```
D:\PycharmProjects\grabage_classify\.venv\Scripts\
python.exe D:\库course\s3\ml\garbage_classfication\
garbage_resnet34.py
gpu available
[1,    50] loss: 1.809  test_accuracy:16.529
train_accuracy:29.298
[1,   100] loss: 1.877  test_accuracy:21.488
train_accuracy:31.331
[1,   150] loss: 1.804  test_accuracy:20.937
train_accuracy:31.978
[1,   200] loss: 1.761  test_accuracy:20.937
train_accuracy:31.331
[1,   250] loss: 1.640  test_accuracy:17.906
train_accuracy:37.107
[1,   300] loss: 1.623  test_accuracy:22.314
train_accuracy:41.312
[1,   350] loss: 1.640  test_accuracy:22.314
train_accuracy:36.830
[2,    50] loss: 1.499  test_accuracy:20.937
train_accuracy:42.375
[2,   100] loss: 1.454  test_accuracy:22.865
train_accuracy:45.980
[2,   150] loss: 1.589  test_accuracy:21.212
train_accuracy:42.375
[2,   200] loss: 1.455  test_accuracy:24.793
train_accuracy:45.471
[2,   250] loss: 1.437  test_accuracy:19.559
train_accuracy:49.815
[2,   300] loss: 1.490  test_accuracy:19.559
train_accuracy:46.303
[2,   350] loss: 1.380  test_accuracy:22.314
train_accuracy:47.274
[3,    50] loss: 1.480  test_accuracy:23.416
train_accuracy:48.198
[3,   100] loss: 1.447  test_accuracy:22.590
train_accuracy:47.921
[3,   150] loss: 1.475  test_accuracy:18.733
train_accuracy:45.795
[3,   200] loss: 1.423  test_accuracy:18.733
train_accuracy:49.769
[3,   250] loss: 1.346  test_accuracy:22.865
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train_accuracy:50.924
[3,   300] loss: 1.409  test_accuracy:22.314
train_accuracy:47.782
[3,   350] loss: 1.277  test_accuracy:22.590
train_accuracy:48.891
[4,    50] loss: 1.262  test_accuracy:23.416
train_accuracy:51.941
[4,   100] loss: 1.279  test_accuracy:21.763
train_accuracy:51.525
[4,   150] loss: 1.452  test_accuracy:24.518
train_accuracy:49.723
[4,   200] loss: 1.280  test_accuracy:25.069
train_accuracy:56.747
[4,   250] loss: 1.237  test_accuracy:22.865
train_accuracy:53.096
[4,   300] loss: 1.286  test_accuracy:20.937
train_accuracy:52.680
[4,   350] loss: 1.290  test_accuracy:22.590
train_accuracy:53.928
[5,    50] loss: 1.253  test_accuracy:23.967
train_accuracy:52.588
[5,   100] loss: 1.208  test_accuracy:25.344
train_accuracy:55.730
[5,   150] loss: 1.294  test_accuracy:21.488
train_accuracy:50.924
[5,   200] loss: 1.257  test_accuracy:24.518
train_accuracy:57.440
[5,   250] loss: 1.224  test_accuracy:24.242
train_accuracy:55.823
[5,   300] loss: 1.099  test_accuracy:25.895
train_accuracy:57.024
[5,   350] loss: 1.320  test_accuracy:23.416
train_accuracy:52.264
[6,    50] loss: 1.186  test_accuracy:23.967
train_accuracy:57.116
[6,   100] loss: 1.173  test_accuracy:25.620
train_accuracy:56.701
[6,   150] loss: 1.205  test_accuracy:23.416
train_accuracy:56.654
[6,   200] loss: 1.169  test_accuracy:26.171
train_accuracy:54.482
```

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[6,   250] loss: 1.256  test_accuracy:25.344
train_accuracy:56.932
[6,   300] loss: 1.268  test_accuracy:23.416
train_accuracy:60.028
[6,   350] loss: 1.144  test_accuracy:24.518
train_accuracy:57.163
