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Defense n°1

March 9 2022

DIFFERENT TASKS

1. Server

2. Kart movement

3. Bonus & Power-ups

4. Track Design

5. UI & Menus

Modifications of

- Track Design and 3D modelling to Lancelot
- Player movement to Eliott
- Menu Design & implementation to Titouan

1.

SERVER

Multiplayer at the core of the project

```
// Start is called before the first frame update
void Start()
{
    // Connect the client to the server
    PhotonNetwork.ConnectUsingSettings();
}

public override void OnConnectedToMaster()
{
    // Join the lobby as soon as the client is connected
    PhotonNetwork.JoinLobby();
}
```

PHOTON NETWORK CONNECTION

2.

KART MOVEMENT

Way the player will interact with his car

```
// Update current speed & rotation
currentSpeed = Mathf.SmoothStep(currentSpeed, speed, Time.deltaTime * 20f); speed = 0f;
currentRotate = Mathf.Lerp(currentRotate, rotate, Time.deltaTime * 4f); rotate = 0f;

// Move forward when accelerating
sphere.AddForce(-playerModel.transform.forward * currentSpeed, ForceMode.Acceleration);
```

SMOOTH MOVEMENT

3.

BONUS & POWER-UPS

Creative part of doing an arcade-racing game

```
// Randomly pick a bonus and broadcast it
public void RandomBonus()
{
    // Find the kart in the hierarchy
    int size = SpawnBonus.BonusType.GetNames(typeof(SpawnBonus.BonusType)).Length;
    string bonusName = ((SpawnBonus.BonusType)Random.Range(0, size)).ToString();
    // Add the bonus to the kart's inventory if empty, and change the label on screen
    if (string.IsNullOrEmpty(kart.GetComponent<KartController>().bonusInventory))
    {
        kart.GetComponent<KartController>().bonusInventory = bonusName;
        bonusLabelGroup.SetActive(true);
        bonbusLabel.text = bonusName;
    }
}
```

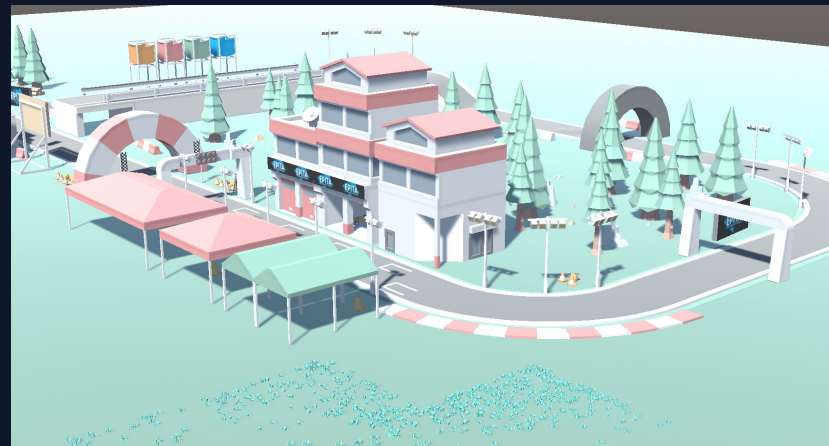
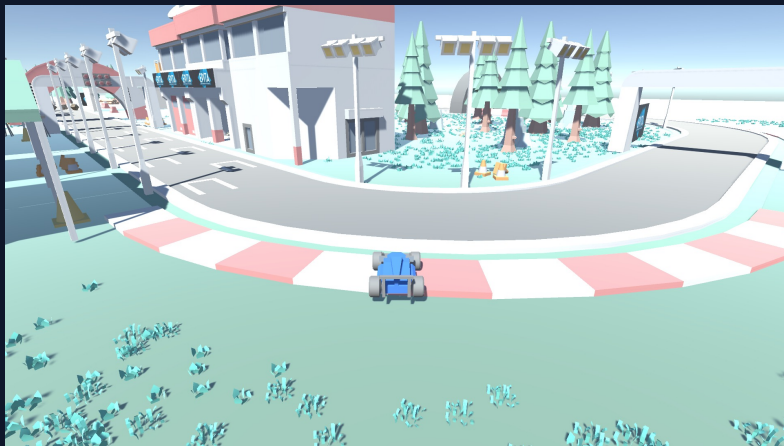
RANDOM BONUS

4.

