>> Experiment: SGD\_No

Epoch 1/50 – loss 1.6158, acc 40.07%

Epoch 2/50 – loss 1.2458, acc 55.12%

Epoch 3/50 – loss 1.0810, acc 61.51%

Epoch 4/50 – loss 0.9755, acc 65.58%

Epoch 5/50 – loss 0.8921, acc 68.79%

Epoch 6/50 – loss 0.8279, acc 71.09%

Epoch 7/50 – loss 0.7825, acc 72.73%

Epoch 8/50 – loss 0.7437, acc 73.83%

Epoch 9/50 – loss 0.7011, acc 75.69%

Epoch 10/50 – loss 0.6775, acc 76.50%

Epoch 11/50 – loss 0.6491, acc 77.48%

Epoch 12/50 – loss 0.6282, acc 78.33%

Epoch 13/50 – loss 0.6075, acc 79.09%

Epoch 14/50 – loss 0.5881, acc 79.65%

Epoch 15/50 – loss 0.5707, acc 80.30%

Epoch 16/50 – loss 0.5517, acc 80.93%

Epoch 17/50 – loss 0.5418, acc 81.19%

Epoch 18/50 – loss 0.5271, acc 81.81%

Epoch 19/50 – loss 0.5154, acc 82.15%

Epoch 20/50 – loss 0.5003, acc 82.72%

Epoch 21/50 – loss 0.4908, acc 83.13%

Epoch 22/50 – loss 0.4804, acc 83.42%

Epoch 23/50 – loss 0.4678, acc 83.95%

Epoch 24/50 – loss 0.4596, acc 84.06%

Epoch 25/50 – loss 0.4480, acc 84.53%

Epoch 26/50 – loss 0.4400, acc 84.71%

Epoch 27/50 – loss 0.4337, acc 85.06%

Epoch 28/50 – loss 0.4215, acc 85.61%

Epoch 29/50 – loss 0.4196, acc 85.65%

Epoch 30/50 – loss 0.4098, acc 85.90%

Epoch 31/50 – loss 0.3984, acc 86.19%

Epoch 32/50 – loss 0.3951, acc 86.46%

Epoch 33/50 – loss 0.3893, acc 86.43%

Epoch 34/50 – loss 0.3803, acc 86.94%

Epoch 35/50 – loss 0.3748, acc 87.07%

Epoch 36/50 – loss 0.3674, acc 87.43%

Epoch 37/50 – loss 0.3614, acc 87.54%

Epoch 38/50 – loss 0.3574, acc 87.70%

Epoch 39/50 – loss 0.3618, acc 87.45%

Epoch 40/50 – loss 0.3444, acc 88.23%

Epoch 41/50 – loss 0.3502, acc 87.88%

Epoch 42/50 – loss 0.3382, acc 88.33%

Epoch 43/50 – loss 0.3363, acc 88.46%

Epoch 44/50 – loss 0.3328, acc 88.47%

Epoch 45/50 – loss 0.3249, acc 88.78%

Epoch 46/50 – loss 0.3252, acc 88.64%

Epoch 47/50 – loss 0.3181, acc 89.06%

Epoch 48/50 – loss 0.3178, acc 88.94%

Epoch 49/50 – loss 0.3135, acc 88.95%

Epoch 50/50 – loss 0.3130, acc 89.23%

Validation Acc: 87.00%

>> Experiment: SGD\_Step

Epoch 1/50 – loss 1.6148, acc 39.84%

Epoch 2/50 – loss 1.2464, acc 55.18%

Epoch 3/50 – loss 1.1080, acc 60.32%

Epoch 4/50 – loss 1.0099, acc 64.45%

Epoch 5/50 – loss 0.9203, acc 67.51%

Epoch 6/50 – loss 0.8615, acc 69.95%

Epoch 7/50 – loss 0.8064, acc 72.00%

Epoch 8/50 – loss 0.7585, acc 73.69%