[7,    50] loss: 1.098  test_accuracy:28.650
train_accuracy:58.457
[7,   100] loss: 1.180  test_accuracy:26.171
train_accuracy:59.889
[7,   150] loss: 1.093  test_accuracy:23.691
train_accuracy:60.628
[7,   200] loss: 1.221  test_accuracy:22.590
train_accuracy:51.664
[7,   250] loss: 1.266  test_accuracy:25.895
train_accuracy:55.083
[7,   300] loss: 1.085  test_accuracy:26.722
train_accuracy:61.738
[7,   350] loss: 1.223  test_accuracy:21.763
train_accuracy:59.658
[8,    50] loss: 1.084  test_accuracy:27.273
train_accuracy:63.124
[8,   100] loss: 1.212  test_accuracy:27.273
train_accuracy:63.031
[8,   150] loss: 1.004  test_accuracy:24.793
train_accuracy:62.338
[8,   200] loss: 1.143  test_accuracy:26.446
train_accuracy:62.477
[8,   250] loss: 1.053  test_accuracy:26.446
train_accuracy:58.965
[8,   300] loss: 1.055  test_accuracy:28.099
train_accuracy:66.451
[8,   350] loss: 1.068  test_accuracy:28.375
train_accuracy:58.688
[9,    50] loss: 1.137  test_accuracy:24.793
train_accuracy:60.767
[9,   100] loss: 1.063  test_accuracy:26.171
train_accuracy:60.952
[9,   150] loss: 1.027  test_accuracy:24.518
train_accuracy:62.246
[9,   200] loss: 0.989  test_accuracy:23.416
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train_accuracy:61.645
[9,   250] loss: 1.126  test_accuracy:24.242
train_accuracy:61.922
[9,   300] loss: 0.953  test_accuracy:26.171
train_accuracy:63.632
[9,   350] loss: 0.960  test_accuracy:26.722
train_accuracy:67.098
[10,    50] loss: 0.909  test_accuracy:24.518
train_accuracy:66.312
[10,   100] loss: 1.087  test_accuracy:27.824
train_accuracy:63.078
[10,   150] loss: 1.020  test_accuracy:24.793
train_accuracy:63.309
[10,   200] loss: 0.982  test_accuracy:26.171
train_accuracy:67.375
[10,   250] loss: 0.979  test_accuracy:25.344
train_accuracy:65.943
[10,   300] loss: 0.993  test_accuracy:26.722
train_accuracy:64.094
[10,   350] loss: 1.065  test_accuracy:25.344
train_accuracy:66.774
[11,    50] loss: 0.918  test_accuracy:26.997
train_accuracy:70.240
[11,   100] loss: 0.928  test_accuracy:25.344
train_accuracy:66.451
[11,   150] loss: 0.845  test_accuracy:25.069
train_accuracy:64.972
[11,   200] loss: 0.865  test_accuracy:27.824
train_accuracy:59.473
[11,   250] loss: 0.911  test_accuracy:27.548
train_accuracy:68.022
[11,   300] loss: 0.986  test_accuracy:22.590
train_accuracy:63.447
[11,   350] loss: 0.932  test_accuracy:28.650
train_accuracy:63.956
[12,    50] loss: 0.810  test_accuracy:29.201
train_accuracy:67.976
[12,   100] loss: 0.856  test_accuracy:26.446
train_accuracy:71.303
[12,   150] loss: 0.835  test_accuracy:26.997
train_accuracy:67.560
```

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[12,   200] loss: 0.922  test_accuracy:29.752
train_accuracy:66.359
[12,   250] loss: 0.982  test_accuracy:27.273
train_accuracy:72.366
[12,   300] loss: 0.923  test_accuracy:29.201
train_accuracy:69.039
[12,   350] loss: 0.733  test_accuracy:25.069
train_accuracy:70.287
[13,    50] loss: 0.847  test_accuracy:26.171
train_accuracy:69.686
[13,   100] loss: 0.950  test_accuracy:26.171
train_accuracy:74.261