TRACK DESIGN

The track and his surroundings built-in 3d

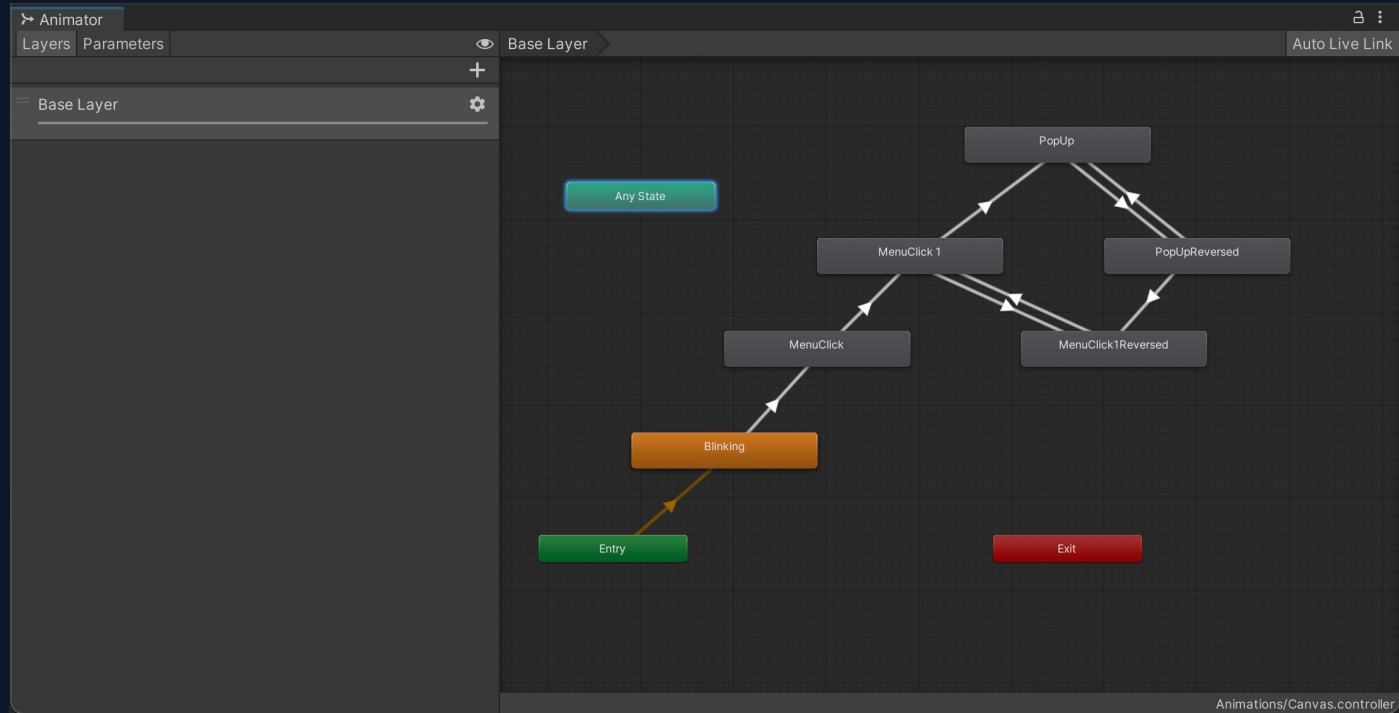
TRACK



5.

UI & Menus

The way the player is welcomed in the game



ANIMATOR PANEL

```
public void onChangeCall()
{
    warningInputField.text = "";
    joinInputField.text = Regex.Replace(joinInputField.text, @"[a-z]", m => m.ToString().ToUpper());
}
```

REGEX INPUT FIELD RESTRICTOR

```

void Start()
{
    // Sync all clients to the master
    PhotonNetwork.AutomaticallySyncScene = true;

    // Set the code room text to the server name
    codeTextField.text = PhotonNetwork.CurrentRoom.Name;

    // Update every player slots when joining
    for (int i = 0; i < PhotonNetwork.CurrentRoom.PlayerCount; i++)
    {
        // Update all names accross network
        playerTexts[i].text = PhotonNetwork.PlayerList[i].NickName;
        // Update all colors accross network
        Color currColor = colorList.Values.ToList()[i];
        dots[i].color = currColor;
        playersColors[i] = currColor;
    }
    SceneManager.sceneLoaded += OnSceneLoaded;

    if (PhotonNetwork.IsMasterClient)
    {
        launchButton.SetActive(true);
    }
}

```

RETRIEVING NAMES & COLORS

THANKS!

Any questions?