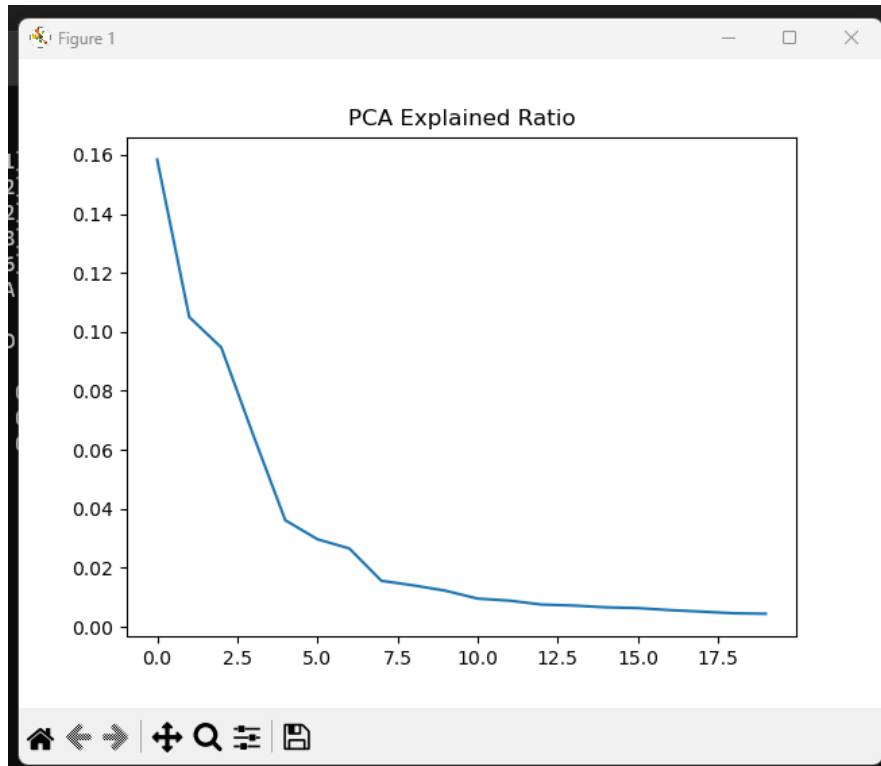


ASSIGNMENT # 11A

PROBLEM 01 OUTPUT , CancerAnalysisPCANN.py



```
6 Epoch [18/20], Step[20/66], Loss: 0.9051
7 Epoch [18/20], Step[30/66], Loss: 0.9054
8 Epoch [18/20], Step[40/66], Loss: 1.0051
9 Epoch [18/20], Step[50/66], Loss: 0.9049
10 Epoch [18/20], Step[60/66], Loss: 0.9059
11 Epoch [19/20], Step[10/66], Loss: 0.9049
12 Epoch [19/20], Step[20/66], Loss: 0.9051
13 Epoch [19/20], Step[30/66], Loss: 0.9054
14 Epoch [19/20], Step[40/66], Loss: 1.0050
15 Epoch [19/20], Step[50/66], Loss: 0.9049
16 Epoch [19/20], Step[60/66], Loss: 0.9058
17 Epoch [20/20], Step[10/66], Loss: 0.9049
18 Epoch [20/20], Step[20/66], Loss: 0.9051
19 Epoch [20/20], Step[30/66], Loss: 0.9053
20 Epoch [20/20], Step[40/66], Loss: 1.0050
21 Epoch [20/20], Step[50/66], Loss: 0.9049
22 Epoch [20/20], Step[60/66], Loss: 0.9057
23 Accuracy of the network on the test set: 100.0 %
24 Press any key to continue . . .
```

PROBLEM 02 OUTPUT, AutoEncoderCancerAnalysis.py

```
8 Epoch [48/50], Step[30/66], Loss: 11.7184
9 Epoch [48/50], Step[40/66], Loss: 11.5064
0 Epoch [48/50], Step[50/66], Loss: 11.6062
1 Epoch [48/50], Step[60/66], Loss: 11.4847
2 Epoch [49/50], Step[10/66], Loss: 11.5912
3 Epoch [49/50], Step[20/66], Loss: 11.7318
4 Epoch [49/50], Step[30/66], Loss: 11.6295
5 Epoch [49/50], Step[40/66], Loss: 11.4002
6 Epoch [49/50], Step[50/66], Loss: 11.5881
7 Epoch [49/50], Step[60/66], Loss: 11.4763
8 Epoch [50/50], Step[10/66], Loss: 11.5832
9 Epoch [50/50], Step[20/66], Loss: 11.6479
0 Epoch [50/50], Step[30/66], Loss: 11.6197
1 Epoch [50/50], Step[40/66], Loss: 11.3893
2 Epoch [50/50], Step[50/66], Loss: 11.5866
3 Epoch [50/50], Step[60/66], Loss: 11.4655
" Press any key to continue . . . |
utpu
```

