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1 /Users/snehamishra/PycharmProjects/Test/venv/bin/python /
  Users/snehamishra/Desktop/UMKC/Fall2018/Python/Python-
  DeepLearning_Fall2018/Mod2_Lab1/Source/DeepLearning_Lesson2
  /mod2_Lab1_2.4.py
2 Using TensorFlow backend.
3 /Users/snehamishra/Desktop/UMKC/Fall2018/Python/Python-
  DeepLearning_Fall2018/Mod2_Lab1/Source/DeepLearning_Lesson2
  /mod2_Lab1_2.4.py:26: UserWarning: Update your `Dense` call
    to the Keras 2 API: `Dense(input_shape=(784,), activation
    ="softmax", units=10, kernel_initializer="normal")`"
4   model.add(Dense(output_dim=10, input_shape=(784,), init='
    normal', activation='softmax'))
5 _____
6 Layer (type)           Output Shape
  Param #
7 =====
  =====
8 dense_1 (Dense)        (None, 10)          7850
9 =====
  =====
10 Total params: 7,850
11 Trainable params: 7,850
12 Non-trainable params: 0
13 _____
14 /Users/snehamishra/Desktop/UMKC/Fall2018/Python/Python-
  DeepLearning_Fall2018/Mod2_Lab1/Source/DeepLearning_Lesson2
  /mod2_Lab1_2.4.py:32: UserWarning: The `nb_epoch` argument
  in `fit` has been renamed `epochs`.
15   model.fit(X_train, Y_Train, nb_epoch=nb_epoch, batch_size
    =batch_size, callbacks=[tensorboard])
16 2018-11-07 16:28:36.541325: I tensorflow/core/platform/
    cpu_feature_guard.cc:141] Your CPU supports instructions
    that this TensorFlow binary was not compiled to use: AVX2
    FMA
17 Epoch 1/100
18
19   50/60000 [.....] - ETA: 1:25 -
  loss: 2.3086 - acc: 0.1400
20  3300/60000 [>.....] - ETA: 2s -
  loss: 2.0227 - acc: 0.3782
21  5750/60000 [=>.....] - ETA: 1s -
  loss: 1.8441 - acc: 0.4845
22  8200/60000 [==>.....] - ETA: 1s -
  loss: 1.7095 - acc: 0.5541
23  10750/60000 [==>.....] - ETA: 1s -
  loss: 1.5952 - acc: 0.6007
24  13250/60000 [=====>.....] - ETA: 1s -

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24 loss: 1.5066 - acc: 0.6311
25 16150/60000 [=====>.....] - ETA: 1s -
  loss: 1.4176 - acc: 0.6614
26 19450/60000 [=====>.....] - ETA: 0s -
  loss: 1.3366 - acc: 0.6859
27 22850/60000 [=====>.....] - ETA: 0s -
  loss: 1.2644 - acc: 0.7065
28 25650/60000 [=====>.....] - ETA: 0s -
  loss: 1.2180 - acc: 0.7180
29 28300/60000 [=====>.....] - ETA: 0s -
  loss: 1.1789 - acc: 0.7275
30 31350/60000 [=====>.....] - ETA: 0s -
  loss: 1.1368 - acc: 0.7385
31 34800/60000 [=====>.....] - ETA: 0s -
  loss: 1.0972 - acc: 0.7479
32 38100/60000 [=====>.....] - ETA: 0s -
  loss: 1.0623 - acc: 0.7564
33 40400/60000 [=====>.....] - ETA: 0s -
  loss: 1.0397 - acc: 0.7614
34 43300/60000 [=====>.....] - ETA: 0s -
  loss: 1.0146 - acc: 0.7669
35 46650/60000 [=====>.....] - ETA: 0s -
  loss: 0.9880 - acc: 0.7730
36 50000/60000 [=====>.....] - ETA: 0s -
  loss: 0.9627 - acc: 0.7789
37 53300/60000 [=====>.....] - ETA: 0s -
  loss: 0.9403 - acc: 0.7835
38 55450/60000 [=====>...] - ETA: 0s -
  loss: 0.9263 - acc: 0.7865
39 57850/60000 [=====>...] - ETA: 0s -
  loss: 0.9134 - acc: 0.7890
40 60000/60000 [=====] - 1s 19us/step
  - loss: 0.9016 - acc: 0.7913
41 Epoch 2/100
42
43 50/60000 [.....] - ETA: 3s -
  loss: 0.5542 - acc: 0.8800
44 2750/60000 [>.....] - ETA: 1s -
  loss: 0.5721 - acc: 0.8549
45 5200/60000 [=>.....] - ETA: 1s -
  loss: 0.5756 - acc: 0.8540
46 7450/60000 [==>.....] - ETA: 1s -
  loss: 0.5759 - acc: 0.8530
47 10250/60000 [====>.....] - ETA: 0s -
  loss: 0.5668 - acc: 0.8545
48 12850/60000 [====>.....] - ETA: 0s -
  loss: 0.5631 - acc: 0.8558
49 15500/60000 [====>.....] - ETA: 0s -
  loss: 0.5606 - acc: 0.8569
50 18200/60000 [====>.....] - ETA: 0s -
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50 loss: 0.5519 - acc: 0.8597
51 21050/60000 [=====>.....] - ETA: 0s -
    loss: 0.5496 - acc: 0.8608
52 24200/60000 [=====>.....] - ETA: 0s -
    loss: 0.5460 - acc: 0.8616
53 27550/60000 [=====>.....] - ETA: 0s -
    loss: 0.5438 - acc: 0.8620
54 29900/60000 [=====>.....] - ETA: 0s -
    loss: 0.5436 - acc: 0.8616
55 32750/60000 [=====>.....] - ETA: 0s -
    loss: 0.5411 - acc: 0.8621
56 35950/60000 [=====>.....] - ETA: 0s -
    loss: 0.5383 - acc: 0.8632
57 39300/60000 [=====>.....] - ETA: 0s -
    loss: 0.5331 - acc: 0.8645
58 42600/60000 [=====>.....] - ETA: 0s -
    loss: 0.5292 - acc: 0.8656
59 45200/60000 [=====>.....] - ETA: 0s -
    loss: 0.5270 - acc: 0.8662
60 47900/60000 [=====>.....] - ETA: 0s -
    loss: 0.5244 - acc: 0.8668
61 51100/60000 [=====>.....] - ETA: 0s -
    loss: 0.5218 - acc: 0.8676
62 54400/60000 [=====>....] - ETA: 0s -
    loss: 0.5204 - acc: 0.8677
63 57750/60000 [=====>...] - ETA: 0s -
    loss: 0.5172 - acc: 0.8683
64 60000/60000 [=====] - 1s 18us/step
    - loss: 0.5158 - acc: 0.8685
65 Epoch 3/100
66
67    50/60000 [.....] - ETA: 2s -
    loss: 0.5612 - acc: 0.8600
68    2750/60000 [>.....] - ETA: 1s -
    loss: 0.4753 - acc: 0.8673
69    5050/60000 [=>.....] - ETA: 1s -
    loss: 0.4603 - acc: 0.8776
70    7900/60000 [==>.....] - ETA: 1s -
    loss: 0.4694 - acc: 0.8763
71    11100/60000 [====>.....] - ETA: 0s -
    loss: 0.4634 - acc: 0.8777
72    13550/60000 [====>.....] - ETA: 0s -
    loss: 0.4618 - acc: 0.8779
73    16050/60000 [====>.....] - ETA: 0s -
    loss: 0.4642 - acc: 0.8774
74    18350/60000 [====>.....] - ETA: 0s -
    loss: 0.4637 - acc: 0.8773
75    20600/60000 [====>.....] - ETA: 0s -
    loss: 0.4627 - acc: 0.8773
76    22900/60000 [====>.....] - ETA: 0s -
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76 loss: 0.4596 - acc: 0.8790
77 25100/60000 [=====>.....] - ETA: 0s -
loss: 0.4591 - acc: 0.8796
78 27400/60000 [=====>.....] - ETA: 0s -
loss: 0.4595 - acc: 0.8797
79 30600/60000 [=====>.....] - ETA: 0s -
loss: 0.4613 - acc: 0.8784
80 34000/60000 [=====>.....] - ETA: 0s -
loss: 0.4589 - acc: 0.8793
81 36750/60000 [=====>.....] - ETA: 0s -
loss: 0.4578 - acc: 0.8795
82 39700/60000 [=====>.....] - ETA: 0s -
loss: 0.4558 - acc: 0.8806
83 43050/60000 [=====>.....] - ETA: 0s -
loss: 0.4546 - acc: 0.8804
84 46050/60000 [=====>.....] - ETA: 0s -
loss: 0.4530 - acc: 0.8806
85 49250/60000 [=====>.....] - ETA: 0s -
loss: 0.4519 - acc: 0.8804
86 51850/60000 [=====>.....] - ETA: 0s -
loss: 0.4499 - acc: 0.8809
87 54700/60000 [=====>....] - ETA: 0s -
loss: 0.4499 - acc: 0.8808
88 58100/60000 [=====>..] - ETA: 0s -
loss: 0.4482 - acc: 0.8812
89 60000/60000 [=====] - 1s 18us/
step - loss: 0.4468 - acc: 0.8815
90 Epoch 4/100
91
92 50/60000 [.....] - ETA: 2s -
loss: 0.4762 - acc: 0.9000
93 3300/60000 [>.....] - ETA: 0s -
loss: 0.4038 - acc: 0.8973
94 5850/60000 [=>.....] - ETA: 0s -
loss: 0.4172 - acc: 0.8904
95 8150/60000 [==>.....] - ETA: 0s -
loss: 0.4196 - acc: 0.8888
96 10400/60000 [==>.....] - ETA: 0s -
loss: 0.4187 - acc: 0.8885
97 13600/60000 [====>.....] - ETA: 0s -
loss: 0.4190 - acc: 0.8890
98 16600/60000 [=====>.....] - ETA: 0s -
loss: 0.4207 - acc: 0.8877
99 19500/60000 [=====>.....] - ETA: 0s -
loss: 0.4201 - acc: 0.8877
100 22550/60000 [=====>.....] - ETA: 0s -
loss: 0.4189 - acc: 0.8877
101 25850/60000 [=====>.....] - ETA: 0s -
loss: 0.4166 - acc: 0.8880
102 29200/60000 [=====>.....] - ETA: 0s -
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102 loss: 0.4176 - acc: 0.8871
103 31900/60000 [=====>.....] - ETA: 0s -
    loss: 0.4169 - acc: 0.8876
104 34800/60000 [=====>.....] - ETA: 0s -
    loss: 0.4153 - acc: 0.8881
105 38100/60000 [=====>.....] - ETA: 0s -
    loss: 0.4162 - acc: 0.8877
106 41300/60000 [=====>.....] - ETA: 0s -
    loss: 0.4148 - acc: 0.8887
107 43600/60000 [=====>.....] - ETA: 0s -
    loss: 0.4154 - acc: 0.8886
108 45700/60000 [=====>.....] - ETA: 0s -
    loss: 0.4163 - acc: 0.8881
109 47850/60000 [=====>.....] - ETA: 0s -
    loss: 0.4161 - acc: 0.8880
110 49850/60000 [=====>.....] - ETA: 0s -
    loss: 0.4160 - acc: 0.8879
111 52100/60000 [=====>.....] - ETA: 0s -
    loss: 0.4158 - acc: 0.8880
112 54400/60000 [=====>....] - ETA: 0s -
    loss: 0.4148 - acc: 0.8881
113 56900/60000 [=====>..] - ETA: 0s -
    loss: 0.4149 - acc: 0.8882
114 60000/60000 [=====] - 1s 18us/
    step - loss: 0.4127 - acc: 0.8890
115 Epoch 5/100
116
117      50/60000 [.....] - ETA: 2s -
    loss: 0.4871 - acc: 0.8400
118 3150/60000 [>.....] - ETA: 0s -
    loss: 0.3931 - acc: 0.8924
119 5950/60000 [=>.....] - ETA: 0s -
    loss: 0.3944 - acc: 0.8953
120 8300/60000 [==>.....] - ETA: 0s -
    loss: 0.3977 - acc: 0.8937
121 10800/60000 [==>.....] - ETA: 0s -
    loss: 0.3978 - acc: 0.8949
122 13950/60000 [==>.....] - ETA: 0s -
    loss: 0.3936 - acc: 0.8951
123 17350/60000 [==>.....] - ETA: 0s -
    loss: 0.3944 - acc: 0.8935
124 20700/60000 [=====>.....] - ETA: 0s -
    loss: 0.3901 - acc: 0.8949
125 22700/60000 [=====>.....] - ETA: 0s -
    loss: 0.3880 - acc: 0.8954
126 25800/60000 [=====>.....] - ETA: 0s -
    loss: 0.3909 - acc: 0.8949
127 29100/60000 [=====>.....] - ETA: 0s -
    loss: 0.3918 - acc: 0.8943
128 32450/60000 [=====>.....] - ETA: 0s -
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128 loss: 0.3926 - acc: 0.8937
129 35100/60000 [=====>.....] - ETA: 0s -
loss: 0.3922 - acc: 0.8939
130 37650/60000 [=====>.....] - ETA: 0s -
loss: 0.3927 - acc: 0.8937
131 40000/60000 [=====>.....] - ETA: 0s -
loss: 0.3909 - acc: 0.8943
132 42300/60000 [=====>.....] - ETA: 0s -
loss: 0.3924 - acc: 0.8936
133 44550/60000 [=====>.....] - ETA: 0s -
loss: 0.3924 - acc: 0.8935
134 46700/60000 [=====>.....] - ETA: 0s -
loss: 0.3925 - acc: 0.8932
135 49100/60000 [=====>.....] - ETA: 0s -
loss: 0.3919 - acc: 0.8935
136 51900/60000 [=====>.....] - ETA: 0s -
loss: 0.3924 - acc: 0.8934
137 54450/60000 [=====>...] - ETA: 0s -
loss: 0.3908 - acc: 0.8939
138 57150/60000 [=====>...] - ETA: 0s -
loss: 0.3910 - acc: 0.8940
139 60000/60000 [=====] - 1s 19us/
step - loss: 0.3912 - acc: 0.8940
140 Epoch 6/100
141
142    50/60000 [.....] - ETA: 2s -
loss: 0.3176 - acc: 0.9000
143    2800/60000 [>.....] - ETA: 1s -
loss: 0.3999 - acc: 0.8854
144    5300/60000 [=>.....] - ETA: 1s -
loss: 0.4058 - acc: 0.8860
145    7700/60000 [==>.....] - ETA: 1s -
loss: 0.3922 - acc: 0.8906
146    10500/60000 [====>.....] - ETA: 0s -
loss: 0.3892 - acc: 0.8930
147    12950/60000 [====>.....] - ETA: 0s -
loss: 0.3826 - acc: 0.8952
148    15100/60000 [====>.....] - ETA: 0s -
loss: 0.3837 - acc: 0.8950
149    17850/60000 [=====>.....] - ETA: 0s -
loss: 0.3834 - acc: 0.8950
150    20750/60000 [=====>.....] - ETA: 0s -
loss: 0.3824 - acc: 0.8963
151    23700/60000 [=====>.....] - ETA: 0s -
loss: 0.3832 - acc: 0.8955
152    26150/60000 [=====>.....] - ETA: 0s -
loss: 0.3834 - acc: 0.8952
153    28500/60000 [=====>.....] - ETA: 0s -
loss: 0.3836 - acc: 0.8948
154    30850/60000 [=====>.....] - ETA: 0s -
```

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154 loss: 0.3820 - acc: 0.8955
155 33250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3815 - acc: 0.8955
156 35600/60000 [=====>.....] - ETA: 0s -
    loss: 0.3820 - acc: 0.8952
157 37850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3808 - acc: 0.8954
158 40150/60000 [=====>.....] - ETA: 0s -
    loss: 0.3805 - acc: 0.8953
159 42450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3807 - acc: 0.8953
160 45000/60000 [=====>.....] - ETA: 0s -
    loss: 0.3803 - acc: 0.8951
161 47850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3788 - acc: 0.8958
162 50350/60000 [=====>.....] - ETA: 0s -
    loss: 0.3776 - acc: 0.8962
163 52950/60000 [=====>.....] - ETA: 0s -
    loss: 0.3766 - acc: 0.8963
164 55750/60000 [=====>....] - ETA: 0s -
    loss: 0.3767 - acc: 0.8963
165 58600/60000 [=====>..] - ETA: 0s -
    loss: 0.3766 - acc: 0.8965
166 60000/60000 [=====] - 1s 20us/
    step - loss: 0.3762 - acc: 0.8966
167 Epoch 7/100
168
169    50/60000 [.....] - ETA: 2s -
    loss: 0.3672 - acc: 0.8800
170    2750/60000 [>.....] - ETA: 1s -
    loss: 0.3770 - acc: 0.8916
171    5200/60000 [=>.....] - ETA: 1s -
    loss: 0.3701 - acc: 0.8940
172    7800/60000 [==>.....] - ETA: 1s -
    loss: 0.3697 - acc: 0.8950
173    10700/60000 [==>.....] - ETA: 0s -
    loss: 0.3738 - acc: 0.8959
174    13550/60000 [==>.....] - ETA: 0s -
    loss: 0.3756 - acc: 0.8956
175    16100/60000 [==>.....] - ETA: 0s -
    loss: 0.3703 - acc: 0.8976
176    18800/60000 [==>.....] - ETA: 0s -
    loss: 0.3674 - acc: 0.8980
177    21250/60000 [==>.....] - ETA: 0s -
    loss: 0.3646 - acc: 0.8989
178    23700/60000 [==>.....] - ETA: 0s -
    loss: 0.3649 - acc: 0.8989
179    26150/60000 [==>.....] - ETA: 0s -
    loss: 0.3646 - acc: 0.8989
180    28500/60000 [==>.....] - ETA: 0s -
```

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180 loss: 0.3645 - acc: 0.8988
181 30850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3632 - acc: 0.8993
182 33300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3653 - acc: 0.8988
183 35950/60000 [=====>.....] - ETA: 0s -
    loss: 0.3667 - acc: 0.8982
184 38650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3644 - acc: 0.8991
185 41400/60000 [=====>.....] - ETA: 0s -
    loss: 0.3634 - acc: 0.8992
186 44250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3634 - acc: 0.8990
187 46800/60000 [=====>.....] - ETA: 0s -
    loss: 0.3645 - acc: 0.8988
188 49250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3651 - acc: 0.8989
189 51900/60000 [=====>.....] - ETA: 0s -
    loss: 0.3649 - acc: 0.8995
190 54800/60000 [=====>...] - ETA: 0s -
    loss: 0.3655 - acc: 0.8991
191 57650/60000 [=====>..] - ETA: 0s -
    loss: 0.3648 - acc: 0.8994
192 60000/60000 [=====] - 1s 19us/
    step - loss: 0.3648 - acc: 0.8992
193 Epoch 8/100
194
195      50/60000 [.....] - ETA: 2s -
    loss: 0.3446 - acc: 0.8600
196     2250/60000 [>.....] - ETA: 1s -
    loss: 0.3639 - acc: 0.8964
197     4850/60000 [=>.....] - ETA: 1s -
    loss: 0.3682 - acc: 0.8986
198     7550/60000 [==>.....] - ETA: 1s -
    loss: 0.3651 - acc: 0.8992
199     10400/60000 [==>.....] - ETA: 0s -
    loss: 0.3667 - acc: 0.8996
200     13100/60000 [==>.....] - ETA: 0s -
    loss: 0.3709 - acc: 0.8987
201     15750/60000 [==>.....] - ETA: 0s -
    loss: 0.3706 - acc: 0.8983
202     18350/60000 [==>.....] - ETA: 0s -
    loss: 0.3701 - acc: 0.8980
203     21200/60000 [==>.....] - ETA: 0s -
    loss: 0.3661 - acc: 0.8991
204     23800/60000 [==>.....] - ETA: 0s -
    loss: 0.3651 - acc: 0.8993
205     26650/60000 [==>.....] - ETA: 0s -
    loss: 0.3635 - acc: 0.9000
206     29000/60000 [==>.....] - ETA: 0s -
```

```
206 loss: 0.3604 - acc: 0.9013
207 31650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3594 - acc: 0.9015
208 34450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3583 - acc: 0.9016
209 37250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3576 - acc: 0.9018
210 40050/60000 [=====>.....] - ETA: 0s -
    loss: 0.3585 - acc: 0.9013
211 42400/60000 [=====>.....] - ETA: 0s -
    loss: 0.3575 - acc: 0.9017
212 44850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3568 - acc: 0.9018
213 47650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3563 - acc: 0.9020
214 50300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3573 - acc: 0.9017
215 53050/60000 [=====>.....] - ETA: 0s -
    loss: 0.3566 - acc: 0.9018
216 55500/60000 [=====>....] - ETA: 0s -
    loss: 0.3553 - acc: 0.9019
217 58100/60000 [=====>..] - ETA: 0s -
    loss: 0.3562 - acc: 0.9018
218 60000/60000 [=====] - 1s 19us/
    step - loss: 0.3558 - acc: 0.9019
219 Epoch 9/100
220
221   50/60000 [.....] - ETA: 4s -
    loss: 0.5050 - acc: 0.9000
222   2700/60000 [>.....] - ETA: 1s -
    loss: 0.3599 - acc: 0.9059
223   4800/60000 [=>.....] - ETA: 1s -
    loss: 0.3557 - acc: 0.9071
224   7200/60000 [==>.....] - ETA: 1s -
    loss: 0.3503 - acc: 0.9049
225   10100/60000 [==>.....] - ETA: 1s -
    loss: 0.3488 - acc: 0.9054
226   13350/60000 [==>.....] - ETA: 0s -
    loss: 0.3508 - acc: 0.9037
227   16450/60000 [==>.....] - ETA: 0s -
    loss: 0.3478 - acc: 0.9043
228   19250/60000 [==>.....] - ETA: 0s -
    loss: 0.3482 - acc: 0.9037
229   22350/60000 [==>.....] - ETA: 0s -
    loss: 0.3488 - acc: 0.9030
230   25650/60000 [==>.....] - ETA: 0s -
    loss: 0.3465 - acc: 0.9043
231   29000/60000 [==>.....] - ETA: 0s -
    loss: 0.3454 - acc: 0.9045
232   31550/60000 [==>.....] - ETA: 0s -
```

```
232 loss: 0.3442 - acc: 0.9052
233 34150/60000 [=====>.....] - ETA: 0s -
loss: 0.3453 - acc: 0.9054
234 37400/60000 [=====>.....] - ETA: 0s -
loss: 0.3458 - acc: 0.9052
235 40600/60000 [=====>.....] - ETA: 0s -
loss: 0.3464 - acc: 0.9048
236 43650/60000 [=====>.....] - ETA: 0s -
loss: 0.3487 - acc: 0.9034
237 46000/60000 [=====>.....] - ETA: 0s -
loss: 0.3492 - acc: 0.9030
238 49000/60000 [=====>.....] - ETA: 0s -
loss: 0.3484 - acc: 0.9030
239 52350/60000 [=====>....] - ETA: 0s -
loss: 0.3487 - acc: 0.9030
240 55750/60000 [=====>...] - ETA: 0s -
loss: 0.3486 - acc: 0.9032
241 58150/60000 [=====>...] - ETA: 0s -
loss: 0.3485 - acc: 0.9035
242 60000/60000 [=====] - 1s 18us/
step - loss: 0.3485 - acc: 0.9036
243 Epoch 10/100
244
245 50/60000 [.....] - ETA: 4s -
loss: 0.2359 - acc: 0.9200
246 2850/60000 [>.....] - ETA: 1s -
loss: 0.3354 - acc: 0.9042
247 6000/60000 [==>.....] - ETA: 0s -
loss: 0.3388 - acc: 0.9002
248 9150/60000 [==>.....] - ETA: 0s -
loss: 0.3368 - acc: 0.9032
249 11550/60000 [==>.....] - ETA: 0s -
loss: 0.3383 - acc: 0.9036
250 14050/60000 [==>.....] - ETA: 0s -
loss: 0.3442 - acc: 0.9036
251 17250/60000 [=====>.....] - ETA: 0s -
loss: 0.3429 - acc: 0.9042
252 20650/60000 [=====>.....] - ETA: 0s -
loss: 0.3455 - acc: 0.9036
253 23650/60000 [=====>.....] - ETA: 0s -
loss: 0.3459 - acc: 0.9038
254 26650/60000 [=====>.....] - ETA: 0s -
loss: 0.3446 - acc: 0.9043
255 29550/60000 [=====>.....] - ETA: 0s -
loss: 0.3437 - acc: 0.9046
256 32700/60000 [=====>.....] - ETA: 0s -
loss: 0.3435 - acc: 0.9044
257 36000/60000 [=====>.....] - ETA: 0s -
loss: 0.3441 - acc: 0.9042
258 38500/60000 [=====>.....] - ETA: 0s -
```

```
258 loss: 0.3437 - acc: 0.9044
259 41450/60000 [=====>.....] - ETA: 0s -
loss: 0.3438 - acc: 0.9040
260 44400/60000 [=====>.....] - ETA: 0s -
loss: 0.3444 - acc: 0.9039
261 47250/60000 [=====>.....] - ETA: 0s -
loss: 0.3438 - acc: 0.9043
262 50200/60000 [=====>.....] - ETA: 0s -
loss: 0.3433 - acc: 0.9041
263 52700/60000 [=====>....] - ETA: 0s -
loss: 0.3426 - acc: 0.9044
264 55550/60000 [=====>...] - ETA: 0s -
loss: 0.3416 - acc: 0.9048
265 58800/60000 [=====>..] - ETA: 0s -
loss: 0.3425 - acc: 0.9049
266 60000/60000 [=====] - 1s 17us/
step - loss: 0.3423 - acc: 0.9049
267 Epoch 11/100
268
269    50/60000 [.....] - ETA: 2s -
loss: 0.2131 - acc: 0.9200
270 3600/60000 [>.....] - ETA: 0s -
loss: 0.3481 - acc: 0.9042
271 6700/60000 [==>.....] - ETA: 0s -
loss: 0.3525 - acc: 0.8996
272 8850/60000 [==>.....] - ETA: 0s -
loss: 0.3500 - acc: 0.8997
273 11750/60000 [==>.....] - ETA: 0s -
loss: 0.3510 - acc: 0.9011
274 14900/60000 [==>.....] - ETA: 0s -
loss: 0.3418 - acc: 0.9041
275 18050/60000 [==>.....] - ETA: 0s -
loss: 0.3441 - acc: 0.9044
276 20450/60000 [==>.....] - ETA: 0s -
loss: 0.3391 - acc: 0.9063
277 22850/60000 [==>.....] - ETA: 0s -
loss: 0.3397 - acc: 0.9054
278 25950/60000 [==>.....] - ETA: 0s -
loss: 0.3363 - acc: 0.9064
279 28800/60000 [==>.....] - ETA: 0s -
loss: 0.3378 - acc: 0.9058
280 31800/60000 [==>.....] - ETA: 0s -
loss: 0.3379 - acc: 0.9059
281 34450/60000 [=====>.....] - ETA: 0s -
loss: 0.3380 - acc: 0.9062
282 37450/60000 [=====>.....] - ETA: 0s -
loss: 0.3397 - acc: 0.9056
283 40750/60000 [=====>.....] - ETA: 0s -
loss: 0.3391 - acc: 0.9059
284 44000/60000 [=====>.....] - ETA: 0s -
```