Epoch 9/50 – loss 0.7285, acc 74.86%

Epoch 10/50 – loss 0.6933, acc 75.89%

Epoch 11/50 – loss 0.6618, acc 77.10%

Epoch 12/50 – loss 0.6389, acc 77.99%

Epoch 13/50 – loss 0.6236, acc 78.33%

Epoch 14/50 – loss 0.5976, acc 79.34%

Epoch 15/50 – loss 0.5733, acc 80.17%

Epoch 16/50 – loss 0.4947, acc 82.86%

Epoch 17/50 – loss 0.4690, acc 83.91%

Epoch 18/50 – loss 0.4585, acc 84.24%

Epoch 19/50 – loss 0.4514, acc 84.48%

Epoch 20/50 – loss 0.4457, acc 84.83%

Epoch 21/50 – loss 0.4372, acc 84.99%

Epoch 22/50 – loss 0.4363, acc 84.92%

Epoch 23/50 – loss 0.4306, acc 85.19%

Epoch 24/50 – loss 0.4236, acc 85.42%

Epoch 25/50 – loss 0.4214, acc 85.68%

Epoch 26/50 – loss 0.4203, acc 85.47%

Epoch 27/50 – loss 0.4153, acc 85.53%

Epoch 28/50 – loss 0.4098, acc 85.92%

Epoch 29/50 – loss 0.4054, acc 86.09%

Epoch 30/50 – loss 0.4059, acc 86.06%

Epoch 31/50 – loss 0.3919, acc 86.61%

Epoch 32/50 – loss 0.3871, acc 86.83%

Epoch 33/50 – loss 0.3904, acc 86.65%

Epoch 34/50 – loss 0.3856, acc 86.83%

Epoch 35/50 – loss 0.3891, acc 86.73%

Epoch 36/50 – loss 0.3834, acc 86.81%

Epoch 37/50 – loss 0.3811, acc 86.86%

Epoch 38/50 – loss 0.3809, acc 86.83%

Epoch 39/50 – loss 0.3804, acc 86.75%

Epoch 40/50 – loss 0.3789, acc 86.98%

Epoch 41/50 – loss 0.3835, acc 86.58%

Epoch 42/50 – loss 0.3783, acc 87.03%

Epoch 43/50 – loss 0.3840, acc 86.74%

Epoch 44/50 – loss 0.3824, acc 86.75%

Epoch 45/50 – loss 0.3842, acc 86.75%

Epoch 46/50 – loss 0.3776, acc 87.18%

Epoch 47/50 – loss 0.3791, acc 86.92%

Epoch 48/50 – loss 0.3775, acc 86.91%

Epoch 49/50 – loss 0.3786, acc 87.04%

Epoch 50/50 – loss 0.3791, acc 87.00%

Validation Acc: 87.27%

>> Experiment: SGD\_Cosine

Epoch 1/50 – loss 1.6363, acc 39.34%

Epoch 2/50 – loss 1.2461, acc 55.12%

Epoch 3/50 – loss 1.0847, acc 61.40%

Epoch 4/50 – loss 0.9895, acc 65.08%

Epoch 5/50 – loss 0.8962, acc 68.79%

Epoch 6/50 – loss 0.8414, acc 70.41%

Epoch 7/50 – loss 0.7813, acc 72.85%

Epoch 8/50 – loss 0.7466, acc 74.03%

Epoch 9/50 – loss 0.7078, acc 75.58%

Epoch 10/50 – loss 0.6820, acc 76.55%

Epoch 11/50 – loss 0.6508, acc 77.27%

Epoch 12/50 – loss 0.6280, acc 78.20%

Epoch 13/50 – loss 0.6064, acc 78.78%

Epoch 14/50 – loss 0.5809, acc 79.98%

Epoch 15/50 – loss 0.5651, acc 80.59%

Epoch 16/50 – loss 0.5490, acc 81.00%

Epoch 17/50 – loss 0.5284, acc 81.81%

