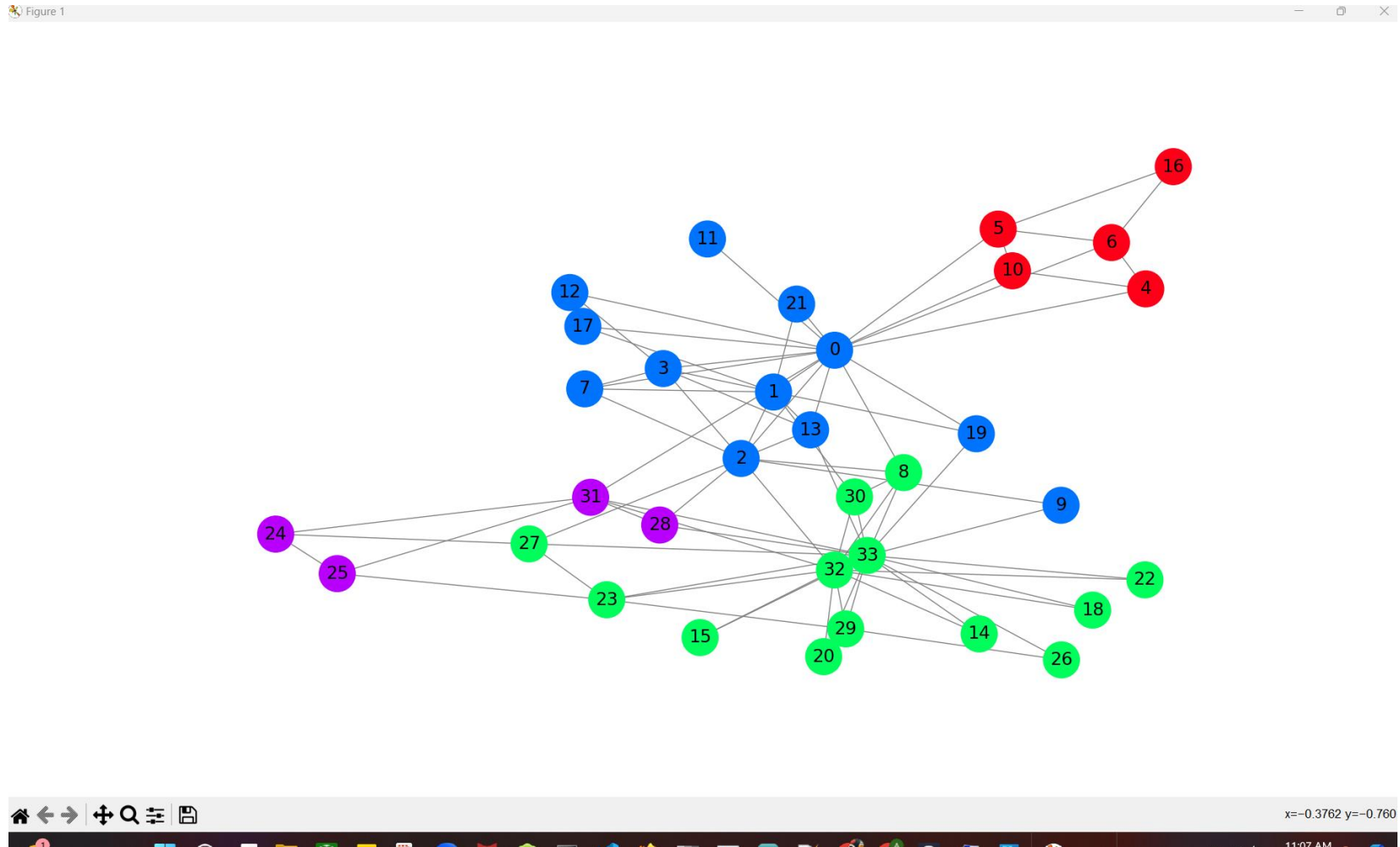


**ASSIGNMENT #13**

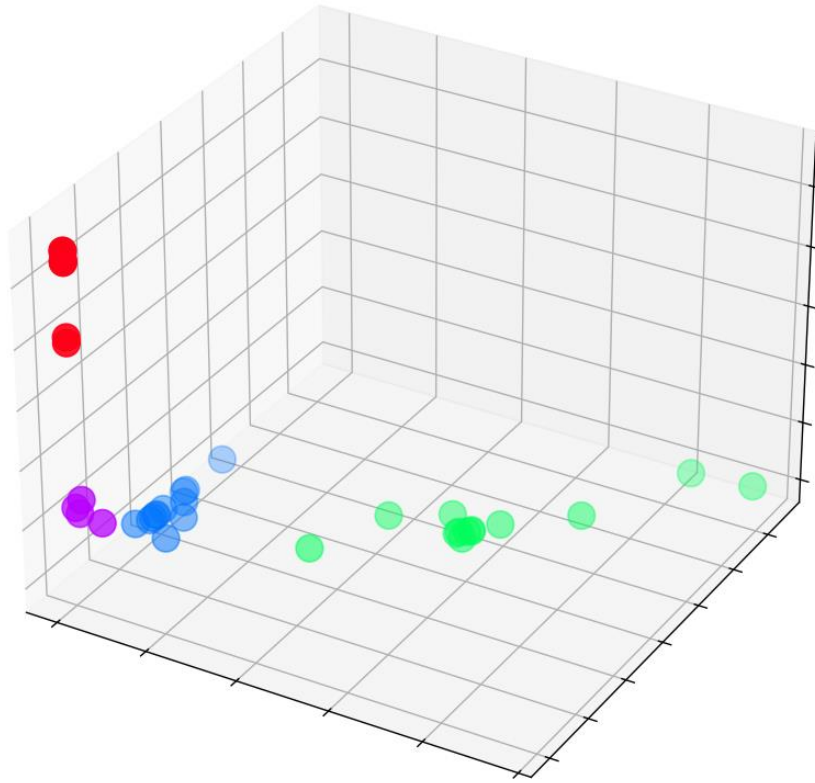
**OUTPUT 1 (GCNKarate.py)**



```

KarateClub()
-----
Number of graphs: 1
Number of features: 34
Number of classes: 4
Graph: Data(x=[34, 34], edge_index=[2, 156], y=[34], train_mask=[34])
tensor([[1., 0., 0., ..., 0., 0., 0.],
        [0., 1., 0., ..., 0., 0., 0.],
        [0., 0., 1., ..., 0., 0., 0.],
        ...,
        [0., 0., 0., ..., 1., 0., 0.],
        [0., 0., 0., ..., 0., 1., 0.],
        [0., 0., 0., ..., 0., 0., 1.]])
tensor([[ 0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  1,  1,
          1,  1,  1,  1,  1,  1,  1,  2,  2,  2,  2,  2,  2,  2,  2,  2,  2,  3,
          3,  3,  3,  3,  3,  4,  4,  4,  5,  5,  5,  5,  6,  6,  6,  6,  7,  7,
          7,  7,  8,  8,  8,  8,  8,  9,  9, 10, 10, 10, 11, 12, 12, 13, 13, 13,
          13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 18, 18, 19, 19, 19, 20, 20, 21,
          21, 22, 22, 23, 23, 23, 23, 23, 24, 24, 24, 25, 25, 25, 26, 26, 27, 27,
          27, 27, 28, 28, 28, 29, 29, 29, 29, 30, 30, 30, 30, 31, 31, 31, 31, 31,
          31, 31, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 33, 33, 33, 33, 33,
          33, 33, 33, 33, 33, 33, 33, 33, 33, 33, 33, 33],
        [ 1,  2,  3,  4,  5,  6,  7,  8, 10, 11, 12, 13, 17, 19, 21, 31,  0,  2,
          3,  7, 13, 17, 19, 21, 30,  0,  1,  3,  7,  8,  9, 13, 27, 28, 32,  0,
