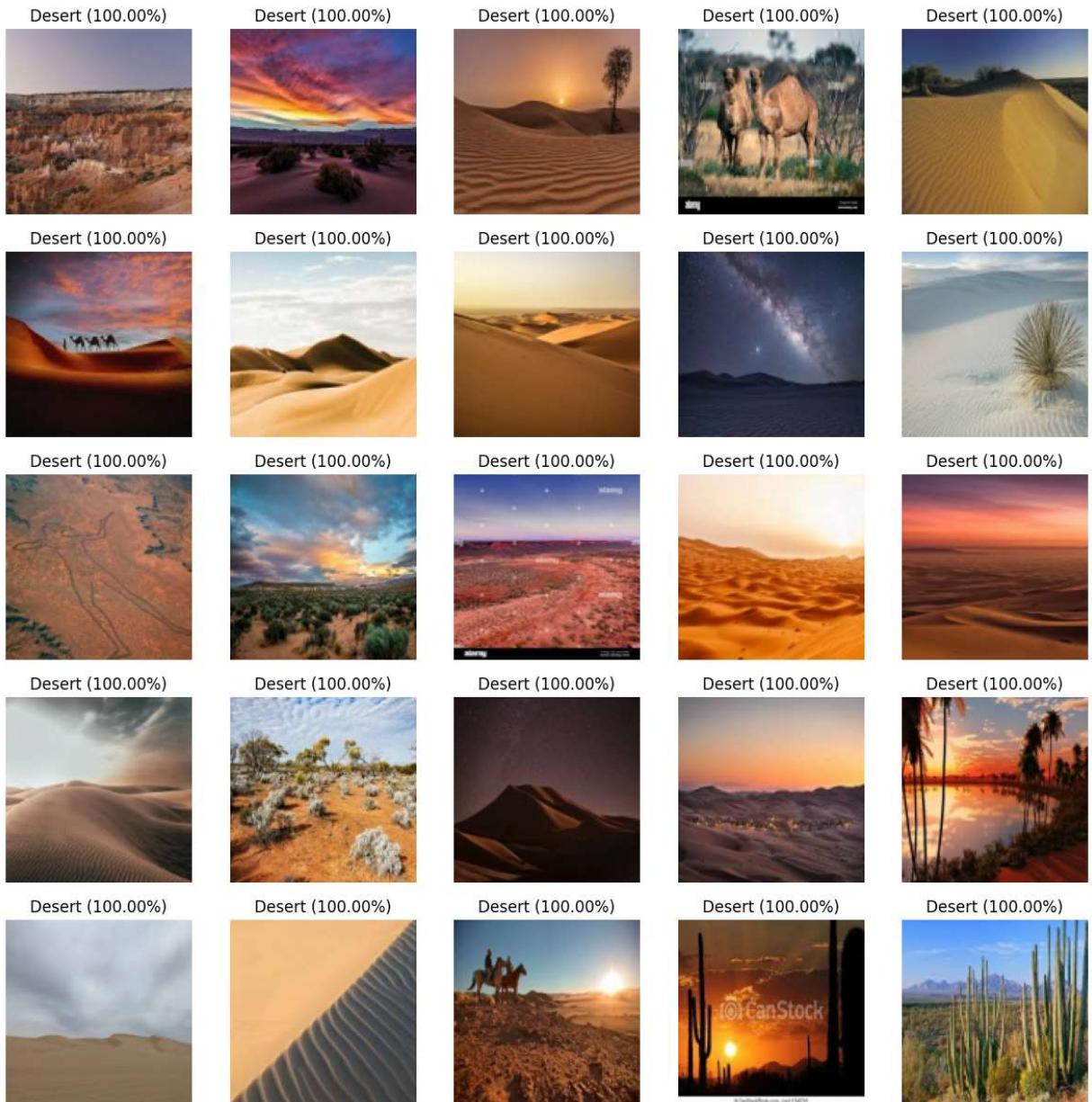


Visualize Dataset

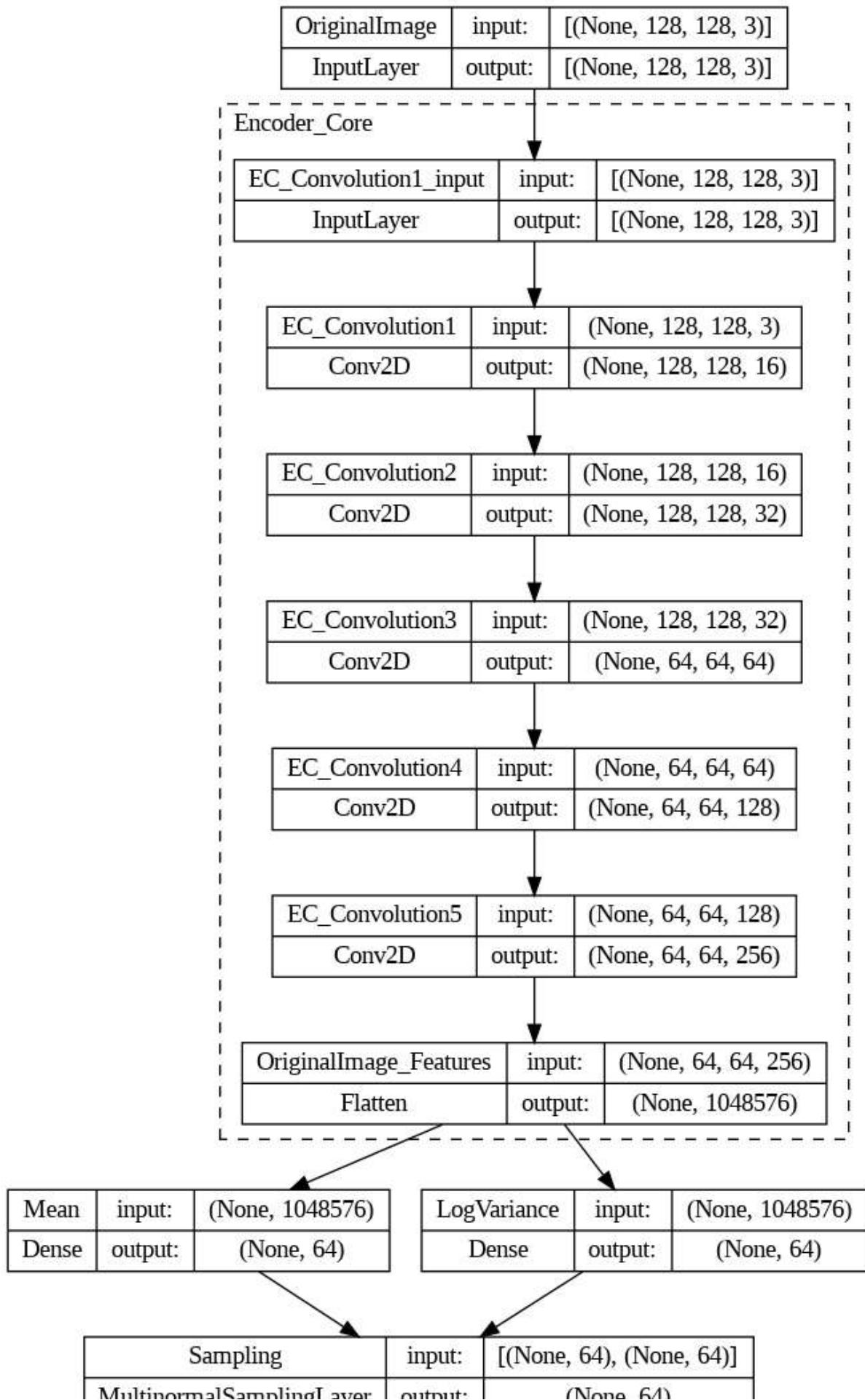


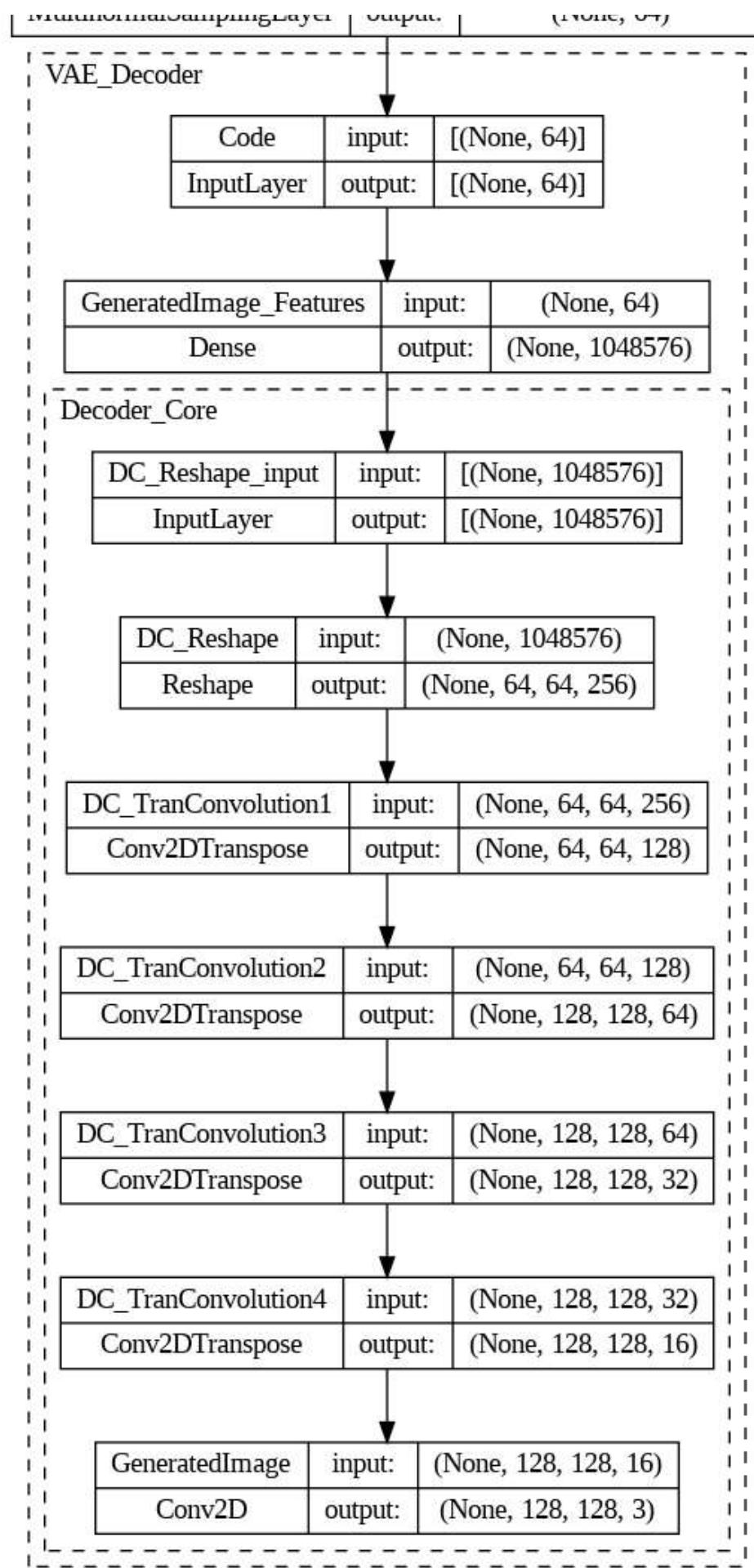
Variational AutoEncoder

Model: "VAE"

Layer (type)	Output Shape	Param #	Connected to
<hr/>			
<hr/>			
OriginalImage (InputLayer)	[(None, 128, 128, 3)]	0	[]
Encoder_Core (Sequential)	(None, 1048576)	392608	['OriginalImage[0][0]']
Mean (Dense)	(None, 64)	6710892	['Encoder_Core[0][0]']
LogVariance (Dense)	(None, 64)	6710892	['Encoder_Core[0][0]']
Sampling (MultinormalSamplingLayer)	(None, 64)	0	['Mean[0][0]', 'LogVariance[0][0]']
VAE_Decoder (Functional)	(None, 128, 128, 3)	6833195	['Sampling[0][0]']
		5	
<hr/>			
<hr/>			
Total params: 202942419 (774.16 MB)			
Trainable params: 202942419 (774.16 MB)			
Non-trainable params: 0 (0.00 Byte)			