```
284 loss: 0.3392 - acc: 0.9060
285 47400/60000 [=====>.....] - ETA: 0s -
loss: 0.3377 - acc: 0.9064
286 50100/60000 [=====>.....] - ETA: 0s -
loss: 0.3376 - acc: 0.9063
287 52950/60000 [=====>....] - ETA: 0s -
loss: 0.3377 - acc: 0.9064
288 55800/60000 [=====>...] - ETA: 0s -
loss: 0.3365 - acc: 0.9068
289 58400/60000 [=====>.] - ETA: 0s -
loss: 0.3365 - acc: 0.9068
290 60000/60000 [=====] - 1s 17us/
step - loss: 0.3371 - acc: 0.9067
291 Epoch 12/100
292
293 50/60000 [.....] - ETA: 3s -
loss: 0.4052 - acc: 0.9600
294 2700/60000 [>.....] - ETA: 1s -
loss: 0.3539 - acc: 0.9030
295 5550/60000 [=>.....] - ETA: 1s -
loss: 0.3475 - acc: 0.9047
296 8800/60000 [==>.....] - ETA: 0s -
loss: 0.3387 - acc: 0.9072
297 11900/60000 [==>.....] - ETA: 0s -
loss: 0.3448 - acc: 0.9051
298 14100/60000 [==>.....] - ETA: 0s -
loss: 0.3407 - acc: 0.9062
299 16850/60000 [==>.....] - ETA: 0s -
loss: 0.3393 - acc: 0.9069
300 20150/60000 [=====>.....] - ETA: 0s -
loss: 0.3338 - acc: 0.9080
301 23550/60000 [=====>.....] - ETA: 0s -
loss: 0.3352 - acc: 0.9079
302 25850/60000 [=====>.....] - ETA: 0s -
loss: 0.3340 - acc: 0.9082
303 28850/60000 [=====>.....] - ETA: 0s -
loss: 0.3309 - acc: 0.9088
304 32250/60000 [=====>.....] - ETA: 0s -
loss: 0.3316 - acc: 0.9084
305 35500/60000 [=====>.....] - ETA: 0s -
loss: 0.3328 - acc: 0.9076
306 38600/60000 [=====>.....] - ETA: 0s -
loss: 0.3339 - acc: 0.9074
307 40900/60000 [=====>.....] - ETA: 0s -
loss: 0.3334 - acc: 0.9077
308 43600/60000 [=====>.....] - ETA: 0s -
loss: 0.3336 - acc: 0.9075
309 46700/60000 [=====>.....] - ETA: 0s -
loss: 0.3328 - acc: 0.9076
310 50000/60000 [=====>.....] - ETA: 0s -
```

```
310 loss: 0.3327 - acc: 0.9077
311 53350/60000 [=====>....] - ETA: 0s -
    loss: 0.3335 - acc: 0.9079
312 55450/60000 [=====>...] - ETA: 0s -
    loss: 0.3344 - acc: 0.9073
313 58450/60000 [=====>.] - ETA: 0s -
    loss: 0.3331 - acc: 0.9075
314 60000/60000 [=====] - 1s 17us/
    step - loss: 0.3326 - acc: 0.9077
315 Epoch 13/100
316
317      50/60000 [.....] - ETA: 2s -
    loss: 0.3514 - acc: 0.8800
318 3450/60000 [>.....] - ETA: 0s -
    loss: 0.2996 - acc: 0.9151
319 6800/60000 [==>.....] - ETA: 0s -
    loss: 0.3077 - acc: 0.9141
320 9200/60000 [==>.....] - ETA: 0s -
    loss: 0.3219 - acc: 0.9121
321 11750/60000 [==>.....] - ETA: 0s -
    loss: 0.3296 - acc: 0.9100
322 14800/60000 [==>.....] - ETA: 0s -
    loss: 0.3333 - acc: 0.9091
323 18300/60000 [==>.....] - ETA: 0s -
    loss: 0.3330 - acc: 0.9086
324 21750/60000 [==>.....] - ETA: 0s -
    loss: 0.3307 - acc: 0.9082
325 24600/60000 [==>.....] - ETA: 0s -
    loss: 0.3310 - acc: 0.9076
326 27600/60000 [==>.....] - ETA: 0s -
    loss: 0.3323 - acc: 0.9071
327 30950/60000 [==>.....] - ETA: 0s -
    loss: 0.3304 - acc: 0.9081
328 34350/60000 [=====>.....] - ETA: 0s -
    loss: 0.3313 - acc: 0.9075
329 37750/60000 [=====>.....] - ETA: 0s -
    loss: 0.3307 - acc: 0.9079
330 40200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3294 - acc: 0.9083
331 43050/60000 [=====>.....] - ETA: 0s -
    loss: 0.3292 - acc: 0.9082
332 46400/60000 [=====>.....] - ETA: 0s -
    loss: 0.3285 - acc: 0.9084
333 49800/60000 [=====>.....] - ETA: 0s -
    loss: 0.3288 - acc: 0.9081
334 53100/60000 [=====>....] - ETA: 0s -
    loss: 0.3287 - acc: 0.9082
335 55450/60000 [=====>...] - ETA: 0s -
    loss: 0.3288 - acc: 0.9081
336 58450/60000 [=====>.] - ETA: 0s -
```

```
336 loss: 0.3291 - acc: 0.9084
337 60000/60000 [=====] - 1s 16us/
    step - loss: 0.3286 - acc: 0.9087
338 Epoch 14/100
339
340      50/60000 [.....] - ETA: 2s -
    loss: 0.1933 - acc: 0.9800
341 3450/60000 [>.....] - ETA: 0s -
    loss: 0.3281 - acc: 0.9081
342 6550/60000 [==>.....] - ETA: 0s -
    loss: 0.3266 - acc: 0.9102
343 8950/60000 [==>.....] - ETA: 0s -
    loss: 0.3221 - acc: 0.9109
344 11600/60000 [====>.....] - ETA: 0s -
    loss: 0.3263 - acc: 0.9097
345 14950/60000 [=====>.....] - ETA: 0s -
    loss: 0.3266 - acc: 0.9089
346 18350/60000 [=====>.....] - ETA: 0s -
    loss: 0.3233 - acc: 0.9104
347 21000/60000 [=====>.....] - ETA: 0s -
    loss: 0.3227 - acc: 0.9102
348 23950/60000 [=====>.....] - ETA: 0s -
    loss: 0.3228 - acc: 0.9101
349 26900/60000 [=====>.....] - ETA: 0s -
    loss: 0.3221 - acc: 0.9106
350 30200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3247 - acc: 0.9098
351 32850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3260 - acc: 0.9098
352 35800/60000 [=====>.....] - ETA: 0s -
    loss: 0.3283 - acc: 0.9095
353 38800/60000 [=====>.....] - ETA: 0s -
    loss: 0.3265 - acc: 0.9098
354 42050/60000 [=====>.....] - ETA: 0s -
    loss: 0.3266 - acc: 0.9097
355 44500/60000 [=====>.....] - ETA: 0s -
    loss: 0.3267 - acc: 0.9093
356 47300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3275 - acc: 0.9090
357 50550/60000 [=====>.....] - ETA: 0s -
    loss: 0.3254 - acc: 0.9096
358 53700/60000 [=====>....] - ETA: 0s -
    loss: 0.3257 - acc: 0.9094
359 56300/60000 [=====>...] - ETA: 0s -
    loss: 0.3261 - acc: 0.9091
360 58850/60000 [=====>.] - ETA: 0s -
    loss: 0.3246 - acc: 0.9095
361 60000/60000 [=====] - 1s 17us/
    step - loss: 0.3250 - acc: 0.9095
362 Epoch 15/100
```

```
363
364    50/60000 [.....] - ETA: 2s -
loss: 0.3735 - acc: 0.8800
365    3400/60000 [>.....] - ETA: 0s -
loss: 0.3350 - acc: 0.9053
366    6800/60000 [==>.....] - ETA: 0s -
loss: 0.3382 - acc: 0.9043
367    9450/60000 [==>.....] - ETA: 0s -
loss: 0.3345 - acc: 0.9059
368    11700/60000 [====>.....] - ETA: 0s -
loss: 0.3321 - acc: 0.9056
369    14500/60000 [=====>.....] - ETA: 0s -
loss: 0.3301 - acc: 0.9081
370    17850/60000 [=====>.....] - ETA: 0s -
loss: 0.3244 - acc: 0.9095
371    21200/60000 [======>.....] - ETA: 0s -
loss: 0.3251 - acc: 0.9090
372    23700/60000 [======>.....] - ETA: 0s -
loss: 0.3228 - acc: 0.9094
373    26450/60000 [======>.....] - ETA: 0s -
loss: 0.3214 - acc: 0.9101
374    29650/60000 [======>.....] - ETA: 0s -
loss: 0.3216 - acc: 0.9107
375    32750/60000 [======>.....] - ETA: 0s -
loss: 0.3218 - acc: 0.9104
376    35950/60000 [======>.....] - ETA: 0s -
loss: 0.3218 - acc: 0.9102
377    38350/60000 [======>.....] - ETA: 0s -
loss: 0.3227 - acc: 0.9104
378    41300/60000 [======>.....] - ETA: 0s -
loss: 0.3243 - acc: 0.9101
379    44650/60000 [======>.....] - ETA: 0s -
loss: 0.3233 - acc: 0.9103
380    47950/60000 [======>.....] - ETA: 0s -
loss: 0.3235 - acc: 0.9103
381    51300/60000 [======>.....] - ETA: 0s -
loss: 0.3229 - acc: 0.9104
382    53450/60000 [======>.....] - ETA: 0s -
loss: 0.3217 - acc: 0.9108
383    56450/60000 [======>..] - ETA: 0s -
loss: 0.3224 - acc: 0.9102
384    59850/60000 [======>.] - ETA: 0s -
loss: 0.3221 - acc: 0.9103
385    60000/60000 [=====] - 1s 17us/
step - loss: 0.3218 - acc: 0.9104
386 Epoch 16/100
387
388    50/60000 [.....] - ETA: 2s -
loss: 0.4954 - acc: 0.8400
389    3350/60000 [>.....] - ETA: 0s -
```

```
389 loss: 0.3390 - acc: 0.9048
390 6400/60000 [==>.....] - ETA: 0s -
loss: 0.3326 - acc: 0.9070
391 8600/60000 [==>.....] - ETA: 0s -
loss: 0.3283 - acc: 0.9081
392 11300/60000 [====>.....] - ETA: 0s -
loss: 0.3192 - acc: 0.9107
393 14550/60000 [=====>.....] - ETA: 0s -
loss: 0.3154 - acc: 0.9113
394 17950/60000 [=====>.....] - ETA: 0s -
loss: 0.3188 - acc: 0.9111
395 20600/60000 [=====>.....] - ETA: 0s -
loss: 0.3185 - acc: 0.9112
396 23250/60000 [=====>.....] - ETA: 0s -
loss: 0.3200 - acc: 0.9111
397 26600/60000 [=====>.....] - ETA: 0s -
loss: 0.3173 - acc: 0.9118
398 30000/60000 [=====>.....] - ETA: 0s -
loss: 0.3156 - acc: 0.9124
399 32800/60000 [=====>.....] - ETA: 0s -
loss: 0.3148 - acc: 0.9122
400 35800/60000 [=====>.....] - ETA: 0s -
loss: 0.3136 - acc: 0.9127
401 39150/60000 [=====>.....] - ETA: 0s -
loss: 0.3151 - acc: 0.9116
402 42450/60000 [=====>.....] - ETA: 0s -
loss: 0.3147 - acc: 0.9117
403 45750/60000 [=====>.....] - ETA: 0s -
loss: 0.3148 - acc: 0.9116
404 48450/60000 [=====>.....] - ETA: 0s -
loss: 0.3147 - acc: 0.9119
405 51350/60000 [=====>.....] - ETA: 0s -
loss: 0.3158 - acc: 0.9119
406 54200/60000 [=====>... ] - ETA: 0s -
loss: 0.3170 - acc: 0.9116
407 57600/60000 [=====>.. ] - ETA: 0s -
loss: 0.3192 - acc: 0.9111
408 60000/60000 [=====] - 1s 17us/
step - loss: 0.3189 - acc: 0.9113
409 Epoch 17/100
410
411 50/60000 [.....] - ETA: 2s -
loss: 0.1996 - acc: 0.9400
412 3200/60000 [>.....] - ETA: 0s -
loss: 0.2959 - acc: 0.9162
413 6450/60000 [==>.....] - ETA: 0s -
loss: 0.3210 - acc: 0.9118
414 9700/60000 [==>.....] - ETA: 0s -
loss: 0.3267 - acc: 0.9092
415 12000/60000 [====>.....] - ETA: 0s -
```

```
415 loss: 0.3244 - acc: 0.9096
416 14700/60000 [=====>.....] - ETA: 0s -
loss: 0.3243 - acc: 0.9096
417 17850/60000 [=====>.....] - ETA: 0s -
loss: 0.3269 - acc: 0.9092
418 21250/60000 [=====>.....] - ETA: 0s -
loss: 0.3259 - acc: 0.9089
419 24350/60000 [=====>.....] - ETA: 0s -
loss: 0.3246 - acc: 0.9092
420 26400/60000 [=====>.....] - ETA: 0s -
loss: 0.3232 - acc: 0.9098
421 29550/60000 [=====>.....] - ETA: 0s -
loss: 0.3209 - acc: 0.9102
422 32950/60000 [=====>.....] - ETA: 0s -
loss: 0.3191 - acc: 0.9108
423 36200/60000 [=====>.....] - ETA: 0s -
loss: 0.3188 - acc: 0.9109
424 39150/60000 [=====>.....] - ETA: 0s -
loss: 0.3168 - acc: 0.9113
425 42250/60000 [=====>.....] - ETA: 0s -
loss: 0.3175 - acc: 0.9114
426 45500/60000 [=====>.....] - ETA: 0s -
loss: 0.3177 - acc: 0.9116
427 48800/60000 [=====>.....] - ETA: 0s -
loss: 0.3176 - acc: 0.9119
428 51350/60000 [=====>.....] - ETA: 0s -
loss: 0.3169 - acc: 0.9119
429 53800/60000 [=====>.....] - ETA: 0s -
loss: 0.3168 - acc: 0.9120
430 57150/60000 [=====>...] - ETA: 0s -
loss: 0.3155 - acc: 0.9122
431 60000/60000 [=====] - 1s 17us/
step - loss: 0.3163 - acc: 0.9120
432 Epoch 18/100
433
434 50/60000 [.....] - ETA: 2s -
loss: 0.2662 - acc: 0.9000
435 3400/60000 [>.....] - ETA: 0s -
loss: 0.3241 - acc: 0.9053
436 5600/60000 [=>.....] - ETA: 1s -
loss: 0.3140 - acc: 0.9134
437 8050/60000 [==>.....] - ETA: 0s -
loss: 0.3187 - acc: 0.9135
438 10850/60000 [==>.....] - ETA: 0s -
loss: 0.3212 - acc: 0.9121
439 14000/60000 [==>.....] - ETA: 0s -
loss: 0.3184 - acc: 0.9126
440 17150/60000 [==>.....] - ETA: 0s -
loss: 0.3227 - acc: 0.9104
441 19600/60000 [==>.....] - ETA: 0s -
```

```
441 loss: 0.3185 - acc: 0.9118
442 22000/60000 [=====>.....] - ETA: 0s -
    loss: 0.3207 - acc: 0.9111
443 25200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3179 - acc: 0.9117
444 28600/60000 [=====>.....] - ETA: 0s -
    loss: 0.3168 - acc: 0.9116
445 31950/60000 [=====>.....] - ETA: 0s -
    loss: 0.3154 - acc: 0.9118
446 34300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3173 - acc: 0.9114
447 37200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3179 - acc: 0.9110
448 40450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3172 - acc: 0.9115
449 43650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3172 - acc: 0.9114
450 46750/60000 [=====>.....] - ETA: 0s -
    loss: 0.3165 - acc: 0.9114
451 49300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3147 - acc: 0.9119
452 51900/60000 [=====>.....] - ETA: 0s -
    loss: 0.3142 - acc: 0.9120
453 55350/60000 [=====>....] - ETA: 0s -
    loss: 0.3148 - acc: 0.9118
454 58800/60000 [=====>..] - ETA: 0s -
    loss: 0.3140 - acc: 0.9123
455 60000/60000 [=====] - 1s 17us/
    step - loss: 0.3139 - acc: 0.9125
456 Epoch 19/100
457
458     50/60000 [.....] - ETA: 3s -
    loss: 0.7001 - acc: 0.9000
459     3150/60000 [>.....] - ETA: 0s -
    loss: 0.3146 - acc: 0.9156
460     5850/60000 [=>.....] - ETA: 0s -
    loss: 0.3174 - acc: 0.9138
461     9300/60000 [==>.....] - ETA: 0s -
    loss: 0.3216 - acc: 0.9116
462    12200/60000 [====>.....] - ETA: 0s -
    loss: 0.3193 - acc: 0.9123
463    14700/60000 [=====>.....] - ETA: 0s -
    loss: 0.3185 - acc: 0.9128
464    17450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3179 - acc: 0.9111
465    20450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3173 - acc: 0.9111
466    23600/60000 [=====>.....] - ETA: 0s -
    loss: 0.3191 - acc: 0.9112
467    26300/60000 [=====>.....] - ETA: 0s -
```

```
467 loss: 0.3190 - acc: 0.9114
468 29150/60000 [=====>.....] - ETA: 0s -
    loss: 0.3181 - acc: 0.9115
469 32450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3195 - acc: 0.9112
470 35600/60000 [=====>.....] - ETA: 0s -
    loss: 0.3170 - acc: 0.9120
471 38950/60000 [=====>.....] - ETA: 0s -
    loss: 0.3166 - acc: 0.9124
472 41650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3162 - acc: 0.9126
473 44300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3144 - acc: 0.9132
474 47300/60000 [=====>.....] - ETA: 0s -
    loss: 0.3137 - acc: 0.9129
475 50250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3128 - acc: 0.9130
476 52900/60000 [=====>.....] - ETA: 0s -
    loss: 0.3126 - acc: 0.9131
477 55650/60000 [=====>....] - ETA: 0s -
    loss: 0.3110 - acc: 0.9131
478 58800/60000 [=====>..] - ETA: 0s -
    loss: 0.3123 - acc: 0.9127
479 60000/60000 [=====] - 1s 17us/
    step - loss: 0.3117 - acc: 0.9130
480 Epoch 20/100
481
482     50/60000 [.....] - ETA: 2s -
    loss: 0.1442 - acc: 0.9400
483     3150/60000 [>.....] - ETA: 0s -
    loss: 0.3027 - acc: 0.9121
484     6000/60000 [==>.....] - ETA: 0s -
    loss: 0.3073 - acc: 0.9128
485     8300/60000 [==>.....] - ETA: 0s -
    loss: 0.3058 - acc: 0.9134
486     11100/60000 [==>.....] - ETA: 0s -
    loss: 0.3059 - acc: 0.9152
487     14250/60000 [==>.....] - ETA: 0s -
    loss: 0.3037 - acc: 0.9157
488     17450/60000 [==>.....] - ETA: 0s -
    loss: 0.3041 - acc: 0.9155
489     20000/60000 [==>.....] - ETA: 0s -
    loss: 0.3057 - acc: 0.9151
490     22800/60000 [==>.....] - ETA: 0s -
    loss: 0.3103 - acc: 0.9142
491     26100/60000 [==>.....] - ETA: 0s -
    loss: 0.3090 - acc: 0.9139
492     29400/60000 [==>.....] - ETA: 0s -
    loss: 0.3077 - acc: 0.9139
493     32500/60000 [==>.....] - ETA: 0s -
```

```
493 loss: 0.3078 - acc: 0.9140
494 35100/60000 [=====>.....] - ETA: 0s -
loss: 0.3096 - acc: 0.9131
495 38050/60000 [=====>.....] - ETA: 0s -
loss: 0.3076 - acc: 0.9136
496 41450/60000 [=====>.....] - ETA: 0s -
loss: 0.3074 - acc: 0.9138
497 44850/60000 [=====>.....] - ETA: 0s -
loss: 0.3084 - acc: 0.9138
498 47650/60000 [=====>.....] - ETA: 0s -
loss: 0.3091 - acc: 0.9135
499 50350/60000 [=====>....] - ETA: 0s -
loss: 0.3086 - acc: 0.9138
500 53600/60000 [=====>....] - ETA: 0s -
loss: 0.3091 - acc: 0.9136
501 56800/60000 [=====>..] - ETA: 0s -
loss: 0.3090 - acc: 0.9138
502 59700/60000 [=====>..] - ETA: 0s -
loss: 0.3099 - acc: 0.9137
503 60000/60000 [=====] - 1s 17us/
step - loss: 0.3097 - acc: 0.9137
504 Epoch 21/100
505
506 50/60000 [.....] - ETA: 3s -
loss: 0.4467 - acc: 0.9200
507 2300/60000 [>.....] - ETA: 1s -
loss: 0.3049 - acc: 0.9100
508 5100/60000 [=>.....] - ETA: 1s -
loss: 0.3034 - acc: 0.9145
509 8100/60000 [==>.....] - ETA: 0s -
loss: 0.3060 - acc: 0.9137
510 11050/60000 [==>.....] - ETA: 0s -
loss: 0.3036 - acc: 0.9157
511 13150/60000 [==>.....] - ETA: 0s -
loss: 0.3054 - acc: 0.9157
512 15350/60000 [==>.....] - ETA: 0s -
loss: 0.3040 - acc: 0.9157
513 18200/60000 [==>.....] - ETA: 0s -
loss: 0.3047 - acc: 0.9149
514 21250/60000 [=====>.....] - ETA: 0s -
loss: 0.3093 - acc: 0.9136
515 23750/60000 [=====>.....] - ETA: 0s -
loss: 0.3088 - acc: 0.9140
516 26500/60000 [=====>.....] - ETA: 0s -
loss: 0.3066 - acc: 0.9151
517 29450/60000 [=====>.....] - ETA: 0s -
loss: 0.3077 - acc: 0.9149
518 32650/60000 [=====>.....] - ETA: 0s -
loss: 0.3083 - acc: 0.9145
519 35550/60000 [=====>.....] - ETA: 0s -
```

```
519 loss: 0.3083 - acc: 0.9147
520 38650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3075 - acc: 0.9150
521 42000/60000 [=====>.....] - ETA: 0s -
    loss: 0.3071 - acc: 0.9146
522 44750/60000 [=====>.....] - ETA: 0s -
    loss: 0.3074 - acc: 0.9142
523 47150/60000 [=====>.....] - ETA: 0s -
    loss: 0.3073 - acc: 0.9141
524 49850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3069 - acc: 0.9143
525 52800/60000 [=====>....] - ETA: 0s -
    loss: 0.3074 - acc: 0.9141
526 55700/60000 [=====>...] - ETA: 0s -
    loss: 0.3073 - acc: 0.9142
527 58100/60000 [=====>.] - ETA: 0s -
    loss: 0.3070 - acc: 0.9142
528 60000/60000 [=====] - 1s 18us/
step - loss: 0.3078 - acc: 0.9142
529 Epoch 22/100
530
531 50/60000 [.....] - ETA: 3s -
    loss: 0.2307 - acc: 0.9400
532 3250/60000 [>.....] - ETA: 0s -
    loss: 0.2938 - acc: 0.9178
533 6700/60000 [==>.....] - ETA: 0s -
    loss: 0.3125 - acc: 0.9131
534 10100/60000 [====>.....] - ETA: 0s -
    loss: 0.3142 - acc: 0.9122
535 12700/60000 [====>.....] - ETA: 0s -
    loss: 0.3127 - acc: 0.9125
536 14950/60000 [====>.....] - ETA: 0s -
    loss: 0.3120 - acc: 0.9132
537 17950/60000 [====>.....] - ETA: 0s -
    loss: 0.3077 - acc: 0.9148
538 20850/60000 [=====>.....] - ETA: 0s -
    loss: 0.3070 - acc: 0.9141
539 24200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3087 - acc: 0.9142
540 26450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3104 - acc: 0.9132
541 29100/60000 [=====>.....] - ETA: 0s -
    loss: 0.3094 - acc: 0.9140
542 32150/60000 [=====>.....] - ETA: 0s -
    loss: 0.3099 - acc: 0.9138
543 35250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3090 - acc: 0.9138
544 38450/60000 [=====>.....] - ETA: 0s -
    loss: 0.3084 - acc: 0.9138
545 41100/60000 [=====>.....] - ETA: 0s -
```

```
545 loss: 0.3062 - acc: 0.9144
546 43700/60000 [=====>.....] - ETA: 0s -
    loss: 0.3047 - acc: 0.9148
547 47050/60000 [=====>.....] - ETA: 0s -
    loss: 0.3048 - acc: 0.9147
548 50350/60000 [=====>....] - ETA: 0s -
    loss: 0.3062 - acc: 0.9145
549 53650/60000 [=====>....] - ETA: 0s -
    loss: 0.3056 - acc: 0.9147
550 56300/60000 [=====>..] - ETA: 0s -
    loss: 0.3062 - acc: 0.9147
551 59150/60000 [=====>.] - ETA: 0s -
    loss: 0.3065 - acc: 0.9149
552 60000/60000 [=====] - 1s 17us/
    step - loss: 0.3060 - acc: 0.9150
553 Epoch 23/100
554
555 50/60000 [.....] - ETA: 2s -
    loss: 0.2403 - acc: 0.9400
556 3350/60000 [>.....] - ETA: 0s -
    loss: 0.2914 - acc: 0.9206
557 6600/60000 [==>.....] - ETA: 0s -
    loss: 0.2842 - acc: 0.9223
558 9500/60000 [==>.....] - ETA: 0s -
    loss: 0.2935 - acc: 0.9201
559 11750/60000 [==>.....] - ETA: 0s -
    loss: 0.2947 - acc: 0.9169
560 14400/60000 [==>.....] - ETA: 0s -
    loss: 0.2952 - acc: 0.9165
561 17700/60000 [==>.....] - ETA: 0s -
    loss: 0.2945 - acc: 0.9180
562 21100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2944 - acc: 0.9189
563 23850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2945 - acc: 0.9187
564 26700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2971 - acc: 0.9188
565 30100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2992 - acc: 0.9176
566 33500/60000 [=====>.....] - ETA: 0s -
    loss: 0.3020 - acc: 0.9167
567 36800/60000 [=====>.....] - ETA: 0s -
    loss: 0.3027 - acc: 0.9164
568 39200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3021 - acc: 0.9161
569 41900/60000 [=====>.....] - ETA: 0s -
    loss: 0.3019 - acc: 0.9159
570 45200/60000 [=====>.....] - ETA: 0s -
    loss: 0.3035 - acc: 0.9156
571 48600/60000 [=====>.....] - ETA: 0s -
```