Epoch 18/50 – loss 0.5146, acc 82.20%

Epoch 19/50 – loss 0.4984, acc 82.83%

Epoch 20/50 – loss 0.4855, acc 83.10%

Epoch 21/50 – loss 0.4730, acc 83.56%

Epoch 22/50 – loss 0.4551, acc 84.37%

Epoch 23/50 – loss 0.4454, acc 84.53%

Epoch 24/50 – loss 0.4346, acc 84.83%

Epoch 25/50 – loss 0.4132, acc 85.88%

Epoch 26/50 – loss 0.4083, acc 85.93%

Epoch 27/50 – loss 0.4034, acc 86.17%

Epoch 28/50 – loss 0.3843, acc 86.71%

Epoch 29/50 – loss 0.3787, acc 86.76%

Epoch 30/50 – loss 0.3670, acc 87.44%

Epoch 31/50 – loss 0.3583, acc 87.67%

Epoch 32/50 – loss 0.3475, acc 87.94%

Epoch 33/50 – loss 0.3385, acc 88.42%

Epoch 34/50 – loss 0.3344, acc 88.36%

Epoch 35/50 – loss 0.3209, acc 88.94%

Epoch 36/50 – loss 0.3153, acc 89.16%

Epoch 37/50 – loss 0.3083, acc 89.45%

Epoch 38/50 – loss 0.2972, acc 89.71%

Epoch 39/50 – loss 0.2913, acc 90.11%

Epoch 40/50 – loss 0.2807, acc 90.41%

Epoch 41/50 – loss 0.2778, acc 90.54%

Epoch 42/50 – loss 0.2700, acc 90.75%

Epoch 43/50 – loss 0.2715, acc 90.63%

Epoch 44/50 – loss 0.2622, acc 91.10%

Epoch 45/50 – loss 0.2625, acc 91.03%

Epoch 46/50 – loss 0.2570, acc 91.29%

Epoch 47/50 – loss 0.2576, acc 91.11%

Epoch 48/50 – loss 0.2555, acc 91.30%

Epoch 49/50 – loss 0.2536, acc 91.38%

Epoch 50/50 – loss 0.2521, acc 91.35%

Validation Acc: 89.32%

>> Experiment: Adam\_No

Epoch 1/50 – loss 1.5432, acc 43.17%

Epoch 2/50 – loss 1.1667, acc 58.36%

Epoch 3/50 – loss 1.0164, acc 64.08%

Epoch 4/50 – loss 0.9006, acc 68.20%

Epoch 5/50 – loss 0.8214, acc 71.27%

Epoch 6/50 – loss 0.7635, acc 73.36%

Epoch 7/50 – loss 0.7161, acc 75.22%

Epoch 8/50 – loss 0.6776, acc 76.67%

Epoch 9/50 – loss 0.6521, acc 77.59%

Epoch 10/50 – loss 0.6252, acc 78.47%

Epoch 11/50 – loss 0.6059, acc 79.09%

Epoch 12/50 – loss 0.5816, acc 80.09%

Epoch 13/50 – loss 0.5698, acc 80.70%

Epoch 14/50 – loss 0.5492, acc 80.95%

Epoch 15/50 – loss 0.5315, acc 81.67%

Epoch 16/50 – loss 0.5270, acc 82.18%

Epoch 17/50 – loss 0.5116, acc 82.58%

Epoch 18/50 – loss 0.4988, acc 82.90%

Epoch 19/50 – loss 0.4921, acc 83.19%

Epoch 20/50 – loss 0.4846, acc 83.41%

Epoch 21/50 – loss 0.4720, acc 83.83%

Epoch 22/50 – loss 0.4667, acc 84.00%

Epoch 23/50 – loss 0.4650, acc 84.25%

Epoch 24/50 – loss 0.4448, acc 85.00%

Epoch 25/50 – loss 0.4479, acc 84.51%

