Output Screenshots:

```
>> Assgn5Ques1

xor =

  struct with fields:

    smat: [4×2 double]


xor =

  struct with fields:

    smat: [4×2 double]
    tmat: [4×1 double]


xornet0 =

  struct with fields:

      wih: [0.6294 0.8116]
    hbias: -0.7460
    whout: 0.8268
    obias: 0.2647


act0 =

  struct with fields:

    stim: [4×2 double]
     hid: [4×1 double]
     out: [4×1 double]


nf =

  struct with fields:

      wih: [2.9792 2.9669]
    hbias: -0.0655
    whout: 2.1444
    obias: -1.3005
```

```
    hbias: -0.0655
    whout: 2.1444
    obias: -1.3005


act10k =

  struct with fields:

    stim: [4×2 double]
     hid: [4×1 double]
     out: [4×1 double]


ans =

    0.2025
    0.6503
    0.6509
    0.6968


ans =

     0     0
     0     1
     1     0
     1     1


ans =

   -0.3566
    0.0328
   -0.0582
    0.3342


ans =

    0.4925
    0.5724
    0.5539
    0.6320
```

```
>> Assgn5Ques2

xor =

  struct with fields:

    smat: [8×3 double]
    tmat: [4×1 double]


xor =

  struct with fields:

    smat: [8×3 double]
    tmat: [8×1 double]


xornet0 =

  struct with fields:

      wih: [2×3 double]
    hbias: [-0.2745 -0.4448]
    whout: [0.1614 0.2817]
    obias: -0.7622


act0 =

  struct with fields:

    stim: [8×3 double]
     hid: [8×2 double]
     out: [8×1 double]


nf =

  struct with fields:

      wih: [2×3 double]
    hbias: [-0.4379 -0.7303]
    whout: [0.6756 0.7124]
    obias: 1.3328
```

```
act10k =

  struct with fields:

    stim: [8×3 double]
     hid: [8×2 double]
     out: [8×1 double]


ans =

    0.7187
    0.6541
    0.6795
    0.7365
    0.6763
    0.7160
    0.6964
    0.7059


ans =

     0     0     0
     1     1     1