```
571 loss: 0.3030 - acc: 0.9158
572 51950/60000 [=====>.....] - ETA: 0s -
loss: 0.3027 - acc: 0.9160
573 54700/60000 [=====>...] - ETA: 0s -
loss: 0.3037 - acc: 0.9158
574 57750/60000 [=====>..] - ETA: 0s -
loss: 0.3036 - acc: 0.9157
575 60000/60000 [=====] - 1s 17us/
step - loss: 0.3044 - acc: 0.9152
576 Epoch 24/100
577
578 50/60000 [.....] - ETA: 2s -
loss: 0.2321 - acc: 0.9200
579 3300/60000 [>.....] - ETA: 0s -
loss: 0.2992 - acc: 0.9136
580 5750/60000 [=>.....] - ETA: 0s -
loss: 0.2954 - acc: 0.9172
581 8200/60000 [==>.....] - ETA: 0s -
loss: 0.2964 - acc: 0.9189
582 11050/60000 [==>.....] - ETA: 0s -
loss: 0.2943 - acc: 0.9199
583 14250/60000 [==>.....] - ETA: 0s -
loss: 0.2982 - acc: 0.9192
584 17600/60000 [==>.....] - ETA: 0s -
loss: 0.2985 - acc: 0.9195
585 20500/60000 [=====>.....] - ETA: 0s -
loss: 0.2994 - acc: 0.9181
586 23550/60000 [=====>.....] - ETA: 0s -
loss: 0.2993 - acc: 0.9185
587 26600/60000 [=====>.....] - ETA: 0s -
loss: 0.3003 - acc: 0.9176
588 29850/60000 [=====>.....] - ETA: 0s -
loss: 0.3001 - acc: 0.9174
589 32300/60000 [=====>.....] - ETA: 0s -
loss: 0.2990 - acc: 0.9172
590 35100/60000 [=====>.....] - ETA: 0s -
loss: 0.2999 - acc: 0.9169
591 38450/60000 [=====>.....] - ETA: 0s -
loss: 0.3011 - acc: 0.9169
592 41500/60000 [=====>.....] - ETA: 0s -
loss: 0.3003 - acc: 0.9171
593 44750/60000 [=====>.....] - ETA: 0s -
loss: 0.3004 - acc: 0.9171
594 47350/60000 [=====>.....] - ETA: 0s -
loss: 0.3007 - acc: 0.9165
595 50150/60000 [=====>.....] - ETA: 0s -
loss: 0.3021 - acc: 0.9160
596 53450/60000 [=====>....] - ETA: 0s -
loss: 0.3037 - acc: 0.9157
597 56650/60000 [=====>..] - ETA: 0s -
```

```
597 loss: 0.3041 - acc: 0.9154
598 59950/60000 [=====>.] - ETA: 0s -
loss: 0.3030 - acc: 0.9157
599 60000/60000 [=====] - 1s 17us/
step - loss: 0.3029 - acc: 0.9157
600 Epoch 25/100
601
602    50/60000 [.....] - ETA: 2s -
loss: 0.4465 - acc: 0.8400
603    2150/60000 [>.....] - ETA: 1s -
loss: 0.3449 - acc: 0.9005
604    4550/60000 [=>.....] - ETA: 1s -
loss: 0.3185 - acc: 0.9101
605    7650/60000 [==>.....] - ETA: 1s -
loss: 0.3100 - acc: 0.9137
606    10750/60000 [====>.....] - ETA: 0s -
loss: 0.3048 - acc: 0.9158
607    13500/60000 [=====>.....] - ETA: 0s -
loss: 0.3081 - acc: 0.9149
608    16400/60000 [=====>.....] - ETA: 0s -
loss: 0.3055 - acc: 0.9157
609    19700/60000 [=====>.....] - ETA: 0s -
loss: 0.3048 - acc: 0.9161
610    22850/60000 [=====>.....] - ETA: 0s -
loss: 0.3083 - acc: 0.9151
611    26000/60000 [=====>.....] - ETA: 0s -
loss: 0.3047 - acc: 0.9161
612    28350/60000 [=====>.....] - ETA: 0s -
loss: 0.3051 - acc: 0.9158
613    31300/60000 [=====>.....] - ETA: 0s -
loss: 0.3086 - acc: 0.9150
614    34450/60000 [=====>.....] - ETA: 0s -
loss: 0.3065 - acc: 0.9153
615    37600/60000 [=====>.....] - ETA: 0s -
loss: 0.3063 - acc: 0.9154
616    40250/60000 [=====>.....] - ETA: 0s -
loss: 0.3050 - acc: 0.9155
617    42550/60000 [=====>.....] - ETA: 0s -
loss: 0.3039 - acc: 0.9158
618    45350/60000 [=====>.....] - ETA: 0s -
loss: 0.3027 - acc: 0.9161
619    48700/60000 [=====>.....] - ETA: 0s -
loss: 0.3029 - acc: 0.9159
620    52000/60000 [=====>....] - ETA: 0s -
loss: 0.3030 - acc: 0.9159
621    54750/60000 [=====>...] - ETA: 0s -
loss: 0.3032 - acc: 0.9156
622    57750/60000 [=====>...] - ETA: 0s -
loss: 0.3033 - acc: 0.9157
623    60000/60000 [=====] - 1s 17us/
```

```
623 step - loss: 0.3014 - acc: 0.9163
624 Epoch 26/100
625
626    50/60000 [.....] - ETA: 2s -
    loss: 0.2082 - acc: 0.8800
627    3100/60000 [>.....] - ETA: 0s -
    loss: 0.3093 - acc: 0.9132
628    6100/60000 [==>.....] - ETA: 0s -
    loss: 0.3098 - acc: 0.9121
629    8400/60000 [==>.....] - ETA: 0s -
    loss: 0.3057 - acc: 0.9135
630    10800/60000 [====>.....] - ETA: 0s -
    loss: 0.3053 - acc: 0.9145
631    13750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2985 - acc: 0.9162
632    17150/60000 [=====>.....] - ETA: 0s -
    loss: 0.3001 - acc: 0.9161
633    20550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2961 - acc: 0.9174
634    23450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2974 - acc: 0.9167
635    26500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2939 - acc: 0.9174
636    29750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2964 - acc: 0.9169
637    32450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2970 - acc: 0.9171
638    34700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2986 - acc: 0.9169
639    37000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2994 - acc: 0.9170
640    39150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2994 - acc: 0.9169
641    41450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2980 - acc: 0.9174
642    44000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2980 - acc: 0.9172
643    46500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2993 - acc: 0.9168
644    49250/60000 [=====>.....] - ETA: 0s -
    loss: 0.3002 - acc: 0.9166
645    52400/60000 [=====>....] - ETA: 0s -
    loss: 0.3007 - acc: 0.9166
646    55450/60000 [=====>...] - ETA: 0s -
    loss: 0.3003 - acc: 0.9165
647    58550/60000 [=====>..] - ETA: 0s -
    loss: 0.3002 - acc: 0.9163
648    60000/60000 [=====] - 1s 18us/
    step - loss: 0.3001 - acc: 0.9164
649 Epoch 27/100
```

```
650
651    50/60000 [.....] - ETA: 2s -
loss: 0.3028 - acc: 0.9400
652    2950/60000 [>.....] - ETA: 1s -
loss: 0.3056 - acc: 0.9186
653    5900/60000 [=>.....] - ETA: 0s -
loss: 0.2986 - acc: 0.9210
654    9250/60000 [==>.....] - ETA: 0s -
loss: 0.2949 - acc: 0.9199
655    12200/60000 [=====>.....] - ETA: 0s -
loss: 0.3018 - acc: 0.9174
656    14650/60000 [=====>.....] - ETA: 0s -
loss: 0.3006 - acc: 0.9169
657    17450/60000 [=====>.....] - ETA: 0s -
loss: 0.2998 - acc: 0.9175
658    20650/60000 [=====>.....] - ETA: 0s -
loss: 0.2956 - acc: 0.9189
659    23700/60000 [=====>.....] - ETA: 0s -
loss: 0.2938 - acc: 0.9195
660    26200/60000 [=====>.....] - ETA: 0s -
loss: 0.2954 - acc: 0.9186
661    28800/60000 [=====>.....] - ETA: 0s -
loss: 0.2988 - acc: 0.9175
662    32000/60000 [=====>.....] - ETA: 0s -
loss: 0.2983 - acc: 0.9177
663    34550/60000 [=====>.....] - ETA: 0s -
loss: 0.2980 - acc: 0.9178
664    36900/60000 [=====>.....] - ETA: 0s -
loss: 0.2985 - acc: 0.9176
665    39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2968 - acc: 0.9179
666    42950/60000 [=====>.....] - ETA: 0s -
loss: 0.2964 - acc: 0.9177
667    46150/60000 [=====>.....] - ETA: 0s -
loss: 0.2966 - acc: 0.9178
668    49400/60000 [=====>.....] - ETA: 0s -
loss: 0.2960 - acc: 0.9179
669    51900/60000 [=====>.....] - ETA: 0s -
loss: 0.2967 - acc: 0.9178
670    54750/60000 [=====>....] - ETA: 0s -
loss: 0.2982 - acc: 0.9174
671    58100/60000 [=====>..] - ETA: 0s -
loss: 0.2989 - acc: 0.9171
672    60000/60000 [=====] - 1s 17us/
step - loss: 0.2988 - acc: 0.9168
673 Epoch 28/100
674
675    50/60000 [.....] - ETA: 2s -
loss: 0.2249 - acc: 0.9000
676    3100/60000 [>.....] - ETA: 0s -
```

```
676 loss: 0.2873 - acc: 0.9200
677 5250/60000 [=>.....] - ETA: 1s -
loss: 0.2881 - acc: 0.9204
678 7600/60000 [==>.....] - ETA: 1s -
loss: 0.2879 - acc: 0.9204
679 9850/60000 [===>.....] - ETA: 1s -
loss: 0.2925 - acc: 0.9199
680 12000/60000 [=====>.....] - ETA: 1s -
loss: 0.2942 - acc: 0.9181
681 14150/60000 [=====>.....] - ETA: 0s -
loss: 0.2965 - acc: 0.9178
682 16200/60000 [=====>.....] - ETA: 0s -
loss: 0.2997 - acc: 0.9165
683 18900/60000 [=====>.....] - ETA: 0s -
loss: 0.2993 - acc: 0.9168
684 22200/60000 [=====>.....] - ETA: 0s -
loss: 0.2975 - acc: 0.9169
685 25000/60000 [=====>.....] - ETA: 0s -
loss: 0.2994 - acc: 0.9161
686 27100/60000 [=====>.....] - ETA: 0s -
loss: 0.3005 - acc: 0.9160
687 29200/60000 [=====>.....] - ETA: 0s -
loss: 0.2990 - acc: 0.9161
688 31300/60000 [=====>.....] - ETA: 0s -
loss: 0.2980 - acc: 0.9167
689 33550/60000 [=====>.....] - ETA: 0s -
loss: 0.2967 - acc: 0.9172
690 36050/60000 [=====>.....] - ETA: 0s -
loss: 0.2971 - acc: 0.9171
691 38700/60000 [=====>.....] - ETA: 0s -
loss: 0.2973 - acc: 0.9171
692 41800/60000 [=====>.....] - ETA: 0s -
loss: 0.2970 - acc: 0.9171
693 45250/60000 [=====>.....] - ETA: 0s -
loss: 0.2959 - acc: 0.9171
694 48750/60000 [=====>.....] - ETA: 0s -
loss: 0.2965 - acc: 0.9167
695 52150/60000 [=====>.....] - ETA: 0s -
loss: 0.2971 - acc: 0.9169
696 54650/60000 [=====>....] - ETA: 0s -
loss: 0.2972 - acc: 0.9169
697 57550/60000 [=====>...] - ETA: 0s -
loss: 0.2971 - acc: 0.9170
698 60000/60000 [=====] - 1s 19us/
step - loss: 0.2976 - acc: 0.9168
699 Epoch 29/100
700
701 50/60000 [.....] - ETA: 2s -
loss: 0.3078 - acc: 0.9000
702 3550/60000 [>.....] - ETA: 0s -
```

```
702 loss: 0.2788 - acc: 0.9208
703 6700/60000 [==>.....] - ETA: 0s -
loss: 0.2830 - acc: 0.9210
704 9200/60000 [==>.....] - ETA: 0s -
loss: 0.2878 - acc: 0.9187
705 11800/60000 [====>.....] - ETA: 0s -
loss: 0.2919 - acc: 0.9159
706 14800/60000 [=====>.....] - ETA: 0s -
loss: 0.2984 - acc: 0.9155
707 18100/60000 [======>.....] - ETA: 0s -
loss: 0.2990 - acc: 0.9153
708 20850/60000 [======>.....] - ETA: 0s -
loss: 0.2996 - acc: 0.9151
709 22950/60000 [======>.....] - ETA: 0s -
loss: 0.2997 - acc: 0.9155
710 25400/60000 [======>.....] - ETA: 0s -
loss: 0.2977 - acc: 0.9164
711 27650/60000 [======>.....] - ETA: 0s -
loss: 0.2963 - acc: 0.9171
712 29900/60000 [======>.....] - ETA: 0s -
loss: 0.2976 - acc: 0.9170
713 32050/60000 [======>.....] - ETA: 0s -
loss: 0.2974 - acc: 0.9168
714 34250/60000 [======>.....] - ETA: 0s -
loss: 0.2972 - acc: 0.9173
715 36700/60000 [======>.....] - ETA: 0s -
loss: 0.2969 - acc: 0.9173
716 39500/60000 [======>.....] - ETA: 0s -
loss: 0.2982 - acc: 0.9166
717 42400/60000 [======>.....] - ETA: 0s -
loss: 0.2987 - acc: 0.9163
718 45000/60000 [======>.....] - ETA: 0s -
loss: 0.2984 - acc: 0.9164
719 47650/60000 [======>.....] - ETA: 0s -
loss: 0.2993 - acc: 0.9164
720 50550/60000 [======>.....] - ETA: 0s -
loss: 0.2979 - acc: 0.9166
721 53450/60000 [======>....] - ETA: 0s -
loss: 0.2976 - acc: 0.9168
722 56300/60000 [======>...] - ETA: 0s -
loss: 0.2963 - acc: 0.9173
723 58850/60000 [======>.] - ETA: 0s -
loss: 0.2966 - acc: 0.9172
724 60000/60000 [=====] - 1s 19us/
step - loss: 0.2964 - acc: 0.9169
725 Epoch 30/100
726
727 50/60000 [.....] - ETA: 2s -
loss: 0.1544 - acc: 0.9800
728 2850/60000 [>.....] - ETA: 1s -
```

```
728 loss: 0.3081 - acc: 0.9182
729 5700/60000 [=>.....] - ETA: 0s -
    loss: 0.3048 - acc: 0.9174
730 8550/60000 [==>.....] - ETA: 0s -
    loss: 0.3047 - acc: 0.9175
731 10950/60000 [====>.....] - ETA: 0s -
    loss: 0.3018 - acc: 0.9186
732 13200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2981 - acc: 0.9191
733 15650/60000 [=====>.....] - ETA: 0s -
    loss: 0.3004 - acc: 0.9184
734 18350/60000 [=====>.....] - ETA: 0s -
    loss: 0.3035 - acc: 0.9169
735 20900/60000 [=====>.....] - ETA: 0s -
    loss: 0.3000 - acc: 0.9181
736 23350/60000 [=====>.....] - ETA: 0s -
    loss: 0.3008 - acc: 0.9168
737 25900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2987 - acc: 0.9172
738 28650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2987 - acc: 0.9166
739 32050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2982 - acc: 0.9171
740 35000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2992 - acc: 0.9172
741 38150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2988 - acc: 0.9167
742 41050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2981 - acc: 0.9170
743 44350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2972 - acc: 0.9175
744 46800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2962 - acc: 0.9176
745 49700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2957 - acc: 0.9180
746 52900/60000 [=====>....] - ETA: 0s -
    loss: 0.2955 - acc: 0.9181
747 56200/60000 [=====>..] - ETA: 0s -
    loss: 0.2952 - acc: 0.9181
748 59550/60000 [=====>.] - ETA: 0s -
    loss: 0.2953 - acc: 0.9180
749 60000/60000 [=====] - 1s 18us/
    step - loss: 0.2953 - acc: 0.9179
750 Epoch 31/100
751
752      50/60000 [.....] - ETA: 5s -
    loss: 0.3115 - acc: 0.9000
753      2950/60000 [>.....] - ETA: 1s -
    loss: 0.3016 - acc: 0.9159
754      6000/60000 [==>.....] - ETA: 0s -
```

```
754 loss: 0.2907 - acc: 0.9175
755 9300/60000 [====>.....] - ETA: 0s -
    loss: 0.2948 - acc: 0.9166
756 11950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2973 - acc: 0.9156
757 14250/60000 [======>.....] - ETA: 0s -
    loss: 0.2997 - acc: 0.9154
758 16500/60000 [======>.....] - ETA: 0s -
    loss: 0.3019 - acc: 0.9146
759 19850/60000 [======>.....] - ETA: 0s -
    loss: 0.2985 - acc: 0.9155
760 23050/60000 [======>.....] - ETA: 0s -
    loss: 0.2917 - acc: 0.9182
761 26050/60000 [======>.....] - ETA: 0s -
    loss: 0.2907 - acc: 0.9184
762 28950/60000 [======>.....] - ETA: 0s -
    loss: 0.2906 - acc: 0.9183
763 32250/60000 [======>.....] - ETA: 0s -
    loss: 0.2923 - acc: 0.9178
764 35550/60000 [======>.....] - ETA: 0s -
    loss: 0.2933 - acc: 0.9172
765 38050/60000 [======>.....] - ETA: 0s -
    loss: 0.2937 - acc: 0.9173
766 40550/60000 [======>.....] - ETA: 0s -
    loss: 0.2933 - acc: 0.9174
767 43950/60000 [======>.....] - ETA: 0s -
    loss: 0.2940 - acc: 0.9170
768 47350/60000 [======>.....] - ETA: 0s -
    loss: 0.2938 - acc: 0.9174
769 50700/60000 [======>.....] - ETA: 0s -
    loss: 0.2926 - acc: 0.9178
770 53200/60000 [======>.....] - ETA: 0s -
    loss: 0.2935 - acc: 0.9176
771 56300/60000 [======>..] - ETA: 0s -
    loss: 0.2937 - acc: 0.9176
772 59650/60000 [======>.] - ETA: 0s -
    loss: 0.2944 - acc: 0.9175
773 60000/60000 [=====] - 1s 17us/
step - loss: 0.2943 - acc: 0.9176
774 Epoch 32/100
775
776 50/60000 [.....] - ETA: 2s -
    loss: 0.1481 - acc: 0.9600
777 3350/60000 [>.....] - ETA: 0s -
    loss: 0.2871 - acc: 0.9188
778 5500/60000 [=>.....] - ETA: 1s -
    loss: 0.2863 - acc: 0.9165
779 8100/60000 [==>.....] - ETA: 0s -
    loss: 0.2859 - acc: 0.9178
780 11050/60000 [==>.....] - ETA: 0s -
```

```
780 loss: 0.2925 - acc: 0.9177
781 14450/60000 [=====>.....] - ETA: 0s -
loss: 0.2942 - acc: 0.9166
782 17400/60000 [=====>.....] - ETA: 0s -
loss: 0.2959 - acc: 0.9163
783 20500/60000 [=====>.....] - ETA: 0s -
loss: 0.2970 - acc: 0.9164
784 23550/60000 [=====>.....] - ETA: 0s -
loss: 0.2993 - acc: 0.9151
785 26850/60000 [=====>.....] - ETA: 0s -
loss: 0.2971 - acc: 0.9162
786 29350/60000 [=====>.....] - ETA: 0s -
loss: 0.2959 - acc: 0.9165
787 32100/60000 [=====>.....] - ETA: 0s -
loss: 0.2937 - acc: 0.9179
788 35500/60000 [=====>.....] - ETA: 0s -
loss: 0.2955 - acc: 0.9173
789 38800/60000 [=====>.....] - ETA: 0s -
loss: 0.2962 - acc: 0.9170
790 41950/60000 [=====>.....] - ETA: 0s -
loss: 0.2952 - acc: 0.9174
791 44650/60000 [=====>.....] - ETA: 0s -
loss: 0.2940 - acc: 0.9176
792 47500/60000 [=====>.....] - ETA: 0s -
loss: 0.2937 - acc: 0.9178
793 50750/60000 [=====>.....] - ETA: 0s -
loss: 0.2931 - acc: 0.9180
794 53800/60000 [=====>.....] - ETA: 0s -
loss: 0.2926 - acc: 0.9181
795 56400/60000 [=====>..] - ETA: 0s -
loss: 0.2932 - acc: 0.9181
796 59300/60000 [=====>.] - ETA: 0s -
loss: 0.2936 - acc: 0.9179
797 60000/60000 [=====] - 1s 17us/
step - loss: 0.2933 - acc: 0.9180
798 Epoch 33/100
799
800 50/60000 [.....] - ETA: 2s -
loss: 0.2344 - acc: 0.9200
801 3400/60000 [>.....] - ETA: 0s -
loss: 0.2951 - acc: 0.9168
802 6700/60000 [==>.....] - ETA: 0s -
loss: 0.2973 - acc: 0.9191
803 9400/60000 [==>.....] - ETA: 0s -
loss: 0.2964 - acc: 0.9160
804 11700/60000 [==>.....] - ETA: 0s -
loss: 0.3027 - acc: 0.9145
805 14300/60000 [==>.....] - ETA: 0s -
loss: 0.2981 - acc: 0.9161
806 17650/60000 [==>.....] - ETA: 0s -
```

```
806 loss: 0.2952 - acc: 0.9170
807 21000/60000 [=====>.....] - ETA: 0s -
loss: 0.2916 - acc: 0.9181
808 23950/60000 [=====>.....] - ETA: 0s -
loss: 0.2903 - acc: 0.9184
809 27050/60000 [=====>.....] - ETA: 0s -
loss: 0.2920 - acc: 0.9183
810 30350/60000 [=====>.....] - ETA: 0s -
loss: 0.2917 - acc: 0.9183
811 33650/60000 [=====>.....] - ETA: 0s -
loss: 0.2935 - acc: 0.9179
812 36350/60000 [=====>.....] - ETA: 0s -
loss: 0.2926 - acc: 0.9182
813 38900/60000 [=====>.....] - ETA: 0s -
loss: 0.2942 - acc: 0.9181
814 42250/60000 [=====>.....] - ETA: 0s -
loss: 0.2924 - acc: 0.9183
815 45600/60000 [=====>.....] - ETA: 0s -
loss: 0.2909 - acc: 0.9185
816 48400/60000 [=====>.....] - ETA: 0s -
loss: 0.2928 - acc: 0.9182
817 51300/60000 [=====>.....] - ETA: 0s -
loss: 0.2937 - acc: 0.9180
818 54500/60000 [=====>...] - ETA: 0s -
loss: 0.2933 - acc: 0.9179
819 57550/60000 [=====>...] - ETA: 0s -
loss: 0.2923 - acc: 0.9182
820 60000/60000 [=====] - 1s 17us/
step - loss: 0.2924 - acc: 0.9184
821 Epoch 34/100
822
823 50/60000 [.....] - ETA: 2s -
loss: 0.2342 - acc: 0.9200
824 2250/60000 [>.....] - ETA: 1s -
loss: 0.3122 - acc: 0.9138
825 4650/60000 [=>.....] - ETA: 1s -
loss: 0.2946 - acc: 0.9163
826 7450/60000 [==>.....] - ETA: 1s -
loss: 0.2914 - acc: 0.9183
827 10800/60000 [====>.....] - ETA: 0s -
loss: 0.2896 - acc: 0.9188
828 14300/60000 [=====>.....] - ETA: 0s -
loss: 0.2899 - acc: 0.9178
829 17250/60000 [=====>.....] - ETA: 0s -
loss: 0.2855 - acc: 0.9198
830 20250/60000 [=====>.....] - ETA: 0s -
loss: 0.2835 - acc: 0.9204
831 23450/60000 [=====>.....] - ETA: 0s -
loss: 0.2853 - acc: 0.9206
832 26650/60000 [=====>.....] - ETA: 0s -
```

```
832 loss: 0.2891 - acc: 0.9195
833 29150/60000 [=====>.....] - ETA: 0s -
loss: 0.2903 - acc: 0.9196
834 31950/60000 [=====>.....] - ETA: 0s -
loss: 0.2899 - acc: 0.9197
835 35100/60000 [=====>.....] - ETA: 0s -
loss: 0.2875 - acc: 0.9198
836 38300/60000 [=====>.....] - ETA: 0s -
loss: 0.2888 - acc: 0.9194
837 41700/60000 [=====>.....] - ETA: 0s -
loss: 0.2894 - acc: 0.9193
838 44250/60000 [=====>.....] - ETA: 0s -
loss: 0.2902 - acc: 0.9191
839 47000/60000 [=====>.....] - ETA: 0s -
loss: 0.2921 - acc: 0.9188
840 50100/60000 [=====>.....] - ETA: 0s -
loss: 0.2919 - acc: 0.9188
841 53100/60000 [=====>.....] - ETA: 0s -
loss: 0.2921 - acc: 0.9185
842 56250/60000 [=====>..] - ETA: 0s -
loss: 0.2922 - acc: 0.9182
843 58750/60000 [=====>.] - ETA: 0s -
loss: 0.2916 - acc: 0.9186
844 60000/60000 [=====] - 1s 17us/
step - loss: 0.2915 - acc: 0.9185
845 Epoch 35/100
846
847    50/60000 [.....] - ETA: 2s -
loss: 0.4179 - acc: 0.8800
848    3150/60000 [>.....] - ETA: 0s -
loss: 0.2832 - acc: 0.9213
849    6500/60000 [==>.....] - ETA: 0s -
loss: 0.2838 - acc: 0.9189
850    9200/60000 [==>.....] - ETA: 0s -
loss: 0.2887 - acc: 0.9191
851    12100/60000 [==>.....] - ETA: 0s -
loss: 0.2813 - acc: 0.9208
852    14500/60000 [==>.....] - ETA: 0s -
loss: 0.2825 - acc: 0.9205
853    17200/60000 [==>.....] - ETA: 0s -
loss: 0.2819 - acc: 0.9199
854    20350/60000 [==>.....] - ETA: 0s -
loss: 0.2859 - acc: 0.9196
855    23650/60000 [==>.....] - ETA: 0s -
loss: 0.2872 - acc: 0.9189
856    26100/60000 [==>.....] - ETA: 0s -
loss: 0.2867 - acc: 0.9190
857    28800/60000 [==>.....] - ETA: 0s -
loss: 0.2859 - acc: 0.9193
858    31700/60000 [==>.....] - ETA: 0s -
```

```
858 loss: 0.2875 - acc: 0.9187
859 34700/60000 [=====>.....] - ETA: 0s -
loss: 0.2885 - acc: 0.9186
860 37100/60000 [=====>.....] - ETA: 0s -
loss: 0.2884 - acc: 0.9186
861 39600/60000 [=====>.....] - ETA: 0s -
loss: 0.2896 - acc: 0.9185
862 42450/60000 [=====>.....] - ETA: 0s -
loss: 0.2896 - acc: 0.9185
863 45550/60000 [=====>.....] - ETA: 0s -
loss: 0.2895 - acc: 0.9187
864 48350/60000 [=====>.....] - ETA: 0s -
loss: 0.2897 - acc: 0.9189
865 50800/60000 [=====>.....] - ETA: 0s -
loss: 0.2904 - acc: 0.9187
866 53500/60000 [=====>....] - ETA: 0s -
loss: 0.2910 - acc: 0.9185
867 56450/60000 [=====>...] - ETA: 0s -
loss: 0.2905 - acc: 0.9187
868 59400/60000 [=====>..] - ETA: 0s -
loss: 0.2911 - acc: 0.9187
869 60000/60000 [=====] - 1s 18us/
step - loss: 0.2907 - acc: 0.9188
870 Epoch 36/100
871
872    50/60000 [.....] - ETA: 2s -
loss: 0.1432 - acc: 0.9600
873 2350/60000 [>.....] - ETA: 1s -
loss: 0.2730 - acc: 0.9221
874 4900/60000 [=>.....] - ETA: 1s -
loss: 0.3005 - acc: 0.9157
875 8200/60000 [==>.....] - ETA: 0s -
loss: 0.2987 - acc: 0.9177
876 11650/60000 [====>.....] - ETA: 0s -
loss: 0.2972 - acc: 0.9168
877 14200/60000 [=====>.....] - ETA: 0s -
loss: 0.2948 - acc: 0.9180
878 16900/60000 [=====>.....] - ETA: 0s -
loss: 0.2970 - acc: 0.9174
879 20300/60000 [=====>.....] - ETA: 0s -
loss: 0.2932 - acc: 0.9172
880 23650/60000 [=====>.....] - ETA: 0s -
loss: 0.2939 - acc: 0.9174
881 26450/60000 [=====>.....] - ETA: 0s -
loss: 0.2947 - acc: 0.9174
882 29300/60000 [=====>.....] - ETA: 0s -
loss: 0.2948 - acc: 0.9175
883 32150/60000 [=====>.....] - ETA: 0s -
loss: 0.2926 - acc: 0.9183
884 34900/60000 [=====>.....] - ETA: 0s -
```