Epoch 26/50 – loss 0.4396, acc 84.96%

Epoch 27/50 – loss 0.4323, acc 85.33%

Epoch 28/50 – loss 0.4307, acc 85.13%

Epoch 29/50 – loss 0.4290, acc 85.23%

Epoch 30/50 – loss 0.4242, acc 85.40%

Epoch 31/50 – loss 0.4217, acc 85.61%

Epoch 32/50 – loss 0.4217, acc 85.55%

Epoch 33/50 – loss 0.4135, acc 85.78%

Epoch 34/50 – loss 0.4095, acc 85.92%

Epoch 35/50 – loss 0.4118, acc 85.72%

Epoch 36/50 – loss 0.4050, acc 86.30%

Epoch 37/50 – loss 0.4009, acc 86.23%

Epoch 38/50 – loss 0.3998, acc 86.30%

Epoch 39/50 – loss 0.3910, acc 86.64%

Epoch 40/50 – loss 0.3967, acc 86.67%

Epoch 41/50 – loss 0.3975, acc 86.39%

Epoch 42/50 – loss 0.3908, acc 86.72%

Epoch 43/50 – loss 0.3903, acc 86.69%

Epoch 44/50 – loss 0.3854, acc 86.92%

Epoch 45/50 – loss 0.3879, acc 86.91%

Epoch 46/50 – loss 0.3825, acc 86.96%

Epoch 47/50 – loss 0.3819, acc 86.96%

Epoch 48/50 – loss 0.3833, acc 86.89%

Epoch 49/50 – loss 0.3774, acc 86.98%

Epoch 50/50 – loss 0.3800, acc 86.91%

Validation Acc: 85.87%

>> Experiment: Adam\_Step

Epoch 1/50 – loss 1.5152, acc 44.16%

Epoch 2/50 – loss 1.1357, acc 59.74%

Epoch 3/50 – loss 0.9998, acc 64.93%

Epoch 4/50 – loss 0.8888, acc 68.76%

Epoch 5/50 – loss 0.8208, acc 71.39%

Epoch 6/50 – loss 0.7633, acc 73.19%

Epoch 7/50 – loss 0.7180, acc 75.31%

Epoch 8/50 – loss 0.6834, acc 76.52%

Epoch 9/50 – loss 0.6520, acc 77.50%

Epoch 10/50 – loss 0.6341, acc 78.15%

Epoch 11/50 – loss 0.6036, acc 79.25%

Epoch 12/50 – loss 0.5859, acc 79.99%

Epoch 13/50 – loss 0.5712, acc 80.48%

Epoch 14/50 – loss 0.5556, acc 80.87%

Epoch 15/50 – loss 0.5338, acc 81.67%

Epoch 16/50 – loss 0.4244, acc 85.73%

Epoch 17/50 – loss 0.3899, acc 86.71%

Epoch 18/50 – loss 0.3715, acc 87.27%

Epoch 19/50 – loss 0.3570, acc 87.93%

Epoch 20/50 – loss 0.3507, acc 88.08%

Epoch 21/50 – loss 0.3407, acc 88.33%

Epoch 22/50 – loss 0.3381, acc 88.57%

Epoch 23/50 – loss 0.3243, acc 88.97%

Epoch 24/50 – loss 0.3179, acc 89.11%

Epoch 25/50 – loss 0.3150, acc 89.33%

Epoch 26/50 – loss 0.3073, acc 89.54%

Epoch 27/50 – loss 0.3022, acc 89.69%

Epoch 28/50 – loss 0.2928, acc 89.92%

Epoch 29/50 – loss 0.2926, acc 90.04%

Epoch 30/50 – loss 0.2838, acc 90.19%

Epoch 31/50 – loss 0.2694, acc 90.84%

Epoch 32/50 – loss 0.2647, acc 90.94%

Epoch 33/50 – loss 0.2592, acc 91.23%

Epoch 34/50 – loss 0.2564, acc 91.41%

