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

public class Paint : MonoBehaviour, IDragHandler, IDropHandler
{
    private bool isMousePressed;
    public List<Vector3> pointsList;
    private Vector3 mousePos;

    private LineRenderer lineRenderer;
    struct myLine
    {
        public Vector3 StartPoint;
        public Vector3 EndPoint;
    };
    void Awake()
    {
        lineRenderer =
GameObject.Find("LineRender").GetComponent<LineRenderer>();
        lineRenderer.positionCount = 0;
        lineRenderer.startWidth = 0.5f;
        lineRenderer.endWidth = 1f;
        lineRenderer.startColor = Color.green;
        lineRenderer.endColor = Color.grey;
        //lineRenderer.useWorldSpace = false;
    }

    private void Start()
    {
        //lineRenderer.enabled = false;
    }

    public void OnDrag(PointerEventData eventData)
    {
        //Debug.Log("Nazav"+eventData.position);
        //lineRenderer.enabled = true;

        isMousePressed = true;

        lineRenderer.positionCount = 0;
        pointsList.RemoveRange(0, pointsList.Count);
        lineRenderer.startColor = Color.green;
        lineRenderer.endColor = Color.grey;
    }

    public void OnDrop(PointerEventData eventData)
    {
        //Debug.Log("Vidpustiv" + eventData.position);
        isMousePressed = false;
        //lineRenderer.enabled = false;
    }

    private void Update()
    {
        //if (Input.GetMouseButtonDown(0))
        //{
        //    isMousePressed = true;

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    //}
    //if (Input.GetMouseButtonUp(0))
    //{
    //    isMousePressed = false;
    //}

    if (isMousePressed)
    {
        mousePos =
Camera.main.ScreenToWorldPoint(Input.mousePosition);
        mousePos.z = 0;
        if (!pointsList.Contains(mousePos))
        {
            pointsList.Add(mousePos);
            lineRenderer.positionCount = pointsList.Count;
            lineRenderer.SetPosition(pointsList.Count - 1,
(Vector3)pointsList[pointsList.Count - 1]);
            if (isLineCollide())
            {
                isMousePressed = false;
                lineRenderer.startColor = Color.red;
                lineRenderer.endColor = Color.red;
            }
        }
    }
}
private bool isLineCollide()
{
    if (pointsList.Count < 2)
        return false;
    int TotalLines = pointsList.Count - 1;
    myLine[] lines = new myLine[TotalLines];
    if (TotalLines > 1)
    {
        for (int i = 0; i < TotalLines; i++)
        {
            lines[i].StartPoint = (Vector3)pointsList[i];
            lines[i].EndPoint = (Vector3)pointsList[i + 1];
        }
    }
    for (int i = 0; i < TotalLines - 1; i++)
    {
        myLine currentLine;
        currentLine.StartPoint = (Vector3)pointsList[pointsList.Count
- 2];
        currentLine.EndPoint = (Vector3)pointsList[pointsList.Count -
1];
        if (isLinesIntersect(lines[i], currentLine))
            return true;
    }
    return false;
}
private bool checkPoints(Vector3 pointA, Vector3 pointB)
{
    return (pointA.x == pointB.x && pointA.y == pointB.y);
}
private bool isLinesIntersect(myLine L1, myLine L2)
{
    if (checkPoints(L1.StartPoint, L2.StartPoint) ||

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        checkPoints(L1.StartPoint, L2.EndPoint) ||
        checkPoints(L1.EndPoint, L2.StartPoint) ||
        checkPoints(L1.EndPoint, L2.EndPoint))
        return false;

        return ((Mathf.Max(L1.StartPoint.x, L1.EndPoint.x) >=
Mathf.Min(L2.StartPoint.x, L2.EndPoint.x)) &&
        (Mathf.Max(L2.StartPoint.x, L2.EndPoint.x) >=
Mathf.Min(L1.StartPoint.x, L1.EndPoint.x)) &&
        (Mathf.Max(L1.StartPoint.y, L1.EndPoint.y) >=
Mathf.Min(L2.StartPoint.y, L2.EndPoint.y)) &&
        (Mathf.Max(L2.StartPoint.y, L2.EndPoint.y) >=
Mathf.Min(L1.StartPoint.y, L1.EndPoint.y))
        );
    }

}

```