     0     0     1
     0     1     0
     0     1     1
     1     0     0
     1     0     1
     1     1     0


ans =

   -0.1364   -0.2188
   -0.2951   -0.3531
   -0.1064   -0.5094
   -0.5383    0.2259
   -0.5163   -0.1092
    0.1291   -0.4476
    0.1590   -0.6758
   -0.3227   -0.0294
```

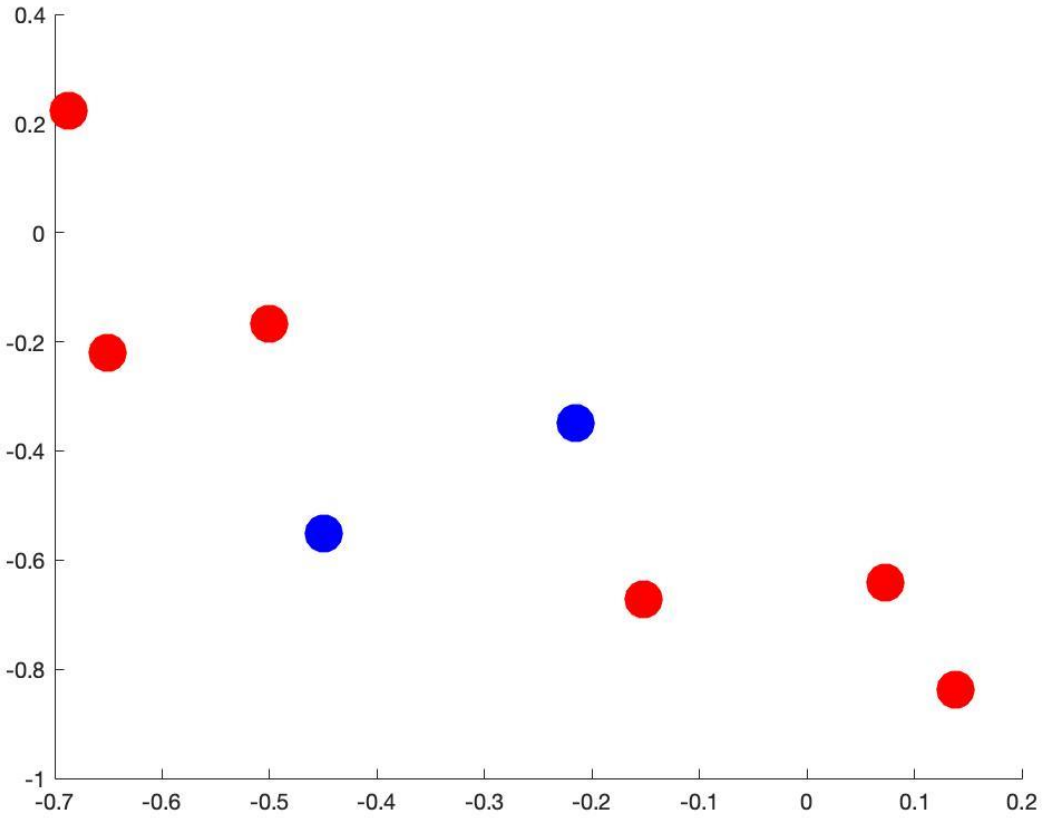
```
     0     0     0
     1     1     1
     0     0     1
     0     1     0
     0     1     1
     1     0     0
     1     0     1
     1     1     0


ans =

   -0.1364   -0.2188
   -0.2951   -0.3531
   -0.1064   -0.5094
   -0.5383    0.2259
   -0.5163   -0.1092
    0.1291   -0.4476
    0.1590   -0.6758
   -0.3227   -0.0294


ans =

    0.3003
    0.2871
    0.2844
    0.3131
    0.2939
    0.2958
    0.2835
    0.3052


kolor =

     0     0     1
     0     0     1
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
```

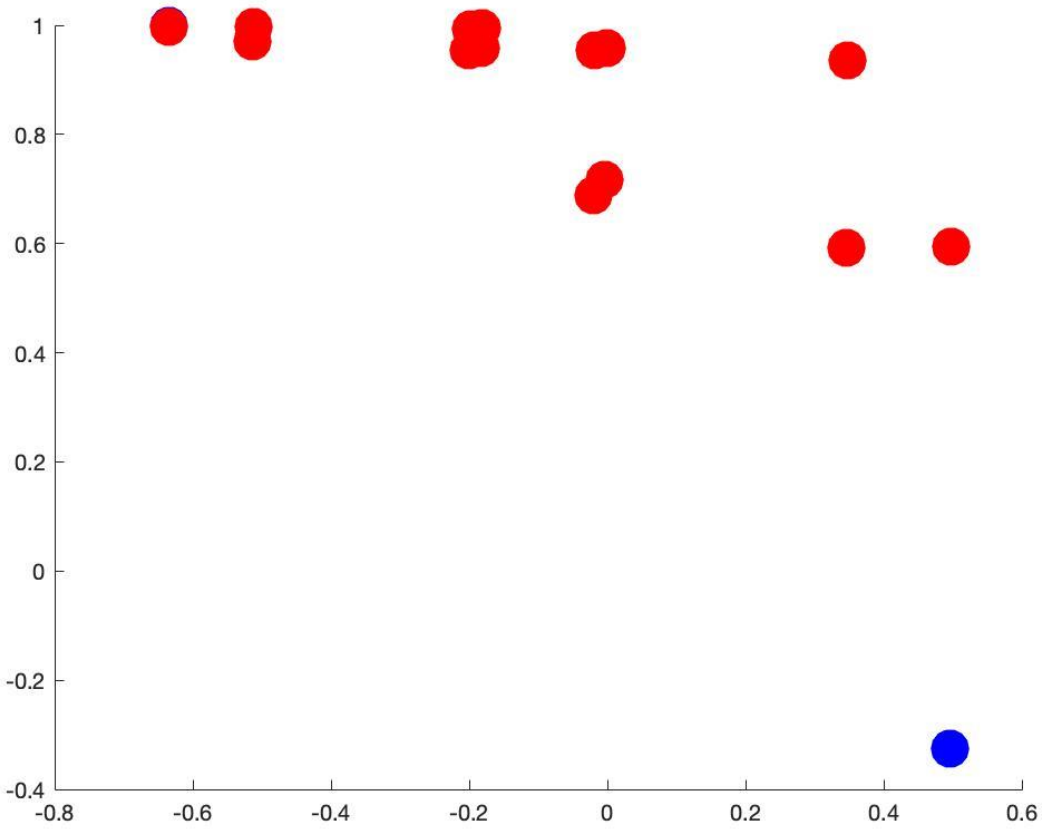
```
>> Assgn5Ques3

xor =

  struct with fields:

    smat: [16×4 double]
    tmat: [8×1 double]


xor =

  struct with fields:

    smat: [16×4 double]
    tmat: [16×1 double]


xornet0 =

  struct with fields:

      wih: [2×4 double]
    hbias: [0.9465 -0.1697]
    whout: [-0.3784 0.2080]
    obias: -0.7305


act0 =

  struct with fields:

    stim: [16×4 double]
     hid: [16×2 double]
     out: [16×1 double]


nf =

  struct with fields:

      wih: [2×4 double]
    hbias: [1.0874 -0.6739]
    whout: [1.5048 3.1446]
    obias: -0.0249
```

```
  struct with fields:

    stim: [16×4 double]
     hid: [16×2 double]
     out: [16×1 double]


ans =

    0.4256
    0.8970
    0.9047
    0.9690
    0.9500
    0.9377
    0.9442
    0.9118
    0.8918
    0.9139
    0.9519
    0.9353