Out[96]:





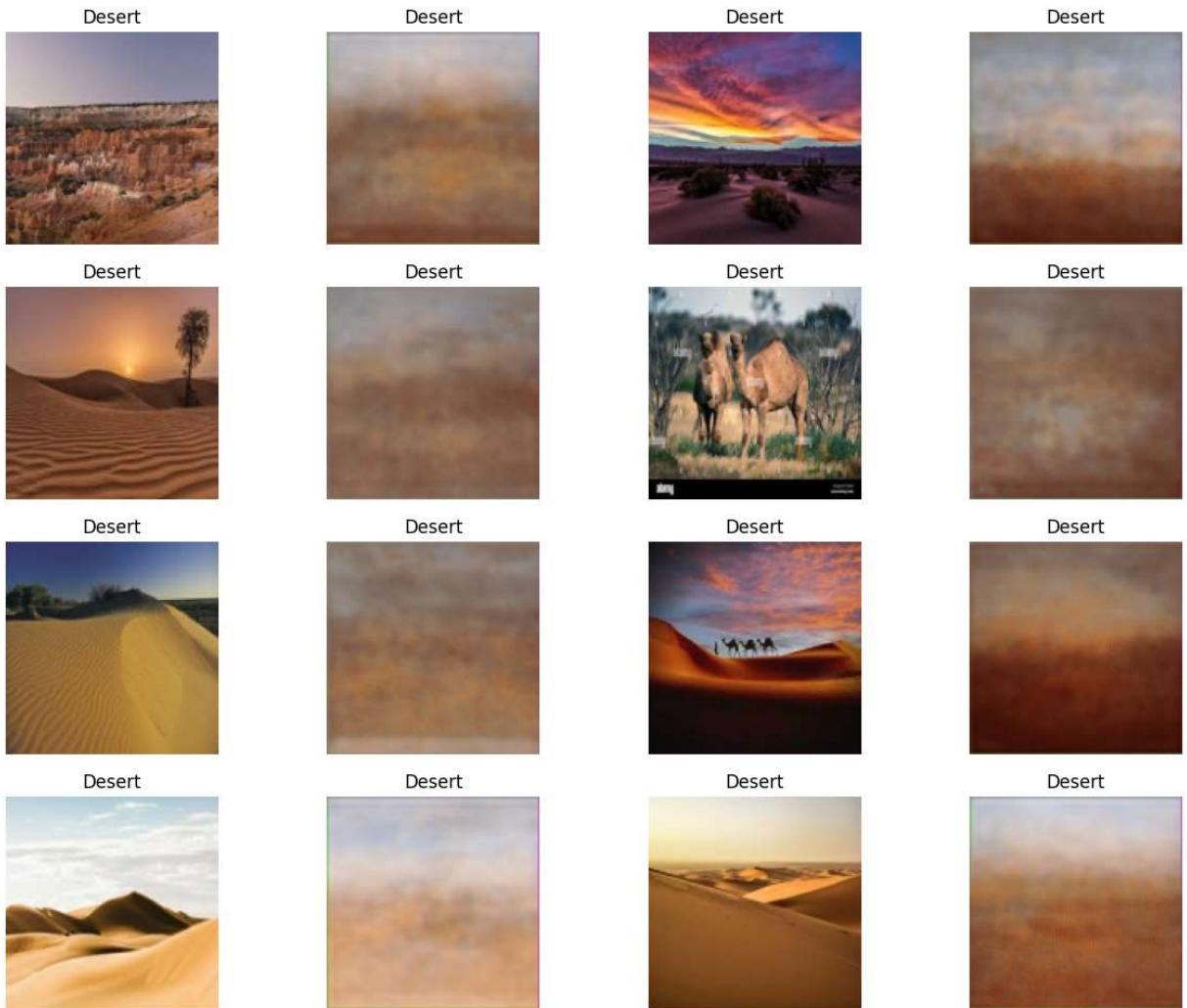
Epoch 1/1000

6/Unknown - 12s 94ms/step - loss: 250.2142 - reconstruction_error: 139.8028 - regularization_error: 110.4114

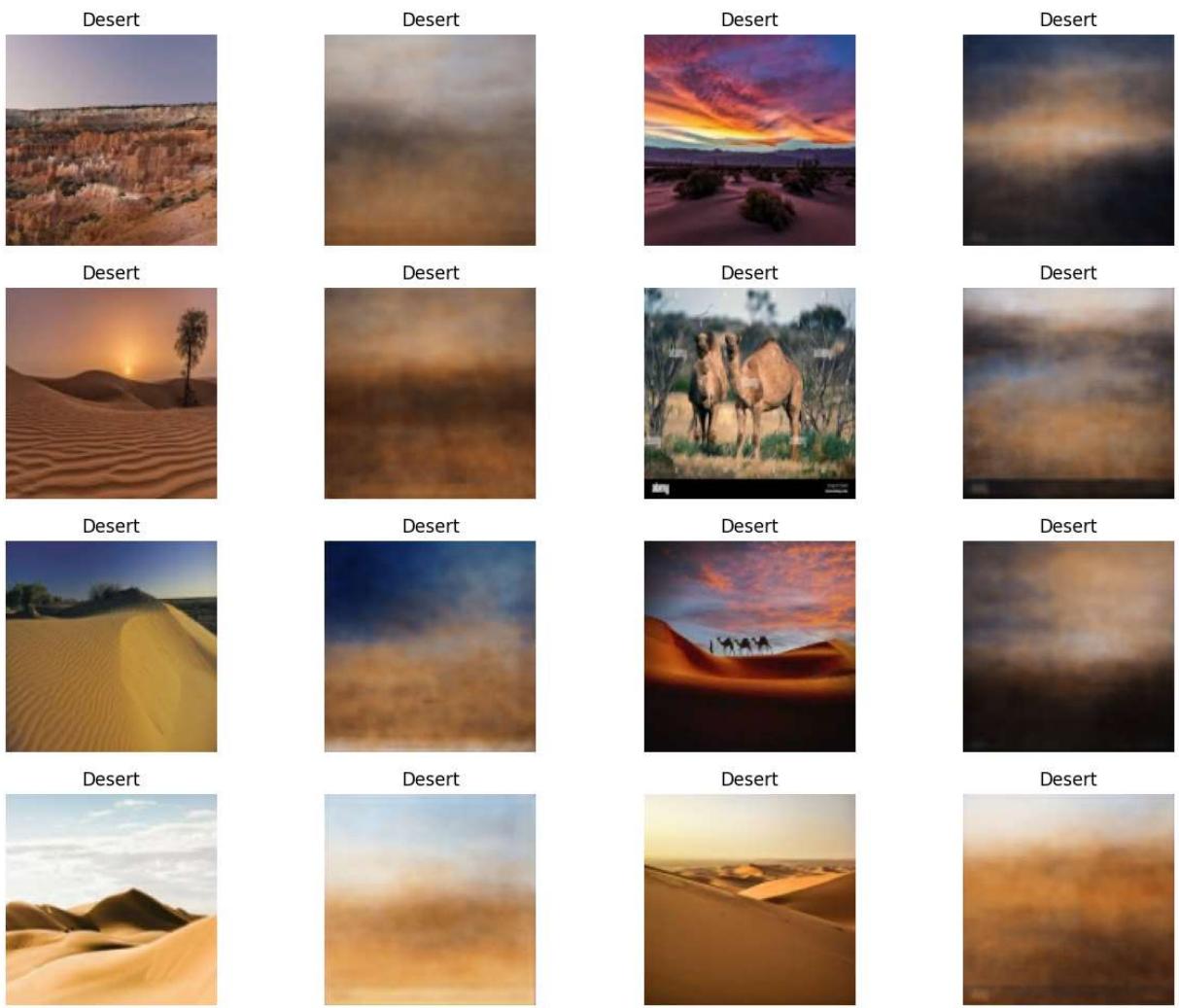
WARNING:tensorflow:Callback method `on_train_batch_end` is slow compared to the batch time (batch time: 0.0236s vs `on_train_batch_end` time: 0.0582s). Check your callbacks.

120/Unknown - 26s 123ms/step - loss: 114.0702 - reconstruction_error: 104.0881 - regularization_error: 9.9822

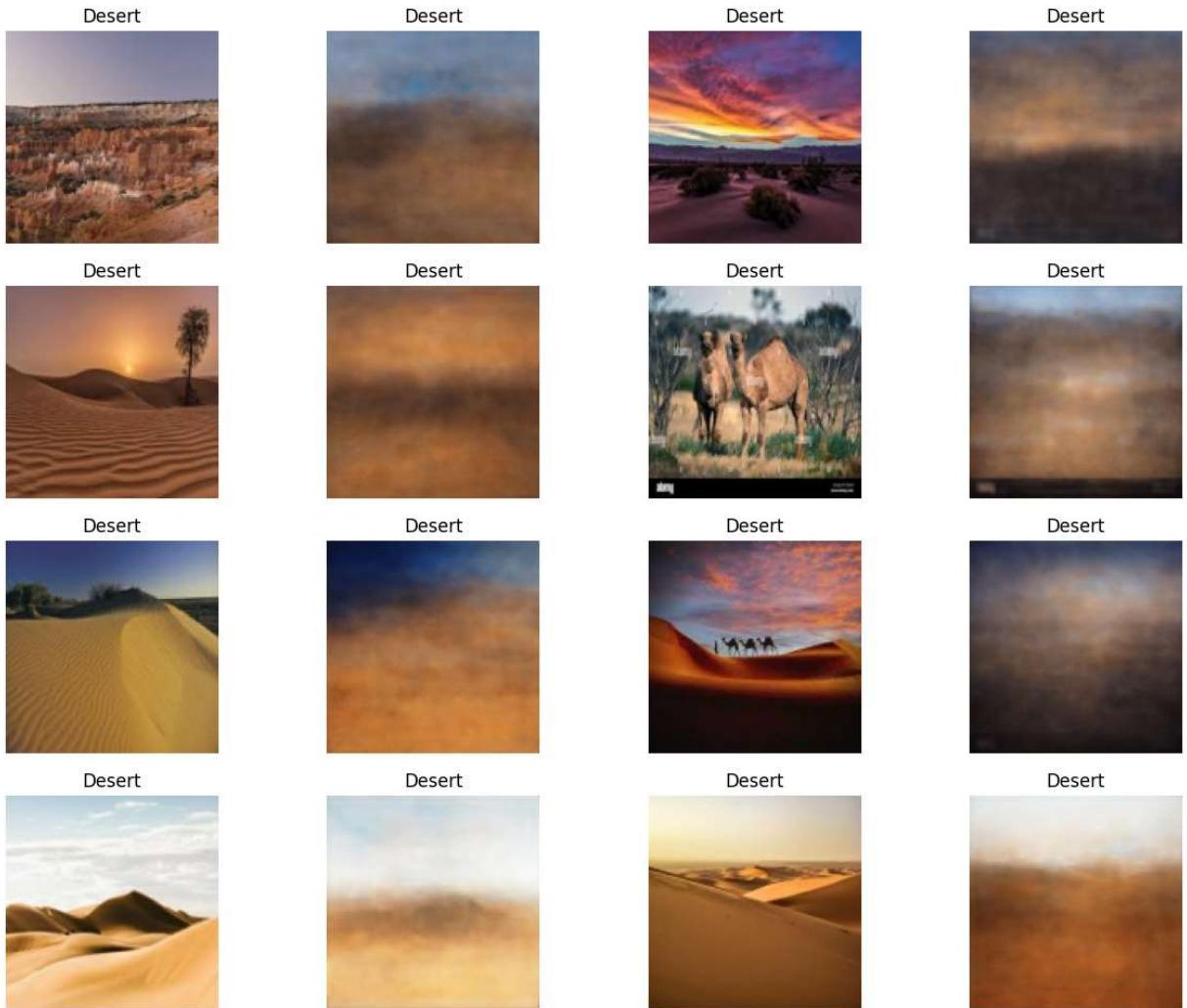
[2023-12-01 14:53:02.494755]: Reconstructing images for epoch 1 ...