```
884 loss: 0.2903 - acc: 0.9186
885 37900/60000 [=====>.....] - ETA: 0s -
loss: 0.2896 - acc: 0.9185
886 40450/60000 [=====>.....] - ETA: 0s -
loss: 0.2897 - acc: 0.9184
887 43100/60000 [=====>.....] - ETA: 0s -
loss: 0.2893 - acc: 0.9184
888 46050/60000 [=====>.....] - ETA: 0s -
loss: 0.2910 - acc: 0.9182
889 49300/60000 [=====>.....] - ETA: 0s -
loss: 0.2916 - acc: 0.9185
890 52050/60000 [=====>....] - ETA: 0s -
loss: 0.2904 - acc: 0.9187
891 55150/60000 [=====>...] - ETA: 0s -
loss: 0.2898 - acc: 0.9191
892 58500/60000 [=====>..] - ETA: 0s -
loss: 0.2890 - acc: 0.9194
893 60000/60000 [=====] - 1s 17us/
step - loss: 0.2898 - acc: 0.9191
894 Epoch 37/100
895
896      50/60000 [.....] - ETA: 2s -
loss: 0.2126 - acc: 0.9200
897 2950/60000 [>.....] - ETA: 1s -
loss: 0.2970 - acc: 0.9159
898 5850/60000 [=>.....] - ETA: 0s -
loss: 0.2902 - acc: 0.9181
899 8250/60000 [==>.....] - ETA: 0s -
loss: 0.2903 - acc: 0.9190
900 11100/60000 [==>.....] - ETA: 0s -
loss: 0.2896 - acc: 0.9187
901 13950/60000 [==>.....] - ETA: 0s -
loss: 0.2893 - acc: 0.9187
902 16950/60000 [==>.....] - ETA: 0s -
loss: 0.2894 - acc: 0.9189
903 19350/60000 [==>.....] - ETA: 0s -
loss: 0.2896 - acc: 0.9184
904 21900/60000 [=====>.....] - ETA: 0s -
loss: 0.2893 - acc: 0.9188
905 24750/60000 [=====>.....] - ETA: 0s -
loss: 0.2910 - acc: 0.9184
906 27700/60000 [=====>.....] - ETA: 0s -
loss: 0.2909 - acc: 0.9191
907 30550/60000 [=====>.....] - ETA: 0s -
loss: 0.2927 - acc: 0.9183
908 33300/60000 [=====>.....] - ETA: 0s -
loss: 0.2915 - acc: 0.9183
909 36300/60000 [=====>.....] - ETA: 0s -
loss: 0.2914 - acc: 0.9180
910 39600/60000 [=====>.....] - ETA: 0s -
```

```
910 loss: 0.2895 - acc: 0.9187
911 42700/60000 [=====>.....] - ETA: 0s -
loss: 0.2891 - acc: 0.9188
912 45250/60000 [=====>.....] - ETA: 0s -
loss: 0.2878 - acc: 0.9191
913 48100/60000 [=====>.....] - ETA: 0s -
loss: 0.2880 - acc: 0.9196
914 51450/60000 [=====>.....] - ETA: 0s -
loss: 0.2878 - acc: 0.9196
915 54900/60000 [=====>...] - ETA: 0s -
loss: 0.2881 - acc: 0.9196
916 58300/60000 [=====>.] - ETA: 0s -
loss: 0.2890 - acc: 0.9194
917 60000/60000 [=====] - 1s 18us/
step - loss: 0.2890 - acc: 0.9194
918 Epoch 38/100
919
920 50/60000 [.....] - ETA: 2s -
loss: 0.2034 - acc: 0.9400
921 2900/60000 [>.....] - ETA: 1s -
loss: 0.2931 - acc: 0.9159
922 6050/60000 [==>.....] - ETA: 0s -
loss: 0.2823 - acc: 0.9183
923 9200/60000 [==>.....] - ETA: 0s -
loss: 0.2912 - acc: 0.9159
924 11700/60000 [==>.....] - ETA: 0s -
loss: 0.2892 - acc: 0.9162
925 14150/60000 [==>.....] - ETA: 0s -
loss: 0.2922 - acc: 0.9171
926 17100/60000 [==>.....] - ETA: 0s -
loss: 0.2937 - acc: 0.9178
927 20350/60000 [=====>.....] - ETA: 0s -
loss: 0.2906 - acc: 0.9187
928 23600/60000 [=====>.....] - ETA: 0s -
loss: 0.2905 - acc: 0.9182
929 26150/60000 [=====>.....] - ETA: 0s -
loss: 0.2906 - acc: 0.9184
930 28650/60000 [=====>.....] - ETA: 0s -
loss: 0.2927 - acc: 0.9183
931 31600/60000 [=====>.....] - ETA: 0s -
loss: 0.2936 - acc: 0.9178
932 34600/60000 [=====>.....] - ETA: 0s -
loss: 0.2925 - acc: 0.9183
933 37100/60000 [=====>.....] - ETA: 0s -
loss: 0.2900 - acc: 0.9188
934 39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2908 - acc: 0.9185
935 42700/60000 [=====>.....] - ETA: 0s -
loss: 0.2898 - acc: 0.9191
936 45950/60000 [=====>.....] - ETA: 0s -
```

```
936 loss: 0.2883 - acc: 0.9194
937 48750/60000 [=====>.....] - ETA: 0s -
loss: 0.2870 - acc: 0.9199
938 51600/60000 [=====>.....] - ETA: 0s -
loss: 0.2870 - acc: 0.9198
939 54850/60000 [=====>...] - ETA: 0s -
loss: 0.2872 - acc: 0.9199
940 57650/60000 [=====>...] - ETA: 0s -
loss: 0.2876 - acc: 0.9199
941 60000/60000 [=====] - 1s 17us/
step - loss: 0.2882 - acc: 0.9197
942 Epoch 39/100
943
944 50/60000 [.....] - ETA: 2s -
loss: 0.2027 - acc: 0.9600
945 2500/60000 [>.....] - ETA: 1s -
loss: 0.2999 - acc: 0.9200
946 5000/60000 [=>.....] - ETA: 1s -
loss: 0.2731 - acc: 0.9244
947 7950/60000 [==>.....] - ETA: 1s -
loss: 0.2793 - acc: 0.9218
948 11350/60000 [====>.....] - ETA: 0s -
loss: 0.2823 - acc: 0.9205
949 14650/60000 [=====>.....] - ETA: 0s -
loss: 0.2798 - acc: 0.9218
950 17400/60000 [=====>.....] - ETA: 0s -
loss: 0.2799 - acc: 0.9221
951 20350/60000 [=====>.....] - ETA: 0s -
loss: 0.2810 - acc: 0.9217
952 23500/60000 [=====>.....] - ETA: 0s -
loss: 0.2841 - acc: 0.9214
953 26500/60000 [=====>.....] - ETA: 0s -
loss: 0.2836 - acc: 0.9212
954 29200/60000 [=====>.....] - ETA: 0s -
loss: 0.2827 - acc: 0.9216
955 32100/60000 [=====>.....] - ETA: 0s -
loss: 0.2850 - acc: 0.9209
956 35450/60000 [=====>.....] - ETA: 0s -
loss: 0.2857 - acc: 0.9207
957 38500/60000 [=====>.....] - ETA: 0s -
loss: 0.2853 - acc: 0.9206
958 41800/60000 [=====>.....] - ETA: 0s -
loss: 0.2871 - acc: 0.9200
959 44400/60000 [=====>.....] - ETA: 0s -
loss: 0.2886 - acc: 0.9194
960 47350/60000 [=====>.....] - ETA: 0s -
loss: 0.2881 - acc: 0.9196
961 50650/60000 [=====>.....] - ETA: 0s -
loss: 0.2881 - acc: 0.9196
962 53950/60000 [=====>....] - ETA: 0s -
```

```
962 loss: 0.2887 - acc: 0.9193
963 56150/60000 [=====>..] - ETA: 0s -
loss: 0.2877 - acc: 0.9196
964 59100/60000 [=====>.] - ETA: 0s -
loss: 0.2876 - acc: 0.9196
965 60000/60000 [=====] - 1s 17us/
step - loss: 0.2875 - acc: 0.9196
966 Epoch 40/100
967
968     50/60000 [.....] - ETA: 2s -
loss: 0.2379 - acc: 0.9600
969 3450/60000 [>.....] - ETA: 0s -
loss: 0.2937 - acc: 0.9203
970 6700/60000 [==>.....] - ETA: 0s -
loss: 0.2902 - acc: 0.9187
971 9600/60000 [==>.....] - ETA: 0s -
loss: 0.2863 - acc: 0.9183
972 11900/60000 [====>.....] - ETA: 0s -
loss: 0.2899 - acc: 0.9176
973 14650/60000 [=====>.....] - ETA: 0s -
loss: 0.2851 - acc: 0.9186
974 18000/60000 [=====>.....] - ETA: 0s -
loss: 0.2850 - acc: 0.9187
975 21400/60000 [=====>.....] - ETA: 0s -
loss: 0.2862 - acc: 0.9189
976 23700/60000 [=====>.....] - ETA: 0s -
loss: 0.2843 - acc: 0.9196
977 26850/60000 [=====>.....] - ETA: 0s -
loss: 0.2877 - acc: 0.9184
978 30200/60000 [=====>.....] - ETA: 0s -
loss: 0.2854 - acc: 0.9194
979 33600/60000 [=====>.....] - ETA: 0s -
loss: 0.2849 - acc: 0.9196
980 36350/60000 [=====>.....] - ETA: 0s -
loss: 0.2858 - acc: 0.9191
981 39500/60000 [=====>.....] - ETA: 0s -
loss: 0.2861 - acc: 0.9193
982 42850/60000 [=====>.....] - ETA: 0s -
loss: 0.2870 - acc: 0.9190
983 46150/60000 [=====>.....] - ETA: 0s -
loss: 0.2863 - acc: 0.9195
984 48600/60000 [=====>.....] - ETA: 0s -
loss: 0.2861 - acc: 0.9196
985 51500/60000 [=====>.....] - ETA: 0s -
loss: 0.2866 - acc: 0.9194
986 54550/60000 [=====>...] - ETA: 0s -
loss: 0.2860 - acc: 0.9198
987 57900/60000 [=====>...] - ETA: 0s -
loss: 0.2864 - acc: 0.9196
988 60000/60000 [=====] - 1s 17us/
```

```
988 step - loss: 0.2867 - acc: 0.9198
989 Epoch 41/100
990
991    50/60000 [.....] - ETA: 2s -
  loss: 0.2296 - acc: 0.9400
992 2650/60000 [>.....] - ETA: 1s -
  loss: 0.2784 - acc: 0.9192
993 5150/60000 [=>.....] - ETA: 1s -
  loss: 0.2754 - acc: 0.9206
994 8050/60000 [==>.....] - ETA: 0s -
  loss: 0.2785 - acc: 0.9184
995 11500/60000 [====>.....] - ETA: 0s -
  loss: 0.2864 - acc: 0.9183
996 14850/60000 [=====>.....] - ETA: 0s -
  loss: 0.2855 - acc: 0.9186
997 17400/60000 [=====>.....] - ETA: 0s -
  loss: 0.2849 - acc: 0.9194
998 20100/60000 [=====>.....] - ETA: 0s -
  loss: 0.2864 - acc: 0.9196
999 23300/60000 [=====>.....] - ETA: 0s -
  loss: 0.2839 - acc: 0.9201
1000 26600/60000 [=====>.....] - ETA: 0s -
  loss: 0.2815 - acc: 0.9205
1001 29900/60000 [=====>.....] - ETA: 0s -
  loss: 0.2811 - acc: 0.9205
1002 32550/60000 [=====>.....] - ETA: 0s -
  loss: 0.2815 - acc: 0.9200
1003 35350/60000 [=====>.....] - ETA: 0s -
  loss: 0.2831 - acc: 0.9199
1004 38550/60000 [=====>.....] - ETA: 0s -
  loss: 0.2832 - acc: 0.9201
1005 41900/60000 [=====>.....] - ETA: 0s -
  loss: 0.2846 - acc: 0.9198
1006 44700/60000 [=====>.....] - ETA: 0s -
  loss: 0.2846 - acc: 0.9199
1007 47700/60000 [=====>.....] - ETA: 0s -
  loss: 0.2851 - acc: 0.9202
1008 51150/60000 [=====>.....] - ETA: 0s -
  loss: 0.2844 - acc: 0.9203
1009 54050/60000 [=====>.....] - ETA: 0s -
  loss: 0.2848 - acc: 0.9204
1010 57400/60000 [=====>..] - ETA: 0s -
  loss: 0.2859 - acc: 0.9202
1011 60000/60000 [=====] - 1s 17us/
step - loss: 0.2860 - acc: 0.9201
1012 Epoch 42/100
1013
1014    50/60000 [.....] - ETA: 2s -
  loss: 0.4609 - acc: 0.8800
1015 3150/60000 [>.....] - ETA: 0s -
```

```
1015 loss: 0.3007 - acc: 0.9162
1016 6350/60000 [==>.....] - ETA: 0s -
loss: 0.2951 - acc: 0.9165
1017 9650/60000 [==>.....] - ETA: 0s -
loss: 0.2912 - acc: 0.9183
1018 11800/60000 [====>.....] - ETA: 0s -
loss: 0.2959 - acc: 0.9168
1019 14200/60000 [=====>.....] - ETA: 0s -
loss: 0.2940 - acc: 0.9164
1020 17150/60000 [=====>.....] - ETA: 0s -
loss: 0.2936 - acc: 0.9170
1021 20300/60000 [=====>.....] - ETA: 0s -
loss: 0.2891 - acc: 0.9187
1022 23250/60000 [=====>.....] - ETA: 0s -
loss: 0.2850 - acc: 0.9190
1023 25900/60000 [=====>.....] - ETA: 0s -
loss: 0.2849 - acc: 0.9198
1024 29000/60000 [=====>.....] - ETA: 0s -
loss: 0.2852 - acc: 0.9195
1025 32300/60000 [=====>.....] - ETA: 0s -
loss: 0.2857 - acc: 0.9197
1026 35400/60000 [=====>.....] - ETA: 0s -
loss: 0.2852 - acc: 0.9201
1027 37900/60000 [=====>.....] - ETA: 0s -
loss: 0.2857 - acc: 0.9198
1028 41050/60000 [=====>.....] - ETA: 0s -
loss: 0.2853 - acc: 0.9203
1029 44200/60000 [=====>.....] - ETA: 0s -
loss: 0.2857 - acc: 0.9203
1030 47350/60000 [=====>.....] - ETA: 0s -
loss: 0.2859 - acc: 0.9202
1031 49750/60000 [=====>.....] - ETA: 0s -
loss: 0.2865 - acc: 0.9204
1032 52600/60000 [=====>.....] - ETA: 0s -
loss: 0.2854 - acc: 0.9206
1033 55850/60000 [=====>....] - ETA: 0s -
loss: 0.2847 - acc: 0.9207
1034 59250/60000 [=====>..] - ETA: 0s -
loss: 0.2851 - acc: 0.9204
1035 60000/60000 [=====] - 1s 17us/
step - loss: 0.2854 - acc: 0.9204
1036 Epoch 43/100
1037
1038    50/60000 [.....] - ETA: 2s -
loss: 0.4197 - acc: 0.8600
1039    3300/60000 [>.....] - ETA: 0s -
loss: 0.2720 - acc: 0.9267
1040    5750/60000 [=>.....] - ETA: 0s -
loss: 0.2736 - acc: 0.9243
1041    8450/60000 [==>.....] - ETA: 0s -
```

```
1041 loss: 0.2843 - acc: 0.9217
1042 11750/60000 [====>.....] - ETA: 0s -
    loss: 0.2892 - acc: 0.9212
1043 14400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2901 - acc: 0.9199
1044 16700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2908 - acc: 0.9198
1045 19050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2907 - acc: 0.9203
1046 21200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2890 - acc: 0.9206
1047 24150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2870 - acc: 0.9207
1048 26550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2862 - acc: 0.9211
1049 29400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2863 - acc: 0.9206
1050 32500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2837 - acc: 0.9214
1051 35950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2833 - acc: 0.9213
1052 39300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2843 - acc: 0.9210
1053 41900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2851 - acc: 0.9206
1054 44700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2837 - acc: 0.9207
1055 47300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2841 - acc: 0.9210
1056 49500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2839 - acc: 0.9209
1057 51800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2849 - acc: 0.9202
1058 54000/60000 [=====>...] - ETA: 0s -
    loss: 0.2848 - acc: 0.9202
1059 56700/60000 [=====>...] - ETA: 0s -
    loss: 0.2833 - acc: 0.9205
1060 59750/60000 [=====>.] - ETA: 0s -
    loss: 0.2849 - acc: 0.9204
1061 60000/60000 [=====] - 1s 19us/
    step - loss: 0.2848 - acc: 0.9204
1062 Epoch 44/100
1063
1064    50/60000 [.....] - ETA: 2s -
    loss: 0.3739 - acc: 0.8600
1065    3250/60000 [>.....] - ETA: 0s -
    loss: 0.3174 - acc: 0.9040
1066    6400/60000 [==>.....] - ETA: 0s -
    loss: 0.3036 - acc: 0.9111
1067    8850/60000 [==>.....] - ETA: 0s -
```

```
1067 loss: 0.2991 - acc: 0.9136
1068 11550/60000 [====>.....] - ETA: 0s -
    loss: 0.2936 - acc: 0.9152
1069 14750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2873 - acc: 0.9182
1070 17800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2900 - acc: 0.9192
1071 20650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2908 - acc: 0.9185
1072 23650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2933 - acc: 0.9183
1073 26800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2869 - acc: 0.9202
1074 29850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2892 - acc: 0.9200
1075 32500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2888 - acc: 0.9196
1076 35450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2883 - acc: 0.9192
1077 38150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2877 - acc: 0.9198
1078 40850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2873 - acc: 0.9197
1079 43050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2866 - acc: 0.9199
1080 45300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2858 - acc: 0.9200
1081 47500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2850 - acc: 0.9199
1082 49700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2846 - acc: 0.9202
1083 52000/60000 [=====>....] - ETA: 0s -
    loss: 0.2845 - acc: 0.9203
1084 54300/60000 [=====>...] - ETA: 0s -
    loss: 0.2856 - acc: 0.9202
1085 56450/60000 [=====>..] - ETA: 0s -
    loss: 0.2856 - acc: 0.9202
1086 58450/60000 [=====>.] - ETA: 0s -
    loss: 0.2849 - acc: 0.9204
1087 60000/60000 [=====] - 1s 19us/
    step - loss: 0.2841 - acc: 0.9207
1088 Epoch 45/100
1089
1090     50/60000 [.....] - ETA: 2s -
    loss: 0.1255 - acc: 0.9800
1091     2250/60000 [>.....] - ETA: 1s -
    loss: 0.2693 - acc: 0.9271
1092     4500/60000 [=>.....] - ETA: 1s -
    loss: 0.2951 - acc: 0.9187
1093     6700/60000 [==>.....] - ETA: 1s -
```

```
1093 loss: 0.2968 - acc: 0.9185
1094 9300/60000 [==>.....] - ETA: 1s -
    loss: 0.2955 - acc: 0.9186
1095 11850/60000 [====>.....] - ETA: 1s -
    loss: 0.2871 - acc: 0.9212
1096 14300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2866 - acc: 0.9205
1097 16600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2830 - acc: 0.9210
1098 19250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2826 - acc: 0.9216
1099 21850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2818 - acc: 0.9219
1100 24750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2851 - acc: 0.9210
1101 27200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2852 - acc: 0.9204
1102 30050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2831 - acc: 0.9207
1103 32900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2857 - acc: 0.9207
1104 36100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2847 - acc: 0.9206
1105 39300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2845 - acc: 0.9210
1106 42150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2833 - acc: 0.9213
1107 45150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2822 - acc: 0.9210
1108 48300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2827 - acc: 0.9210
1109 51400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2836 - acc: 0.9208
1110 53800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2846 - acc: 0.9204
1111 56550/60000 [=====>..] - ETA: 0s -
    loss: 0.2835 - acc: 0.9206
1112 60000/60000 [=====] - 1s 18us/
    step - loss: 0.2835 - acc: 0.9206
1113 Epoch 46/100
1114
1115      50/60000 [.....] - ETA: 2s -
    loss: 0.1966 - acc: 0.9600
1116 3250/60000 [>.....] - ETA: 0s -
    loss: 0.2823 - acc: 0.9197
1117 6550/60000 [=>.....] - ETA: 0s -
    loss: 0.2820 - acc: 0.9218
1118 8750/60000 [==>.....] - ETA: 0s -
    loss: 0.2745 - acc: 0.9249
1119 11400/60000 [==>.....] - ETA: 0s -
```

```
1119 loss: 0.2786 - acc: 0.9232
1120 14500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2846 - acc: 0.9205
1121 17900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2867 - acc: 0.9201
1122 21300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2822 - acc: 0.9213
1123 23800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2829 - acc: 0.9213
1124 26250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2828 - acc: 0.9210
1125 28900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2832 - acc: 0.9215
1126 31400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2828 - acc: 0.9208
1127 34800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2826 - acc: 0.9211
1128 37550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2824 - acc: 0.9208
1129 40450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2827 - acc: 0.9209
1130 43700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2840 - acc: 0.9206
1131 47050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2827 - acc: 0.9207
1132 50400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2838 - acc: 0.9203
1133 52950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2828 - acc: 0.9205
1134 55700/60000 [=====>....] - ETA: 0s -
    loss: 0.2825 - acc: 0.9207
1135 59050/60000 [=====>...] - ETA: 0s -
    loss: 0.2829 - acc: 0.9206
1136 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2829 - acc: 0.9207
1137 Epoch 47/100
1138
1139    50/60000 [.....] - ETA: 2s -
    loss: 0.4297 - acc: 0.9000
1140    3400/60000 [>.....] - ETA: 0s -
    loss: 0.2764 - acc: 0.9221
1141    6350/60000 [==>.....] - ETA: 0s -
    loss: 0.2780 - acc: 0.9216
1142    8700/60000 [==>.....] - ETA: 0s -
    loss: 0.2850 - acc: 0.9215
1143    11350/60000 [==>.....] - ETA: 0s -
    loss: 0.2812 - acc: 0.9213
1144    14750/60000 [==>.....] - ETA: 0s -
    loss: 0.2780 - acc: 0.9233
1145    18150/60000 [==>.....] - ETA: 0s -
```

```
1145 loss: 0.2770 - acc: 0.9237
1146 20900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2789 - acc: 0.9228
1147 23900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2827 - acc: 0.9216
1148 27250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2800 - acc: 0.9223
1149 30100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2805 - acc: 0.9227
1150 33400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2796 - acc: 0.9229
1151 35950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2795 - acc: 0.9234
1152 38850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2804 - acc: 0.9230
1153 42050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2823 - acc: 0.9220
1154 45350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2819 - acc: 0.9221
1155 48600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2821 - acc: 0.9217
1156 51100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2816 - acc: 0.9217
1157 53650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2808 - acc: 0.9217
1158 56850/60000 [=====>..] - ETA: 0s -
    loss: 0.2811 - acc: 0.9217
1159 59850/60000 [=====>.] - ETA: 0s -
    loss: 0.2824 - acc: 0.9212
1160 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2823 - acc: 0.9212
1161 Epoch 48/100
1162
1163      50/60000 [.....] - ETA: 2s -
    loss: 0.1738 - acc: 0.9600
1164      3200/60000 [>.....] - ETA: 0s -
    loss: 0.2709 - acc: 0.9306
1165      5650/60000 [=>.....] - ETA: 0s -
    loss: 0.2812 - acc: 0.9246
1166      8250/60000 [==>.....] - ETA: 0s -
    loss: 0.2836 - acc: 0.9228
1167      11450/60000 [==>.....] - ETA: 0s -
    loss: 0.2803 - acc: 0.9232
1168      14800/60000 [==>.....] - ETA: 0s -
    loss: 0.2773 - acc: 0.9232
1169      17450/60000 [==>.....] - ETA: 0s -
    loss: 0.2792 - acc: 0.9229
1170      20400/60000 [==>.....] - ETA: 0s -
    loss: 0.2790 - acc: 0.9231
1171      23600/60000 [==>.....] - ETA: 0s -
```

```
1171 loss: 0.2820 - acc: 0.9210
1172 25900/60000 [=====>.....] - ETA: 0s -
loss: 0.2806 - acc: 0.9220
1173 28000/60000 [=====>.....] - ETA: 0s -
loss: 0.2795 - acc: 0.9224
1174 30500/60000 [=====>.....] - ETA: 0s -
loss: 0.2808 - acc: 0.9219
1175 33650/60000 [=====>.....] - ETA: 0s -
loss: 0.2819 - acc: 0.9216
1176 36950/60000 [=====>.....] - ETA: 0s -
loss: 0.2837 - acc: 0.9211
1177 40200/60000 [=====>.....] - ETA: 0s -
loss: 0.2838 - acc: 0.9214
1178 42900/60000 [=====>.....] - ETA: 0s -
loss: 0.2838 - acc: 0.9215
1179 45350/60000 [=====>.....] - ETA: 0s -
loss: 0.2837 - acc: 0.9218
1180 48450/60000 [=====>.....] - ETA: 0s -
loss: 0.2841 - acc: 0.9218
1181 51500/60000 [=====>.....] - ETA: 0s -
loss: 0.2831 - acc: 0.9218
1182 54050/60000 [=====>...] - ETA: 0s -
loss: 0.2822 - acc: 0.9220
1183 56700/60000 [=====>...] - ETA: 0s -
loss: 0.2819 - acc: 0.9218
1184 60000/60000 [=====] - 1s 18us/
step - loss: 0.2818 - acc: 0.9216
1185 Epoch 49/100
1186
1187 50/60000 [.....] - ETA: 2s -
loss: 0.3487 - acc: 0.9200
1188 3450/60000 [>.....] - ETA: 0s -
loss: 0.2828 - acc: 0.9226
1189 6050/60000 [==>.....] - ETA: 0s -
loss: 0.2910 - acc: 0.9190
1190 8650/60000 [==>.....] - ETA: 0s -
loss: 0.2874 - acc: 0.9188
1191 11350/60000 [==>.....] - ETA: 0s -
loss: 0.2884 - acc: 0.9208
1192 14050/60000 [==>.....] - ETA: 0s -
loss: 0.2850 - acc: 0.9204
1193 16500/60000 [==>.....] - ETA: 0s -
loss: 0.2840 - acc: 0.9199
1194 18950/60000 [==>.....] - ETA: 0s -
loss: 0.2860 - acc: 0.9195
1195 21600/60000 [==>.....] - ETA: 0s -
loss: 0.2826 - acc: 0.9204
1196 24000/60000 [==>.....] - ETA: 0s -
loss: 0.2837 - acc: 0.9202
1197 26700/60000 [==>.....] - ETA: 0s -
```