[13,   150] loss: 0.788  test_accuracy:26.446
train_accuracy:66.682
[13,   200] loss: 0.991  test_accuracy:25.620
train_accuracy:72.921
[13,   250] loss: 0.821  test_accuracy:30.028
train_accuracy:72.227
[13,   300] loss: 0.840  test_accuracy:27.824
train_accuracy:71.026
[13,   350] loss: 0.974  test_accuracy:27.548
train_accuracy:69.593
[14,    50] loss: 0.810  test_accuracy:27.273
train_accuracy:74.168
[14,   100] loss: 0.821  test_accuracy:23.967
train_accuracy:69.917
[14,   150] loss: 0.780  test_accuracy:28.375
train_accuracy:67.652
[14,   200] loss: 0.835  test_accuracy:24.793
train_accuracy:76.571
[14,   250] loss: 0.808  test_accuracy:27.548
train_accuracy:71.349
[14,   300] loss: 0.805  test_accuracy:30.579
train_accuracy:76.756
[14,   350] loss: 0.684  test_accuracy:28.099
train_accuracy:71.719
[15,    50] loss: 0.802  test_accuracy:23.416
train_accuracy:73.244
[15,   100] loss: 0.692  test_accuracy:27.548
train_accuracy:74.399
[15,   150] loss: 0.700  test_accuracy:26.446
```

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train_accuracy:75.555
[15,   200] loss: 0.799  test_accuracy:28.099
train_accuracy:77.495
[15,   250] loss: 0.729  test_accuracy:28.099
train_accuracy:74.445
[15,   300] loss: 0.770  test_accuracy:32.231
train_accuracy:75.878
[15,   350] loss: 0.704  test_accuracy:27.824
train_accuracy:76.756
[16,    50] loss: 0.553  test_accuracy:30.028
train_accuracy:80.083
[16,   100] loss: 0.678  test_accuracy:28.650
train_accuracy:77.495
[16,   150] loss: 0.655  test_accuracy:28.099
train_accuracy:76.848
[16,   200] loss: 0.702  test_accuracy:28.375
train_accuracy:75.693
[16,   250] loss: 0.785  test_accuracy:28.099
train_accuracy:78.004
[16,   300] loss: 0.635  test_accuracy:27.273
train_accuracy:77.264
[16,   350] loss: 0.733  test_accuracy:27.548
train_accuracy:78.558
[17,    50] loss: 0.662  test_accuracy:32.507
train_accuracy:79.667
[17,   100] loss: 0.610  test_accuracy:29.752
train_accuracy:80.222
[17,   150] loss: 0.636  test_accuracy:25.895
train_accuracy:74.769
[17,   200] loss: 0.739  test_accuracy:31.129
train_accuracy:76.617
[17,   250] loss: 0.832  test_accuracy:30.028
train_accuracy:73.983
[17,   300] loss: 0.632  test_accuracy:29.752
train_accuracy:82.163
[17,   350] loss: 0.677  test_accuracy:27.548
train_accuracy:75.878
[18,    50] loss: 0.628  test_accuracy:31.129
train_accuracy:82.856
[18,   100] loss: 0.657  test_accuracy:25.895
train_accuracy:79.898
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[18,   150] loss: 0.620  test_accuracy:26.997
train_accuracy:75.092
[18,   200] loss: 0.579  test_accuracy:32.507
train_accuracy:81.331
[18,   250] loss: 0.639  test_accuracy:28.926
train_accuracy:78.281
[18,   300] loss: 0.738  test_accuracy:28.650
train_accuracy:78.189
[18,   350] loss: 0.619  test_accuracy:30.028
train_accuracy:84.196
[19,    50] loss: 0.509  test_accuracy:32.782
train_accuracy:83.872
[19,   100] loss: 0.660  test_accuracy:31.405
train_accuracy:75.000
[19,   150] loss: 0.676  test_accuracy:29.752
train_accuracy:82.902
[19,   200] loss: 0.599  test_accuracy:31.405