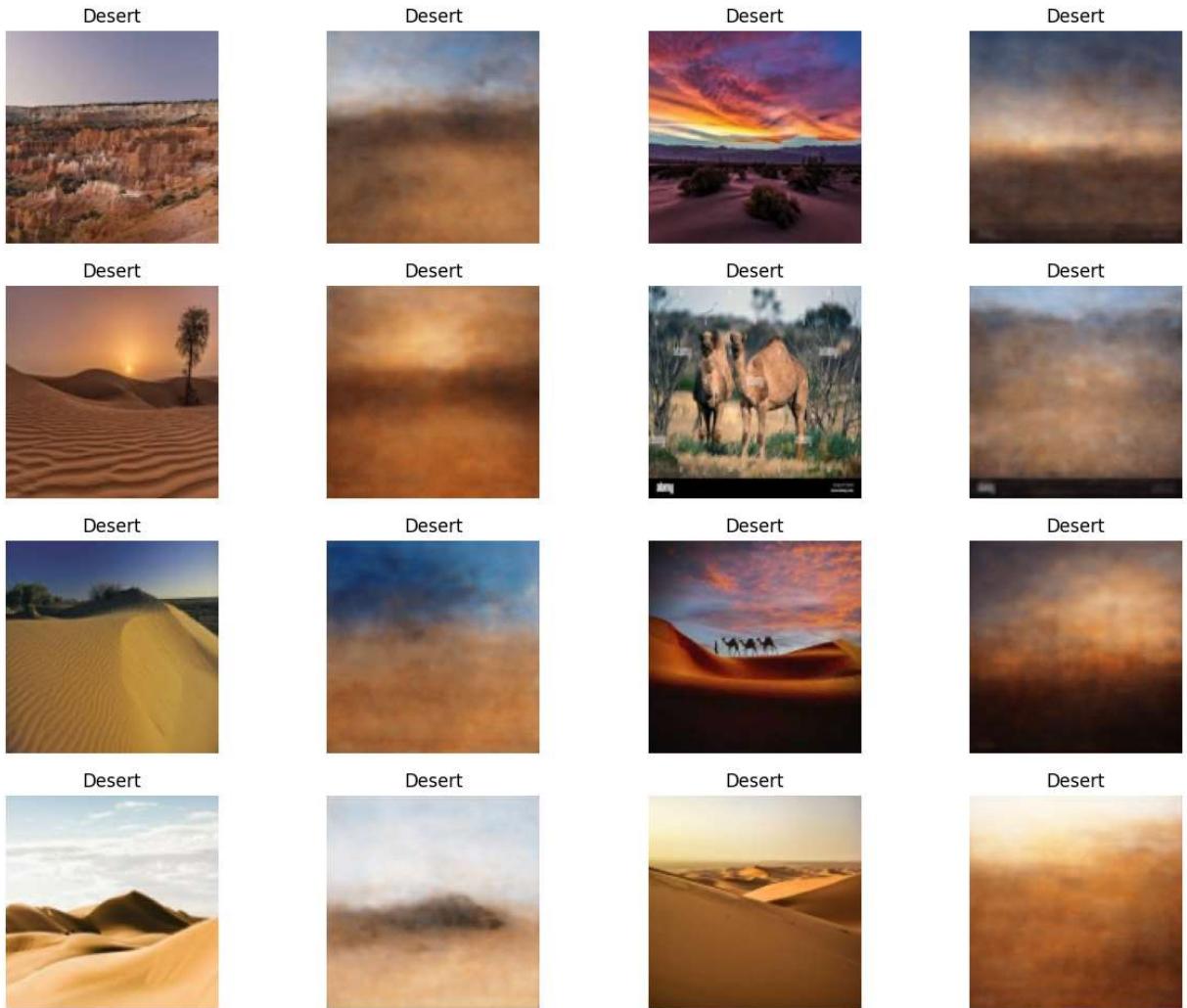
```
120/120 [=====] - 41s 245ms/step - loss: 114.0702 - reconstruction_error: 104.0881 - regularization_error: 9.9822 - val_loss: 88.3330 - val_reconstruction_error: 80.0234 - val_regularization_error: 8.3096
Epoch 2/1000
120/120 [=====] - 20s 169ms/step - loss: 78.8895 - reconstruction_error: 69.1844 - regularization_error: 9.7051 - val_loss: 75.4367 - val_reconstruction_error: 65.0124 - val_regularization_error: 10.4242
Epoch 3/1000
120/120 [=====] - 23s 185ms/step - loss: 69.2777 - reconstruction_error: 56.7070 - regularization_error: 12.5708 - val_loss: 69.3627 - val_reconstruction_error: 56.6367 - val_regularization_error: 12.7260
Epoch 4/1000
120/120 [=====] - 20s 167ms/step - loss: 65.2950 - reconstruction_error: 52.1205 - regularization_error: 13.1745 - val_loss: 64.2690 - val_reconstruction_error: 51.5493 - val_regularization_error: 12.7197
Epoch 5/1000
120/120 [=====] - 19s 158ms/step - loss: 62.2864 - reconstruction_error: 49.0309 - regularization_error: 13.2556 - val_loss: 62.0230 - val_reconstruction_error: 48.2459 - val_regularization_error: 13.7770
Epoch 6/1000
120/120 [=====] - 19s 154ms/step - loss: 60.1262 - reconstruction_error: 46.7944 - regularization_error: 13.3318 - val_loss: 61.5092 - val_reconstruction_error: 50.1635 - val_regularization_error: 11.3458
Epoch 7/1000
120/120 [=====] - 17s 142ms/step - loss: 57.7129 - reconstruction_error: 44.4233 - regularization_error: 13.2896 - val_loss: 57.7132 - val_reconstruction_error: 43.9060 - val_regularization_error: 13.8072
Epoch 8/1000
120/120 [=====] - 20s 162ms/step - loss: 55.9527 - reconstruction_error: 42.9424 - regularization_error: 13.0102 - val_loss: 56.4274 - val_reconstruction_error: 42.4108 - val_regularization_error: 14.0166
Epoch 9/1000
120/120 [=====] - 23s 187ms/step - loss: 55.1207 - reconstruction_error: 41.9379 - regularization_error: 13.1828 - val_loss: 55.6132 - val_reconstruction_error: 41.8248 - val_regularization_error: 13.7884
Epoch 10/1000
120/120 [=====] - 18s 148ms/step - loss: 53.7640 - reconstruction_error: 40.5093 - regularization_error: 13.2547 - val_loss: 54.0827 - val_reconstruction_error: 40.9001 - val_regularization_error: 13.1826
Epoch 11/1000
120/120 [=====] - ETA: 0s - loss: 53.2123 - reconstruction_error: 39.8908 - regularization_error: 13.3215
[2023-12-01 14:56:26.029401]: Reconstructing images for epoch 11 ...
```



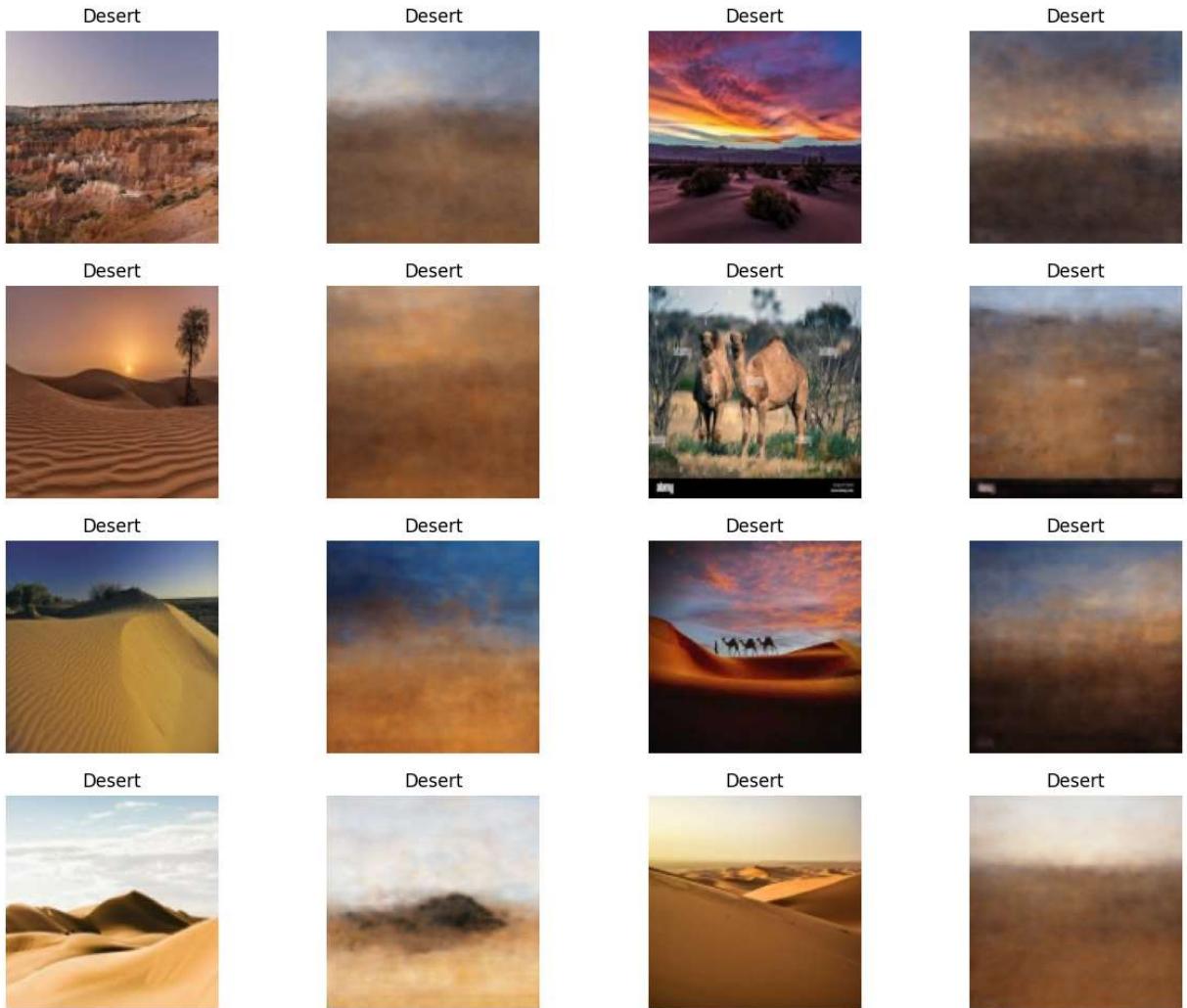
```
120/120 [=====] - 23s 186ms/step - loss: 53.2123 - reconstruction_error: 39.8908 - regularization_error: 13.3215 - val_loss: 54.1976 - val_reconstruction_error: 41.3188 - val_regularization_error: 12.8787
Epoch 12/1000
120/120 [=====] - 20s 167ms/step - loss: 52.7358 - reconstruction_error: 39.3963 - regularization_error: 13.3395 - val_loss: 52.8210 - val_reconstruction_error: 39.0786 - val_regularization_error: 13.7424
Epoch 13/1000
120/120 [=====] - 20s 166ms/step - loss: 52.6783 - reconstruction_error: 39.2326 - regularization_error: 13.4457 - val_loss: 52.8681 - val_reconstruction_error: 38.2081 - val_regularization_error: 14.6599
Epoch 14/1000
120/120 [=====] - 21s 172ms/step - loss: 51.7735 - reconstruction_error: 38.3660 - regularization_error: 13.4075 - val_loss: 52.1823 - val_reconstruction_error: 38.0575 - val_regularization_error: 14.1248
Epoch 15/1000
120/120 [=====] - 21s 174ms/step - loss: 51.4458 - reconstruction_error: 38.1400 - regularization_error: 13.3058 - val_loss: 52.2527 - val_reconstruction_error: 38.2355 - val_regularization_error: 14.0172
Epoch 16/1000
120/120 [=====] - 18s 149ms/step - loss: 51.1619 - reconstruction_error: 37.9199 - regularization_error: 13.2420 - val_loss: 53.5169 - val_reconstruction_error: 39.3772 - val_regularization_error: 14.1397
Epoch 17/1000
120/120 [=====] - 18s 150ms/step - loss: 51.1895 - reconstruction_error: 37.7622 - regularization_error: 13.4273 - val_loss: 51.2909 - val_reconstruction_error: 37.3812 - val_regularization_error: 13.9097
Epoch 18/1000
120/120 [=====] - 17s 145ms/step - loss: 50.9042 - reconstruction_error: 37.4725 - regularization_error: 13.4318 - val_loss: 52.9616 - val_reconstruction_error: 40.2110 - val_regularization_error: 12.7505
Epoch 19/1000
120/120 [=====] - 19s 160ms/step - loss: 50.4625 - reconstruction_error: 37.0594 - regularization_error: 13.4030 - val_loss: 52.1902 - val_reconstruction_error: 39.0880 - val_regularization_error: 13.1022
Epoch 20/1000
120/120 [=====] - 19s 154ms/step - loss: 50.9084 - reconstruction_error: 37.4386 - regularization_error: 13.4698 - val_loss: 51.7221 - val_reconstruction_error: 37.7862 - val_regularization_error: 13.9360
Epoch 21/1000
120/120 [=====] - ETA: 0s - loss: 49.9453 - reconstruction_error: 36.4595 - regularization_error: 13.4858
[2023-12-01 14:59:41.904013]: Reconstructing images for epoch 21 ...
```