```
1197 loss: 0.2825 - acc: 0.9208
1198 29650/60000 [=====>.....] - ETA: 0s -
loss: 0.2834 - acc: 0.9211
1199 32400/60000 [=====>.....] - ETA: 0s -
loss: 0.2836 - acc: 0.9213
1200 35250/60000 [=====>.....] - ETA: 0s -
loss: 0.2831 - acc: 0.9211
1201 38100/60000 [=====>.....] - ETA: 0s -
loss: 0.2832 - acc: 0.9208
1202 40600/60000 [=====>.....] - ETA: 0s -
loss: 0.2823 - acc: 0.9211
1203 43250/60000 [=====>.....] - ETA: 0s -
loss: 0.2841 - acc: 0.9206
1204 46150/60000 [=====>.....] - ETA: 0s -
loss: 0.2817 - acc: 0.9213
1205 49050/60000 [=====>.....] - ETA: 0s -
loss: 0.2832 - acc: 0.9207
1206 51400/60000 [=====>.....] - ETA: 0s -
loss: 0.2826 - acc: 0.9208
1207 54050/60000 [=====>....] - ETA: 0s -
loss: 0.2818 - acc: 0.9214
1208 57050/60000 [=====>..] - ETA: 0s -
loss: 0.2802 - acc: 0.9219
1209 60000/60000 [=====] - 1s 19us/
step - loss: 0.2813 - acc: 0.9215
1210 Epoch 50/100
1211
1212    50/60000 [.....] - ETA: 3s -
loss: 0.3158 - acc: 0.8800
1213 2700/60000 [>.....] - ETA: 1s -
loss: 0.2791 - acc: 0.9211
1214 5800/60000 [=>.....] - ETA: 0s -
loss: 0.2944 - acc: 0.9193
1215 9150/60000 [==>.....] - ETA: 0s -
loss: 0.2831 - acc: 0.9204
1216 12450/60000 [==>.....] - ETA: 0s -
loss: 0.2805 - acc: 0.9222
1217 14550/60000 [==>.....] - ETA: 0s -
loss: 0.2797 - acc: 0.9223
1218 17200/60000 [==>.....] - ETA: 0s -
loss: 0.2795 - acc: 0.9226
1219 20200/60000 [==>.....] - ETA: 0s -
loss: 0.2777 - acc: 0.9229
1220 23550/60000 [==>.....] - ETA: 0s -
loss: 0.2761 - acc: 0.9229
1221 26400/60000 [==>.....] - ETA: 0s -
loss: 0.2744 - acc: 0.9235
1222 29400/60000 [==>.....] - ETA: 0s -
loss: 0.2764 - acc: 0.9236
1223 32600/60000 [==>.....] - ETA: 0s -
```

```
1223 loss: 0.2781 - acc: 0.9232
1224 35600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2770 - acc: 0.9235
1225 38000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2770 - acc: 0.9235
1226 40700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2772 - acc: 0.9231
1227 42400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2779 - acc: 0.9232
1228 44500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2778 - acc: 0.9229
1229 47300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2796 - acc: 0.9222
1230 50200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2797 - acc: 0.9223
1231 52600/60000 [=====>....] - ETA: 0s -
    loss: 0.2804 - acc: 0.9219
1232 55150/60000 [=====>....] - ETA: 0s -
    loss: 0.2810 - acc: 0.9216
1233 58600/60000 [=====>..] - ETA: 0s -
    loss: 0.2813 - acc: 0.9215
1234 60000/60000 [=====] - 1s 18us/
    step - loss: 0.2807 - acc: 0.9218
1235 Epoch 51/100
1236
1237     50/60000 [.....] - ETA: 2s -
    loss: 0.1780 - acc: 0.9200
1238     3250/60000 [>.....] - ETA: 0s -
    loss: 0.2849 - acc: 0.9142
1239     6700/60000 [==>.....] - ETA: 0s -
    loss: 0.2758 - acc: 0.9218
1240     10100/60000 [==>.....] - ETA: 0s -
    loss: 0.2791 - acc: 0.9230
1241     12900/60000 [==>.....] - ETA: 0s -
    loss: 0.2836 - acc: 0.9220
1242     15600/60000 [==>.....] - ETA: 0s -
    loss: 0.2833 - acc: 0.9223
1243     18350/60000 [==>.....] - ETA: 0s -
    loss: 0.2843 - acc: 0.9218
1244     21500/60000 [==>.....] - ETA: 0s -
    loss: 0.2843 - acc: 0.9219
1245     24650/60000 [==>.....] - ETA: 0s -
    loss: 0.2860 - acc: 0.9208
1246     27500/60000 [==>.....] - ETA: 0s -
    loss: 0.2861 - acc: 0.9203
1247     30700/60000 [==>.....] - ETA: 0s -
    loss: 0.2852 - acc: 0.9202
1248     33700/60000 [==>.....] - ETA: 0s -
    loss: 0.2830 - acc: 0.9205
1249     37000/60000 [==>.....] - ETA: 0s -
```

```
1249 loss: 0.2812 - acc: 0.9213
1250 39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2811 - acc: 0.9216
1251 42800/60000 [=====>.....] - ETA: 0s -
loss: 0.2813 - acc: 0.9215
1252 46200/60000 [=====>.....] - ETA: 0s -
loss: 0.2826 - acc: 0.9210
1253 49600/60000 [=====>.....] - ETA: 0s -
loss: 0.2816 - acc: 0.9215
1254 52200/60000 [=====>....] - ETA: 0s -
loss: 0.2803 - acc: 0.9219
1255 55100/60000 [=====>...] - ETA: 0s -
loss: 0.2802 - acc: 0.9219
1256 58400/60000 [=====>..] - ETA: 0s -
loss: 0.2806 - acc: 0.9218
1257 60000/60000 [=====] - 1s 16us/
step - loss: 0.2803 - acc: 0.9219
1258 Epoch 52/100
1259
1260      50/60000 [.....] - ETA: 2s -
loss: 0.2739 - acc: 0.8600
1261 3350/60000 [>.....] - ETA: 0s -
loss: 0.2761 - acc: 0.9266
1262 6150/60000 [==>.....] - ETA: 0s -
loss: 0.2734 - acc: 0.9246
1263 8650/60000 [==>.....] - ETA: 0s -
loss: 0.2703 - acc: 0.9262
1264 11650/60000 [==>.....] - ETA: 0s -
loss: 0.2831 - acc: 0.9228
1265 15050/60000 [==>.....] - ETA: 0s -
loss: 0.2830 - acc: 0.9229
1266 18500/60000 [=====>.....] - ETA: 0s -
loss: 0.2857 - acc: 0.9222
1267 21500/60000 [=====>.....] - ETA: 0s -
loss: 0.2821 - acc: 0.9226
1268 24650/60000 [=====>.....] - ETA: 0s -
loss: 0.2828 - acc: 0.9215
1269 28000/60000 [=====>.....] - ETA: 0s -
loss: 0.2799 - acc: 0.9222
1270 31350/60000 [=====>.....] - ETA: 0s -
loss: 0.2784 - acc: 0.9224
1271 34100/60000 [=====>.....] - ETA: 0s -
loss: 0.2807 - acc: 0.9217
1272 36450/60000 [=====>.....] - ETA: 0s -
loss: 0.2801 - acc: 0.9219
1273 39150/60000 [=====>.....] - ETA: 0s -
loss: 0.2841 - acc: 0.9214
1274 42100/60000 [=====>.....] - ETA: 0s -
loss: 0.2829 - acc: 0.9217
1275 44350/60000 [=====>.....] - ETA: 0s -
```

```
1275 loss: 0.2827 - acc: 0.9218
1276 46800/60000 [=====>.....] - ETA: 0s -
loss: 0.2827 - acc: 0.9217
1277 49650/60000 [=====>.....] - ETA: 0s -
loss: 0.2816 - acc: 0.9216
1278 52150/60000 [=====>....] - ETA: 0s -
loss: 0.2804 - acc: 0.9218
1279 55050/60000 [=====>...] - ETA: 0s -
loss: 0.2814 - acc: 0.9215
1280 57500/60000 [=====>..] - ETA: 0s -
loss: 0.2806 - acc: 0.9217
1281 60000/60000 [=====] - 1s 18us/
step - loss: 0.2798 - acc: 0.9221
1282 Epoch 53/100
1283
1284      50/60000 [.....] - ETA: 2s -
loss: 0.1603 - acc: 0.9400
1285 2800/60000 [>.....] - ETA: 1s -
loss: 0.2878 - acc: 0.9229
1286 6050/60000 [==>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9283
1287 8350/60000 [==>.....] - ETA: 0s -
loss: 0.2676 - acc: 0.9266
1288 11000/60000 [==>.....] - ETA: 0s -
loss: 0.2659 - acc: 0.9264
1289 14050/60000 [==>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9238
1290 17400/60000 [==>.....] - ETA: 0s -
loss: 0.2727 - acc: 0.9231
1291 20800/60000 [==>.....] - ETA: 0s -
loss: 0.2792 - acc: 0.9213
1292 23750/60000 [==>.....] - ETA: 0s -
loss: 0.2802 - acc: 0.9219
1293 26900/60000 [==>.....] - ETA: 0s -
loss: 0.2825 - acc: 0.9213
1294 30200/60000 [==>.....] - ETA: 0s -
loss: 0.2820 - acc: 0.9213
1295 33450/60000 [==>.....] - ETA: 0s -
loss: 0.2813 - acc: 0.9216
1296 35900/60000 [==>.....] - ETA: 0s -
loss: 0.2814 - acc: 0.9216
1297 38650/60000 [==>.....] - ETA: 0s -
loss: 0.2818 - acc: 0.9218
1298 41850/60000 [==>.....] - ETA: 0s -
loss: 0.2809 - acc: 0.9220
1299 45050/60000 [==>.....] - ETA: 0s -
loss: 0.2803 - acc: 0.9221
1300 48300/60000 [==>.....] - ETA: 0s -
loss: 0.2807 - acc: 0.9219
1301 50900/60000 [==>.....] - ETA: 0s -
```

```
1301 loss: 0.2808 - acc: 0.9217
1302 53750/60000 [=====>....] - ETA: 0s -
    loss: 0.2795 - acc: 0.9221
1303 57000/60000 [=====>..] - ETA: 0s -
    loss: 0.2793 - acc: 0.9222
1304 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2793 - acc: 0.9223
1305 Epoch 54/100
1306
1307     50/60000 [.....] - ETA: 2s -
    loss: 0.1860 - acc: 0.9600
1308 2800/60000 [>.....] - ETA: 1s -
    loss: 0.2818 - acc: 0.9214
1309 5200/60000 [=>.....] - ETA: 1s -
    loss: 0.2721 - acc: 0.9229
1310 7850/60000 [==>.....] - ETA: 1s -
    loss: 0.2676 - acc: 0.9236
1311 11000/60000 [====>.....] - ETA: 0s -
    loss: 0.2739 - acc: 0.9225
1312 14050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2758 - acc: 0.9222
1313 17200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2740 - acc: 0.9237
1314 19900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2755 - acc: 0.9231
1315 22750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2755 - acc: 0.9223
1316 25900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2768 - acc: 0.9223
1317 29050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2779 - acc: 0.9222
1318 31650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2795 - acc: 0.9219
1319 34300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2794 - acc: 0.9225
1320 37050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2797 - acc: 0.9221
1321 40100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2794 - acc: 0.9217
1322 43150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2811 - acc: 0.9216
1323 46350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2813 - acc: 0.9214
1324 48850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2809 - acc: 0.9217
1325 51700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2811 - acc: 0.9217
1326 54300/60000 [=====>...] - ETA: 0s -
    loss: 0.2804 - acc: 0.9219
1327 57450/60000 [=====>...] - ETA: 0s -
```

```
1327 loss: 0.2789 - acc: 0.9222
1328 59750/60000 [=====>.] - ETA: 0s -
loss: 0.2789 - acc: 0.9220
1329 60000/60000 [=====] - 1s 18us/
step - loss: 0.2789 - acc: 0.9220
1330 Epoch 55/100
1331
1332    50/60000 [.....] - ETA: 3s -
loss: 0.1909 - acc: 0.9600
1333 2850/60000 [>.....] - ETA: 1s -
loss: 0.2866 - acc: 0.9207
1334 6100/60000 [==>.....] - ETA: 0s -
loss: 0.2756 - acc: 0.9239
1335 9700/60000 [==>.....] - ETA: 0s -
loss: 0.2778 - acc: 0.9234
1336 13100/60000 [=====>.....] - ETA: 0s -
loss: 0.2776 - acc: 0.9247
1337 13800/60000 [=====>.....] - ETA: 0s -
loss: 0.2768 - acc: 0.9245
1338 16100/60000 [=====>.....] - ETA: 0s -
loss: 0.2784 - acc: 0.9238
1339 19100/60000 [=====>.....] - ETA: 0s -
loss: 0.2794 - acc: 0.9231
1340 22600/60000 [=====>.....] - ETA: 0s -
loss: 0.2795 - acc: 0.9230
1341 25450/60000 [=====>.....] - ETA: 0s -
loss: 0.2813 - acc: 0.9224
1342 28450/60000 [=====>.....] - ETA: 0s -
loss: 0.2788 - acc: 0.9230
1343 30900/60000 [=====>.....] - ETA: 0s -
loss: 0.2783 - acc: 0.9227
1344 31550/60000 [=====>.....] - ETA: 0s -
loss: 0.2779 - acc: 0.9226
1345 32550/60000 [=====>.....] - ETA: 0s -
loss: 0.2793 - acc: 0.9220
1346 34300/60000 [=====>.....] - ETA: 0s -
loss: 0.2800 - acc: 0.9219
1347 36500/60000 [=====>.....] - ETA: 0s -
loss: 0.2783 - acc: 0.9222
1348 39600/60000 [=====>.....] - ETA: 0s -
loss: 0.2790 - acc: 0.9219
1349 42800/60000 [=====>.....] - ETA: 0s -
loss: 0.2802 - acc: 0.9217
1350 45400/60000 [=====>.....] - ETA: 0s -
loss: 0.2811 - acc: 0.9215
1351 48000/60000 [=====>.....] - ETA: 0s -
loss: 0.2803 - acc: 0.9219
1352 50600/60000 [=====>.....] - ETA: 0s -
loss: 0.2803 - acc: 0.9220
1353 54150/60000 [=====>...] - ETA: 0s -
```

```
1353 loss: 0.2801 - acc: 0.9220
1354 57750/60000 [=====>..] - ETA: 0s -
    loss: 0.2788 - acc: 0.9224
1355 60000/60000 [=====] - 1s 19us/
    step - loss: 0.2784 - acc: 0.9223
1356 Epoch 56/100
1357
1358     50/60000 [.....] - ETA: 2s -
    loss: 0.2235 - acc: 0.9400
1359 3100/60000 [>.....] - ETA: 0s -
    loss: 0.2829 - acc: 0.9171
1360 6300/60000 [==>.....] - ETA: 0s -
    loss: 0.2893 - acc: 0.9183
1361 9650/60000 [==>.....] - ETA: 0s -
    loss: 0.2865 - acc: 0.9196
1362 13050/60000 [====>.....] - ETA: 0s -
    loss: 0.2858 - acc: 0.9196
1363 15250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2818 - acc: 0.9199
1364 17850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2842 - acc: 0.9204
1365 21200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2836 - acc: 0.9210
1366 24650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2800 - acc: 0.9217
1367 27550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2792 - acc: 0.9216
1368 30550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2788 - acc: 0.9217
1369 33900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2779 - acc: 0.9223
1370 36650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2796 - acc: 0.9217
1371 39800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2782 - acc: 0.9225
1372 42400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2775 - acc: 0.9227
1373 45500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2777 - acc: 0.9225
1374 48900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2791 - acc: 0.9221
1375 52250/60000 [=====>....] - ETA: 0s -
    loss: 0.2786 - acc: 0.9223
1376 54800/60000 [=====>...] - ETA: 0s -
    loss: 0.2779 - acc: 0.9222
1377 57600/60000 [=====>..] - ETA: 0s -
    loss: 0.2783 - acc: 0.9222
1378 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2779 - acc: 0.9224
1379 Epoch 57/100
```

```
1380
1381    50/60000 [.....] - ETA: 2s -
    loss: 0.2239 - acc: 0.9400
1382    3450/60000 [>.....] - ETA: 0s -
    loss: 0.2578 - acc: 0.9299
1383    6600/60000 [==>.....] - ETA: 0s -
    loss: 0.2705 - acc: 0.9268
1384    8900/60000 [==>.....] - ETA: 0s -
    loss: 0.2637 - acc: 0.9274
1385    11300/60000 [====>.....] - ETA: 0s -
    loss: 0.2742 - acc: 0.9250
1386    14300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2724 - acc: 0.9256
1387    17700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2725 - acc: 0.9261
1388    21100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2763 - acc: 0.9254
1389    23750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2773 - acc: 0.9251
1390    26700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2761 - acc: 0.9248
1391    30000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2776 - acc: 0.9238
1392    33300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2769 - acc: 0.9231
1393    35500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2762 - acc: 0.9231
1394    38200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2761 - acc: 0.9230
1395    40850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2755 - acc: 0.9227
1396    43200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2753 - acc: 0.9227
1397    45450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2769 - acc: 0.9221
1398    47700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2765 - acc: 0.9223
1399    50050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2785 - acc: 0.9222
1400    53050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2775 - acc: 0.9223
1401    56150/60000 [=====>..] - ETA: 0s -
    loss: 0.2783 - acc: 0.9220
1402    59550/60000 [=====>.] - ETA: 0s -
    loss: 0.2778 - acc: 0.9220
1403    60000/60000 [=====] - 1s 18us/
    step - loss: 0.2775 - acc: 0.9222
1404 Epoch 58/100
1405
1406    50/60000 [.....] - ETA: 3s -
```

```
1406 loss: 0.1437 - acc: 0.9600
1407 2850/60000 [>.....] - ETA: 1s -
loss: 0.2666 - acc: 0.9260
1408 6000/60000 [==>.....] - ETA: 0s -
loss: 0.2829 - acc: 0.9202
1409 9400/60000 [==>.....] - ETA: 0s -
loss: 0.2795 - acc: 0.9221
1410 12750/60000 [=====>.....] - ETA: 0s -
loss: 0.2712 - acc: 0.9231
1411 15300/60000 [=====>.....] - ETA: 0s -
loss: 0.2706 - acc: 0.9227
1412 17950/60000 [=====>.....] - ETA: 0s -
loss: 0.2697 - acc: 0.9240
1413 21300/60000 [=====>.....] - ETA: 0s -
loss: 0.2722 - acc: 0.9229
1414 24650/60000 [=====>.....] - ETA: 0s -
loss: 0.2739 - acc: 0.9222
1415 27100/60000 [=====>.....] - ETA: 0s -
loss: 0.2763 - acc: 0.9221
1416 30250/60000 [=====>.....] - ETA: 0s -
loss: 0.2755 - acc: 0.9224
1417 33400/60000 [=====>.....] - ETA: 0s -
loss: 0.2782 - acc: 0.9218
1418 36600/60000 [=====>.....] - ETA: 0s -
loss: 0.2783 - acc: 0.9215
1419 39350/60000 [=====>.....] - ETA: 0s -
loss: 0.2775 - acc: 0.9218
1420 41850/60000 [=====>.....] - ETA: 0s -
loss: 0.2759 - acc: 0.9226
1421 44350/60000 [=====>.....] - ETA: 0s -
loss: 0.2753 - acc: 0.9229
1422 46800/60000 [=====>.....] - ETA: 0s -
loss: 0.2759 - acc: 0.9227
1423 49050/60000 [=====>.....] - ETA: 0s -
loss: 0.2766 - acc: 0.9225
1424 51500/60000 [=====>.....] - ETA: 0s -
loss: 0.2776 - acc: 0.9220
1425 54500/60000 [=====>... ] - ETA: 0s -
loss: 0.2776 - acc: 0.9224
1426 57350/60000 [=====>.. ] - ETA: 0s -
loss: 0.2757 - acc: 0.9228
1427 59650/60000 [=====>.] - ETA: 0s -
loss: 0.2763 - acc: 0.9227
1428 60000/60000 [=====] - 1s 18us/
step - loss: 0.2771 - acc: 0.9225
1429 Epoch 59/100
1430
1431 50/60000 [.....] - ETA: 3s -
loss: 0.2026 - acc: 0.9400
1432 2350/60000 [>.....] - ETA: 1s -
```

```
1432 loss: 0.2961 - acc: 0.9157
1433 4600/60000 [=>.....] - ETA: 1s -
loss: 0.2798 - acc: 0.9191
1434 6900/60000 [==>.....] - ETA: 1s -
loss: 0.2692 - acc: 0.9246
1435 9550/60000 [==>.....] - ETA: 1s -
loss: 0.2762 - acc: 0.9218
1436 12850/60000 [=====>.....] - ETA: 0s -
loss: 0.2849 - acc: 0.9198
1437 15750/60000 [=====>.....] - ETA: 0s -
loss: 0.2789 - acc: 0.9220
1438 18800/60000 [======>.....] - ETA: 0s -
loss: 0.2793 - acc: 0.9220
1439 22250/60000 [======>.....] - ETA: 0s -
loss: 0.2800 - acc: 0.9218
1440 25450/60000 [======>.....] - ETA: 0s -
loss: 0.2817 - acc: 0.9218
1441 28200/60000 [======>.....] - ETA: 0s -
loss: 0.2776 - acc: 0.9222
1442 31250/60000 [======>.....] - ETA: 0s -
loss: 0.2777 - acc: 0.9222
1443 34650/60000 [======>.....] - ETA: 0s -
loss: 0.2763 - acc: 0.9226
1444 38050/60000 [======>.....] - ETA: 0s -
loss: 0.2777 - acc: 0.9225
1445 41450/60000 [======>.....] - ETA: 0s -
loss: 0.2773 - acc: 0.9230
1446 44050/60000 [======>.....] - ETA: 0s -
loss: 0.2774 - acc: 0.9230
1447 46950/60000 [======>.....] - ETA: 0s -
loss: 0.2785 - acc: 0.9229
1448 50350/60000 [======>.....] - ETA: 0s -
loss: 0.2784 - acc: 0.9229
1449 53750/60000 [======>.....] - ETA: 0s -
loss: 0.2775 - acc: 0.9232
1450 56700/60000 [======>..] - ETA: 0s -
loss: 0.2777 - acc: 0.9230
1451 59400/60000 [======>.] - ETA: 0s -
loss: 0.2768 - acc: 0.9232
1452 60000/60000 [=====] - 1s 17us/
step - loss: 0.2767 - acc: 0.9232
1453 Epoch 60/100
1454
1455 50/60000 [.....] - ETA: 3s -
loss: 0.2407 - acc: 0.9000
1456 3200/60000 [>.....] - ETA: 0s -
loss: 0.2590 - acc: 0.9259
1457 6550/60000 [=>.....] - ETA: 0s -
loss: 0.2682 - acc: 0.9209
1458 9700/60000 [==>.....] - ETA: 0s -
```

```
1458 loss: 0.2785 - acc: 0.9209
1459 11850/60000 [=====>.....] - ETA: 0s -
loss: 0.2788 - acc: 0.9217
1460 13950/60000 [=====>.....] - ETA: 0s -
loss: 0.2806 - acc: 0.9219
1461 17100/60000 [=====>.....] - ETA: 0s -
loss: 0.2808 - acc: 0.9230
1462 20550/60000 [=====>.....] - ETA: 0s -
loss: 0.2753 - acc: 0.9240
1463 23350/60000 [=====>.....] - ETA: 0s -
loss: 0.2748 - acc: 0.9233
1464 26100/60000 [=====>.....] - ETA: 0s -
loss: 0.2755 - acc: 0.9228
1465 29300/60000 [=====>.....] - ETA: 0s -
loss: 0.2797 - acc: 0.9220
1466 32650/60000 [=====>.....] - ETA: 0s -
loss: 0.2786 - acc: 0.9224
1467 36050/60000 [=====>.....] - ETA: 0s -
loss: 0.2795 - acc: 0.9222
1468 38600/60000 [=====>.....] - ETA: 0s -
loss: 0.2801 - acc: 0.9222
1469 41500/60000 [=====>.....] - ETA: 0s -
loss: 0.2792 - acc: 0.9223
1470 44850/60000 [=====>.....] - ETA: 0s -
loss: 0.2783 - acc: 0.9224
1471 48250/60000 [=====>.....] - ETA: 0s -
loss: 0.2763 - acc: 0.9228
1472 51600/60000 [=====>.....] - ETA: 0s -
loss: 0.2766 - acc: 0.9228
1473 54150/60000 [=====>....] - ETA: 0s -
loss: 0.2766 - acc: 0.9224
1474 56650/60000 [=====>..] - ETA: 0s -
loss: 0.2774 - acc: 0.9225
1475 59950/60000 [=====>.] - ETA: 0s -
loss: 0.2762 - acc: 0.9230
1476 60000/60000 [=====] - 1s 17us/
step - loss: 0.2763 - acc: 0.9229
1477 Epoch 61/100
1478
1479    50/60000 [.....] - ETA: 2s -
loss: 0.0814 - acc: 0.9800
1480 3550/60000 [>.....] - ETA: 0s -
loss: 0.2971 - acc: 0.9234
1481 7100/60000 [==>.....] - ETA: 0s -
loss: 0.2766 - acc: 0.9262
1482 9750/60000 [==>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9257
1483 12400/60000 [==>.....] - ETA: 0s -
loss: 0.2733 - acc: 0.9245
1484 15700/60000 [==>.....] - ETA: 0s -
```

```
1484 loss: 0.2748 - acc: 0.9231
1485 19150/60000 [=====>.....] - ETA: 0s -
loss: 0.2761 - acc: 0.9225
1486 21750/60000 [=====>.....] - ETA: 0s -
loss: 0.2767 - acc: 0.9221
1487 24600/60000 [=====>.....] - ETA: 0s -
loss: 0.2753 - acc: 0.9230
1488 27500/60000 [=====>.....] - ETA: 0s -
loss: 0.2738 - acc: 0.9237
1489 30850/60000 [=====>.....] - ETA: 0s -
loss: 0.2767 - acc: 0.9229
1490 34350/60000 [=====>.....] - ETA: 0s -
loss: 0.2758 - acc: 0.9230
1491 37250/60000 [=====>.....] - ETA: 0s -
loss: 0.2743 - acc: 0.9234
1492 40400/60000 [=====>.....] - ETA: 0s -
loss: 0.2752 - acc: 0.9228
1493 43700/60000 [=====>.....] - ETA: 0s -
loss: 0.2784 - acc: 0.9223
1494 46950/60000 [=====>.....] - ETA: 0s -
loss: 0.2784 - acc: 0.9222
1495 49500/60000 [=====>.....] - ETA: 0s -
loss: 0.2760 - acc: 0.9228
1496 52350/60000 [=====>.....] - ETA: 0s -
loss: 0.2769 - acc: 0.9224
1497 55650/60000 [=====>....] - ETA: 0s -
loss: 0.2774 - acc: 0.9224
1498 58550/60000 [=====>..] - ETA: 0s -
loss: 0.2769 - acc: 0.9227
1499 60000/60000 [=====] - 1s 17us/
step - loss: 0.2759 - acc: 0.9231
1500 Epoch 62/100
1501
1502    50/60000 [.....] - ETA: 2s -
loss: 0.2086 - acc: 0.9200
1503    3000/60000 [>.....] - ETA: 0s -
loss: 0.3079 - acc: 0.9123
1504    6300/60000 [==>.....] - ETA: 0s -
loss: 0.2943 - acc: 0.9173
1505    9600/60000 [==>.....] - ETA: 0s -
loss: 0.2850 - acc: 0.9204
1506   12500/60000 [==>.....] - ETA: 0s -
loss: 0.2856 - acc: 0.9202
1507   14750/60000 [==>.....] - ETA: 0s -
loss: 0.2881 - acc: 0.9197
1508   17650/60000 [==>.....] - ETA: 0s -
loss: 0.2868 - acc: 0.9203
1509   21150/60000 [==>.....] - ETA: 0s -
loss: 0.2825 - acc: 0.9208
1510   24600/60000 [==>.....] - ETA: 0s -
```