train_accuracy:83.364
[19,   250] loss: 0.516  test_accuracy:30.579
train_accuracy:84.381
[19,   300] loss: 0.612  test_accuracy:32.231
train_accuracy:80.823
[19,   350] loss: 0.722  test_accuracy:32.782
train_accuracy:85.166
[20,    50] loss: 0.479  test_accuracy:33.058
train_accuracy:79.529
[20,   100] loss: 0.439  test_accuracy:32.231
train_accuracy:83.688
[20,   150] loss: 0.523  test_accuracy:33.609
train_accuracy:82.902
[20,   200] loss: 0.456  test_accuracy:34.160
train_accuracy:82.763
[20,   250] loss: 0.567  test_accuracy:29.201
train_accuracy:79.713
[20,   300] loss: 0.579  test_accuracy:29.201
train_accuracy:83.226
[20,   350] loss: 0.504  test_accuracy:34.711
train_accuracy:87.754
[21,    50] loss: 0.462  test_accuracy:29.752
train_accuracy:80.037
[21,   100] loss: 0.442  test_accuracy:36.364
```

```
train_accuracy:80.407
[21,   150] loss: 0.614  test_accuracy:35.262
train_accuracy:85.213
[21,   200] loss: 0.497  test_accuracy:30.854
train_accuracy:89.002
[21,   250] loss: 0.389  test_accuracy:31.405
train_accuracy:89.649
[21,   300] loss: 0.431  test_accuracy:30.854
train_accuracy:89.094
[21,   350] loss: 0.489  test_accuracy:31.956
train_accuracy:86.553
[22,    50] loss: 0.396  test_accuracy:31.405
train_accuracy:87.616
[22,   100] loss: 0.438  test_accuracy:32.231
train_accuracy:90.018
[22,   150] loss: 0.362  test_accuracy:33.333
train_accuracy:87.708
[22,   200] loss: 0.349  test_accuracy:31.405
train_accuracy:89.787
[22,   250] loss: 0.388  test_accuracy:33.884
train_accuracy:87.616
[22,   300] loss: 0.446  test_accuracy:30.579
train_accuracy:86.553
[22,   350] loss: 0.514  test_accuracy:33.884
train_accuracy:89.233
[23,    50] loss: 0.351  test_accuracy:32.231
train_accuracy:89.418
[23,   100] loss: 0.345  test_accuracy:33.333
train_accuracy:88.031
[23,   150] loss: 0.388  test_accuracy:31.680
train_accuracy:86.599
[23,   200] loss: 0.337  test_accuracy:30.028
train_accuracy:87.985
[23,   250] loss: 0.402  test_accuracy:34.711
train_accuracy:89.741
[23,   300] loss: 0.365  test_accuracy:33.884
train_accuracy:88.447
[23,   350] loss: 0.481  test_accuracy:32.507
train_accuracy:82.810
[24,    50] loss: 0.357  test_accuracy:35.262
train_accuracy:90.250
```

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[24,   100] loss: 0.234  test_accuracy:32.231
train_accuracy:90.712
[24,   150] loss: 0.353  test_accuracy:33.333
train_accuracy:87.523
[24,   200] loss: 0.392  test_accuracy:32.782
train_accuracy:89.510
[24,   250] loss: 0.351  test_accuracy:28.650
train_accuracy:87.847
[24,   300] loss: 0.329  test_accuracy:34.711
train_accuracy:89.603
[24,   350] loss: 0.311  test_accuracy:34.160
train_accuracy:90.573
[25,    50] loss: 0.276  test_accuracy:28.650
train_accuracy:89.048
[25,   100] loss: 0.361  test_accuracy:31.405
train_accuracy:87.107
[25,   150] loss: 0.244  test_accuracy:34.435
train_accuracy:93.115
[25,   200] loss: 0.305  test_accuracy:34.160
train_accuracy:87.246
[25,   250] loss: 0.299  test_accuracy:30.303
train_accuracy:90.850
[25,   300] loss: 0.431  test_accuracy:30.028
train_accuracy:87.384
