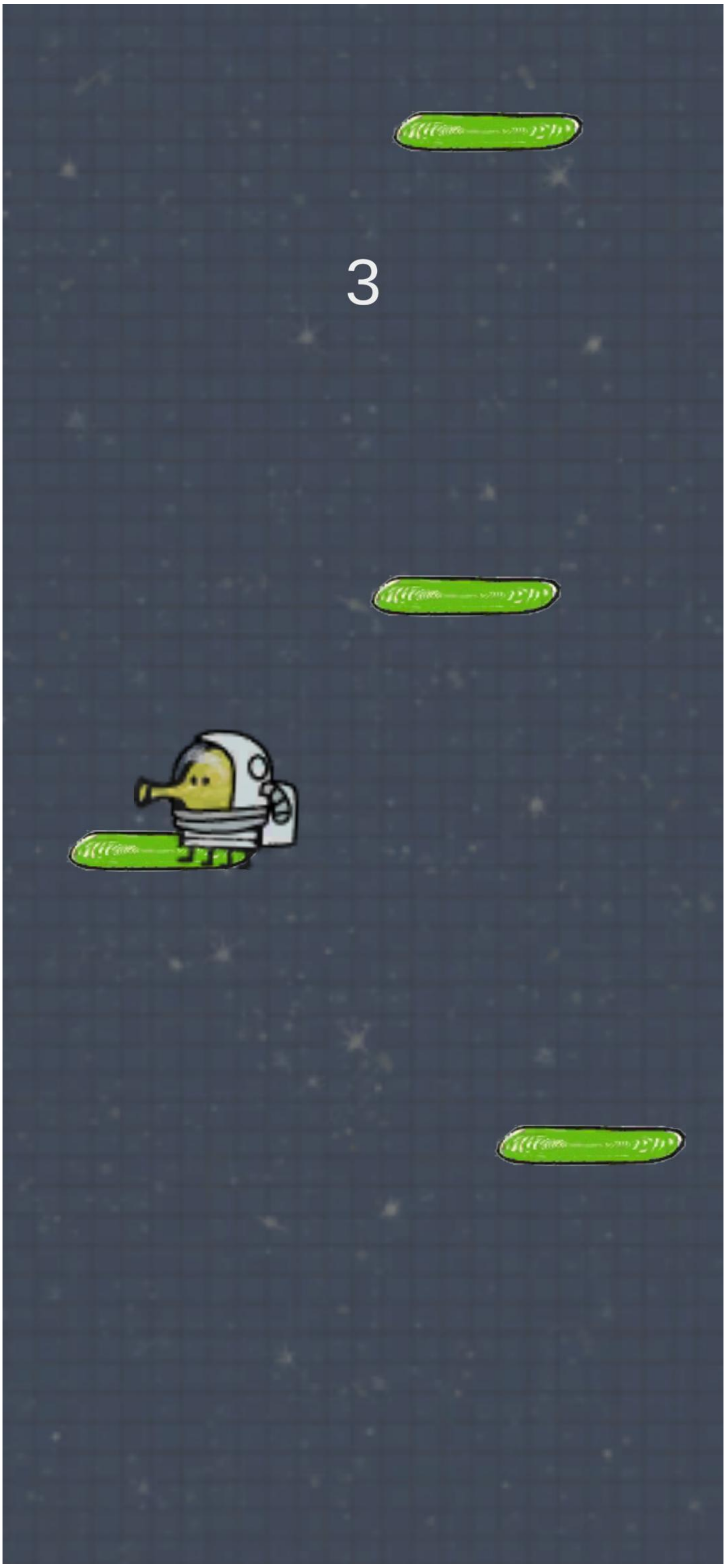
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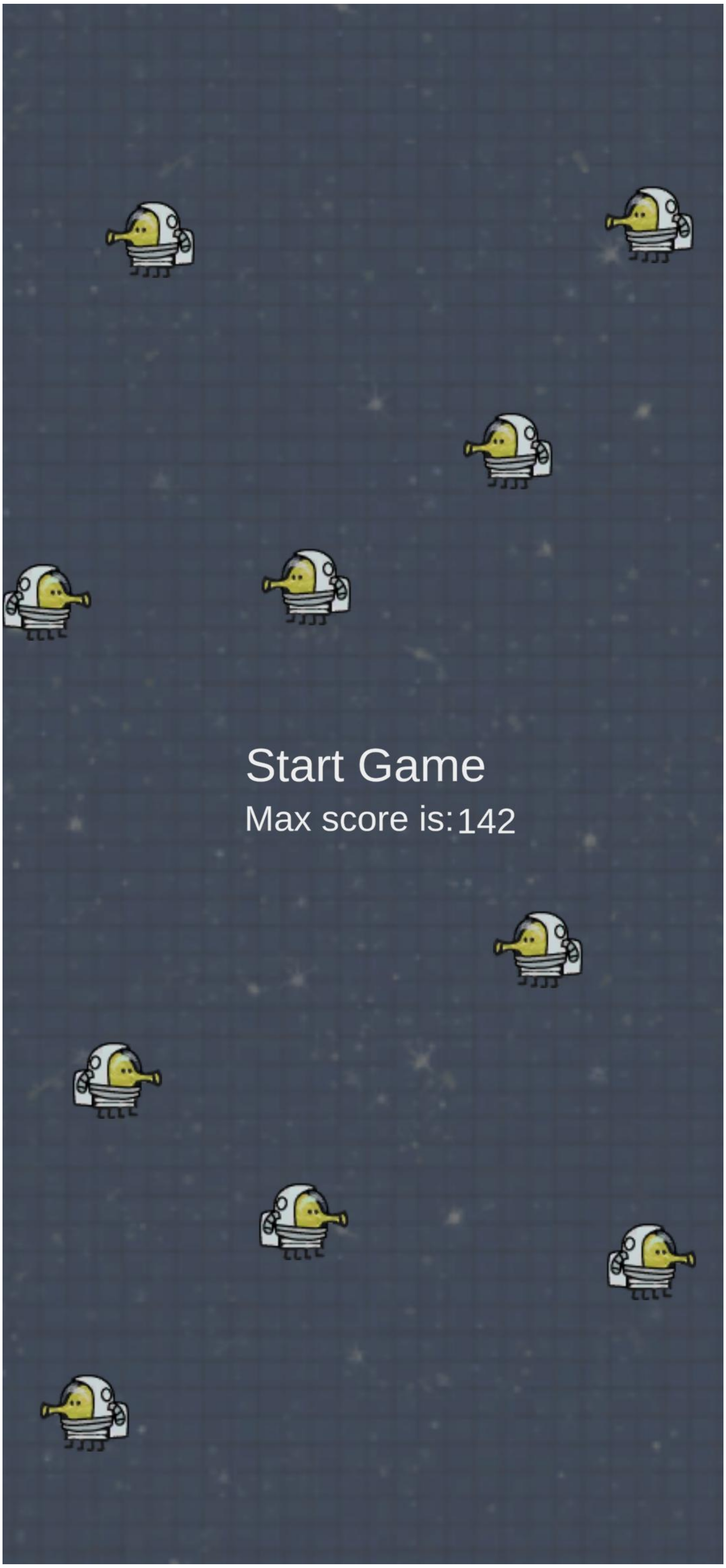