```
1510 loss: 0.2804 - acc: 0.9213
1511 27150/60000 [=====>.....] - ETA: 0s -
loss: 0.2823 - acc: 0.9210
1512 30150/60000 [=====>.....] - ETA: 0s -
loss: 0.2805 - acc: 0.9224
1513 33600/60000 [=====>.....] - ETA: 0s -
loss: 0.2817 - acc: 0.9220
1514 37000/60000 [=====>.....] - ETA: 0s -
loss: 0.2816 - acc: 0.9221
1515 40350/60000 [=====>.....] - ETA: 0s -
loss: 0.2798 - acc: 0.9225
1516 42900/60000 [=====>.....] - ETA: 0s -
loss: 0.2780 - acc: 0.9226
1517 45550/60000 [=====>.....] - ETA: 0s -
loss: 0.2787 - acc: 0.9225
1518 48800/60000 [=====>.....] - ETA: 0s -
loss: 0.2782 - acc: 0.9224
1519 52000/60000 [=====>.....] - ETA: 0s -
loss: 0.2772 - acc: 0.9228
1520 55000/60000 [=====>....] - ETA: 0s -
loss: 0.2771 - acc: 0.9229
1521 57200/60000 [=====>..] - ETA: 0s -
loss: 0.2768 - acc: 0.9231
1522 59800/60000 [=====>.] - ETA: 0s -
loss: 0.2753 - acc: 0.9236
1523 60000/60000 [=====] - 1s 17us/
step - loss: 0.2755 - acc: 0.9235
1524 Epoch 63/100
1525
1526 50/60000 [.....] - ETA: 2s -
loss: 0.4418 - acc: 0.8800
1527 3300/60000 [>.....] - ETA: 0s -
loss: 0.2800 - acc: 0.9203
1528 6650/60000 [==>.....] - ETA: 0s -
loss: 0.2737 - acc: 0.9223
1529 9100/60000 [==>.....] - ETA: 0s -
loss: 0.2723 - acc: 0.9229
1530 11650/60000 [==>.....] - ETA: 0s -
loss: 0.2675 - acc: 0.9249
1531 14750/60000 [==>.....] - ETA: 0s -
loss: 0.2696 - acc: 0.9246
1532 17950/60000 [==>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9245
1533 20550/60000 [==>.....] - ETA: 0s -
loss: 0.2667 - acc: 0.9255
1534 23350/60000 [==>.....] - ETA: 0s -
loss: 0.2697 - acc: 0.9240
1535 26100/60000 [==>.....] - ETA: 0s -
loss: 0.2677 - acc: 0.9249
1536 29200/60000 [==>.....] - ETA: 0s -
```

```
1536 loss: 0.2656 - acc: 0.9255
1537 32000/60000 [=====>.....] - ETA: 0s -
loss: 0.2686 - acc: 0.9245
1538 35100/60000 [=====>.....] - ETA: 0s -
loss: 0.2695 - acc: 0.9243
1539 38450/60000 [=====>.....] - ETA: 0s -
loss: 0.2720 - acc: 0.9235
1540 41750/60000 [=====>.....] - ETA: 0s -
loss: 0.2734 - acc: 0.9229
1541 44450/60000 [=====>.....] - ETA: 0s -
loss: 0.2740 - acc: 0.9229
1542 47400/60000 [=====>.....] - ETA: 0s -
loss: 0.2735 - acc: 0.9230
1543 50700/60000 [=====>.....] - ETA: 0s -
loss: 0.2745 - acc: 0.9232
1544 54000/60000 [=====>...] - ETA: 0s -
loss: 0.2741 - acc: 0.9235
1545 56250/60000 [=====>...] - ETA: 0s -
loss: 0.2752 - acc: 0.9233
1546 59350/60000 [=====>.] - ETA: 0s -
loss: 0.2752 - acc: 0.9232
1547 60000/60000 [=====] - 1s 17us/
step - loss: 0.2752 - acc: 0.9232
1548 Epoch 64/100
1549
1550    50/60000 [.....] - ETA: 2s -
loss: 0.1177 - acc: 0.9400
1551 3450/60000 [>.....] - ETA: 0s -
loss: 0.2939 - acc: 0.9157
1552 6650/60000 [==>.....] - ETA: 0s -
loss: 0.2893 - acc: 0.9185
1553 8800/60000 [==>.....] - ETA: 0s -
loss: 0.2844 - acc: 0.9218
1554 11450/60000 [==>.....] - ETA: 0s -
loss: 0.2878 - acc: 0.9220
1555 14800/60000 [==>.....] - ETA: 0s -
loss: 0.2867 - acc: 0.9226
1556 18050/60000 [==>.....] - ETA: 0s -
loss: 0.2870 - acc: 0.9220
1557 20850/60000 [==>.....] - ETA: 0s -
loss: 0.2868 - acc: 0.9217
1558 23650/60000 [==>.....] - ETA: 0s -
loss: 0.2831 - acc: 0.9227
1559 26850/60000 [==>.....] - ETA: 0s -
loss: 0.2819 - acc: 0.9232
1560 30200/60000 [==>.....] - ETA: 0s -
loss: 0.2822 - acc: 0.9231
1561 33450/60000 [==>.....] - ETA: 0s -
loss: 0.2807 - acc: 0.9230
1562 36000/60000 [==>.....] - ETA: 0s -
```

```
1562 loss: 0.2792 - acc: 0.9231
1563 38950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2776 - acc: 0.9229
1564 42200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2765 - acc: 0.9231
1565 45450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2754 - acc: 0.9234
1566 48250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2762 - acc: 0.9233
1567 51300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2761 - acc: 0.9234
1568 54150/60000 [=====>...] - ETA: 0s -
    loss: 0.2753 - acc: 0.9234
1569 57200/60000 [=====>..] - ETA: 0s -
    loss: 0.2742 - acc: 0.9235
1570 59800/60000 [=====>.] - ETA: 0s -
    loss: 0.2747 - acc: 0.9233
1571 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2748 - acc: 0.9233
1572 Epoch 65/100
1573
1574      50/60000 [.....] - ETA: 2s -
    loss: 0.2484 - acc: 0.9200
1575 2950/60000 [>.....] - ETA: 1s -
    loss: 0.2782 - acc: 0.9217
1576 6250/60000 [==>.....] - ETA: 0s -
    loss: 0.2841 - acc: 0.9190
1577 8700/60000 [==>.....] - ETA: 0s -
    loss: 0.2849 - acc: 0.9198
1578 10850/60000 [==>.....] - ETA: 0s -
    loss: 0.2850 - acc: 0.9192
1579 13300/60000 [==>.....] - ETA: 0s -
    loss: 0.2859 - acc: 0.9198
1580 15900/60000 [==>.....] - ETA: 0s -
    loss: 0.2824 - acc: 0.9208
1581 19150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2773 - acc: 0.9235
1582 21900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2774 - acc: 0.9227
1583 24900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2765 - acc: 0.9234
1584 28100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2736 - acc: 0.9236
1585 31550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2723 - acc: 0.9243
1586 35000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2703 - acc: 0.9249
1587 38050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2692 - acc: 0.9246
1588 41250/60000 [=====>.....] - ETA: 0s -
```

```
1588 loss: 0.2700 - acc: 0.9242
1589 44500/60000 [=====>.....] - ETA: 0s -
loss: 0.2736 - acc: 0.9236
1590 47800/60000 [=====>.....] - ETA: 0s -
loss: 0.2730 - acc: 0.9236
1591 50550/60000 [=====>.....] - ETA: 0s -
loss: 0.2731 - acc: 0.9235
1592 53550/60000 [=====>....] - ETA: 0s -
loss: 0.2736 - acc: 0.9233
1593 56850/60000 [=====>..] - ETA: 0s -
loss: 0.2750 - acc: 0.9231
1594 60000/60000 [=====] - 1s 17us/
step - loss: 0.2744 - acc: 0.9234
1595 Epoch 66/100
1596
1597      50/60000 [.....] - ETA: 2s -
loss: 0.2239 - acc: 0.9600
1598 2400/60000 [>.....] - ETA: 1s -
loss: 0.2778 - acc: 0.9237
1599 5000/60000 [=>.....] - ETA: 1s -
loss: 0.2784 - acc: 0.9218
1600 8250/60000 [==>.....] - ETA: 0s -
loss: 0.2684 - acc: 0.9255
1601 11650/60000 [==>.....] - ETA: 0s -
loss: 0.2702 - acc: 0.9245
1602 15050/60000 [==>.....] - ETA: 0s -
loss: 0.2662 - acc: 0.9256
1603 18050/60000 [=====>.....] - ETA: 0s -
loss: 0.2630 - acc: 0.9266
1604 21200/60000 [=====>.....] - ETA: 0s -
loss: 0.2637 - acc: 0.9262
1605 24500/60000 [=====>.....] - ETA: 0s -
loss: 0.2665 - acc: 0.9248
1606 27800/60000 [=====>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9242
1607 30400/60000 [=====>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9238
1608 33200/60000 [=====>.....] - ETA: 0s -
loss: 0.2721 - acc: 0.9238
1609 36450/60000 [=====>.....] - ETA: 0s -
loss: 0.2741 - acc: 0.9234
1610 39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2738 - acc: 0.9235
1611 43050/60000 [=====>.....] - ETA: 0s -
loss: 0.2732 - acc: 0.9237
1612 45700/60000 [=====>.....] - ETA: 0s -
loss: 0.2740 - acc: 0.9234
1613 48550/60000 [=====>.....] - ETA: 0s -
loss: 0.2733 - acc: 0.9236
1614 51850/60000 [=====>.....] - ETA: 0s -
```

```
1614 loss: 0.2739 - acc: 0.9235
1615 55150/60000 [=====>...] - ETA: 0s -
loss: 0.2740 - acc: 0.9235
1616 58450/60000 [=====>.] - ETA: 0s -
loss: 0.2747 - acc: 0.9233
1617 60000/60000 [=====] - 1s 17us/
step - loss: 0.2740 - acc: 0.9236
1618 Epoch 67/100
1619
1620    50/60000 [.....] - ETA: 2s -
loss: 0.2898 - acc: 0.9200
1621 3050/60000 [>.....] - ETA: 0s -
loss: 0.2755 - acc: 0.9246
1622 6300/60000 [==>.....] - ETA: 0s -
loss: 0.2609 - acc: 0.9252
1623 9600/60000 [==>.....] - ETA: 0s -
loss: 0.2659 - acc: 0.9241
1624 12300/60000 [==>.....] - ETA: 0s -
loss: 0.2618 - acc: 0.9256
1625 14800/60000 [==>.....] - ETA: 0s -
loss: 0.2664 - acc: 0.9244
1626 17850/60000 [==>.....] - ETA: 0s -
loss: 0.2715 - acc: 0.9237
1627 21250/60000 [==>.....] - ETA: 0s -
loss: 0.2719 - acc: 0.9237
1628 24650/60000 [==>.....] - ETA: 0s -
loss: 0.2740 - acc: 0.9237
1629 27650/60000 [=====>.....] - ETA: 0s -
loss: 0.2742 - acc: 0.9237
1630 30850/60000 [=====>.....] - ETA: 0s -
loss: 0.2728 - acc: 0.9241
1631 34200/60000 [=====>.....] - ETA: 0s -
loss: 0.2721 - acc: 0.9239
1632 37500/60000 [=====>.....] - ETA: 0s -
loss: 0.2731 - acc: 0.9237
1633 40100/60000 [=====>.....] - ETA: 0s -
loss: 0.2737 - acc: 0.9236
1634 43000/60000 [=====>.....] - ETA: 0s -
loss: 0.2754 - acc: 0.9231
1635 46350/60000 [=====>.....] - ETA: 0s -
loss: 0.2763 - acc: 0.9227
1636 49650/60000 [=====>.....] - ETA: 0s -
loss: 0.2752 - acc: 0.9230
1637 52950/60000 [=====>...] - ETA: 0s -
loss: 0.2737 - acc: 0.9233
1638 55750/60000 [=====>...] - ETA: 0s -
loss: 0.2744 - acc: 0.9232
1639 58300/60000 [=====>.] - ETA: 0s -
loss: 0.2745 - acc: 0.9232
1640 60000/60000 [=====] - 1s 16us/
```

```
1640 step - loss: 0.2737 - acc: 0.9234
1641 Epoch 68/100
1642
1643    50/60000 [.....] - ETA: 3s -
  loss: 0.2117 - acc: 0.9200
1644  3250/60000 [>.....] - ETA: 0s -
  loss: 0.2770 - acc: 0.9169
1645  5850/60000 [=>.....] - ETA: 0s -
  loss: 0.2702 - acc: 0.9234
1646  8650/60000 [==>.....] - ETA: 0s -
  loss: 0.2815 - acc: 0.9206
1647 11700/60000 [====>.....] - ETA: 0s -
  loss: 0.2795 - acc: 0.9203
1648 15100/60000 [=====>.....] - ETA: 0s -
  loss: 0.2754 - acc: 0.9214
1649 18450/60000 [=====>.....] - ETA: 0s -
  loss: 0.2690 - acc: 0.9231
1650 21100/60000 [=====>.....] - ETA: 0s -
  loss: 0.2705 - acc: 0.9234
1651 23900/60000 [=====>.....] - ETA: 0s -
  loss: 0.2719 - acc: 0.9233
1652 27200/60000 [=====>.....] - ETA: 0s -
  loss: 0.2713 - acc: 0.9236
1653 30500/60000 [=====>.....] - ETA: 0s -
  loss: 0.2713 - acc: 0.9236
1654 33800/60000 [=====>.....] - ETA: 0s -
  loss: 0.2724 - acc: 0.9238
1655 36550/60000 [=====>.....] - ETA: 0s -
  loss: 0.2715 - acc: 0.9241
1656 39550/60000 [=====>.....] - ETA: 0s -
  loss: 0.2707 - acc: 0.9248
1657 42850/60000 [=====>.....] - ETA: 0s -
  loss: 0.2706 - acc: 0.9250
1658 46200/60000 [=====>.....] - ETA: 0s -
  loss: 0.2723 - acc: 0.9243
1659 48850/60000 [=====>.....] - ETA: 0s -
  loss: 0.2721 - acc: 0.9244
1660 51700/60000 [=====>.....] - ETA: 0s -
  loss: 0.2713 - acc: 0.9245
1661 55000/60000 [=====>...] - ETA: 0s -
  loss: 0.2733 - acc: 0.9240
1662 58300/60000 [=====>.] - ETA: 0s -
  loss: 0.2740 - acc: 0.9239
1663 60000/60000 [=====] - 1s 16us/
step - loss: 0.2733 - acc: 0.9242
1664 Epoch 69/100
1665
1666    50/60000 [.....] - ETA: 2s -
  loss: 0.1211 - acc: 0.9600
1667  2750/60000 [>.....] - ETA: 1s -
```

```
1667 loss: 0.2905 - acc: 0.9225
1668 5200/60000 [=>.....] - ETA: 1s -
loss: 0.3050 - acc: 0.9175
1669 8250/60000 [==>.....] - ETA: 0s -
loss: 0.2949 - acc: 0.9182
1670 11650/60000 [====>.....] - ETA: 0s -
loss: 0.2859 - acc: 0.9204
1671 15050/60000 [=====>.....] - ETA: 0s -
loss: 0.2855 - acc: 0.9213
1672 17850/60000 [=====>.....] - ETA: 0s -
loss: 0.2817 - acc: 0.9217
1673 20950/60000 [=====>.....] - ETA: 0s -
loss: 0.2775 - acc: 0.9224
1674 24250/60000 [=====>.....] - ETA: 0s -
loss: 0.2765 - acc: 0.9226
1675 27550/60000 [=====>.....] - ETA: 0s -
loss: 0.2771 - acc: 0.9229
1676 30850/60000 [=====>.....] - ETA: 0s -
loss: 0.2751 - acc: 0.9243
1677 33600/60000 [=====>.....] - ETA: 0s -
loss: 0.2748 - acc: 0.9244
1678 36600/60000 [=====>.....] - ETA: 0s -
loss: 0.2742 - acc: 0.9245
1679 39900/60000 [=====>.....] - ETA: 0s -
loss: 0.2733 - acc: 0.9246
1680 43200/60000 [=====>.....] - ETA: 0s -
loss: 0.2752 - acc: 0.9240
1681 45950/60000 [=====>.....] - ETA: 0s -
loss: 0.2747 - acc: 0.9240
1682 48950/60000 [=====>.....] - ETA: 0s -
loss: 0.2736 - acc: 0.9241
1683 52300/60000 [=====>....] - ETA: 0s -
loss: 0.2738 - acc: 0.9242
1684 55600/60000 [=====>...] - ETA: 0s -
loss: 0.2724 - acc: 0.9240
1685 58900/60000 [=====>.] - ETA: 0s -
loss: 0.2739 - acc: 0.9236
1686 60000/60000 [=====] - 1s 16us/
step - loss: 0.2731 - acc: 0.9238
1687 Epoch 70/100
1688
1689 50/60000 [.....] - ETA: 2s -
loss: 0.3971 - acc: 0.8800
1690 3050/60000 [>.....] - ETA: 0s -
loss: 0.2691 - acc: 0.9230
1691 6300/60000 [==>.....] - ETA: 0s -
loss: 0.2803 - acc: 0.9216
1692 9650/60000 [==>.....] - ETA: 0s -
loss: 0.2763 - acc: 0.9222
1693 12550/60000 [==>.....] - ETA: 0s -
```

```
1693 loss: 0.2788 - acc: 0.9207
1694 15100/60000 [=====>.....] - ETA: 0s -
loss: 0.2796 - acc: 0.9199
1695 18100/60000 [=====>.....] - ETA: 0s -
loss: 0.2736 - acc: 0.9223
1696 21500/60000 [=====>.....] - ETA: 0s -
loss: 0.2754 - acc: 0.9222
1697 24850/60000 [=====>.....] - ETA: 0s -
loss: 0.2743 - acc: 0.9219
1698 27200/60000 [=====>.....] - ETA: 0s -
loss: 0.2767 - acc: 0.9218
1699 30300/60000 [=====>.....] - ETA: 0s -
loss: 0.2753 - acc: 0.9223
1700 33700/60000 [=====>.....] - ETA: 0s -
loss: 0.2736 - acc: 0.9229
1701 37100/60000 [=====>.....] - ETA: 0s -
loss: 0.2730 - acc: 0.9230
1702 40450/60000 [=====>.....] - ETA: 0s -
loss: 0.2728 - acc: 0.9232
1703 43100/60000 [=====>.....] - ETA: 0s -
loss: 0.2743 - acc: 0.9231
1704 45950/60000 [=====>.....] - ETA: 0s -
loss: 0.2717 - acc: 0.9234
1705 49250/60000 [=====>.....] - ETA: 0s -
loss: 0.2735 - acc: 0.9229
1706 52600/60000 [=====>.....] - ETA: 0s -
loss: 0.2727 - acc: 0.9234
1707 55900/60000 [=====>....] - ETA: 0s -
loss: 0.2724 - acc: 0.9235
1708 58650/60000 [=====>..] - ETA: 0s -
loss: 0.2730 - acc: 0.9235
1709 60000/60000 [=====] - 1s 16us/
step - loss: 0.2728 - acc: 0.9236
1710 Epoch 71/100
1711
1712 50/60000 [.....] - ETA: 2s -
loss: 0.2672 - acc: 0.9400
1713 3350/60000 [>.....] - ETA: 0s -
loss: 0.2531 - acc: 0.9334
1714 6700/60000 [==>.....] - ETA: 0s -
loss: 0.2728 - acc: 0.9275
1715 9550/60000 [==>.....] - ETA: 0s -
loss: 0.2717 - acc: 0.9266
1716 12100/60000 [====>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9259
1717 15150/60000 [====>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9270
1718 18650/60000 [====>.....] - ETA: 0s -
loss: 0.2700 - acc: 0.9251
1719 22100/60000 [====>.....] - ETA: 0s -
```

```
1719 loss: 0.2665 - acc: 0.9265
1720 25150/60000 [=====>.....] - ETA: 0s -
loss: 0.2682 - acc: 0.9259
1721 28250/60000 [=====>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9249
1722 31600/60000 [=====>.....] - ETA: 0s -
loss: 0.2717 - acc: 0.9243
1723 35000/60000 [=====>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9246
1724 38300/60000 [=====>.....] - ETA: 0s -
loss: 0.2730 - acc: 0.9242
1725 40900/60000 [=====>.....] - ETA: 0s -
loss: 0.2736 - acc: 0.9241
1726 44050/60000 [=====>.....] - ETA: 0s -
loss: 0.2731 - acc: 0.9240
1727 47600/60000 [=====>.....] - ETA: 0s -
loss: 0.2741 - acc: 0.9239
1728 51250/60000 [=====>.....] - ETA: 0s -
loss: 0.2727 - acc: 0.9239
1729 54750/60000 [=====>....] - ETA: 0s -
loss: 0.2721 - acc: 0.9242
1730 57450/60000 [=====>..] - ETA: 0s -
loss: 0.2722 - acc: 0.9243
1731 60000/60000 [=====] - 1s 16us/
step - loss: 0.2724 - acc: 0.9241
1732 Epoch 72/100
1733
1734    50/60000 [.....] - ETA: 2s -
loss: 0.4399 - acc: 0.8800
1735    3400/60000 [>.....] - ETA: 0s -
loss: 0.2664 - acc: 0.9276
1736    6850/60000 [==>.....] - ETA: 0s -
loss: 0.2813 - acc: 0.9229
1737    10150/60000 [==>.....] - ETA: 0s -
loss: 0.2762 - acc: 0.9245
1738    12550/60000 [==>.....] - ETA: 0s -
loss: 0.2745 - acc: 0.9247
1739    15300/60000 [==>.....] - ETA: 0s -
loss: 0.2741 - acc: 0.9247
1740    18700/60000 [=====>.....] - ETA: 0s -
loss: 0.2716 - acc: 0.9256
1741    22300/60000 [=====>.....] - ETA: 0s -
loss: 0.2704 - acc: 0.9257
1742    25250/60000 [=====>.....] - ETA: 0s -
loss: 0.2694 - acc: 0.9257
1743    28300/60000 [=====>.....] - ETA: 0s -
loss: 0.2686 - acc: 0.9256
1744    31650/60000 [=====>.....] - ETA: 0s -
loss: 0.2717 - acc: 0.9241
1745    34950/60000 [=====>.....] - ETA: 0s -
```

```
1745 loss: 0.2732 - acc: 0.9238
1746 38250/60000 [=====>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9244
1747 40900/60000 [=====>.....] - ETA: 0s -
loss: 0.2688 - acc: 0.9254
1748 43700/60000 [=====>.....] - ETA: 0s -
loss: 0.2686 - acc: 0.9254
1749 47000/60000 [=====>.....] - ETA: 0s -
loss: 0.2702 - acc: 0.9251
1750 50300/60000 [=====>.....] - ETA: 0s -
loss: 0.2703 - acc: 0.9248
1751 53600/60000 [=====>.....] - ETA: 0s -
loss: 0.2715 - acc: 0.9244
1752 56300/60000 [=====>..] - ETA: 0s -
loss: 0.2719 - acc: 0.9243
1753 59250/60000 [=====>.] - ETA: 0s -
loss: 0.2716 - acc: 0.9244
1754 60000/60000 [=====] - 1s 16us/
step - loss: 0.2721 - acc: 0.9242
1755 Epoch 73/100
1756
1757      50/60000 [.....] - ETA: 2s -
loss: 0.1216 - acc: 0.9800
1758 3400/60000 [>.....] - ETA: 0s -
loss: 0.2803 - acc: 0.9197
1759 6550/60000 [==>.....] - ETA: 0s -
loss: 0.2709 - acc: 0.9212
1760 8800/60000 [==>.....] - ETA: 0s -
loss: 0.2700 - acc: 0.9217
1761 11650/60000 [==>.....] - ETA: 0s -
loss: 0.2808 - acc: 0.9201
1762 15000/60000 [==>.....] - ETA: 0s -
loss: 0.2774 - acc: 0.9203
1763 18350/60000 [=====>.....] - ETA: 0s -
loss: 0.2712 - acc: 0.9223
1764 21300/60000 [=====>.....] - ETA: 0s -
loss: 0.2708 - acc: 0.9231
1765 24350/60000 [=====>.....] - ETA: 0s -
loss: 0.2718 - acc: 0.9226
1766 27700/60000 [=====>.....] - ETA: 0s -
loss: 0.2701 - acc: 0.9223
1767 31000/60000 [=====>.....] - ETA: 0s -
loss: 0.2696 - acc: 0.9232
1768 34150/60000 [=====>.....] - ETA: 0s -
loss: 0.2691 - acc: 0.9235
1769 36950/60000 [=====>.....] - ETA: 0s -
loss: 0.2688 - acc: 0.9236
1770 40150/60000 [=====>.....] - ETA: 0s -
loss: 0.2704 - acc: 0.9233
1771 43500/60000 [=====>.....] - ETA: 0s -
```

```
1771 loss: 0.2703 - acc: 0.9237
1772 46900/60000 [=====>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9237
1773 49650/60000 [=====>.....] - ETA: 0s -
loss: 0.2714 - acc: 0.9238
1774 52650/60000 [=====>.....] - ETA: 0s -
loss: 0.2714 - acc: 0.9238
1775 55950/60000 [=====>...] - ETA: 0s -
loss: 0.2710 - acc: 0.9241
1776 59250/60000 [=====>.] - ETA: 0s -
loss: 0.2719 - acc: 0.9241
1777 60000/60000 [=====] - 1s 16us/
step - loss: 0.2718 - acc: 0.9241
1778 Epoch 74/100
1779
1780      50/60000 [.....] - ETA: 2s -
loss: 0.2281 - acc: 0.9600
1781 2800/60000 [>.....] - ETA: 1s -
loss: 0.2730 - acc: 0.9239
1782 5800/60000 [=>.....] - ETA: 0s -
loss: 0.2698 - acc: 0.9240
1783 9100/60000 [==>.....] - ETA: 0s -
loss: 0.2635 - acc: 0.9256
1784 12400/60000 [====>.....] - ETA: 0s -
loss: 0.2661 - acc: 0.9252
1785 14700/60000 [====>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9245
1786 17300/60000 [====>.....] - ETA: 0s -
loss: 0.2660 - acc: 0.9250
1787 20700/60000 [=====>.....] - ETA: 0s -
loss: 0.2658 - acc: 0.9253
1788 24100/60000 [=====>.....] - ETA: 0s -
loss: 0.2680 - acc: 0.9248
1789 27000/60000 [=====>.....] - ETA: 0s -
loss: 0.2693 - acc: 0.9241
1790 30150/60000 [=====>.....] - ETA: 0s -
loss: 0.2700 - acc: 0.9240
1791 33500/60000 [=====>.....] - ETA: 0s -
loss: 0.2670 - acc: 0.9246
1792 36800/60000 [=====>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9240
1793 40100/60000 [=====>.....] - ETA: 0s -
loss: 0.2711 - acc: 0.9238
1794 42800/60000 [=====>.....] - ETA: 0s -
loss: 0.2717 - acc: 0.9238
1795 45750/60000 [=====>.....] - ETA: 0s -
loss: 0.2722 - acc: 0.9240
1796 49050/60000 [=====>.....] - ETA: 0s -
loss: 0.2743 - acc: 0.9232
1797 52350/60000 [=====>...] - ETA: 0s -
```