[25,   350] loss: 0.306  test_accuracy:34.986
train_accuracy:92.052
[26,    50] loss: 0.330  test_accuracy:33.884
train_accuracy:91.913
[26,   100] loss: 0.253  test_accuracy:33.058
train_accuracy:92.930
[26,   150] loss: 0.249  test_accuracy:34.711
train_accuracy:92.837
[26,   200] loss: 0.363  test_accuracy:36.088
train_accuracy:90.342
[26,   250] loss: 0.364  test_accuracy:32.231
train_accuracy:91.821
[26,   300] loss: 0.276  test_accuracy:33.058
train_accuracy:93.577
[26,   350] loss: 0.313  test_accuracy:33.609
train_accuracy:92.791
[27,    50] loss: 0.312  test_accuracy:34.435
```

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train_accuracy:91.774
[27,   100] loss: 0.225  test_accuracy:33.884
train_accuracy:92.791
[27,   150] loss: 0.166  test_accuracy:31.956
train_accuracy:93.438
[27,   200] loss: 0.289  test_accuracy:31.956
train_accuracy:88.170
[27,   250] loss: 0.207  test_accuracy:33.609
train_accuracy:90.157
[27,   300] loss: 0.362  test_accuracy:33.058
train_accuracy:91.590
[27,   350] loss: 0.257  test_accuracy:34.160
train_accuracy:91.081
[28,    50] loss: 0.179  test_accuracy:34.711
train_accuracy:94.177
[28,   100] loss: 0.255  test_accuracy:33.884
train_accuracy:88.031
[28,   150] loss: 0.233  test_accuracy:34.986
train_accuracy:92.006
[28,   200] loss: 0.215  test_accuracy:35.537
train_accuracy:94.455
[28,   250] loss: 0.250  test_accuracy:34.986
train_accuracy:93.392
[28,   300] loss: 0.205  test_accuracy:37.190
train_accuracy:94.039
[28,   350] loss: 0.249  test_accuracy:33.058
train_accuracy:92.237
[29,    50] loss: 0.176  test_accuracy:34.160
train_accuracy:93.207
[29,   100] loss: 0.178  test_accuracy:34.160
train_accuracy:95.471
[29,   150] loss: 0.209  test_accuracy:31.129
train_accuracy:94.871
[29,   200] loss: 0.193  test_accuracy:34.160
train_accuracy:94.686
[29,   250] loss: 0.295  test_accuracy:34.711
train_accuracy:95.287
[29,   300] loss: 0.282  test_accuracy:35.537
train_accuracy:95.518
[29,   350] loss: 0.152  test_accuracy:33.333
train_accuracy:96.026
```

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[30,    50] loss: 0.147  test_accuracy:35.537
train_accuracy:96.118
[30,   100] loss: 0.115  test_accuracy:34.986
train_accuracy:96.534
[30,   150] loss: 0.139  test_accuracy:35.262
train_accuracy:95.564
[30,   200] loss: 0.144  test_accuracy:34.435
train_accuracy:94.732
[30,   250] loss: 0.130  test_accuracy:34.711
train_accuracy:93.022
[30,   300] loss: 0.254  test_accuracy:34.711
train_accuracy:95.749
[30,   350] loss: 0.142  test_accuracy:33.884
train_accuracy:94.085
[31,    50] loss: 0.235  test_accuracy:36.639
train_accuracy:93.161
[31,   100] loss: 0.218  test_accuracy:35.262
train_accuracy:95.148
[31,   150] loss: 0.133  test_accuracy:32.782
train_accuracy:96.719
[31,   200] loss: 0.142  test_accuracy:37.741
train_accuracy:96.858
[31,   250] loss: 0.301  test_accuracy:35.537
train_accuracy:92.884
[31,   300] loss: 0.234  test_accuracy:35.813
train_accuracy:93.577
[31,   350] loss: 0.307  test_accuracy:36.364
train_accuracy:93.715
[32,    50] loss: 0.143  test_accuracy:31.956
