

ASSIGNMENT #12

OUTPUT 01 SVDRecommender.py

```
C:\Windows\system32\cmd.e: x + v
shape of U (18, 10)
shape of s (10,)
shape of vh (10, 10)

-----reconstructed user-product rating matrix
[[ 1.  1.  1. -0.  2.  0.  0.  0.  1.  1.]
 [ 2.  0.  1.  1.  4. -0.  2.  1.  3.  1.]
 [ 0.  1. -0.  0. -0.  0. -0. -0. -0.  0.]
 [ 1.  4.  0.  1. -0.  1. -0. -0. -0.  1.]
 [ 0. -0.  0. -0.  1. -0.  0.  0.  0.  0.]
 [ 2.  3.  1. -0.  1.  1. -0.  0. -0.  1.]
 [-0.  0. -0.  4.  1. -0.  3.  0.  4.  0.]
 [ 0.  3. -0.  2. -1.  1.  1. -0.  1.  1.]
 [ 1.  1.  0. -0.  1.  0. -0.  0. -0.  0.]
 [ 1. -1.  1.  1.  4. -0.  1.  1.  3.  1.]
 [ 2.  5.  0.  1. -0.  1. -0. -0. -0.  1.]
 [ 2. -0.  1. -1.  4. -0.  0.  1.  1.  1.]
 [-0.  1. -0.  2. -0.  0.  1. -0.  2.  0.]
 [ 1.  4. -0.  4. -0.  1.  1. -0.  3.  1.]
 [ 2.  0.  1. -1.  4. -0.  0.  1.  1.  1.]
 [-1.  1. -0.  3. -1.  0.  1. -0.  2. -0.]
 [ 1.  2. -0.  1.  0.  1.  0. -0.  1.  1.]
 [ 2.  4.  1. -0.  1.  1. -0.  0. -0.  2.]]
Press any key to continue . . .
```

OUTPUT 02 DeepAERecommender.py(still working on debugging)

```
Traceback (most recent call last):
  File "E:\2.Online MS CS\2nd Year\repo\dev-cs\CPSC 552 Mining\Assignment_12\DeepAERecommender\DeepAERecommender\DeepAERecommender.py", line 101, in <module>
    sys.exit(int(main()) or 0)
  File "E:\2.Online MS CS\2nd Year\repo\dev-cs\CPSC 552 Mining\Assignment_12\DeepAERecommender\DeepAERecommender\DeepAERecommender.py", line 98, in main
    out = train(model, criterion, optimizer, train_loader, test_loader, 40)
  File "E:\2.Online MS CS\2nd Year\repo\dev-cs\CPSC 552 Mining\Assignment_12\DeepAERecommender\DeepAERecommender\DeepAERecommender.py", line 40, in train
    outputs = model(inputs)
  File "D:\Anaconda\ProgramData\envs\pytorch1x\lib\site-packages\torch\nn\modules\module.py", line 1518, in _wrapped_call_impl
    return self._call_impl(*args, **kwargs)
  File "D:\Anaconda\ProgramData\envs\pytorch1x\lib\site-packages\torch\nn\modules\module.py", line 1527, in _call_impl
    return forward_call(*args, **kwargs)
  File "E:\2.Online MS CS\2nd Year\repo\dev-cs\CPSC 552 Mining\Assignment_12\DeepAERecommender\DeepAERecommender\AEModel.py", line 182, in forward
    return self.decode(self.encode(x))
  File "E:\2.Online MS CS\2nd Year\repo\dev-cs\CPSC 552 Mining\Assignment_12\DeepAERecommender\DeepAERecommender\AEModel.py", line 163, in decode
    x = F.linear(input=x, weight=w.t(), bias=self.encoder_bias[i])
RuntimeError: The expanded size of the tensor (9559) must match the existing size (1024) at non-singleton dimension 1.
Target sizes: [128, 9559]. Tensor sizes: [1024]
Press any key to continue . . .
```