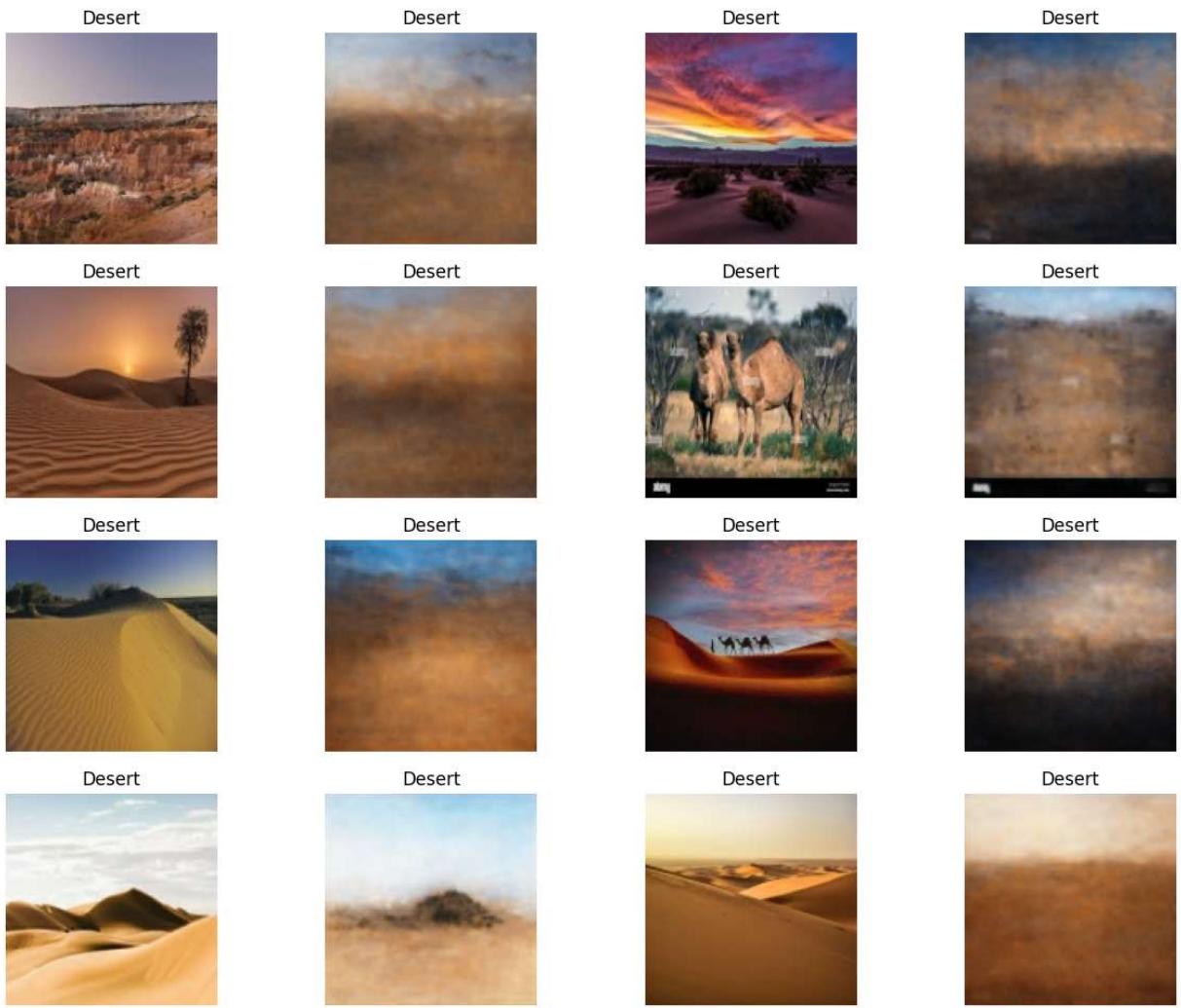
```
120/120 [=====] - 20s 168ms/step - loss: 49.9453 - reconstruction_error: 36.4595 - regularization_error: 13.4858 - val_loss: 51.7253 - val_reconstruction_error: 37.6266 - val_regularization_error: 14.0987
Epoch 22/1000
120/120 [=====] - 17s 140ms/step - loss: 49.9618 - reconstruction_error: 36.6353 - regularization_error: 13.3265 - val_loss: 51.6424 - val_reconstruction_error: 37.8374 - val_regularization_error: 13.8050
Epoch 23/1000
120/120 [=====] - 18s 147ms/step - loss: 50.1112 - reconstruction_error: 36.5749 - regularization_error: 13.5363 - val_loss: 50.8741 - val_reconstruction_error: 37.6202 - val_regularization_error: 13.2539
Epoch 24/1000
120/120 [=====] - 17s 143ms/step - loss: 49.8294 - reconstruction_error: 36.2849 - regularization_error: 13.5445 - val_loss: 51.6129 - val_reconstruction_error: 38.1628 - val_regularization_error: 13.4500
Epoch 25/1000
120/120 [=====] - 17s 141ms/step - loss: 49.7633 - reconstruction_error: 36.1840 - regularization_error: 13.5794 - val_loss: 52.4770 - val_reconstruction_error: 37.2622 - val_regularization_error: 15.2148
Epoch 26/1000
120/120 [=====] - 18s 149ms/step - loss: 49.6065 - reconstruction_error: 36.0420 - regularization_error: 13.5644 - val_loss: 51.6946 - val_reconstruction_error: 36.6474 - val_regularization_error: 15.0473
Epoch 27/1000
120/120 [=====] - 20s 164ms/step - loss: 49.6762 - reconstruction_error: 35.9832 - regularization_error: 13.6930 - val_loss: 52.1747 - val_reconstruction_error: 39.1423 - val_regularization_error: 13.0324
Epoch 28/1000
120/120 [=====] - 19s 156ms/step - loss: 49.8286 - reconstruction_error: 36.1164 - regularization_error: 13.7122 - val_loss: 52.9112 - val_reconstruction_error: 39.2071 - val_regularization_error: 13.7041
Epoch 29/1000
120/120 [=====] - 22s 183ms/step - loss: 49.0676 - reconstruction_error: 35.4406 - regularization_error: 13.6269 - val_loss: 50.6409 - val_reconstruction_error: 37.0793 - val_regularization_error: 13.5615
Epoch 30/1000
120/120 [=====] - 20s 167ms/step - loss: 49.3808 - reconstruction_error: 35.6408 - regularization_error: 13.7400 - val_loss: 51.7086 - val_reconstruction_error: 38.8225 - val_regularization_error: 12.8861
Epoch 31/1000
120/120 [=====] - ETA: 0s - loss: 49.2652 - reconstruction_error: 35.5899 - regularization_error: 13.6753
[2023-12-01 15:02:56.280034]: Reconstructing images for epoch 31 ...
```



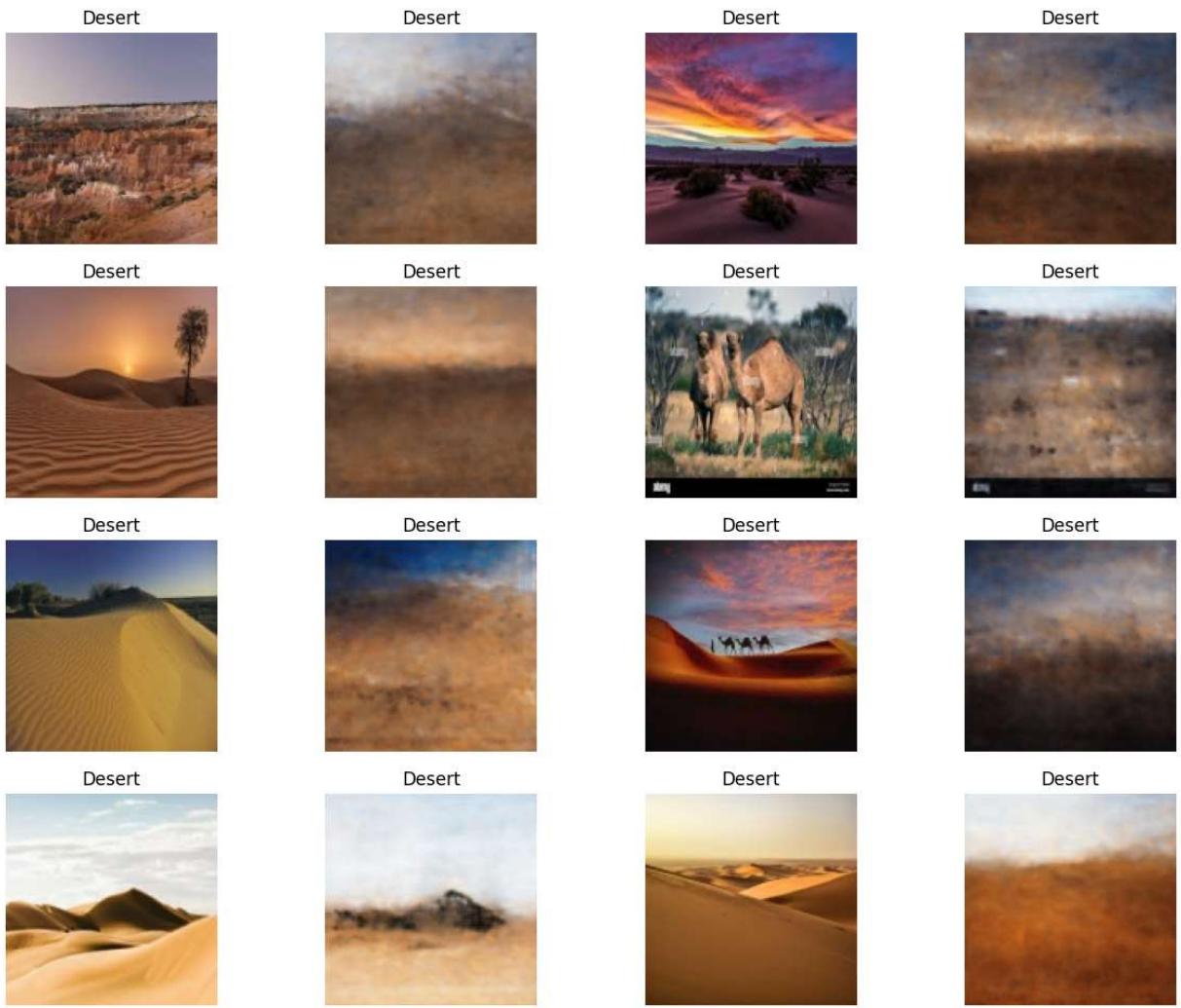
```
120/120 [=====] - 25s 205ms/step - loss: 49.2652 - reconstruction_error: 35.5899 - regularization_error: 13.6753 - val_loss: 50.4466 - val_reconstruction_error: 36.8036 - val_regularization_error: 13.6430
Epoch 32/1000
120/120 [=====] - 21s 172ms/step - loss: 48.9587 - reconstruction_error: 35.2557 - regularization_error: 13.7029 - val_loss: 51.4601 - val_reconstruction_error: 38.1167 - val_regularization_error: 13.3434
Epoch 33/1000
120/120 [=====] - 19s 156ms/step - loss: 49.4019 - reconstruction_error: 35.5369 - regularization_error: 13.8650 - val_loss: 52.3257 - val_reconstruction_error: 37.9889 - val_regularization_error: 14.3368
Epoch 34/1000
120/120 [=====] - 18s 153ms/step - loss: 48.6980 - reconstruction_error: 35.0221 - regularization_error: 13.6759 - val_loss: 52.9661 - val_reconstruction_error: 38.9178 - val_regularization_error: 14.0484
Epoch 35/1000
120/120 [=====] - 20s 166ms/step - loss: 48.8203 - reconstruction_error: 34.9556 - regularization_error: 13.8647 - val_loss: 51.7021 - val_reconstruction_error: 37.7159 - val_regularization_error: 13.9862
Epoch 36/1000
120/120 [=====] - 19s 161ms/step - loss: 48.5380 - reconstruction_error: 34.6614 - regularization_error: 13.8765 - val_loss: 51.6385 - val_reconstruction_error: 37.8597 - val_regularization_error: 13.7788
Epoch 37/1000
120/120 [=====] - 19s 155ms/step - loss: 48.6332 - reconstruction_error: 34.6844 - regularization_error: 13.9488 - val_loss: 51.1058 - val_reconstruction_error: 36.9619 - val_regularization_error: 14.1438
Epoch 38/1000
120/120 [=====] - 21s 171ms/step - loss: 48.1012 - reconstruction_error: 34.3403 - regularization_error: 13.7608 - val_loss: 50.8199 - val_reconstruction_error: 36.2143 - val_regularization_error: 14.6056
Epoch 39/1000
120/120 [=====] - 19s 152ms/step - loss: 48.3605 - reconstruction_error: 34.4351 - regularization_error: 13.9253 - val_loss: 51.0147 - val_reconstruction_error: 37.0828 - val_regularization_error: 13.9319
Epoch 40/1000
120/120 [=====] - 19s 156ms/step - loss: 48.2985 - reconstruction_error: 34.2737 - regularization_error: 14.0248 - val_loss: 51.0398 - val_reconstruction_error: 37.0033 - val_regularization_error: 14.0366
Epoch 41/1000
120/120 [=====] - ETA: 0s - loss: 48.5367 - reconstruction_error: 34.4529 - regularization_error: 14.0838
[2023-12-01 15:06:15.762963]: Reconstructing images for epoch 41 ...
```