train_accuracy:94.039
[32,   100] loss: 0.108  test_accuracy:35.813
train_accuracy:97.181
[32,   150] loss: 0.093  test_accuracy:35.813
train_accuracy:95.379
[32,   200] loss: 0.202  test_accuracy:35.813
train_accuracy:93.623
[32,   250] loss: 0.197  test_accuracy:33.333
train_accuracy:94.593
[32,   300] loss: 0.174  test_accuracy:34.435
train_accuracy:93.946
[32,   350] loss: 0.234  test_accuracy:34.160
```

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train_accuracy:94.963
[33,    50] loss: 0.121  test_accuracy:36.364
train_accuracy:97.505
[33,   100] loss: 0.143  test_accuracy:34.160
train_accuracy:95.610
[33,   150] loss: 0.073  test_accuracy:37.466
train_accuracy:98.152
[33,   200] loss: 0.080  test_accuracy:40.220
train_accuracy:95.702
[33,   250] loss: 0.150  test_accuracy:36.088
train_accuracy:98.013
[33,   300] loss: 0.153  test_accuracy:36.364
train_accuracy:96.211
[33,   350] loss: 0.133  test_accuracy:38.017
train_accuracy:97.181
[34,    50] loss: 0.154  test_accuracy:36.364
train_accuracy:95.055
[34,   100] loss: 0.131  test_accuracy:36.088
train_accuracy:96.950
[34,   150] loss: 0.148  test_accuracy:32.507
train_accuracy:94.501
[34,   200] loss: 0.200  test_accuracy:36.915
train_accuracy:96.303
[34,   250] loss: 0.131  test_accuracy:35.813
train_accuracy:97.505
[34,   300] loss: 0.274  test_accuracy:39.118
train_accuracy:93.946
[34,   350] loss: 0.186  test_accuracy:36.364
train_accuracy:97.505
[35,    50] loss: 0.114  test_accuracy:38.567
train_accuracy:97.643
[35,   100] loss: 0.086  test_accuracy:39.945
train_accuracy:97.320
[35,   150] loss: 0.064  test_accuracy:38.843
train_accuracy:97.597
[35,   200] loss: 0.131  test_accuracy:40.220
train_accuracy:97.597
[35,   250] loss: 0.141  test_accuracy:37.741
train_accuracy:96.858
[35,   300] loss: 0.098  test_accuracy:39.118
train_accuracy:96.072
```

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[35,   350] loss: 0.146  test_accuracy:35.813
train_accuracy:96.904
[36,    50] loss: 0.171  test_accuracy:34.986
train_accuracy:96.673
[36,   100] loss: 0.105  test_accuracy:35.262
train_accuracy:96.858
[36,   150] loss: 0.095  test_accuracy:38.292
train_accuracy:97.089
[36,   200] loss: 0.099  test_accuracy:36.915
train_accuracy:97.274
[36,   250] loss: 0.122  test_accuracy:36.364
train_accuracy:97.043
[36,   300] loss: 0.063  test_accuracy:39.945
train_accuracy:97.828
[36,   350] loss: 0.065  test_accuracy:38.843
train_accuracy:97.643
[37,    50] loss: 0.122  test_accuracy:34.435
train_accuracy:95.980
[37,   100] loss: 0.065  test_accuracy:35.813
train_accuracy:97.828
[37,   150] loss: 0.065  test_accuracy:36.364
train_accuracy:95.102
[37,   200] loss: 0.107  test_accuracy:37.741
train_accuracy:96.442
[37,   250] loss: 0.114  test_accuracy:38.292
train_accuracy:96.165
[37,   300] loss: 0.117  test_accuracy:35.813
train_accuracy:96.072
[37,   350] loss: 0.090  test_accuracy:35.262
train_accuracy:98.059
[38,    50] loss: 0.037  test_accuracy:32.507
train_accuracy:96.442
[38,   100] loss: 0.108  test_accuracy:33.884
train_accuracy:96.165