```
1797 loss: 0.2734 - acc: 0.9235
1798 55000/60000 [=====>...] - ETA: 0s -
    loss: 0.2724 - acc: 0.9240
1799 57800/60000 [=====>...] - ETA: 0s -
    loss: 0.2713 - acc: 0.9243
1800 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2715 - acc: 0.9244
1801 Epoch 75/100
1802
1803     50/60000 [.....] - ETA: 2s -
    loss: 0.2210 - acc: 0.9000
1804     3350/60000 [>.....] - ETA: 0s -
    loss: 0.2676 - acc: 0.9251
1805     6650/60000 [==>.....] - ETA: 0s -
    loss: 0.2648 - acc: 0.9266
1806     9250/60000 [==>.....] - ETA: 0s -
    loss: 0.2693 - acc: 0.9265
1807     11850/60000 [==>.....] - ETA: 0s -
    loss: 0.2621 - acc: 0.9277
1808     14950/60000 [==>.....] - ETA: 0s -
    loss: 0.2651 - acc: 0.9261
1809     18350/60000 [==>.....] - ETA: 0s -
    loss: 0.2668 - acc: 0.9257
1810     21700/60000 [==>.....] - ETA: 0s -
    loss: 0.2648 - acc: 0.9264
1811     24700/60000 [==>.....] - ETA: 0s -
    loss: 0.2696 - acc: 0.9245
1812     27750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2696 - acc: 0.9249
1813     31050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2701 - acc: 0.9244
1814     33950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2690 - acc: 0.9249
1815     37100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2698 - acc: 0.9250
1816     39650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2718 - acc: 0.9241
1817     42650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2722 - acc: 0.9238
1818     45950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2726 - acc: 0.9240
1819     49350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2707 - acc: 0.9243
1820     52650/60000 [=====>...] - ETA: 0s -
    loss: 0.2708 - acc: 0.9243
1821     55200/60000 [=====>...] - ETA: 0s -
    loss: 0.2711 - acc: 0.9243
1822     58000/60000 [=====>.] - ETA: 0s -
    loss: 0.2708 - acc: 0.9244
1823     60000/60000 [=====] - 1s 17us/
```

```
1823 step - loss: 0.2712 - acc: 0.9244
1824 Epoch 76/100
1825
1826    50/60000 [.....] - ETA: 2s -
    loss: 0.3213 - acc: 0.9200
1827    3450/60000 [>.....] - ETA: 0s -
    loss: 0.2604 - acc: 0.9284
1828    6850/60000 [==>.....] - ETA: 0s -
    loss: 0.2575 - acc: 0.9318
1829    9850/60000 [==>.....] - ETA: 0s -
    loss: 0.2726 - acc: 0.9276
1830    12650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2776 - acc: 0.9259
1831    15700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2752 - acc: 0.9265
1832    19050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2744 - acc: 0.9258
1833    22300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2735 - acc: 0.9257
1834    24900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2737 - acc: 0.9253
1835    27700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2738 - acc: 0.9248
1836    31000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2742 - acc: 0.9249
1837    34250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2719 - acc: 0.9248
1838    37550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2702 - acc: 0.9251
1839    40250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2706 - acc: 0.9253
1840    43050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2710 - acc: 0.9250
1841    46350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2693 - acc: 0.9256
1842    49650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2703 - acc: 0.9252
1843    52950/60000 [=====>....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9257
1844    55550/60000 [=====>...] - ETA: 0s -
    loss: 0.2702 - acc: 0.9254
1845    58400/60000 [=====>.] - ETA: 0s -
    loss: 0.2707 - acc: 0.9248
1846    60000/60000 [=====] - 1s 16us/
step - loss: 0.2709 - acc: 0.9247
1847 Epoch 77/100
1848
1849    50/60000 [.....] - ETA: 2s -
    loss: 0.1901 - acc: 0.9800
1850    3350/60000 [>.....] - ETA: 0s -
```

```
1850 loss: 0.2635 - acc: 0.9316
1851 6650/60000 [==>.....] - ETA: 0s -
loss: 0.2741 - acc: 0.9268
1852 9600/60000 [==>.....] - ETA: 0s -
loss: 0.2670 - acc: 0.9273
1853 11900/60000 [====>.....] - ETA: 0s -
loss: 0.2791 - acc: 0.9230
1854 14900/60000 [=====>.....] - ETA: 0s -
loss: 0.2727 - acc: 0.9250
1855 18300/60000 [======>.....] - ETA: 0s -
loss: 0.2754 - acc: 0.9246
1856 21700/60000 [======>.....] - ETA: 0s -
loss: 0.2759 - acc: 0.9245
1857 24700/60000 [======>.....] - ETA: 0s -
loss: 0.2727 - acc: 0.9253
1858 27850/60000 [======>.....] - ETA: 0s -
loss: 0.2733 - acc: 0.9250
1859 31150/60000 [======>.....] - ETA: 0s -
loss: 0.2751 - acc: 0.9246
1860 34450/60000 [======>.....] - ETA: 0s -
loss: 0.2751 - acc: 0.9246
1861 37000/60000 [======>.....] - ETA: 0s -
loss: 0.2746 - acc: 0.9244
1862 39900/60000 [======>.....] - ETA: 0s -
loss: 0.2731 - acc: 0.9247
1863 43200/60000 [======>.....] - ETA: 0s -
loss: 0.2721 - acc: 0.9246
1864 46550/60000 [======>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9244
1865 49900/60000 [======>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9244
1866 52500/60000 [======>....] - ETA: 0s -
loss: 0.2715 - acc: 0.9244
1867 55350/60000 [======>...] - ETA: 0s -
loss: 0.2711 - acc: 0.9247
1868 58350/60000 [======>.] - ETA: 0s -
loss: 0.2703 - acc: 0.9250
1869 60000/60000 [=====] - 1s 16us/
step - loss: 0.2707 - acc: 0.9248
1870 Epoch 78/100
1871
1872 50/60000 [.....] - ETA: 2s -
loss: 0.2917 - acc: 0.9000
1873 3350/60000 [>.....] - ETA: 0s -
loss: 0.2712 - acc: 0.9248
1874 6050/60000 [==>.....] - ETA: 0s -
loss: 0.2637 - acc: 0.9264
1875 8500/60000 [==>.....] - ETA: 0s -
loss: 0.2645 - acc: 0.9252
1876 11500/60000 [====>.....] - ETA: 0s -
```

```
1876 loss: 0.2661 - acc: 0.9255
1877 14900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2662 - acc: 0.9262
1878 18300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2679 - acc: 0.9269
1879 21300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2682 - acc: 0.9258
1880 24300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9259
1881 27600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2709 - acc: 0.9257
1882 30900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2730 - acc: 0.9244
1883 33600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2712 - acc: 0.9248
1884 36600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2718 - acc: 0.9246
1885 39950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2704 - acc: 0.9252
1886 43300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2706 - acc: 0.9256
1887 45850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2707 - acc: 0.9253
1888 48700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2712 - acc: 0.9249
1889 51950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2714 - acc: 0.9249
1890 55300/60000 [=====>... ] - ETA: 0s -
    loss: 0.2709 - acc: 0.9246
1891 58600/60000 [=====>..] - ETA: 0s -
    loss: 0.2707 - acc: 0.9247
1892 60000/60000 [=====] - 1s 16us/
    step - loss: 0.2703 - acc: 0.9250
1893 Epoch 79/100
1894
1895      50/60000 [.....] - ETA: 2s -
    loss: 0.2422 - acc: 0.9600
1896 3100/60000 [>.....] - ETA: 0s -
    loss: 0.2779 - acc: 0.9239
1897 6450/60000 [==>.....] - ETA: 0s -
    loss: 0.2719 - acc: 0.9253
1898 9800/60000 [==>.....] - ETA: 0s -
    loss: 0.2708 - acc: 0.9262
1899 12550/60000 [==>.....] - ETA: 0s -
    loss: 0.2671 - acc: 0.9267
1900 15050/60000 [==>.....] - ETA: 0s -
    loss: 0.2696 - acc: 0.9258
1901 18100/60000 [==>.....] - ETA: 0s -
    loss: 0.2699 - acc: 0.9255
1902 21500/60000 [==>.....] - ETA: 0s -
```

```
1902 loss: 0.2689 - acc: 0.9256
1903 24900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2714 - acc: 0.9250
1904 27800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2748 - acc: 0.9248
1905 30850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2745 - acc: 0.9245
1906 34200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2713 - acc: 0.9249
1907 37500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2723 - acc: 0.9246
1908 40800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2718 - acc: 0.9243
1909 43450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2714 - acc: 0.9244
1910 46250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2723 - acc: 0.9242
1911 49550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2703 - acc: 0.9247
1912 52850/60000 [=====>.....] - ETA: 0s -
    loss: 0.2701 - acc: 0.9248
1913 56150/60000 [=====>..] - ETA: 0s -
    loss: 0.2699 - acc: 0.9249
1914 58800/60000 [=====>..] - ETA: 0s -
    loss: 0.2698 - acc: 0.9249
1915 60000/60000 [=====] - 1s 16us/
    step - loss: 0.2701 - acc: 0.9249
1916 Epoch 80/100
1917
1918 50/60000 [.....] - ETA: 2s -
    loss: 0.2053 - acc: 0.9400
1919 3050/60000 [>.....] - ETA: 0s -
    loss: 0.2499 - acc: 0.9295
1920 6350/60000 [==>.....] - ETA: 0s -
    loss: 0.2618 - acc: 0.9261
1921 9650/60000 [==>.....] - ETA: 0s -
    loss: 0.2664 - acc: 0.9251
1922 12550/60000 [==>.....] - ETA: 0s -
    loss: 0.2680 - acc: 0.9253
1923 14850/60000 [==>.....] - ETA: 0s -
    loss: 0.2675 - acc: 0.9261
1924 17800/60000 [==>.....] - ETA: 0s -
    loss: 0.2674 - acc: 0.9267
1925 21200/60000 [==>.....] - ETA: 0s -
    loss: 0.2678 - acc: 0.9272
1926 24450/60000 [==>.....] - ETA: 0s -
    loss: 0.2676 - acc: 0.9270
1927 26900/60000 [==>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9269
1928 29700/60000 [==>.....] - ETA: 0s -
```

```
1928 loss: 0.2694 - acc: 0.9271
1929 33100/60000 [=====>.....] - ETA: 0s -
    loss: 0.2691 - acc: 0.9266
1930 36450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2699 - acc: 0.9262
1931 39550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2709 - acc: 0.9258
1932 42200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2705 - acc: 0.9255
1933 45150/60000 [=====>.....] - ETA: 0s -
    loss: 0.2703 - acc: 0.9253
1934 48450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2702 - acc: 0.9250
1935 51750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2704 - acc: 0.9249
1936 54350/60000 [=====>...] - ETA: 0s -
    loss: 0.2708 - acc: 0.9244
1937 57050/60000 [=====>...] - ETA: 0s -
    loss: 0.2701 - acc: 0.9247
1938 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2698 - acc: 0.9247
1939 Epoch 81/100
1940
1941 50/60000 [.....] - ETA: 2s -
    loss: 0.2766 - acc: 0.9000
1942 3400/60000 [>.....] - ETA: 0s -
    loss: 0.2696 - acc: 0.9253
1943 6800/60000 [==>.....] - ETA: 0s -
    loss: 0.2704 - acc: 0.9243
1944 9550/60000 [==>.....] - ETA: 0s -
    loss: 0.2713 - acc: 0.9248
1945 11800/60000 [==>.....] - ETA: 0s -
    loss: 0.2733 - acc: 0.9240
1946 14700/60000 [==>.....] - ETA: 0s -
    loss: 0.2699 - acc: 0.9245
1947 17350/60000 [==>.....] - ETA: 0s -
    loss: 0.2699 - acc: 0.9243
1948 20550/60000 [==>.....] - ETA: 0s -
    loss: 0.2698 - acc: 0.9251
1949 23350/60000 [==>.....] - ETA: 0s -
    loss: 0.2697 - acc: 0.9243
1950 26500/60000 [==>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9249
1951 29650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2682 - acc: 0.9255
1952 32300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2681 - acc: 0.9250
1953 34800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2682 - acc: 0.9249
1954 37350/60000 [=====>.....] - ETA: 0s -
```

```
1954 loss: 0.2692 - acc: 0.9247
1955 40350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2706 - acc: 0.9243
1956 43450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2703 - acc: 0.9248
1957 46550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2709 - acc: 0.9247
1958 49250/60000 [=====>.....] - ETA: 0s -
    loss: 0.2721 - acc: 0.9244
1959 52050/60000 [=====>....] - ETA: 0s -
    loss: 0.2717 - acc: 0.9242
1960 55150/60000 [=====>...] - ETA: 0s -
    loss: 0.2706 - acc: 0.9246
1961 58250/60000 [=====>..] - ETA: 0s -
    loss: 0.2704 - acc: 0.9248
1962 60000/60000 [=====] - 1s 17us/
step - loss: 0.2696 - acc: 0.9253
1963 Epoch 82/100
1964
1965    50/60000 [.....] - ETA: 2s -
    loss: 0.2679 - acc: 0.9400
1966    2750/60000 [>.....] - ETA: 1s -
    loss: 0.2857 - acc: 0.9164
1967    5750/60000 [=>.....] - ETA: 0s -
    loss: 0.2727 - acc: 0.9237
1968    9000/60000 [==>.....] - ETA: 0s -
    loss: 0.2754 - acc: 0.9217
1969    12100/60000 [==>.....] - ETA: 0s -
    loss: 0.2732 - acc: 0.9247
1970    14600/60000 [==>.....] - ETA: 0s -
    loss: 0.2739 - acc: 0.9249
1971    17100/60000 [==>.....] - ETA: 0s -
    loss: 0.2734 - acc: 0.9250
1972    20200/60000 [==>.....] - ETA: 0s -
    loss: 0.2717 - acc: 0.9256
1973    23250/60000 [==>.....] - ETA: 0s -
    loss: 0.2711 - acc: 0.9259
1974    25950/60000 [==>.....] - ETA: 0s -
    loss: 0.2699 - acc: 0.9262
1975    28600/60000 [==>.....] - ETA: 0s -
    loss: 0.2676 - acc: 0.9263
1976    31650/60000 [==>.....] - ETA: 0s -
    loss: 0.2680 - acc: 0.9268
1977    34750/60000 [=====>.....] - ETA: 0s -
    loss: 0.2694 - acc: 0.9258
1978    37900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2678 - acc: 0.9258
1979    40600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2688 - acc: 0.9255
1980    43200/60000 [=====>.....] - ETA: 0s -
```

```
1980 loss: 0.2684 - acc: 0.9258
1981 46200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2699 - acc: 0.9254
1982 49350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2692 - acc: 0.9251
1983 52500/60000 [=====>....] - ETA: 0s -
    loss: 0.2687 - acc: 0.9252
1984 55150/60000 [=====>...] - ETA: 0s -
    loss: 0.2685 - acc: 0.9256
1985 58050/60000 [=====>..] - ETA: 0s -
    loss: 0.2686 - acc: 0.9253
1986 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2693 - acc: 0.9253
1987 Epoch 83/100
1988
1989      50/60000 [.....] - ETA: 2s -
    loss: 0.4047 - acc: 0.9000
1990 3200/60000 [>.....] - ETA: 0s -
    loss: 0.2517 - acc: 0.9309
1991 6350/60000 [==>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9254
1992 9050/60000 [==>.....] - ETA: 0s -
    loss: 0.2610 - acc: 0.9267
1993 11300/60000 [==>.....] - ETA: 0s -
    loss: 0.2638 - acc: 0.9259
1994 14100/60000 [==>.....] - ETA: 0s -
    loss: 0.2641 - acc: 0.9252
1995 17200/60000 [==>.....] - ETA: 0s -
    loss: 0.2697 - acc: 0.9234
1996 20350/60000 [==>.....] - ETA: 0s -
    loss: 0.2720 - acc: 0.9229
1997 23100/60000 [==>.....] - ETA: 0s -
    loss: 0.2706 - acc: 0.9239
1998 26200/60000 [==>.....] - ETA: 0s -
    loss: 0.2715 - acc: 0.9243
1999 29600/60000 [==>.....] - ETA: 0s -
    loss: 0.2692 - acc: 0.9249
2000 33000/60000 [==>.....] - ETA: 0s -
    loss: 0.2675 - acc: 0.9253
2001 36400/60000 [==>.....] - ETA: 0s -
    loss: 0.2673 - acc: 0.9252
2002 39400/60000 [==>.....] - ETA: 0s -
    loss: 0.2691 - acc: 0.9241
2003 42600/60000 [==>.....] - ETA: 0s -
    loss: 0.2698 - acc: 0.9244
2004 45900/60000 [==>.....] - ETA: 0s -
    loss: 0.2708 - acc: 0.9246
2005 49200/60000 [==>.....] - ETA: 0s -
    loss: 0.2707 - acc: 0.9249
2006 51800/60000 [==>.....] - ETA: 0s -
```

```
2006 loss: 0.2704 - acc: 0.9247
2007 54750/60000 [=====>...] - ETA: 0s -
loss: 0.2699 - acc: 0.9248
2008 58050/60000 [=====>.] - ETA: 0s -
loss: 0.2695 - acc: 0.9248
2009 60000/60000 [=====] - 1s 17us/
step - loss: 0.2690 - acc: 0.9250
2010 Epoch 84/100
2011
2012    50/60000 [.....] - ETA: 2s -
loss: 0.2979 - acc: 0.9200
2013 3400/60000 [>.....] - ETA: 0s -
loss: 0.2566 - acc: 0.9303
2014 6050/60000 [==>.....] - ETA: 0s -
loss: 0.2693 - acc: 0.9271
2015 8600/60000 [==>.....] - ETA: 0s -
loss: 0.2628 - acc: 0.9269
2016 11750/60000 [==>.....] - ETA: 0s -
loss: 0.2685 - acc: 0.9249
2017 15150/60000 [==>.....] - ETA: 0s -
loss: 0.2668 - acc: 0.9250
2018 18500/60000 [==>.....] - ETA: 0s -
loss: 0.2675 - acc: 0.9255
2019 21100/60000 [==>.....] - ETA: 0s -
loss: 0.2651 - acc: 0.9259
2020 23950/60000 [==>.....] - ETA: 0s -
loss: 0.2689 - acc: 0.9251
2021 27250/60000 [=====>.....] - ETA: 0s -
loss: 0.2703 - acc: 0.9246
2022 30550/60000 [=====>.....] - ETA: 0s -
loss: 0.2691 - acc: 0.9249
2023 33850/60000 [=====>.....] - ETA: 0s -
loss: 0.2685 - acc: 0.9245
2024 36600/60000 [=====>.....] - ETA: 0s -
loss: 0.2671 - acc: 0.9249
2025 39600/60000 [=====>.....] - ETA: 0s -
loss: 0.2672 - acc: 0.9253
2026 42900/60000 [=====>.....] - ETA: 0s -
loss: 0.2707 - acc: 0.9243
2027 46200/60000 [=====>.....] - ETA: 0s -
loss: 0.2708 - acc: 0.9245
2028 48950/60000 [=====>.....] - ETA: 0s -
loss: 0.2693 - acc: 0.9249
2029 51950/60000 [=====>.....] - ETA: 0s -
loss: 0.2696 - acc: 0.9249
2030 55250/60000 [=====>...] - ETA: 0s -
loss: 0.2686 - acc: 0.9252
2031 58550/60000 [=====>.] - ETA: 0s -
loss: 0.2681 - acc: 0.9255
2032 60000/60000 [=====] - 1s 17us/
```

```
2032 step - loss: 0.2688 - acc: 0.9253
2033 Epoch 85/100
2034
2035    50/60000 [.....] - ETA: 2s -
    loss: 0.2890 - acc: 0.9200
2036    2700/60000 [>.....] - ETA: 1s -
    loss: 0.2575 - acc: 0.9263
2037    5700/60000 [=>.....] - ETA: 0s -
    loss: 0.2618 - acc: 0.9268
2038    8850/60000 [==>.....] - ETA: 0s -
    loss: 0.2528 - acc: 0.9275
2039    12050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2550 - acc: 0.9273
2040    14800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2596 - acc: 0.9273
2041    17600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2593 - acc: 0.9275
2042    21000/60000 [=====>.....] - ETA: 0s -
    loss: 0.2611 - acc: 0.9266
2043    24400/60000 [=====>.....] - ETA: 0s -
    loss: 0.2651 - acc: 0.9247
2044    27350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2685 - acc: 0.9242
2045    30500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2681 - acc: 0.9251
2046    33700/60000 [=====>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9246
2047    37050/60000 [=====>.....] - ETA: 0s -
    loss: 0.2720 - acc: 0.9241
2048    40450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9249
2049    43200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2694 - acc: 0.9253
2050    46200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2687 - acc: 0.9258
2051    49550/60000 [=====>.....] - ETA: 0s -
    loss: 0.2681 - acc: 0.9258
2052    52950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2683 - acc: 0.9257
2053    55650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2695 - acc: 0.9254
2054    58450/60000 [=====>.....] - ETA: 0s -
    loss: 0.2693 - acc: 0.9256
2055    60000/60000 [=====] - 1s 16us/
step - loss: 0.2685 - acc: 0.9257
2056 Epoch 86/100
2057
2058    50/60000 [.....] - ETA: 2s -
    loss: 0.6231 - acc: 0.8800
2059    3400/60000 [>.....] - ETA: 0s -
```

```
2059 loss: 0.2848 - acc: 0.9188
2060 6750/60000 [==>.....] - ETA: 0s -
loss: 0.2727 - acc: 0.9215
2061 9600/60000 [==>.....] - ETA: 0s -
loss: 0.2790 - acc: 0.9208
2062 11900/60000 [====>.....] - ETA: 0s -
loss: 0.2757 - acc: 0.9222
2063 14900/60000 [=====>.....] - ETA: 0s -
loss: 0.2792 - acc: 0.9214
2064 18300/60000 [======>.....] - ETA: 0s -
loss: 0.2745 - acc: 0.9235
2065 21650/60000 [======>.....] - ETA: 0s -
loss: 0.2757 - acc: 0.9233
2066 24550/60000 [======>.....] - ETA: 0s -
loss: 0.2737 - acc: 0.9237
2067 27550/60000 [======>.....] - ETA: 0s -
loss: 0.2737 - acc: 0.9240
2068 30900/60000 [======>.....] - ETA: 0s -
loss: 0.2721 - acc: 0.9245
2069 34200/60000 [======>.....] - ETA: 0s -
loss: 0.2702 - acc: 0.9246
2070 37500/60000 [======>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9246
2071 40150/60000 [======>.....] - ETA: 0s -
loss: 0.2707 - acc: 0.9241
2072 43150/60000 [======>.....] - ETA: 0s -
loss: 0.2697 - acc: 0.9243
2073 46450/60000 [======>.....] - ETA: 0s -
loss: 0.2703 - acc: 0.9240
2074 49750/60000 [======>.....] - ETA: 0s -
loss: 0.2697 - acc: 0.9243
2075 53100/60000 [======>....] - ETA: 0s -
loss: 0.2685 - acc: 0.9251
2076 55850/60000 [======>...] - ETA: 0s -
loss: 0.2677 - acc: 0.9255
2077 58850/60000 [======>..] - ETA: 0s -
loss: 0.2683 - acc: 0.9253
2078 60000/60000 [=====] - 1s 16us/
step - loss: 0.2683 - acc: 0.9252
2079 Epoch 87/100
2080
2081 50/60000 [.....] - ETA: 2s -
loss: 0.3796 - acc: 0.9400
2082 3400/60000 [>.....] - ETA: 0s -
loss: 0.2814 - acc: 0.9238
2083 6350/60000 [==>.....] - ETA: 0s -
loss: 0.2870 - acc: 0.9209
2084 8650/60000 [==>.....] - ETA: 0s -
loss: 0.2760 - acc: 0.9231
2085 11600/60000 [====>.....] - ETA: 0s -
```

```
2085 loss: 0.2762 - acc: 0.9233
2086 14950/60000 [=====>.....] - ETA: 0s -
loss: 0.2762 - acc: 0.9229
2087 18350/60000 [=====>.....] - ETA: 0s -
loss: 0.2711 - acc: 0.9251
2088 21300/60000 [=====>.....] - ETA: 0s -
loss: 0.2710 - acc: 0.9246
2089 24450/60000 [=====>.....] - ETA: 0s -
loss: 0.2726 - acc: 0.9238
2090 27750/60000 [=====>.....] - ETA: 0s -
loss: 0.2730 - acc: 0.9239
2091 31050/60000 [=====>.....] - ETA: 0s -
loss: 0.2728 - acc: 0.9237
2092 33600/60000 [=====>.....] - ETA: 0s -
loss: 0.2711 - acc: 0.9244
2093 36450/60000 [=====>.....] - ETA: 0s -
loss: 0.2722 - acc: 0.9246
2094 39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2718 - acc: 0.9252
2095 43050/60000 [=====>.....] - ETA: 0s -
loss: 0.2696 - acc: 0.9255
2096 46350/60000 [=====>.....] - ETA: 0s -
loss: 0.2685 - acc: 0.9257
2097 49000/60000 [=====>.....] - ETA: 0s -
loss: 0.2689 - acc: 0.9255
2098 52000/60000 [=====>.....] - ETA: 0s -
loss: 0.2684 - acc: 0.9253
2099 55250/60000 [=====>....] - ETA: 0s -
loss: 0.2684 - acc: 0.9254
2100 58550/60000 [=====>..] - ETA: 0s -
loss: 0.2684 - acc: 0.9254
2101 60000/60000 [=====] - 1s 16us/
step - loss: 0.2681 - acc: 0.9255
2102 Epoch 88/100
2103
2104 50/60000 [.....] - ETA: 2s -
loss: 0.4987 - acc: 0.8800
2105 3000/60000 [>.....] - ETA: 1s -
loss: 0.2801 - acc: 0.9227
2106 5300/60000 [=>.....] - ETA: 1s -
loss: 0.2713 - acc: 0.9247
2107 8250/60000 [==>.....] - ETA: 0s -
loss: 0.2782 - acc: 0.9230
2108 11650/60000 [==>.....] - ETA: 0s -
loss: 0.2751 - acc: 0.9248
2109 15050/60000 [==>.....] - ETA: 0s -
loss: 0.2751 - acc: 0.9237
2110 17950/60000 [==>.....] - ETA: 0s -
loss: 0.2777 - acc: 0.9236
2111 21050/60000 [==>.....] - ETA: 0s -
```

```
2111 loss: 0.2760 - acc: 0.9233
2112 24350/60000 [=====>.....] - ETA: 0s -
loss: 0.2728 - acc: 0.9238
2113 27650/60000 [=====>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9239
2114 30950/60000 [=====>.....] - ETA: 0s -
loss: 0.2679 - acc: 0.9249
2115 33650/60000 [=====>.....] - ETA: 0s -
loss: 0.2671 - acc: 0.9248
2116 36550/60000 [=====>.....] - ETA: 0s -
loss: 0.2672 - acc: 0.9249
2117 39800/60000 [=====>.....] - ETA: 0s -
loss: 0.2672 - acc: 0.9252
2118 43100/60000 [=====>.....] - ETA: 0s -
loss: 0.2684 - acc: 0.9251
2119 46400/60000 [=====>.....] - ETA: 0s -
loss: 0.2685 - acc: 0.9252
2120 49150/60000 [=====>.....] - ETA: 0s -
loss: 0.2683 - acc: 0.9254
2121 52150/60000 [=====>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9251
2122 55450/60000 [=====>...] - ETA: 0s -
loss: 0.2674 - acc: 0.9253
2123 58800/60000 [=====>..] - ETA: 0s -
loss: 0.2678 - acc: 0.9255
2124 60000/60000 [=====] - 1s 16us/
step - loss: 0.2679 - acc: 0.9257
2125 Epoch 89/100
2126
2127 50/60000 [.....] - ETA: 2s -
loss: 0.2034 - acc: 0.9200
2128 2900/60000 [>.....] - ETA: 1s -
loss: 0.2868 - acc: 0.9183
2129 6000/60000 [==>.....] - ETA: 0s -
loss: 0.2679 - acc: 0.9225
2130 9350/60000 [==>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9232
2131 12650/60000 [==>.....] - ETA: 0s -
loss: 0.2707 - acc: 0.9236
2132 15000/60000 [==>.....] - ETA: 0s -
loss: 0.2723 - acc: 0.9234
2133 17750/60000 [==>.....] - ETA: 0s -
loss: 0.2739 - acc: 0.9238
2134 21050/60000 [==>.....] - ETA: 0s -
loss: 0.2716 - acc: 0.9247
2135 24400/60000 [==>.....] - ETA: 0s -
loss: 0.2708 - acc: 0.9252
2136 27300/60000 [==>.....] - ETA: 0s -
loss: 0.2689 - acc: 0.9260
2137 30400/60000 [==>.....] - ETA: 0s -
```