Max score is:142

Исходный код:
Doodle.cs

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

public class Doodle : MonoBehaviour
{
    public static Doodle instance;

    float horizontal;
    public Rigidbody2D DoodleRigid;

    void Start()
    {
        if (instance == null)
        {
            instance = this;
        }
    }


    void FixedUpdate()
    {
        if (Application.platform == RuntimePlatform.Android)
        {
            horizontal = Input.acceleration.x;
        }

        if (Input.acceleration.x < 0)
        {
            gameObject.GetComponent<SpriteRenderer>().flipX = false;
        }

        if (Input.acceleration.x > 0)
        {
            gameObject.GetComponent<SpriteRenderer>().flipX = true;
        }

        var velocity = new Vector2(Input.acceleration.x * 10f, DoodleRigid.velocity.y);

        DoodleRigid.velocity = velocity;

    }

    public Score ScoreScript;
    public void OnCollisionEnter2D(Collision2D collision)
    {
        if (collision.collider.name == "DeadZone")
        {
            int lastScore = PlayerPrefs.GetInt("Score");
            int curScore = ScoreScript.curScore;

            if (curScore > lastScore)
            {
                PlayerPrefs.SetInt("Score", curScore);
            }
            SceneManager.LoadScene("Menu");
        }
    }

}
```

MainMenu.cs:

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
using UnityEngine.SceneManagement;
using TMPro;
using System;
public class MainMenu : MonoBehaviour
{
    [SerializeField] private TMP_Text maxScore;

    public void Start()
    {
        int Score = PlayerPrefs.GetInt("Score");
        maxScore.text = Score.ToString();
    }

    public void PlayGame()
    {
        SceneManager.LoadScene("Jumping");
    }
}
```

Platform.cs:

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

public class Platform : MonoBehaviour
{
    public float forceJump;

    public void OnCollisionEnter2D(Collision2D collision)
    {
        if (collision.relativeVelocity.y < 0)
        {
            Doodle.instance.DoodleRigid.velocity = Vector2.up * forceJump;
        }
    }

    public void OnCollisionExit2D(Collision2D collision)
    {
        if (collision.collider.name == "DeadZone")
        {
            float RandX = Random.Range(-1.7f, 1.7f);
            float RandY = Random.Range(transform.position.y + 20f, transform.position.y + 22f);

            transform.position = new Vector3(RandX, RandY, 0);
        }
    }
}
```

Score.cs:

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

public class Score : MonoBehaviour
{
    [SerializeField] private Transform player;
    [SerializeField] private TMP_Text score;

    public int curScore;

    private int maxScore;

    private void Update()
    {
        int pos = (int) Math.Floor(player.position.y);
        maxScore = pos > maxScore ? pos : maxScore;
        score.text = maxScore.ToString();
        curScore = maxScore;
    }

}
```

PlatformGenerate.cs:

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

public class PlatformGenerate : MonoBehaviour
{
    public GameObject platformPrefab;

    void Start()
    {
        Vector3 SpawnerPosition = new Vector3();

        for (int i = 0; i < 10; i++)
        {
            SpawnerPosition.x = Random.Range(-1.7f, 1.7f);
            SpawnerPosition.y += Random.Range(1f, 3f);

            Instantiate(platformPrefab, SpawnerPosition, Quaternion.identity);
        }
    }

}
```

CameraFollows.cs:

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

public class CameraFollow : MonoBehaviour
{
    public Transform doodlePos;

    void Update()
    {
        if (doodlePos.position.y > transform.position.y)
        {
            transform.position = new Vector3(transform.position.x, doodlePos.position.y,
transform.position.z);
        }
    }


}
```