[38,   150] loss: 0.065  test_accuracy:35.813
train_accuracy:97.366
[38,   200] loss: 0.064  test_accuracy:36.639
train_accuracy:98.013
[38,   250] loss: 0.059  test_accuracy:36.915
train_accuracy:97.967
[38,   300] loss: 0.077  test_accuracy:39.669
```

```
train_accuracy:96.765
[38,   350] loss: 0.071  test_accuracy:38.567
train_accuracy:96.534
[39,    50] loss: 0.064  test_accuracy:39.945
train_accuracy:98.567
[39,   100] loss: 0.042  test_accuracy:36.639
train_accuracy:97.551
[39,   150] loss: 0.075  test_accuracy:37.190
train_accuracy:98.105
[39,   200] loss: 0.050  test_accuracy:37.741
train_accuracy:98.105
[39,   250] loss: 0.092  test_accuracy:38.567
train_accuracy:96.765
[39,   300] loss: 0.080  test_accuracy:41.598
train_accuracy:97.597
[39,   350] loss: 0.067  test_accuracy:36.915
train_accuracy:96.719
[40,    50] loss: 0.045  test_accuracy:40.220
train_accuracy:98.244
[40,   100] loss: 0.071  test_accuracy:34.711
train_accuracy:96.396
[40,   150] loss: 0.079  test_accuracy:36.915
train_accuracy:98.290
[40,   200] loss: 0.111  test_accuracy:37.741
train_accuracy:97.597
[40,   250] loss: 0.055  test_accuracy:35.262
train_accuracy:96.811
[40,   300] loss: 0.096  test_accuracy:41.047
train_accuracy:98.429
[40,   350] loss: 0.058  test_accuracy:37.741
train_accuracy:97.689
[41,    50] loss: 0.088  test_accuracy:41.598
train_accuracy:98.706
[41,   100] loss: 0.067  test_accuracy:38.017
train_accuracy:97.643
[41,   150] loss: 0.085  test_accuracy:39.394
train_accuracy:97.320
[41,   200] loss: 0.052  test_accuracy:40.771
train_accuracy:97.320
[41,   250] loss: 0.089  test_accuracy:38.017
train_accuracy:97.458
```

```
[41,   300] loss: 0.062  test_accuracy:38.567
train_accuracy:97.597
[41,   350] loss: 0.086  test_accuracy:39.394
train_accuracy:97.736
[42,    50] loss: 0.075  test_accuracy:39.118
train_accuracy:98.429
[42,   100] loss: 0.134  test_accuracy:38.567
train_accuracy:97.227
[42,   150] loss: 0.131  test_accuracy:37.741
train_accuracy:97.366
[42,   200] loss: 0.188  test_accuracy:34.711
train_accuracy:94.177
[42,   250] loss: 0.112  test_accuracy:36.088
train_accuracy:97.551
[42,   300] loss: 0.143  test_accuracy:36.639
train_accuracy:96.396
[42,   350] loss: 0.139  test_accuracy:38.292
train_accuracy:97.505
[43,    50] loss: 0.157  test_accuracy:37.741
train_accuracy:96.811
[43,   100] loss: 0.122  test_accuracy:37.466
train_accuracy:97.274
[43,   150] loss: 0.103  test_accuracy:38.843
train_accuracy:98.059
[43,   200] loss: 0.079  test_accuracy:35.813
train_accuracy:97.643
[43,   250] loss: 0.044  test_accuracy:36.639
train_accuracy:98.290
[43,   300] loss: 0.044  test_accuracy:38.567
train_accuracy:97.089
[43,   350] loss: 0.117  test_accuracy:36.915
train_accuracy:97.921
[44,    50] loss: 0.091  test_accuracy:39.669
train_accuracy:97.828
[44,   100] loss: 0.085  test_accuracy:40.771
train_accuracy:98.013
[44,   150] loss: 0.081  test_accuracy:40.220
train_accuracy:98.752
[44,   200] loss: 0.042  test_accuracy:36.088
train_accuracy:97.043
[44,   250] loss: 0.050  test_accuracy:37.741
```

```
train_accuracy:99.076