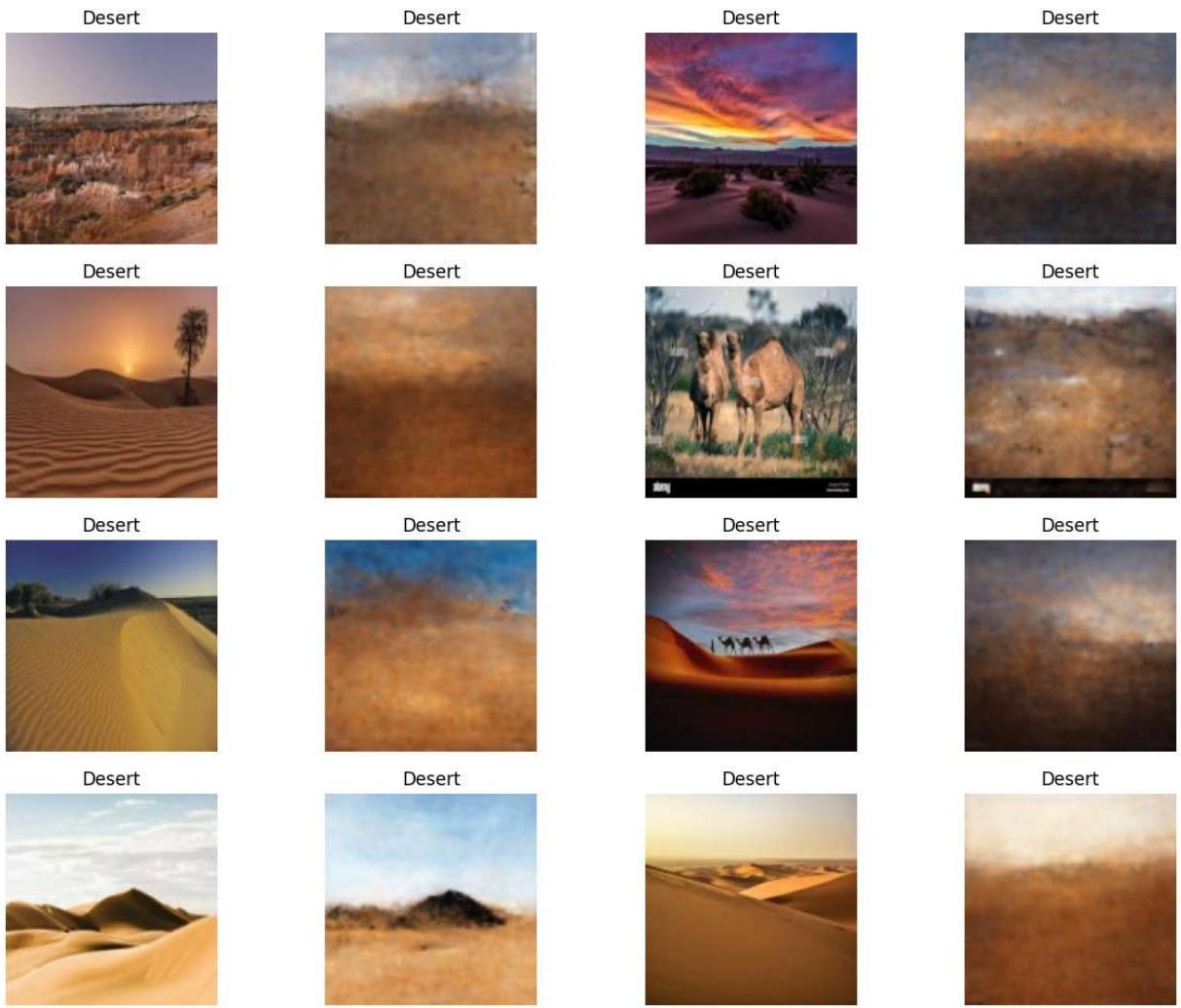
```
120/120 [=====] - 22s 180ms/step - loss: 48.5367 - reconstruction_error: 34.4529 - regularization_error: 14.0838 - val_loss: 50.2383 - val_reconstruction_error: 36.6249 - val_regularization_error: 13.6134
Epoch 42/1000
120/120 [=====] - 22s 186ms/step - loss: 48.4409 - reconstruction_error: 34.3059 - regularization_error: 14.1350 - val_loss: 51.0447 - val_reconstruction_error: 36.1703 - val_regularization_error: 14.8744
Epoch 43/1000
120/120 [=====] - 21s 176ms/step - loss: 48.0096 - reconstruction_error: 33.9532 - regularization_error: 14.0563 - val_loss: 50.8560 - val_reconstruction_error: 36.9370 - val_regularization_error: 13.9190
Epoch 44/1000
120/120 [=====] - 19s 159ms/step - loss: 47.8040 - reconstruction_error: 33.6746 - regularization_error: 14.1294 - val_loss: 51.5780 - val_reconstruction_error: 37.6020 - val_regularization_error: 13.9760
Epoch 45/1000
120/120 [=====] - 23s 191ms/step - loss: 47.7403 - reconstruction_error: 33.6096 - regularization_error: 14.1307 - val_loss: 51.3129 - val_reconstruction_error: 37.7988 - val_regularization_error: 13.5141
Epoch 46/1000
120/120 [=====] - 21s 170ms/step - loss: 47.7481 - reconstruction_error: 33.6814 - regularization_error: 14.0668 - val_loss: 51.4949 - val_reconstruction_error: 37.7022 - val_regularization_error: 13.7927
Epoch 47/1000
120/120 [=====] - 18s 147ms/step - loss: 47.7524 - reconstruction_error: 33.6098 - regularization_error: 14.1426 - val_loss: 51.1684 - val_reconstruction_error: 36.1931 - val_regularization_error: 14.9754
Epoch 48/1000
120/120 [=====] - 19s 160ms/step - loss: 47.8234 - reconstruction_error: 33.6042 - regularization_error: 14.2192 - val_loss: 53.4726 - val_reconstruction_error: 38.1927 - val_regularization_error: 15.2798
Epoch 49/1000
120/120 [=====] - 18s 147ms/step - loss: 47.8188 - reconstruction_error: 33.5330 - regularization_error: 14.2859 - val_loss: 51.0098 - val_reconstruction_error: 36.4066 - val_regularization_error: 14.6032
Epoch 50/1000
120/120 [=====] - 18s 152ms/step - loss: 47.3987 - reconstruction_error: 33.0839 - regularization_error: 14.3148 - val_loss: 50.5907 - val_reconstruction_error: 36.3913 - val_regularization_error: 14.1994
Epoch 51/1000
120/120 [=====] - ETA: 0s - loss: 48.0419 - reconstruction_error: 33.6341 - regularization_error: 14.4078
[2023-12-01 15:09:38.535997]: Reconstructing images for epoch 51 ...
```