```
2137 loss: 0.2678 - acc: 0.9262
2138 33700/60000 [=====>.....] - ETA: 0s -
loss: 0.2665 - acc: 0.9267
2139 37000/60000 [=====>.....] - ETA: 0s -
loss: 0.2671 - acc: 0.9265
2140 40300/60000 [=====>.....] - ETA: 0s -
loss: 0.2692 - acc: 0.9259
2141 42850/60000 [=====>.....] - ETA: 0s -
loss: 0.2694 - acc: 0.9257
2142 45700/60000 [=====>.....] - ETA: 0s -
loss: 0.2694 - acc: 0.9253
2143 48950/60000 [=====>.....] - ETA: 0s -
loss: 0.2684 - acc: 0.9253
2144 52250/60000 [=====>....] - ETA: 0s -
loss: 0.2688 - acc: 0.9254
2145 55600/60000 [=====>...] - ETA: 0s -
loss: 0.2692 - acc: 0.9252
2146 58200/60000 [=====>..] - ETA: 0s -
loss: 0.2681 - acc: 0.9254
2147 60000/60000 [=====] - 1s 16us/
step - loss: 0.2676 - acc: 0.9256
2148 Epoch 90/100
2149
2150    50/60000 [.....] - ETA: 2s -
loss: 0.3229 - acc: 0.9400
2151 3200/60000 [>.....] - ETA: 0s -
loss: 0.2658 - acc: 0.9225
2152 6500/60000 [==>.....] - ETA: 0s -
loss: 0.2689 - acc: 0.9222
2153 9850/60000 [==>.....] - ETA: 0s -
loss: 0.2701 - acc: 0.9212
2154 12500/60000 [====>.....] - ETA: 0s -
loss: 0.2712 - acc: 0.9213
2155 15000/60000 [====>.....] - ETA: 0s -
loss: 0.2671 - acc: 0.9225
2156 18200/60000 [=====>.....] - ETA: 0s -
loss: 0.2682 - acc: 0.9236
2157 21600/60000 [=====>.....] - ETA: 0s -
loss: 0.2704 - acc: 0.9243
2158 24950/60000 [=====>.....] - ETA: 0s -
loss: 0.2705 - acc: 0.9243
2159 27600/60000 [=====>.....] - ETA: 0s -
loss: 0.2697 - acc: 0.9247
2160 30600/60000 [=====>.....] - ETA: 0s -
loss: 0.2734 - acc: 0.9233
2161 33900/60000 [=====>.....] - ETA: 0s -
loss: 0.2711 - acc: 0.9238
2162 36850/60000 [=====>.....] - ETA: 0s -
loss: 0.2701 - acc: 0.9243
2163 39350/60000 [=====>.....] - ETA: 0s -
```

```
2163 loss: 0.2686 - acc: 0.9249
2164 42400/60000 [=====>.....] - ETA: 0s -
loss: 0.2674 - acc: 0.9252
2165 45800/60000 [=====>.....] - ETA: 0s -
loss: 0.2665 - acc: 0.9257
2166 49200/60000 [=====>.....] - ETA: 0s -
loss: 0.2655 - acc: 0.9258
2167 52550/60000 [=====>....] - ETA: 0s -
loss: 0.2661 - acc: 0.9258
2168 55150/60000 [=====>...] - ETA: 0s -
loss: 0.2666 - acc: 0.9257
2169 58000/60000 [=====>..] - ETA: 0s -
loss: 0.2665 - acc: 0.9258
2170 60000/60000 [=====] - 1s 17us/
step - loss: 0.2674 - acc: 0.9255
2171 Epoch 91/100
2172
2173    50/60000 [.....] - ETA: 2s -
loss: 0.0974 - acc: 0.9800
2174 3400/60000 [>.....] - ETA: 0s -
loss: 0.2615 - acc: 0.9262
2175 6700/60000 [==>.....] - ETA: 0s -
loss: 0.2703 - acc: 0.9261
2176 9400/60000 [==>.....] - ETA: 0s -
loss: 0.2688 - acc: 0.9255
2177 11850/60000 [==>.....] - ETA: 0s -
loss: 0.2702 - acc: 0.9242
2178 14900/60000 [==>.....] - ETA: 0s -
loss: 0.2701 - acc: 0.9230
2179 18200/60000 [==>.....] - ETA: 0s -
loss: 0.2676 - acc: 0.9245
2180 21600/60000 [==>.....] - ETA: 0s -
loss: 0.2654 - acc: 0.9249
2181 24550/60000 [==>.....] - ETA: 0s -
loss: 0.2677 - acc: 0.9245
2182 27700/60000 [==>.....] - ETA: 0s -
loss: 0.2670 - acc: 0.9249
2183 31000/60000 [=====>.....] - ETA: 0s -
loss: 0.2669 - acc: 0.9248
2184 34300/60000 [=====>.....] - ETA: 0s -
loss: 0.2681 - acc: 0.9250
2185 36900/60000 [=====>.....] - ETA: 0s -
loss: 0.2678 - acc: 0.9253
2186 39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2664 - acc: 0.9260
2187 43000/60000 [=====>.....] - ETA: 0s -
loss: 0.2680 - acc: 0.9255
2188 46300/60000 [=====>.....] - ETA: 0s -
loss: 0.2671 - acc: 0.9257
2189 49600/60000 [=====>.....] - ETA: 0s -
```

```
2189 loss: 0.2666 - acc: 0.9259
2190 52200/60000 [=====>....] - ETA: 0s -
loss: 0.2664 - acc: 0.9257
2191 55100/60000 [=====>...] - ETA: 0s -
loss: 0.2671 - acc: 0.9258
2192 58350/60000 [=====>.] - ETA: 0s -
loss: 0.2669 - acc: 0.9257
2193 60000/60000 [=====] - 1s 16us/
step - loss: 0.2671 - acc: 0.9258
2194 Epoch 92/100
2195
2196    50/60000 [.....] - ETA: 2s -
loss: 0.3830 - acc: 0.9000
2197 3350/60000 [>.....] - ETA: 0s -
loss: 0.2606 - acc: 0.9266
2198 6150/60000 [==>.....] - ETA: 0s -
loss: 0.2657 - acc: 0.9273
2199 8650/60000 [==>.....] - ETA: 0s -
loss: 0.2640 - acc: 0.9286
2200 11700/60000 [====>.....] - ETA: 0s -
loss: 0.2601 - acc: 0.9293
2201 15100/60000 [=====>.....] - ETA: 0s -
loss: 0.2654 - acc: 0.9270
2202 18500/60000 [=====>.....] - ETA: 0s -
loss: 0.2644 - acc: 0.9262
2203 21500/60000 [=====>.....] - ETA: 0s -
loss: 0.2652 - acc: 0.9264
2204 24500/60000 [=====>.....] - ETA: 0s -
loss: 0.2642 - acc: 0.9267
2205 27850/60000 [=====>.....] - ETA: 0s -
loss: 0.2636 - acc: 0.9268
2206 31150/60000 [=====>.....] - ETA: 0s -
loss: 0.2641 - acc: 0.9264
2207 33850/60000 [=====>.....] - ETA: 0s -
loss: 0.2633 - acc: 0.9262
2208 36850/60000 [=====>.....] - ETA: 0s -
loss: 0.2629 - acc: 0.9261
2209 40150/60000 [=====>.....] - ETA: 0s -
loss: 0.2626 - acc: 0.9264
2210 43450/60000 [=====>.....] - ETA: 0s -
loss: 0.2636 - acc: 0.9263
2211 46000/60000 [=====>.....] - ETA: 0s -
loss: 0.2663 - acc: 0.9254
2212 48800/60000 [=====>.....] - ETA: 0s -
loss: 0.2664 - acc: 0.9254
2213 52100/60000 [=====>....] - ETA: 0s -
loss: 0.2679 - acc: 0.9253
2214 55400/60000 [=====>...] - ETA: 0s -
loss: 0.2678 - acc: 0.9252
2215 58700/60000 [=====>.] - ETA: 0s -
```

```
2215 loss: 0.2671 - acc: 0.9257
2216 60000/60000 [=====] - 1s 16us/
    step - loss: 0.2669 - acc: 0.9258
2217 Epoch 93/100
2218
2219     50/60000 [.....] - ETA: 3s -
    loss: 0.3963 - acc: 0.9000
2220 2900/60000 [>.....] - ETA: 1s -
    loss: 0.2890 - acc: 0.9228
2221 5900/60000 [=>.....] - ETA: 0s -
    loss: 0.2727 - acc: 0.9254
2222 9200/60000 [==>.....] - ETA: 0s -
    loss: 0.2716 - acc: 0.9242
2223 12500/60000 [====>.....] - ETA: 0s -
    loss: 0.2698 - acc: 0.9250
2224 14800/60000 [=====>.....] - ETA: 0s -
    loss: 0.2710 - acc: 0.9251
2225 17500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2671 - acc: 0.9262
2226 20900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2647 - acc: 0.9263
2227 24300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2647 - acc: 0.9266
2228 27300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2648 - acc: 0.9266
2229 30350/60000 [=====>.....] - ETA: 0s -
    loss: 0.2645 - acc: 0.9268
2230 33650/60000 [=====>.....] - ETA: 0s -
    loss: 0.2650 - acc: 0.9266
2231 36950/60000 [=====>.....] - ETA: 0s -
    loss: 0.2637 - acc: 0.9270
2232 39500/60000 [=====>.....] - ETA: 0s -
    loss: 0.2640 - acc: 0.9270
2233 42300/60000 [=====>.....] - ETA: 0s -
    loss: 0.2637 - acc: 0.9269
2234 45600/60000 [=====>.....] - ETA: 0s -
    loss: 0.2643 - acc: 0.9266
2235 48900/60000 [=====>.....] - ETA: 0s -
    loss: 0.2644 - acc: 0.9269
2236 52200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2651 - acc: 0.9263
2237 54900/60000 [=====>....] - ETA: 0s -
    loss: 0.2661 - acc: 0.9262
2238 57650/60000 [=====>..] - ETA: 0s -
    loss: 0.2659 - acc: 0.9262
2239 60000/60000 [=====] - 1s 17us/
    step - loss: 0.2666 - acc: 0.9259
2240 Epoch 94/100
2241
2242     50/60000 [.....] - ETA: 2s -
```

```
2242 loss: 0.5302 - acc: 0.9000
2243 3400/60000 [>.....] - ETA: 0s -
loss: 0.2781 - acc: 0.9179
2244 6700/60000 [==>.....] - ETA: 0s -
loss: 0.2765 - acc: 0.9206
2245 9200/60000 [===>.....] - ETA: 0s -
loss: 0.2672 - acc: 0.9237
2246 11750/60000 [=====>.....] - ETA: 0s -
loss: 0.2653 - acc: 0.9247
2247 14900/60000 [=====>.....] - ETA: 0s -
loss: 0.2622 - acc: 0.9256
2248 18300/60000 [======>.....] - ETA: 0s -
loss: 0.2594 - acc: 0.9263
2249 21700/60000 [======>.....] - ETA: 0s -
loss: 0.2587 - acc: 0.9265
2250 24350/60000 [======>.....] - ETA: 0s -
loss: 0.2602 - acc: 0.9263
2251 27100/60000 [======>.....] - ETA: 0s -
loss: 0.2610 - acc: 0.9267
2252 30350/60000 [======>.....] - ETA: 0s -
loss: 0.2636 - acc: 0.9262
2253 33650/60000 [======>.....] - ETA: 0s -
loss: 0.2638 - acc: 0.9262
2254 36950/60000 [======>.....] - ETA: 0s -
loss: 0.2643 - acc: 0.9265
2255 39650/60000 [======>.....] - ETA: 0s -
loss: 0.2644 - acc: 0.9262
2256 42650/60000 [======>.....] - ETA: 0s -
loss: 0.2644 - acc: 0.9264
2257 45950/60000 [======>.....] - ETA: 0s -
loss: 0.2641 - acc: 0.9261
2258 49250/60000 [======>.....] - ETA: 0s -
loss: 0.2649 - acc: 0.9261
2259 51850/60000 [======>.....] - ETA: 0s -
loss: 0.2651 - acc: 0.9261
2260 54850/60000 [======>....] - ETA: 0s -
loss: 0.2649 - acc: 0.9263
2261 58150/60000 [======>..] - ETA: 0s -
loss: 0.2661 - acc: 0.9263
2262 60000/60000 [=====] - 1s 16us/
step - loss: 0.2665 - acc: 0.9261
2263 Epoch 95/100
2264
2265    50/60000 [.....] - ETA: 2s -
loss: 0.3950 - acc: 0.9000
2266    3350/60000 [>.....] - ETA: 0s -
loss: 0.2918 - acc: 0.9239
2267    6200/60000 [==>.....] - ETA: 0s -
loss: 0.2767 - acc: 0.9240
2268    8700/60000 [==>.....] - ETA: 0s -
```

```
2268 loss: 0.2683 - acc: 0.9259
2269 11750/60000 [====>.....] - ETA: 0s -
loss: 0.2713 - acc: 0.9249
2270 15150/60000 [=====>.....] - ETA: 0s -
loss: 0.2689 - acc: 0.9250
2271 18550/60000 [======>.....] - ETA: 0s -
loss: 0.2670 - acc: 0.9260
2272 21500/60000 [======>.....] - ETA: 0s -
loss: 0.2646 - acc: 0.9267
2273 24550/60000 [======>.....] - ETA: 0s -
loss: 0.2652 - acc: 0.9273
2274 27850/60000 [======>.....] - ETA: 0s -
loss: 0.2664 - acc: 0.9266
2275 31150/60000 [======>.....] - ETA: 0s -
loss: 0.2648 - acc: 0.9270
2276 34450/60000 [======>.....] - ETA: 0s -
loss: 0.2646 - acc: 0.9270
2277 37050/60000 [======>.....] - ETA: 0s -
loss: 0.2663 - acc: 0.9264
2278 39600/60000 [======>.....] - ETA: 0s -
loss: 0.2672 - acc: 0.9261
2279 42900/60000 [======>.....] - ETA: 0s -
loss: 0.2671 - acc: 0.9266
2280 46200/60000 [======>.....] - ETA: 0s -
loss: 0.2660 - acc: 0.9266
2281 49600/60000 [======>.....] - ETA: 0s -
loss: 0.2677 - acc: 0.9257
2282 52600/60000 [======>.....] - ETA: 0s -
loss: 0.2675 - acc: 0.9259
2283 55550/60000 [======>....] - ETA: 0s -
loss: 0.2674 - acc: 0.9260
2284 58850/60000 [======>..] - ETA: 0s -
loss: 0.2660 - acc: 0.9262
2285 60000/60000 [=====] - 1s 16us/
step - loss: 0.2663 - acc: 0.9260
2286 Epoch 96/100
2287
2288 50/60000 [.....] - ETA: 2s -
loss: 0.2227 - acc: 0.9200
2289 3000/60000 [>.....] - ETA: 0s -
loss: 0.2562 - acc: 0.9293
2290 5400/60000 [=>.....] - ETA: 1s -
loss: 0.2633 - acc: 0.9293
2291 8250/60000 [==>.....] - ETA: 0s -
loss: 0.2611 - acc: 0.9285
2292 11650/60000 [==>.....] - ETA: 0s -
loss: 0.2577 - acc: 0.9283
2293 15100/60000 [==>.....] - ETA: 0s -
loss: 0.2611 - acc: 0.9268
2294 18000/60000 [==>.....] - ETA: 0s -
```

```
2294 loss: 0.2619 - acc: 0.9275
2295 21100/60000 [=====>.....] - ETA: 0s -
loss: 0.2624 - acc: 0.9284
2296 24450/60000 [=====>.....] - ETA: 0s -
loss: 0.2625 - acc: 0.9279
2297 27750/60000 [=====>.....] - ETA: 0s -
loss: 0.2645 - acc: 0.9275
2298 31100/60000 [=====>.....] - ETA: 0s -
loss: 0.2647 - acc: 0.9270
2299 33800/60000 [=====>.....] - ETA: 0s -
loss: 0.2666 - acc: 0.9259
2300 36800/60000 [=====>.....] - ETA: 0s -
loss: 0.2681 - acc: 0.9254
2301 40100/60000 [=====>.....] - ETA: 0s -
loss: 0.2674 - acc: 0.9257
2302 43400/60000 [=====>.....] - ETA: 0s -
loss: 0.2686 - acc: 0.9254
2303 46050/60000 [=====>.....] - ETA: 0s -
loss: 0.2663 - acc: 0.9259
2304 48850/60000 [=====>.....] - ETA: 0s -
loss: 0.2663 - acc: 0.9258
2305 52150/60000 [=====>.....] - ETA: 0s -
loss: 0.2650 - acc: 0.9264
2306 55450/60000 [=====>....] - ETA: 0s -
loss: 0.2658 - acc: 0.9261
2307 58750/60000 [=====>..] - ETA: 0s -
loss: 0.2659 - acc: 0.9262
2308 60000/60000 [=====] - 1s 16us/
step - loss: 0.2661 - acc: 0.9261
2309 Epoch 97/100
2310
2311 50/60000 [.....] - ETA: 2s -
loss: 0.3601 - acc: 0.9400
2312 2900/60000 [>.....] - ETA: 1s -
loss: 0.2849 - acc: 0.9248
2313 6000/60000 [==>.....] - ETA: 0s -
loss: 0.2611 - acc: 0.9287
2314 9300/60000 [==>.....] - ETA: 0s -
loss: 0.2644 - acc: 0.9270
2315 12600/60000 [==>.....] - ETA: 0s -
loss: 0.2658 - acc: 0.9260
2316 15000/60000 [==>.....] - ETA: 0s -
loss: 0.2655 - acc: 0.9258
2317 17700/60000 [==>.....] - ETA: 0s -
loss: 0.2672 - acc: 0.9247
2318 21100/60000 [==>.....] - ETA: 0s -
loss: 0.2695 - acc: 0.9243
2319 24550/60000 [==>.....] - ETA: 0s -
loss: 0.2690 - acc: 0.9243
2320 27550/60000 [==>.....] - ETA: 0s -
```

```
2320 loss: 0.2701 - acc: 0.9241
2321 30600/60000 [=====>.....] - ETA: 0s -
loss: 0.2699 - acc: 0.9244
2322 33900/60000 [=====>.....] - ETA: 0s -
loss: 0.2689 - acc: 0.9249
2323 37250/60000 [=====>.....] - ETA: 0s -
loss: 0.2685 - acc: 0.9253
2324 40650/60000 [=====>.....] - ETA: 0s -
loss: 0.2678 - acc: 0.9257
2325 43300/60000 [=====>.....] - ETA: 0s -
loss: 0.2691 - acc: 0.9258
2326 46100/60000 [=====>.....] - ETA: 0s -
loss: 0.2669 - acc: 0.9264
2327 49400/60000 [=====>.....] - ETA: 0s -
loss: 0.2665 - acc: 0.9268
2328 52700/60000 [=====>....] - ETA: 0s -
loss: 0.2663 - acc: 0.9268
2329 56050/60000 [=====>...] - ETA: 0s -
loss: 0.2645 - acc: 0.9272
2330 58800/60000 [=====>..] - ETA: 0s -
loss: 0.2654 - acc: 0.9266
2331 60000/60000 [=====] - 1s 16us/
step - loss: 0.2658 - acc: 0.9264
2332 Epoch 98/100
2333
2334    50/60000 [.....] - ETA: 2s -
loss: 0.2060 - acc: 0.9000
2335    3300/60000 [>.....] - ETA: 0s -
loss: 0.2826 - acc: 0.9218
2336    6600/60000 [==>.....] - ETA: 0s -
loss: 0.2899 - acc: 0.9202
2337    9450/60000 [==>.....] - ETA: 0s -
loss: 0.2768 - acc: 0.9210
2338    11900/60000 [==>.....] - ETA: 0s -
loss: 0.2782 - acc: 0.9209
2339    14900/60000 [==>.....] - ETA: 0s -
loss: 0.2715 - acc: 0.9226
2340    18300/60000 [==>.....] - ETA: 0s -
loss: 0.2688 - acc: 0.9246
2341    21700/60000 [==>.....] - ETA: 0s -
loss: 0.2706 - acc: 0.9240
2342    24700/60000 [==>.....] - ETA: 0s -
loss: 0.2701 - acc: 0.9237
2343    27700/60000 [==>.....] - ETA: 0s -
loss: 0.2694 - acc: 0.9247
2344    31000/60000 [==>.....] - ETA: 0s -
loss: 0.2699 - acc: 0.9246
2345    34300/60000 [==>.....] - ETA: 0s -
loss: 0.2706 - acc: 0.9245
2346    36900/60000 [==>.....] - ETA: 0s -
```

```
2346 loss: 0.2685 - acc: 0.9245
2347 39700/60000 [=====>.....] - ETA: 0s -
loss: 0.2691 - acc: 0.9246
2348 43050/60000 [=====>.....] - ETA: 0s -
loss: 0.2679 - acc: 0.9254
2349 46350/60000 [=====>.....] - ETA: 0s -
loss: 0.2664 - acc: 0.9263
2350 49700/60000 [=====>.....] - ETA: 0s -
loss: 0.2677 - acc: 0.9257
2351 52450/60000 [=====>....] - ETA: 0s -
loss: 0.2667 - acc: 0.9260
2352 55450/60000 [=====>...] - ETA: 0s -
loss: 0.2677 - acc: 0.9260
2353 58750/60000 [=====>..] - ETA: 0s -
loss: 0.2666 - acc: 0.9259
2354 60000/60000 [=====] - 1s 16us/
step - loss: 0.2657 - acc: 0.9262
2355 Epoch 99/100
2356
2357    50/60000 [.....] - ETA: 2s -
loss: 0.2496 - acc: 0.9600
2358 3000/60000 [>.....] - ETA: 0s -
loss: 0.2446 - acc: 0.9353
2359 5350/60000 [=>.....] - ETA: 1s -
loss: 0.2671 - acc: 0.9277
2360 8200/60000 [==>.....] - ETA: 0s -
loss: 0.2724 - acc: 0.9270
2361 11600/60000 [==>.....] - ETA: 0s -
loss: 0.2648 - acc: 0.9284
2362 15000/60000 [=====>.....] - ETA: 0s -
loss: 0.2676 - acc: 0.9283
2363 17900/60000 [=====>.....] - ETA: 0s -
loss: 0.2654 - acc: 0.9275
2364 21000/60000 [=====>.....] - ETA: 0s -
loss: 0.2673 - acc: 0.9265
2365 24350/60000 [=====>.....] - ETA: 0s -
loss: 0.2638 - acc: 0.9271
2366 27700/60000 [=====>.....] - ETA: 0s -
loss: 0.2618 - acc: 0.9273
2367 31000/60000 [=====>.....] - ETA: 0s -
loss: 0.2628 - acc: 0.9271
2368 33550/60000 [=====>.....] - ETA: 0s -
loss: 0.2632 - acc: 0.9267
2369 36450/60000 [=====>.....] - ETA: 0s -
loss: 0.2646 - acc: 0.9269
2370 39750/60000 [=====>.....] - ETA: 0s -
loss: 0.2650 - acc: 0.9267
2371 43100/60000 [=====>.....] - ETA: 0s -
loss: 0.2637 - acc: 0.9270
2372 46400/60000 [=====>.....] - ETA: 0s -
```

```
2372 loss: 0.2623 - acc: 0.9272
2373 49050/60000 [=====>.....] - ETA: 0s -
loss: 0.2633 - acc: 0.9269
2374 51950/60000 [=====>.....] - ETA: 0s -
loss: 0.2644 - acc: 0.9267
2375 55200/60000 [=====>...] - ETA: 0s -
loss: 0.2646 - acc: 0.9267
2376 58550/60000 [=====>..] - ETA: 0s -
loss: 0.2649 - acc: 0.9264
2377 60000/60000 [=====] - 1s 16us/
step - loss: 0.2655 - acc: 0.9262
2378 Epoch 100/100
2379
2380    50/60000 [.....] - ETA: 2s -
loss: 0.3331 - acc: 0.9000
2381 2900/60000 [>.....] - ETA: 1s -
loss: 0.2413 - acc: 0.9307
2382 5350/60000 [=>.....] - ETA: 1s -
loss: 0.2646 - acc: 0.9280
2383 8300/60000 [==>.....] - ETA: 0s -
loss: 0.2615 - acc: 0.9276
2384 11700/60000 [==>.....] - ETA: 0s -
loss: 0.2717 - acc: 0.9235
2385 15100/60000 [=====>.....] - ETA: 0s -
loss: 0.2639 - acc: 0.9259
2386 18100/60000 [=====>.....] - ETA: 0s -
loss: 0.2611 - acc: 0.9267
2387 21100/60000 [=====>.....] - ETA: 0s -
loss: 0.2614 - acc: 0.9264
2388 24450/60000 [=====>.....] - ETA: 0s -
loss: 0.2619 - acc: 0.9270
2389 27800/60000 [=====>.....] - ETA: 0s -
loss: 0.2630 - acc: 0.9268
2390 31150/60000 [=====>.....] - ETA: 0s -
loss: 0.2637 - acc: 0.9271
2391 33800/60000 [=====>.....] - ETA: 0s -
loss: 0.2641 - acc: 0.9268
2392 36650/60000 [=====>.....] - ETA: 0s -
loss: 0.2641 - acc: 0.9265
2393 39950/60000 [=====>.....] - ETA: 0s -
loss: 0.2640 - acc: 0.9266
2394 43300/60000 [=====>.....] - ETA: 0s -
loss: 0.2640 - acc: 0.9269
2395 46200/60000 [=====>.....] - ETA: 0s -
loss: 0.2647 - acc: 0.9268
2396 48750/60000 [=====>.....] - ETA: 0s -
loss: 0.2644 - acc: 0.9268
2397 51800/60000 [=====>.....] - ETA: 0s -
loss: 0.2655 - acc: 0.9264
2398 55150/60000 [=====>...] - ETA: 0s -
```

```
2398 loss: 0.2656 - acc: 0.9265
2399 58550/60000 [=====>.] - ETA: 0s -
loss: 0.2656 - acc: 0.9265
2400 60000/60000 [=====] - 1s 16us/
step - loss: 0.2653 - acc: 0.9265
2401
2402    32/10000 [.....] - ETA: 6s
2403    4000/10000 [=====>.....] - ETA: 0s
2404    8352/10000 [=====>.....] - ETA: 0s
2405 10000/10000 [=====] - 0s 14us/
step
2406 Summary: Loss over the test dataset: 0.27, Accuracy: 0.92
2407
2408 Process finished with exit code 0
2409
```