[44,   300] loss: 0.060  test_accuracy:39.945
train_accuracy:97.921
[44,   350] loss: 0.083  test_accuracy:37.741
train_accuracy:97.597
[45,    50] loss: 0.199  test_accuracy:34.986
train_accuracy:94.917
[45,   100] loss: 0.067  test_accuracy:38.017
train_accuracy:97.135
[45,   150] loss: 0.129  test_accuracy:35.537
train_accuracy:97.643
[45,   200] loss: 0.106  test_accuracy:38.843
train_accuracy:98.290
[45,   250] loss: 0.057  test_accuracy:37.466
train_accuracy:99.076
[45,   300] loss: 0.092  test_accuracy:35.262
train_accuracy:98.429
[45,   350] loss: 0.035  test_accuracy:37.741
train_accuracy:98.521
[46,    50] loss: 0.016  test_accuracy:38.567
train_accuracy:99.076
[46,   100] loss: 0.020  test_accuracy:39.118
train_accuracy:98.706
[46,   150] loss: 0.026  test_accuracy:38.843
train_accuracy:98.475
[46,   200] loss: 0.061  test_accuracy:38.843
train_accuracy:98.891
[46,   250] loss: 0.053  test_accuracy:40.220
train_accuracy:98.660
[46,   300] loss: 0.055  test_accuracy:38.017
train_accuracy:99.261
[46,   350] loss: 0.111  test_accuracy:37.466
train_accuracy:98.614
[47,    50] loss: 0.064  test_accuracy:39.945
train_accuracy:98.336
[47,   100] loss: 0.079  test_accuracy:37.741
train_accuracy:97.135
[47,   150] loss: 0.075  test_accuracy:37.190
train_accuracy:98.614
[47,   200] loss: 0.069  test_accuracy:37.741
train_accuracy:97.921
```

```
[47,   250] loss: 0.089  test_accuracy:35.537
train_accuracy:97.736
[47,   300] loss: 0.050  test_accuracy:38.567
train_accuracy:98.475
[47,   350] loss: 0.064  test_accuracy:39.945
train_accuracy:98.290
[48,    50] loss: 0.041  test_accuracy:39.118
train_accuracy:98.706
[48,   100] loss: 0.022  test_accuracy:41.047
train_accuracy:98.845
[48,   150] loss: 0.052  test_accuracy:38.567
train_accuracy:98.983
[48,   200] loss: 0.058  test_accuracy:38.292
train_accuracy:97.736
[48,   250] loss: 0.022  test_accuracy:37.466
train_accuracy:98.706
[48,   300] loss: 0.015  test_accuracy:38.567
train_accuracy:99.030
[48,   350] loss: 0.046  test_accuracy:39.945
train_accuracy:98.290
[49,    50] loss: 0.038  test_accuracy:37.466
train_accuracy:99.353
[49,   100] loss: 0.045  test_accuracy:38.567
train_accuracy:99.030
[49,   150] loss: 0.036  test_accuracy:40.496
train_accuracy:98.059
[49,   200] loss: 0.020  test_accuracy:39.669
train_accuracy:99.214
[49,   250] loss: 0.054  test_accuracy:41.047
train_accuracy:98.752
[49,   300] loss: 0.044  test_accuracy:42.700
train_accuracy:98.983
[49,   350] loss: 0.068  test_accuracy:39.945
train_accuracy:96.349
[50,    50] loss: 0.043  test_accuracy:41.598
train_accuracy:98.937
[50,   100] loss: 0.035  test_accuracy:39.945
train_accuracy:98.845
[50,   150] loss: 0.022  test_accuracy:39.945
train_accuracy:98.983
[50,   200] loss: 0.033  test_accuracy:39.394
```

```
train_accuracy:99.076
[50,   250] loss: 0.016  test_accuracy:41.047
train_accuracy:98.937
[50,   300] loss: 0.023  test_accuracy:39.394
train_accuracy:99.168
[50,   350] loss: 0.015  test_accuracy:39.669
train_accuracy:99.030
end train!time:3473 seconds
test accuracy: 75 %

进程已结束，退出代码为0
```