PROBLEM 02 OUTPUT, AEClassifierTrainTest.py

```
7 Epoch [13/15], Step[30/66], Loss: 0.0018
8 Epoch [13/15], Step[40/66], Loss: 0.0019
9 Epoch [13/15], Step[50/66], Loss: 0.0041
0 Epoch [13/15], Step[60/66], Loss: 0.0029
1 Epoch [14/15], Step[10/66], Loss: 0.0047
2 Epoch [14/15], Step[20/66], Loss: 0.0045
3 Epoch [14/15], Step[30/66], Loss: 0.0014
4 Epoch [14/15], Step[40/66], Loss: 0.0017
5 Epoch [14/15], Step[50/66], Loss: 0.0031
6 Epoch [14/15], Step[60/66], Loss: 0.0028
7 Epoch [15/15], Step[10/66], Loss: 0.0040
8 Epoch [15/15], Step[20/66], Loss: 0.0034
9 Epoch [15/15], Step[30/66], Loss: 0.0012
0 Epoch [15/15], Step[40/66], Loss: 0.0014
1 Epoch [15/15], Step[50/66], Loss: 0.0025
2 Epoch [15/15], Step[60/66], Loss: 0.0026
3
" Accuracy of the network on the test set: 100.0 %
utpu Press any key to continue . . . |
```

PROBLEM 03 OUTPUT, VAESimple.py

```
8 Train Epoch: 10 [0/60000 (0%)] Loss: 148.792888
9 =====> Epoch: 2 Average loss: 488.4627
0 Train Epoch: 10 [0/60000 (0%)] Loss: 163.324160
1 =====> Epoch: 3 Average loss: 638.7028
2 Train Epoch: 10 [0/60000 (0%)] Loss: 150.105488
3 =====> Epoch: 4 Average loss: 786.9739
4 Train Epoch: 10 [0/60000 (0%)] Loss: 146.388643
5 =====> Epoch: 5 Average loss: 933.7700
6 Train Epoch: 10 [0/60000 (0%)] Loss: 156.689316
7 =====> Epoch: 6 Average loss: 1079.2944
8 Train Epoch: 10 [0/60000 (0%)] Loss: 144.740713
9 =====> Epoch: 7 Average loss: 1223.9790
0 Train Epoch: 10 [0/60000 (0%)] Loss: 143.486777
1 =====> Epoch: 8 Average loss: 1367.8347
2 Train Epoch: 10 [0/60000 (0%)] Loss: 150.636914
3 =====> Epoch: 9 Average loss: 1510.9266
4 Press any key to continue . . . |
```



PROBLEM 04 OUTPUT, VAEClassifierNetwork.py

```
Epoch [28/30], Step[50/66], Loss: 1.5825
Epoch [28/30], Step[60/66], Loss: 1.5694
Epoch [29/30], Step[10/66], Loss: 1.3345
Epoch [29/30], Step[20/66], Loss: 1.5988
Epoch [29/30], Step[30/66], Loss: 1.3610
Epoch [29/30], Step[40/66], Loss: 1.4096
Epoch [29/30], Step[50/66], Loss: 1.5797
Epoch [29/30], Step[60/66], Loss: 1.5695
Epoch [30/30], Step[10/66], Loss: 1.3380
Epoch [30/30], Step[20/66], Loss: 1.5812
Epoch [30/30], Step[30/66], Loss: 1.3687
Epoch [30/30], Step[40/66], Loss: 1.3908
Epoch [30/30], Step[50/66], Loss: 1.5851
Epoch [30/30], Step[60/66], Loss: 1.5673
Accuracy of the network on the test set: 46.0 %
Press any key to continue . . .
optimizer.zero_grad_() # clear gradients
Output
Show output from: Build
```