Facultatea Calculatoare, Informatica si Microelectronica

Universitatea Tehnica a Moldovei

Medii Interactive de Dezvoltare a

Produselor Soft

Lucrarea de laborator Nr.5

Dezvoltarea unei aplicatii mobile

A efectuat : **Dobrin Eduard**

lector asistent : **Cojanu Irina**

lector superior : **Melnic Radu**

Lucrarea de laborator #5

1 Scopul lucrarii de laborator :

Lucrul in echipa.

Aplicarea tehnicilor , limbajelor de programare si IDE-uri studiate in laboratoarele precedente.

2 Obiectivele lucrarii :

- Crearea unei aplicatii complexe in echipa.
- Divizarea sarcinilor pe membrii echipei.

3 Mersul lucrarii :

   In lucrarea de laborator s-a creat jocul "Glide". Insusi jocul consta in crearea unui avion si conducerea lui. Scopul principal a jocului este de a conduce cu succes avionul si colectarea token-urilor.
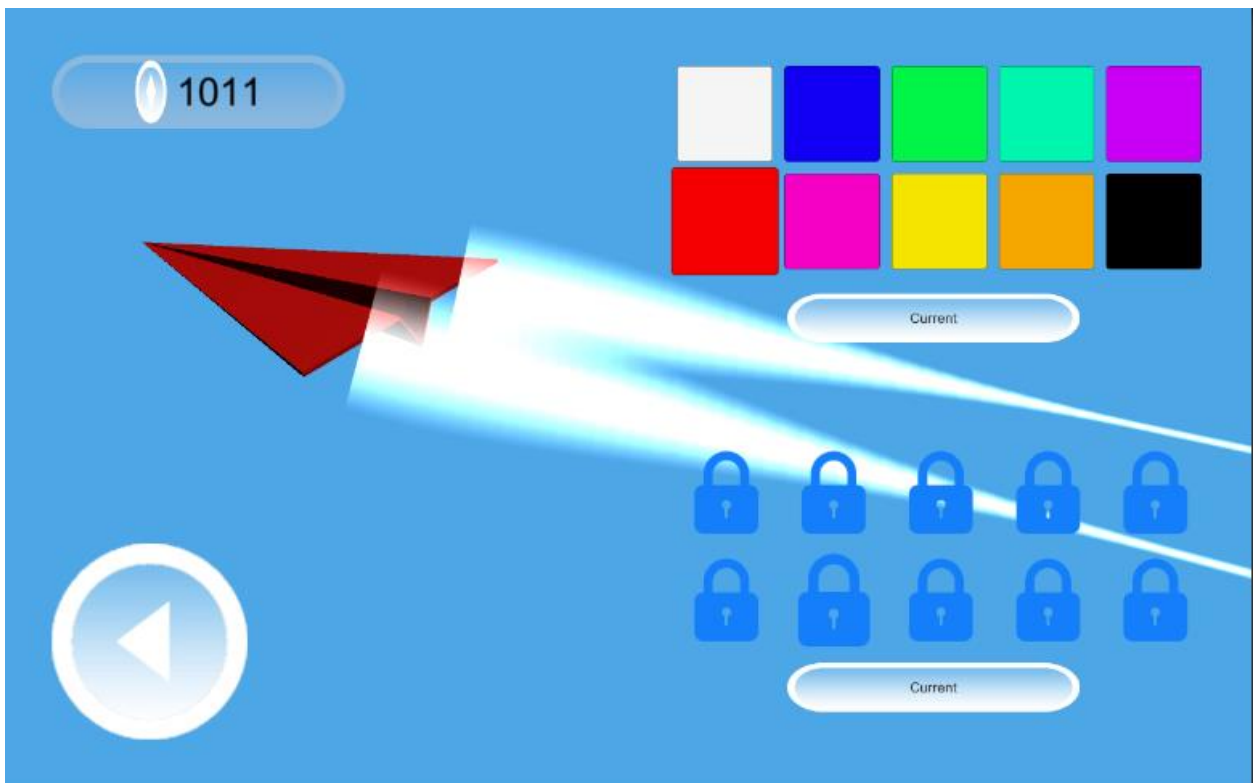
Menu Principal :