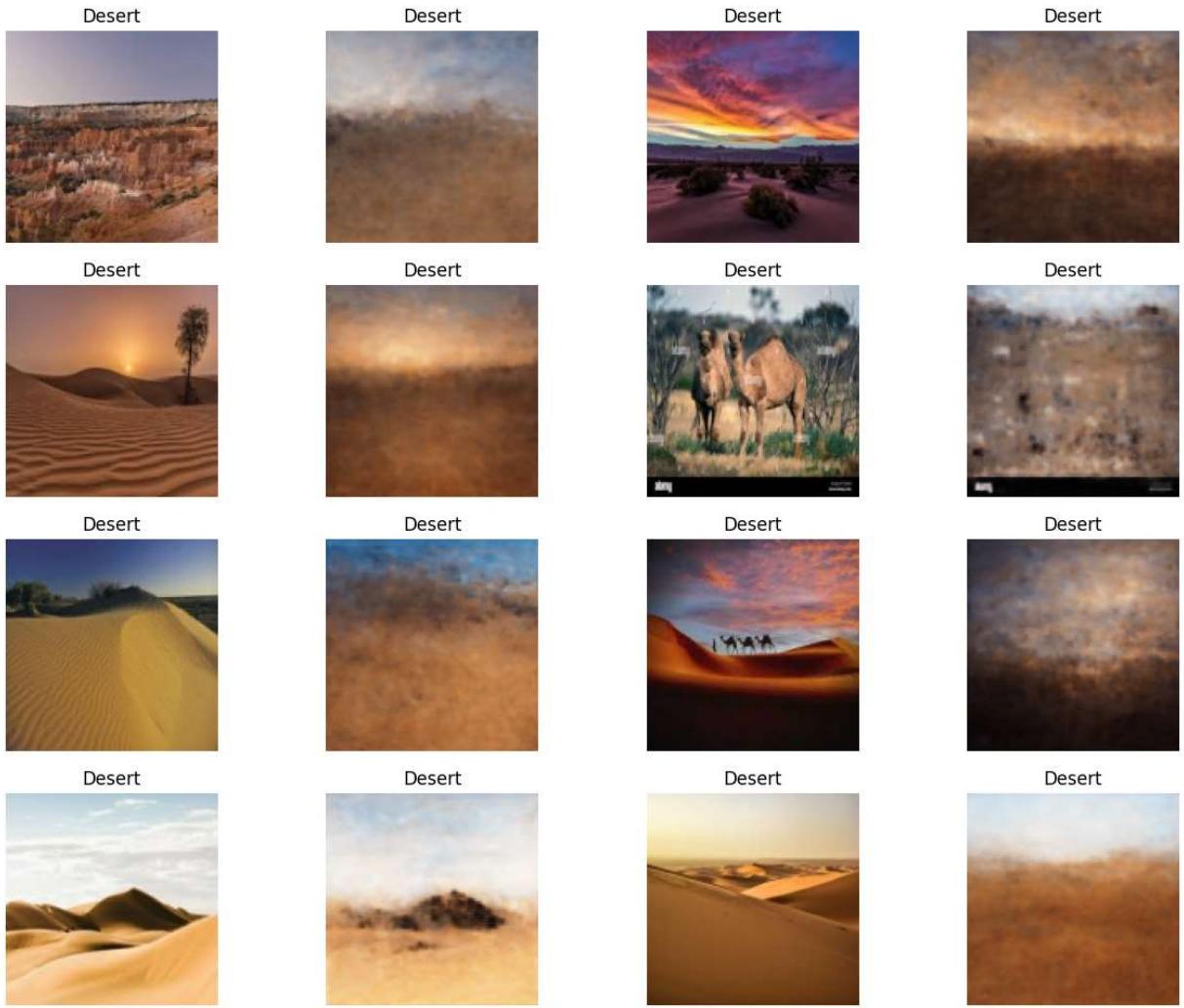
```
120/120 [=====] - 21s 172ms/step - loss: 48.0419 - reconstruction_error: 33.6341 - regularization_error: 14.4078 - val_loss: 51.0745 - val_reconstruction_error: 35.9318 - val_regularization_error: 15.1427
Epoch 52/1000
120/120 [=====] - 20s 169ms/step - loss: 47.5105 - reconstruction_error: 33.1485 - regularization_error: 14.3620 - val_loss: 51.4058 - val_reconstruction_error: 36.5970 - val_regularization_error: 14.8087
Epoch 53/1000
120/120 [=====] - 19s 155ms/step - loss: 47.2722 - reconstruction_error: 32.8421 - regularization_error: 14.4301 - val_loss: 51.4297 - val_reconstruction_error: 36.7809 - val_regularization_error: 14.6487
Epoch 54/1000
120/120 [=====] - 18s 146ms/step - loss: 46.9871 - reconstruction_error: 32.6358 - regularization_error: 14.3513 - val_loss: 50.6358 - val_reconstruction_error: 36.8129 - val_regularization_error: 13.8229
Epoch 55/1000
120/120 [=====] - 18s 149ms/step - loss: 46.9099 - reconstruction_error: 32.4906 - regularization_error: 14.4193 - val_loss: 50.9113 - val_reconstruction_error: 35.8803 - val_regularization_error: 15.0310
Epoch 56/1000
120/120 [=====] - 20s 164ms/step - loss: 46.6457 - reconstruction_error: 32.4029 - regularization_error: 14.2428 - val_loss: 51.3269 - val_reconstruction_error: 36.2334 - val_regularization_error: 15.0935
Epoch 57/1000
120/120 [=====] - 17s 145ms/step - loss: 47.2476 - reconstruction_error: 32.8200 - regularization_error: 14.4277 - val_loss: 51.2150 - val_reconstruction_error: 36.0091 - val_regularization_error: 15.2059
Epoch 58/1000
120/120 [=====] - 20s 164ms/step - loss: 46.6839 - reconstruction_error: 32.1674 - regularization_error: 14.5165 - val_loss: 51.0355 - val_reconstruction_error: 36.3713 - val_regularization_error: 14.6642
Epoch 59/1000
120/120 [=====] - 18s 150ms/step - loss: 46.9231 - reconstruction_error: 32.3892 - regularization_error: 14.5339 - val_loss: 51.5383 - val_reconstruction_error: 36.4454 - val_regularization_error: 15.0929
Epoch 60/1000
120/120 [=====] - 20s 167ms/step - loss: 47.0714 - reconstruction_error: 32.5703 - regularization_error: 14.5011 - val_loss: 51.3122 - val_reconstruction_error: 36.7385 - val_regularization_error: 14.5737
Epoch 61/1000
120/120 [=====] - ETA: 0s - loss: 46.8378 - reconstruction_error: 32.2046 - regularization_error: 14.6333
[2023-12-01 15:12:54.693917]: Reconstructing images for epoch 61 ...
```



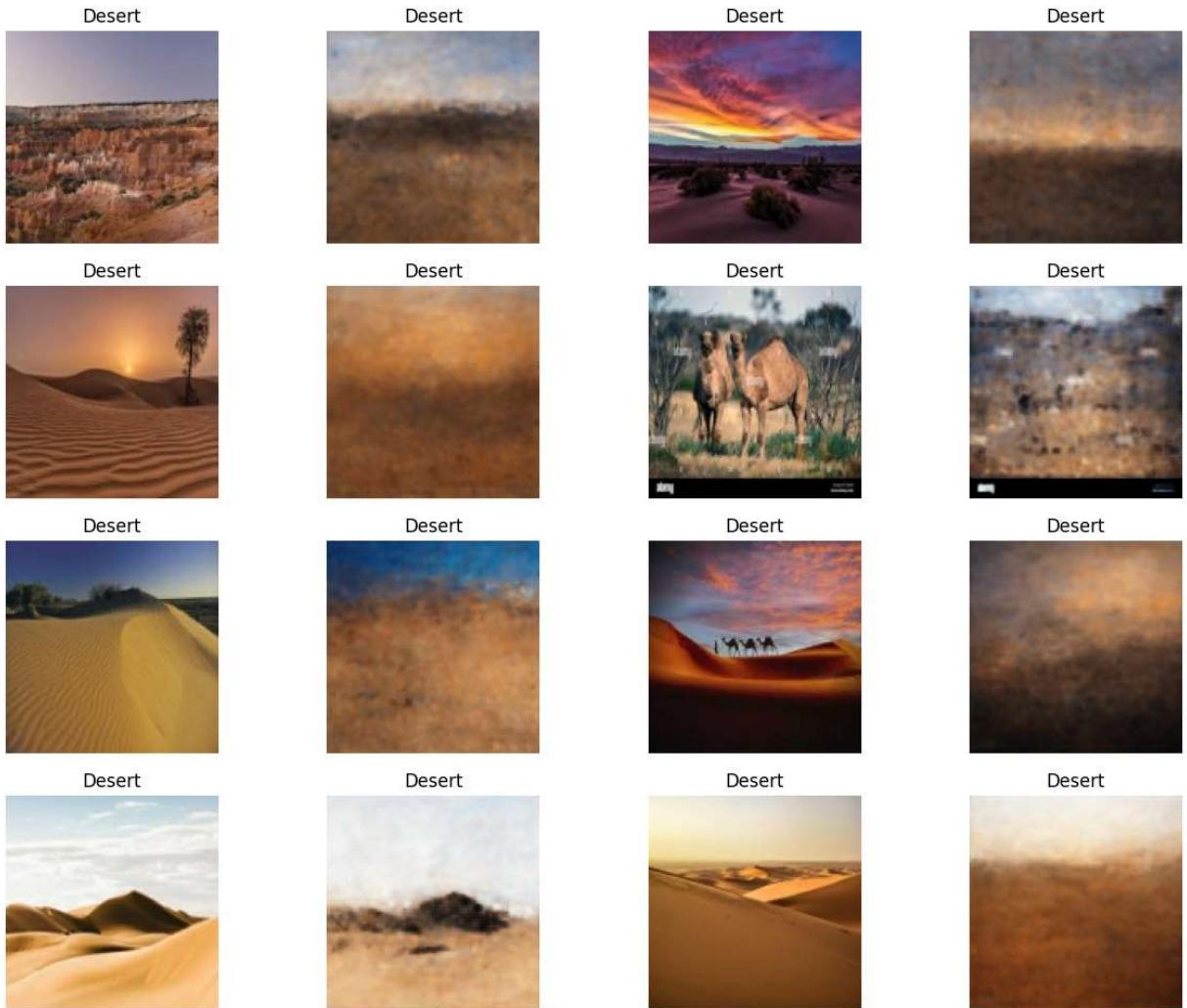
```
120/120 [=====] - 24s 198ms/step - loss: 46.8378 - reconstruction_error: 32.2046 - regularization_error: 14.6333 - val_loss: 51.4865 - val_reconstruction_error: 36.0172 - val_regularization_error: 15.4693
Epoch 62/1000
120/120 [=====] - 18s 152ms/step - loss: 46.2124 - reconstruction_error: 31.6443 - regularization_error: 14.5681 - val_loss: 50.4911 - val_reconstruction_error: 36.1084 - val_regularization_error: 14.3827
Epoch 63/1000
120/120 [=====] - 17s 139ms/step - loss: 46.4363 - reconstruction_error: 31.9112 - regularization_error: 14.5251 - val_loss: 52.5242 - val_reconstruction_error: 38.6428 - val_regularization_error: 13.8814
Epoch 64/1000
120/120 [=====] - 19s 155ms/step - loss: 46.3407 - reconstruction_error: 31.6679 - regularization_error: 14.6728 - val_loss: 51.1523 - val_reconstruction_error: 35.9107 - val_regularization_error: 15.2416
Epoch 65/1000
120/120 [=====] - 19s 155ms/step - loss: 46.0980 - reconstruction_error: 31.4154 - regularization_error: 14.6826 - val_loss: 50.9868 - val_reconstruction_error: 35.9158 - val_regularization_error: 15.0710
Epoch 66/1000
120/120 [=====] - 20s 163ms/step - loss: 46.4290 - reconstruction_error: 31.6438 - regularization_error: 14.7852 - val_loss: 51.5405 - val_reconstruction_error: 36.1001 - val_regularization_error: 15.4404
Epoch 67/1000
120/120 [=====] - 19s 155ms/step - loss: 46.2286 - reconstruction_error: 31.4490 - regularization_error: 14.7795 - val_loss: 51.3781 - val_reconstruction_error: 36.1637 - val_regularization_error: 15.2145
Epoch 68/1000
120/120 [=====] - 18s 144ms/step - loss: 45.9286 - reconstruction_error: 31.3059 - regularization_error: 14.6227 - val_loss: 51.3718 - val_reconstruction_error: 35.8958 - val_regularization_error: 15.4760
Epoch 69/1000
120/120 [=====] - 20s 165ms/step - loss: 45.7457 - reconstruction_error: 31.0706 - regularization_error: 14.6751 - val_loss: 50.9031 - val_reconstruction_error: 37.2650 - val_regularization_error: 13.6380
Epoch 70/1000
120/120 [=====] - 19s 160ms/step - loss: 46.0179 - reconstruction_error: 31.2681 - regularization_error: 14.7498 - val_loss: 51.0459 - val_reconstruction_error: 37.6438 - val_regularization_error: 13.4021
Epoch 71/1000
120/120 [=====] - ETA: 0s - loss: 45.5544 - reconstruction_error: 30.8319 - regularization_error: 14.7225
[2023-12-01 15:16:06.763750]: Reconstructing images for epoch 71 ...
```