          1,  2,  7, 12, 13,  0,  6, 10,  0,  6, 10, 16,  0,  4,  5, 16,  0,  1,
          2,  3,  0,  2, 30, 32, 33,  2, 33,  0,  4,  5,  0,  0,  3,  0,  1,  2,
          3, 33, 32, 33, 32, 33,  5,  6,  0,  1, 32, 33,  0,  1, 33, 32, 33,  0,
          1, 32, 33, 25, 27, 29, 32, 33, 25, 27, 31, 23, 24, 31, 29, 33,  2, 23,
          24, 33,  2, 31, 33, 23, 26, 32, 33,  1,  8, 32, 33,  0, 24, 25, 28, 32,
          33,  2,  8, 14, 15, 18, 20, 22, 23, 29, 30, 31, 33,  8,  9, 13, 14, 15,
          18, 19, 20, 22, 23, 26, 27, 28, 29, 30, 31, 32]])
tensor([1, 1, 1, 1, 3, 3, 3, 1, 0, 1, 3, 1, 1, 1, 0, 0, 3, 1, 0, 1, 0, 1, 0, 0,
        2, 2, 0, 0, 2, 0, 0, 2, 0, 0])
tensor([ True, False, False, False,  True, False, False, False,  True, False,
        False, False, False, False, False, False, False, False, False, False,
        False, False, False, False,  True, False, False, False, False, False,
        False, False, False, False])
MyGCN2(
  (gcn1): GCNConv(34, 3)
  (gcn2): GCNConv(3, 4)
  (linearnet): Linear(in_features=4, out_features=4, bias=True)
)

```



x plane=-0.3485

Epoch	0		Loss: 1.40		Acc: 11.76%
Epoch	10		Loss: 1.20		Acc: 38.24%
Epoch	20		Loss: 0.99		Acc: 52.94%
Epoch	30		Loss: 0.83		Acc: 52.94%
Epoch	40		Loss: 0.73		Acc: 55.88%
Epoch	50		Loss: 0.60		Acc: 67.65%
Epoch	60		Loss: 0.44		Acc: 94.12%
Epoch	70		Loss: 0.29		Acc: 97.06%
Epoch	80		Loss: 0.18		Acc: 100.00%
Epoch	90		Loss: 0.12		Acc: 100.00%

**OUTPUT 02 (CoraGCN.py) - working on debugging**