Level Menu :

Shop Menu :

Menu Scene :

```csharp
private void Start ()
{


    if(SystemInfo.supportsAccelerometer)
    {
        tiltControlButton.GetComponent<Image>().color = (SaveManager.Instance.state.usingAccelerometer) ? tiltControlEnabled : tiltControlDisabled;

    }
    else
    {
        tiltControlButton.gameObject.SetActive(false);

    }
    menuCam = FindObjectOfType<MenuCamera>();

    SetCameraTo(Manager.Instance.menuFocus);
    UpdateGoldText();
    fadeGroup = FindObjectOfType<CanvasGroup>();
    fadeGroup.alpha = 1;
        InitShop();
    InitLevel();
    OnColorSelect(SaveManager.Instance.state.activeColor);
    SetColor(SaveManager.Instance.state.activeColor);

    OnTrailSelect(SaveManager.Instance.state.activeTrail);
    SetTrail(SaveManager.Instance.state.activeTrail);

    colorPanel.GetChild(SaveManager.Instance.state.activeColor).GetComponent<RectTransform>().localScale = Vector3.one * 1.125f;
    trailPanel.GetChild(SaveManager.Instance.state.activeTrail).GetComponent<RectTransform>().localScale = Vector3.one * 1.125f;
}
```

```csharp
private void InitLevel()
{
    if (levelPanel == null )
        Debug.Log("You did not asign level panel in the inspector");

    int i = 0;
    foreach (Transform t in levelPanel)
    {
        int currentIndex = i;
        Button b = t.GetComponent<Button>();
        b.onClick.AddListener(() => OnLevelSelect(currentIndex));
        Image img = t.GetComponent<Image>();
        if(i<=SaveManager.Instance.state.completedLevel)
        {
            if(i == SaveManager.Instance.state.completedLevel)
            {
                img.color = Color.white;
            }
            else
            {
                img.color = Color.green;
            }
        }
        else
        {
            b.interactable = false;
            img.color = Color.grey;
        }
        i++;

    }
    i = 0;
    foreach (Transform t in trailPanel)
    {
        int currentIndex = i;
        Button b = t.GetComponent<Button>();
        b.onClick.AddListener(() => OnTrailSelect(currentIndex));
        i++;

    }
```

4

Game Scene:

```csharp
public class GameScene : MonoBehaviour
{
    private CanvasGroup fadeGroup;
    private float fadeInDuration = 2;
    private bool gameStarted;
    private void Start()
    {
        SceneManager.LoadScene(Manager.Instance.currentLevel.ToString(), LoadSceneMode.Additive);
        fadeGroup = FindObjectOfType<CanvasGroup>();
        fadeGroup.alpha = 1;

    }
    private void Update()
    {
        if (Time.timeSinceLevelLoad <= fadeInDuration)
        {
            fadeGroup.alpha = 1 - (Time.timeSinceLevelLoad / fadeInDuration);

        }
        else if(!gameStarted)
        {
            fadeGroup.alpha = 0;
            gameStarted = true;
        }
    }
    public void CompleteLevel()
    {
        SaveManager.Instance.CompleteLevel(Manager.Instance.currentLevel);
        Manager.Instance.menuFocus = 1;
        ExitScene();
    }
    public void ExitScene()
    {
        SceneManager.LoadScene("Menu");
    }

}
```

Repartizarea lucrului :

Dobrin Eduard – Partea functionala a lucrarii

Negru Igor – Partea grafica a lucrarii

Concluzie :

In lucrarea data s-a creat o aplicatie mobila pe Android. A fost impartit proectul in mai multe parti si fiecare membru al echipei era responsabil de parte lui. Pentru dezvoltare s-a folosit ca IDE **Unity si Visual Studio.** In echipa se pot efectua priecte complexe , creste viteza de lucru si totodata scade numarul de erori, deoarece toti se ajuta reciproc. In concluzie putem spune ca este foarte important de lucrat in echipe si de impartit taskurile rational si efectiv intre membri.