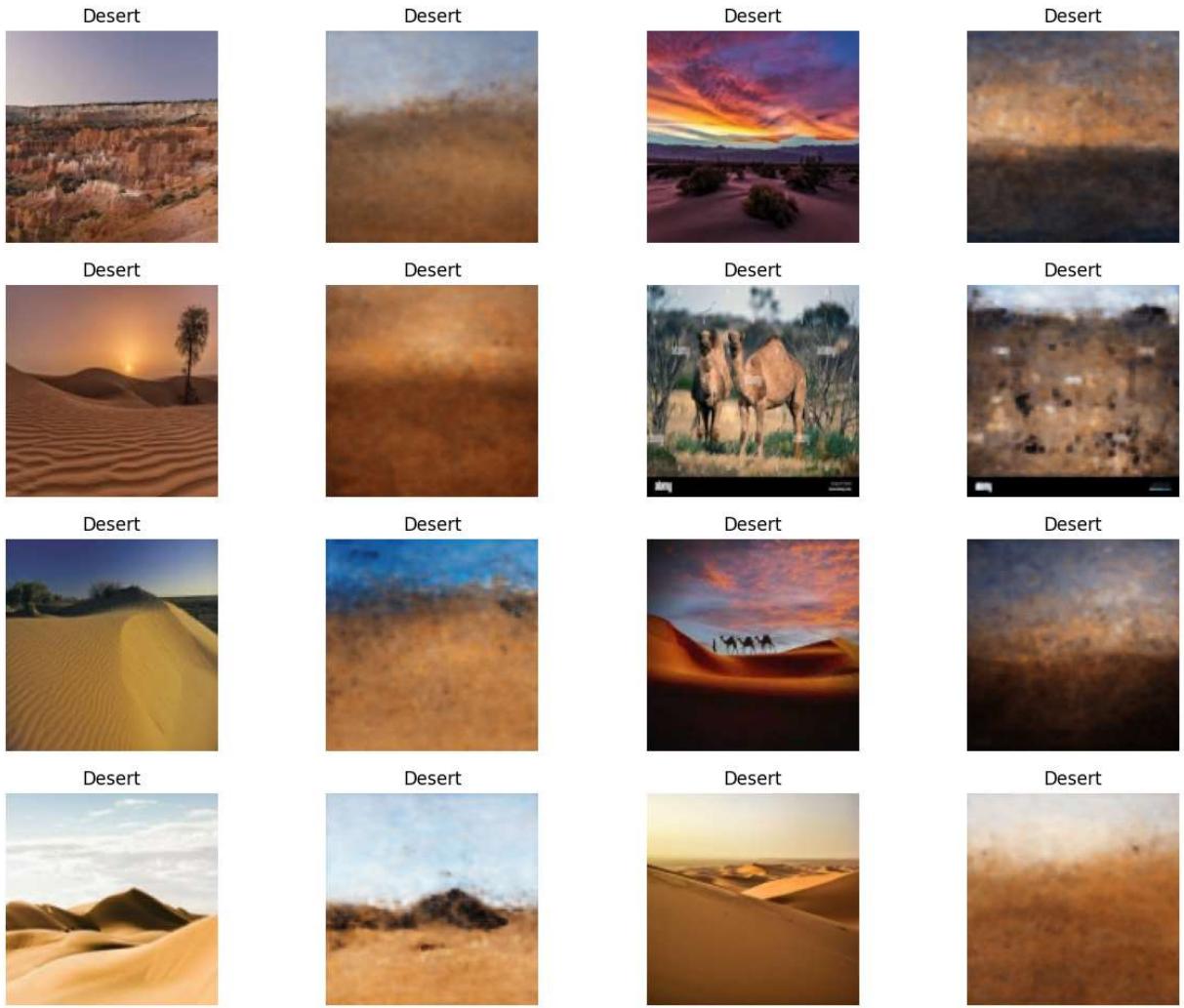
```
120/120 [=====] - 22s 181ms/step - loss: 45.5544 - reconstruction_error: 30.8319 - regularization_error: 14.7225 - val_loss: 51.7788 - val_reconstruction_error: 36.7631 - val_regularization_error: 15.0157
Epoch 72/1000
120/120 [=====] - 19s 156ms/step - loss: 45.5653 - reconstruction_error: 30.7340 - regularization_error: 14.8313 - val_loss: 50.5534 - val_reconstruction_error: 36.3557 - val_regularization_error: 14.1977
Epoch 73/1000
120/120 [=====] - 17s 142ms/step - loss: 45.5530 - reconstruction_error: 30.7716 - regularization_error: 14.7814 - val_loss: 51.2601 - val_reconstruction_error: 36.0644 - val_regularization_error: 15.1958
Epoch 74/1000
120/120 [=====] - 22s 179ms/step - loss: 45.4784 - reconstruction_error: 30.7025 - regularization_error: 14.7760 - val_loss: 50.8273 - val_reconstruction_error: 35.2846 - val_regularization_error: 15.5428
Epoch 75/1000
120/120 [=====] - 21s 175ms/step - loss: 45.2773 - reconstruction_error: 30.3960 - regularization_error: 14.8813 - val_loss: 50.4752 - val_reconstruction_error: 36.2444 - val_regularization_error: 14.2308
Epoch 76/1000
120/120 [=====] - 20s 167ms/step - loss: 45.3932 - reconstruction_error: 30.5248 - regularization_error: 14.8684 - val_loss: 51.1505 - val_reconstruction_error: 37.0113 - val_regularization_error: 14.1392
Epoch 77/1000
120/120 [=====] - 18s 151ms/step - loss: 45.3285 - reconstruction_error: 30.5835 - regularization_error: 14.7451 - val_loss: 50.7762 - val_reconstruction_error: 36.6304 - val_regularization_error: 14.1458
Epoch 78/1000
120/120 [=====] - 19s 154ms/step - loss: 45.2743 - reconstruction_error: 30.2554 - regularization_error: 15.0190 - val_loss: 51.9038 - val_reconstruction_error: 36.3514 - val_regularization_error: 15.5524
Epoch 79/1000
120/120 [=====] - 19s 154ms/step - loss: 45.1231 - reconstruction_error: 30.3069 - regularization_error: 14.8162 - val_loss: 51.2416 - val_reconstruction_error: 36.3998 - val_regularization_error: 14.8418
Epoch 80/1000
120/120 [=====] - 23s 192ms/step - loss: 45.1235 - reconstruction_error: 30.2542 - regularization_error: 14.8694 - val_loss: 52.6903 - val_reconstruction_error: 37.5370 - val_regularization_error: 15.1533
Epoch 81/1000
120/120 [=====] - ETA: 0s - loss: 44.7991 - reconstruction_error: 29.8901 - regularization_error: 14.9090
[2023-12-01 15:19:28.262218]: Reconstructing images for epoch 81 ...
```



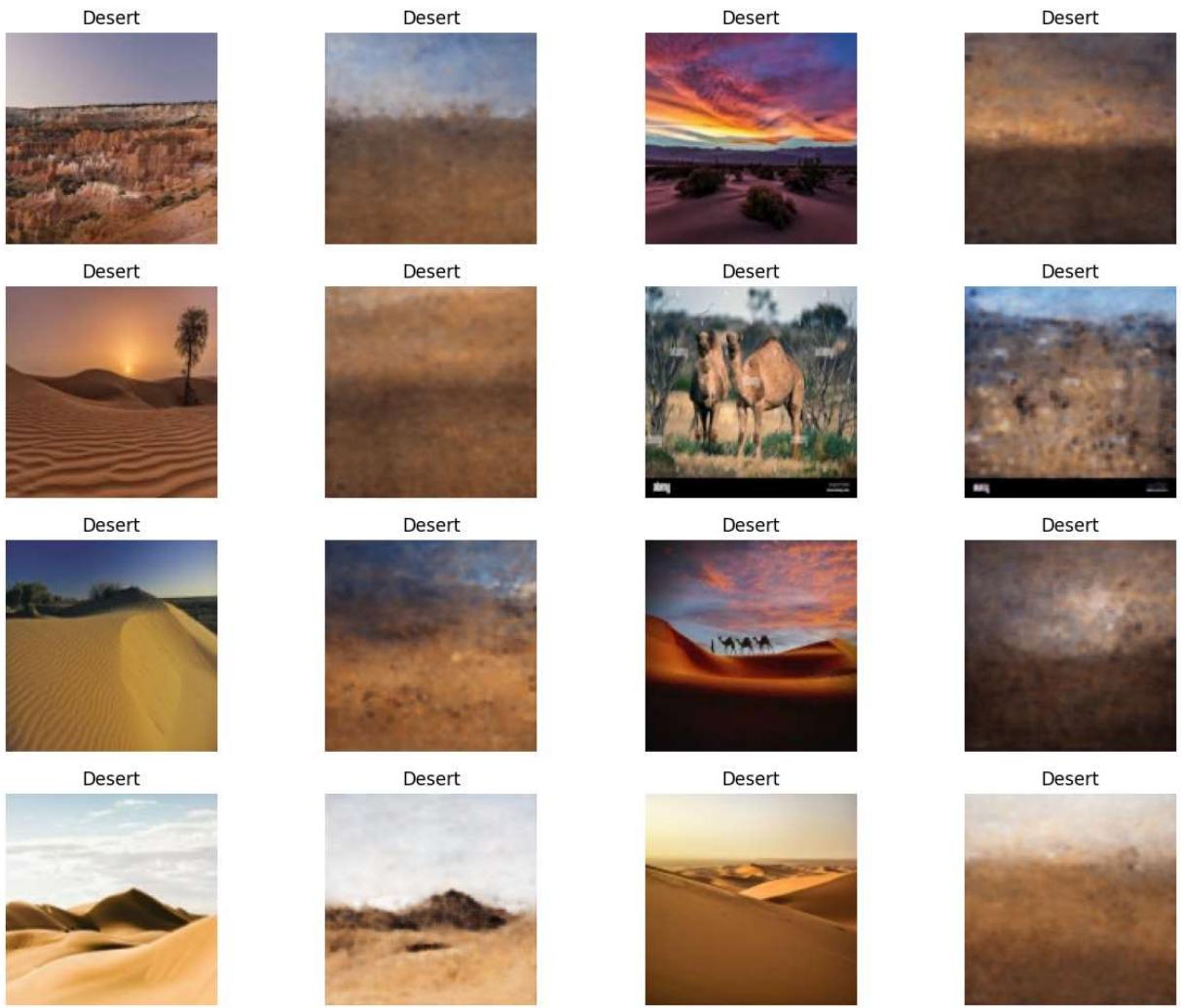
```
120/120 [=====] - 23s 191ms/step - loss: 44.7991 - reconstruction_error: 29.8901 - regularization_error: 14.9090 - val_loss: 50.7352 - val_reconstruction_error: 35.3959 - val_regularization_error: 15.3392
Epoch 82/1000
120/120 [=====] - 18s 146ms/step - loss: 44.6955 - reconstruction_error: 29.7221 - regularization_error: 14.9734 - val_loss: 51.5885 - val_reconstruction_error: 36.9999 - val_regularization_error: 14.5886
Epoch 83/1000
120/120 [=====] - 21s 177ms/step - loss: 44.9572 - reconstruction_error: 29.9330 - regularization_error: 15.0242 - val_loss: 51.6679 - val_reconstruction_error: 36.8126 - val_regularization_error: 14.8553
Epoch 84/1000
120/120 [=====] - 20s 169ms/step - loss: 44.6917 - reconstruction_error: 29.6213 - regularization_error: 15.0704 - val_loss: 51.5074 - val_reconstruction_error: 36.5763 - val_regularization_error: 14.9311
Epoch 85/1000
120/120 [=====] - 21s 173ms/step - loss: 44.8674 - reconstruction_error: 29.7021 - regularization_error: 15.1653 - val_loss: 50.8731 - val_reconstruction_error: 35.6861 - val_regularization_error: 15.1870
Epoch 86/1000
120/120 [=====] - 19s 158ms/step - loss: 44.6093 - reconstruction_error: 29.6595 - regularization_error: 14.9498 - val_loss: 51.7954 - val_reconstruction_error: 37.5836 - val_regularization_error: 14.2118
Epoch 87/1000
120/120 [=====] - 21s 170ms/step - loss: 44.5421 - reconstruction_error: 29.3442 - regularization_error: 15.1979 - val_loss: 51.5707 - val_reconstruction_error: 35.6603 - val_regularization_error: 15.9105
Epoch 88/1000
120/120 [=====] - 22s 179ms/step - loss: 44.5004 - reconstruction_error: 29.3755 - regularization_error: 15.1249 - val_loss: 51.9477 - val_reconstruction_error: 36.2362 - val_regularization_error: 15.7115
Epoch 89/1000
120/120 [=====] - 22s 177ms/step - loss: 44.2547 - reconstruction_error: 29.2085 - regularization_error: 15.0462 - val_loss: 52.2037 - val_reconstruction_error: 36.6567 - val_regularization_error: 15.5470
Epoch 90/1000
120/120 [=====] - 17s 143ms/step - loss: 44.5952 - reconstruction_error: 29.2993 - regularization_error: 15.2959 - val_loss: 50.9959 - val_reconstruction_error: 35.8278 - val_regularization_error: 15.1681
Epoch 91/1000
120/120 [=====] - ETA: 0s - loss: 44.3393 - reconstruction_error: 29.1433 - regularization_error: 15.1960
[2023-12-01 15:22:56.614117]: Reconstructing images for epoch 91 ...
```