    0.9022
    0.9306
    0.8958
    0.9428


ans =

     0     0     0     0
     1     1     1     1
     0     0     1     1
     1     1     0     0
     0     1     0     1
     1     0     1     0
     1     1     1     0
     0     1     1     1
     0     0     0     1
     1     0     0     0
     0     1     1     0
     1     0     0     1
     0     0     1     0
     0     1     0     0
     1     0     1     1
     1     1     0     1
```

```
ans =

    0.4408   -0.0847
   -0.1841    0.6073
   -0.3983    0.5934
    0.6098   -0.0630
    0.2644    0.4026
    0.0163    0.1906
    0.2675    0.4026
   -0.1623    0.7243
    0.0129    0.1907
    0.4226   -0.2884
    0.2882    0.5640
   -0.0095   -0.0189
    0.0387    0.3842
    0.6238    0.1478
   -0.4170    0.4389
    0.2434    0.2116


ans =

    0.2860
    0.3695
    0.3879
    0.2740
    0.3215
    0.3325
    0.3213
    0.3732
    0.3328
    0.2788
    0.3269
    0.3250
    0.3396
    0.2817
    0.3819
    0.3146


kolor =

     0     0     1
     0     0     1
     1     0     0
     1     0     0
```

```
    0.0387    0.3842
    0.6238    0.1478
   -0.4170    0.4389
    0.2434    0.2116


ans =

    0.2860
    0.3695
    0.3879
    0.2740
    0.3215
    0.3325
    0.3213
    0.3732
    0.3328
    0.2788
    0.3269
    0.3250
    0.3396
    0.2817
    0.3819
    0.3146


kolor =

     0     0     1
     0     0     1
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0
     1     0     0

fx >>
```


0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
-1
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.1
0.2


1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.8
-0.6
-0.4
-0.2
0
0.2
0.4
0.6