Epoch 35/50 – loss 0.2553, acc 91.30%

Epoch 36/50 – loss 0.2554, acc 91.26%

Epoch 37/50 – loss 0.2532, acc 91.33%

Epoch 38/50 – loss 0.2531, acc 91.40%

Epoch 39/50 – loss 0.2525, acc 91.31%

Epoch 40/50 – loss 0.2544, acc 91.29%

Epoch 41/50 – loss 0.2519, acc 91.62%

Epoch 42/50 – loss 0.2488, acc 91.37%

Epoch 43/50 – loss 0.2480, acc 91.59%

Epoch 44/50 – loss 0.2433, acc 91.68%

Epoch 45/50 – loss 0.2490, acc 91.49%

Epoch 46/50 – loss 0.2472, acc 91.58%

Epoch 47/50 – loss 0.2424, acc 91.84%

Epoch 48/50 – loss 0.2422, acc 91.86%

Epoch 49/50 – loss 0.2428, acc 91.80%

Epoch 50/50 – loss 0.2421, acc 91.94%

Validation Acc: 89.58%

>> Experiment: Adam\_Cosine

Epoch 1/50 – loss 1.5309, acc 43.34%

Epoch 2/50 – loss 1.1601, acc 58.35%

Epoch 3/50 – loss 1.0166, acc 63.94%

Epoch 4/50 – loss 0.9103, acc 68.36%

Epoch 5/50 – loss 0.8210, acc 71.39%

Epoch 6/50 – loss 0.7650, acc 73.45%

Epoch 7/50 – loss 0.7240, acc 75.04%

Epoch 8/50 – loss 0.6795, acc 76.69%

Epoch 9/50 – loss 0.6492, acc 77.80%

Epoch 10/50 – loss 0.6253, acc 78.59%

Epoch 11/50 – loss 0.5980, acc 79.50%

Epoch 12/50 – loss 0.5758, acc 80.19%

Epoch 13/50 – loss 0.5507, acc 81.14%

Epoch 14/50 – loss 0.5344, acc 81.69%

Epoch 15/50 – loss 0.5157, acc 82.50%

Epoch 16/50 – loss 0.5017, acc 82.67%

Epoch 17/50 – loss 0.4898, acc 83.25%

Epoch 18/50 – loss 0.4712, acc 83.92%

Epoch 19/50 – loss 0.4538, acc 84.43%

Epoch 20/50 – loss 0.4365, acc 84.99%

Epoch 21/50 – loss 0.4236, acc 85.46%

Epoch 22/50 – loss 0.4100, acc 85.87%

Epoch 23/50 – loss 0.3998, acc 86.16%

Epoch 24/50 – loss 0.3860, acc 86.74%

Epoch 25/50 – loss 0.3692, acc 87.28%

Epoch 26/50 – loss 0.3591, acc 87.69%

Epoch 27/50 – loss 0.3498, acc 87.97%

Epoch 28/50 – loss 0.3315, acc 88.73%

Epoch 29/50 – loss 0.3185, acc 89.00%

Epoch 30/50 – loss 0.3076, acc 89.51%

Epoch 31/50 – loss 0.2955, acc 89.78%

Epoch 32/50 – loss 0.2862, acc 90.02%

Epoch 33/50 – loss 0.2751, acc 90.65%

Epoch 34/50 – loss 0.2592, acc 91.13%

Epoch 35/50 – loss 0.2454, acc 91.61%

Epoch 36/50 – loss 0.2369, acc 91.77%

Epoch 37/50 – loss 0.2277, acc 92.31%

Epoch 38/50 – loss 0.2217, acc 92.36%

Epoch 39/50 – loss 0.2093, acc 92.83%

Epoch 40/50 – loss 0.2046, acc 93.02%

Epoch 41/50 – loss 0.1896, acc 93.50%

Epoch 42/50 – loss 0.1814, acc 93.89%

Epoch 43/50 – loss 0.1803, acc 93.88%

Epoch 44/50 – loss 0.1707, acc 94.22%

Epoch 45/50 – loss 0.1655, acc 94.39%

Epoch 46/50 – loss 0.1603, acc 94.58%

Epoch 47/50 – loss 0.1596, acc 94.68%

Epoch 48/50 – loss 0.1606, acc 94.55%

Epoch 49/50 – loss 0.1535, acc 94.84%

Epoch 50/50 – loss 0.1541, acc 94.78%

Validation Acc: 90.57%

>>> Selected on val: Adam\_Cosine (90.57%)

Epoch 1/50 – loss 1.4317, acc 47.67%

Epoch 2/50 – loss 1.0601, acc 62.41%

Epoch 3/50 – loss 0.8964, acc 68.56%

Epoch 4/50 – loss 0.7958, acc 72.35%

Epoch 5/50 – loss 0.7184, acc 74.99%

Epoch 6/50 – loss 0.6694, acc 76.92%

Epoch 7/50 – loss 0.6356, acc 78.19%

Epoch 8/50 – loss 0.5912, acc 79.67%

Epoch 9/50 – loss 0.5644, acc 80.51%

Epoch 10/50 – loss 0.5383, acc 81.65%

Epoch 11/50 – loss 0.5165, acc 82.32%

Epoch 12/50 – loss 0.4987, acc 82.86%

Epoch 13/50 – loss 0.4765, acc 83.62%

Epoch 14/50 – loss 0.4609, acc 84.24%

Epoch 15/50 – loss 0.4425, acc 84.95%

Epoch 16/50 – loss 0.4298, acc 85.38%

Epoch 17/50 – loss 0.4155, acc 85.62%

Epoch 18/50 – loss 0.4048, acc 86.11%

Epoch 19/50 – loss 0.3856, acc 86.82%

Epoch 20/50 – loss 0.3770, acc 87.01%

Epoch 21/50 – loss 0.3643, acc 87.61%

Epoch 22/50 – loss 0.3546, acc 87.93%

Epoch 23/50 – loss 0.3405, acc 88.40%

Epoch 24/50 – loss 0.3318, acc 88.70%

Epoch 25/50 – loss 0.3140, acc 89.34%

Epoch 26/50 – loss 0.3118, acc 89.38%

Epoch 27/50 – loss 0.2938, acc 90.10%

Epoch 28/50 – loss 0.2868, acc 90.24%

Epoch 29/50 – loss 0.2701, acc 90.91%

Epoch 30/50 – loss 0.2655, acc 91.04%

Epoch 31/50 – loss 0.2512, acc 91.44%

Epoch 32/50 – loss 0.2450, acc 91.74%

Epoch 33/50 – loss 0.2290, acc 92.33%

Epoch 34/50 – loss 0.2222, acc 92.50%

Epoch 35/50 – loss 0.2145, acc 92.73%

Epoch 36/50 – loss 0.1983, acc 93.24%

Epoch 37/50 – loss 0.1913, acc 93.61%

Epoch 38/50 – loss 0.1864, acc 93.56%

Epoch 39/50 – loss 0.1767, acc 94.10%

Epoch 40/50 – loss 0.1676, acc 94.38%

Epoch 41/50 – loss 0.1609, acc 94.67%

Epoch 42/50 – loss 0.1551, acc 94.79%

Epoch 43/50 – loss 0.1496, acc 95.00%

Epoch 44/50 – loss 0.1478, acc 95.08%

Epoch 45/50 – loss 0.1388, acc 95.47%

Epoch 46/50 – loss 0.1346, acc 95.52%

Epoch 47/50 – loss 0.1326, acc 95.54%

Epoch 48/50 – loss 0.1321, acc 95.63%

Epoch 49/50 – loss 0.1310, acc 95.75%

Epoch 50/50 – loss 0.1306, acc 95.68%

Final Test Acc: 91.01%