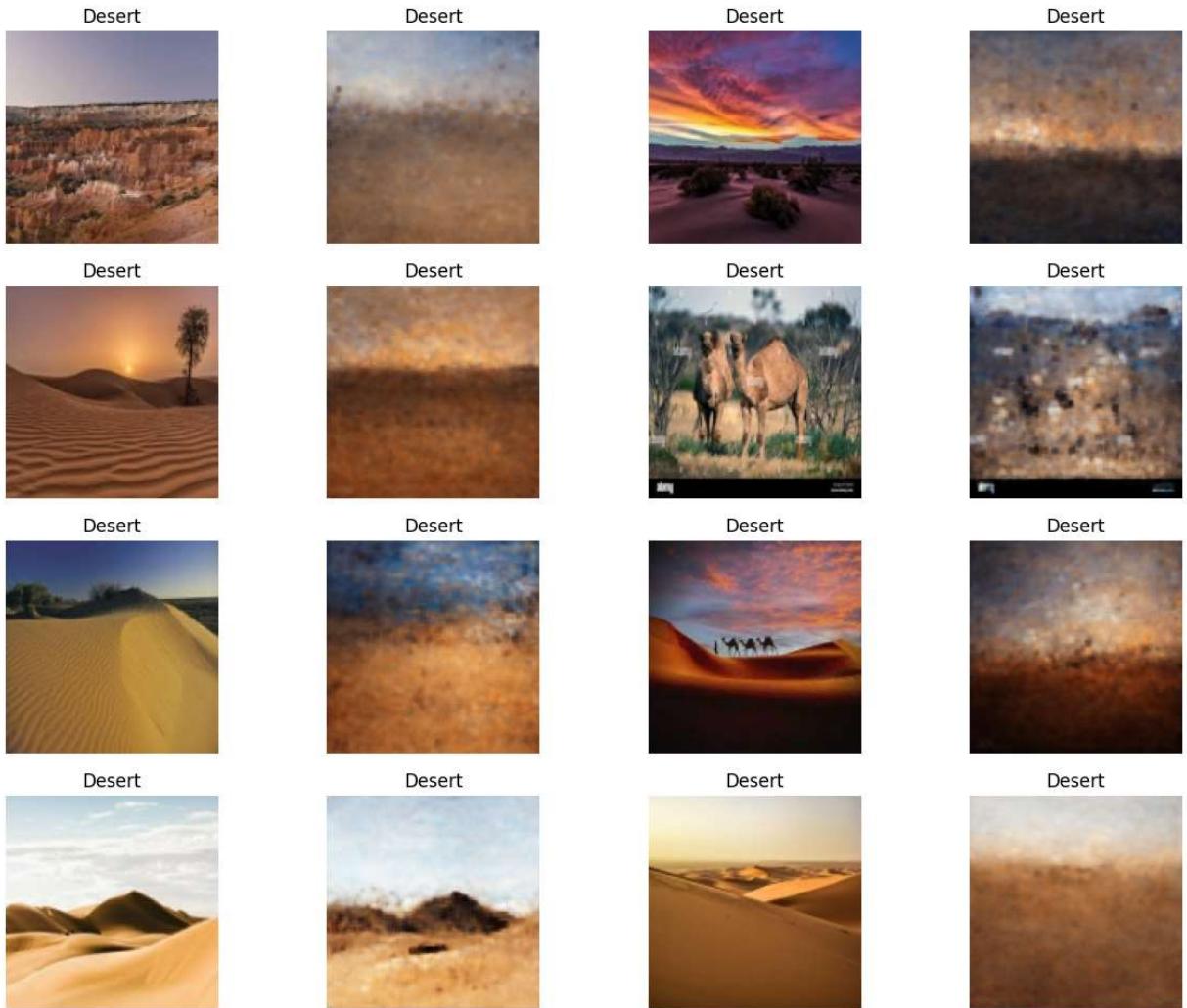
```
120/120 [=====] - 24s 199ms/step - loss: 44.3393 - reconstruction_error: 29.1433 - regularization_error: 15.1960 - val_loss: 50.6623 - val_reconstruction_error: 35.5857 - val_regularization_error: 15.0766
Epoch 92/1000
120/120 [=====] - 18s 154ms/step - loss: 43.9602 - reconstruction_error: 28.7742 - regularization_error: 15.1860 - val_loss: 51.2342 - val_reconstruction_error: 36.9508 - val_regularization_error: 14.2835
Epoch 93/1000
120/120 [=====] - 19s 156ms/step - loss: 44.2986 - reconstruction_error: 29.0146 - regularization_error: 15.2840 - val_loss: 53.2907 - val_reconstruction_error: 38.8060 - val_regularization_error: 14.4847
Epoch 94/1000
120/120 [=====] - 16s 134ms/step - loss: 43.9328 - reconstruction_error: 28.7818 - regularization_error: 15.1510 - val_loss: 52.4227 - val_reconstruction_error: 37.3290 - val_regularization_error: 15.0937
Epoch 95/1000
120/120 [=====] - 18s 145ms/step - loss: 44.1457 - reconstruction_error: 28.8173 - regularization_error: 15.3284 - val_loss: 53.3844 - val_reconstruction_error: 37.9124 - val_regularization_error: 15.4720
Epoch 96/1000
120/120 [=====] - 18s 148ms/step - loss: 44.3525 - reconstruction_error: 28.9187 - regularization_error: 15.4338 - val_loss: 50.7829 - val_reconstruction_error: 35.8660 - val_regularization_error: 14.9169
Epoch 97/1000
120/120 [=====] - 20s 162ms/step - loss: 44.1577 - reconstruction_error: 28.8473 - regularization_error: 15.3104 - val_loss: 51.1247 - val_reconstruction_error: 36.2559 - val_regularization_error: 14.8688
Epoch 98/1000
120/120 [=====] - 19s 158ms/step - loss: 43.9733 - reconstruction_error: 28.5859 - regularization_error: 15.3874 - val_loss: 51.3985 - val_reconstruction_error: 36.4439 - val_regularization_error: 14.9545
Epoch 99/1000
120/120 [=====] - 19s 160ms/step - loss: 43.5278 - reconstruction_error: 28.2653 - regularization_error: 15.2625 - val_loss: 52.7920 - val_reconstruction_error: 37.9072 - val_regularization_error: 14.8848
Epoch 100/1000
120/120 [=====] - 21s 177ms/step - loss: 43.7496 - reconstruction_error: 28.3927 - regularization_error: 15.3569 - val_loss: 50.8656 - val_reconstruction_error: 36.2938 - val_regularization_error: 14.5718
Epoch 101/1000
120/120 [=====] - ETA: 0s - loss: 43.6744 - reconstruction_error: 28.2225 - regularization_error: 15.4518
[2023-12-01 15:26:09.836538]: Reconstructing images for epoch 101 ...
```



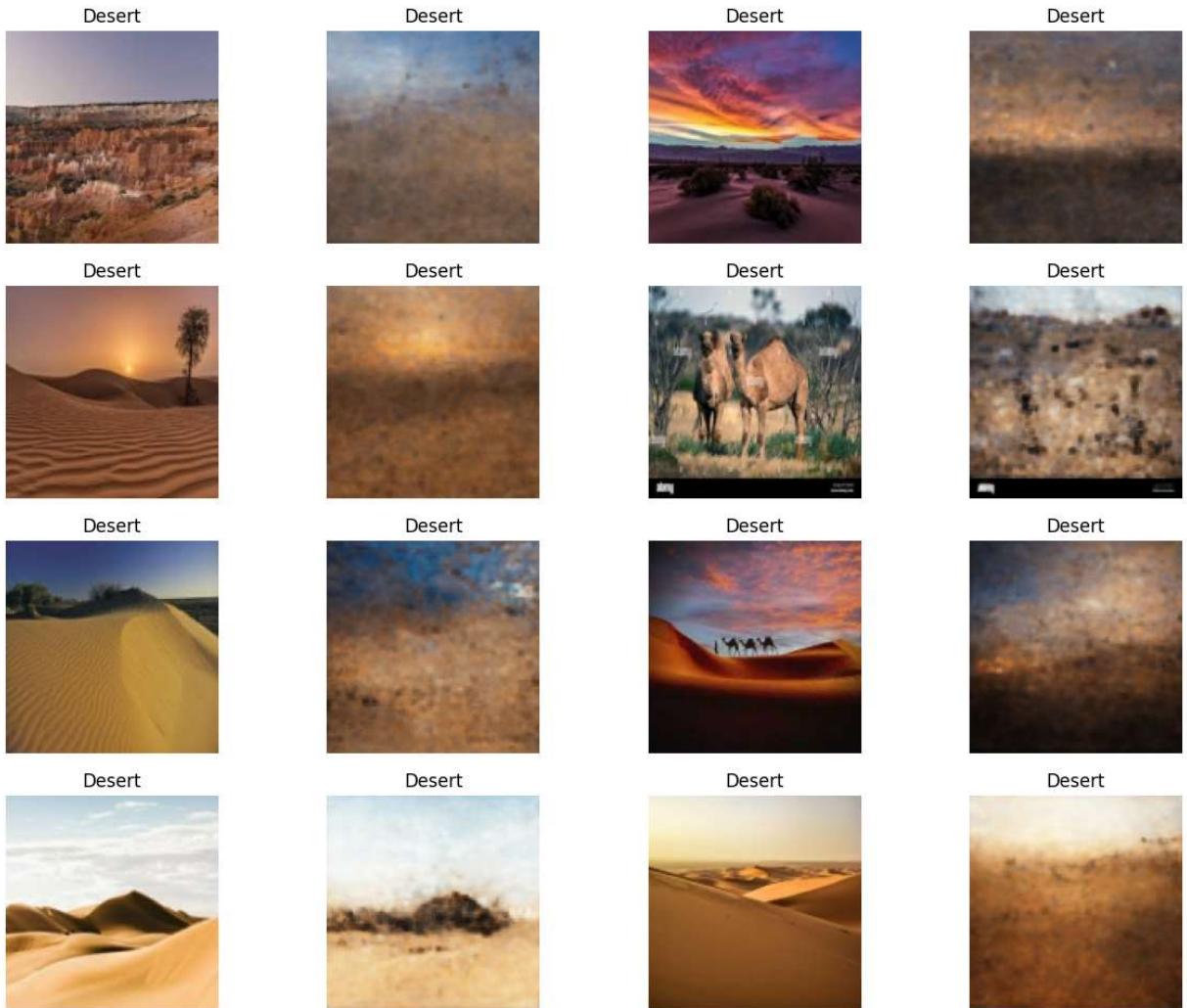
```
120/120 [=====] - 23s 193ms/step - loss: 43.6744 - reconstruction_error: 28.2225 - regularization_error: 15.4518 - val_loss: 52.8470 - val_reconstruction_error: 36.9065 - val_regularization_error: 15.9405
Epoch 102/1000
120/120 [=====] - 25s 201ms/step - loss: 43.5909 - reconstruction_error: 28.1235 - regularization_error: 15.4674 - val_loss: 51.8577 - val_reconstruction_error: 37.0553 - val_regularization_error: 14.8023
Epoch 103/1000
120/120 [=====] - 19s 159ms/step - loss: 43.3475 - reconstruction_error: 28.0442 - regularization_error: 15.3033 - val_loss: 52.2974 - val_reconstruction_error: 36.8426 - val_regularization_error: 15.4547
Epoch 104/1000
120/120 [=====] - 18s 151ms/step - loss: 43.4321 - reconstruction_error: 27.9416 - regularization_error: 15.4905 - val_loss: 52.1290 - val_reconstruction_error: 36.4835 - val_regularization_error: 15.6455
Epoch 105/1000
120/120 [=====] - 18s 148ms/step - loss: 43.4587 - reconstruction_error: 27.9926 - regularization_error: 15.4661 - val_loss: 52.5223 - val_reconstruction_error: 37.4923 - val_regularization_error: 15.0300
Epoch 106/1000
120/120 [=====] - 24s 198ms/step - loss: 43.4181 - reconstruction_error: 27.8726 - regularization_error: 15.5456 - val_loss: 51.2873 - val_reconstruction_error: 36.2320 - val_regularization_error: 15.0553
Epoch 107/1000
120/120 [=====] - 19s 157ms/step - loss: 43.7358 - reconstruction_error: 28.2521 - regularization_error: 15.4838 - val_loss: 51.4597 - val_reconstruction_error: 36.1283 - val_regularization_error: 15.3314
Epoch 108/1000
120/120 [=====] - 17s 139ms/step - loss: 43.3144 - reconstruction_error: 27.7213 - regularization_error: 15.5931 - val_loss: 51.6107 - val_reconstruction_error: 36.5155 - val_regularization_error: 15.0952
Epoch 109/1000
120/120 [=====] - 19s 159ms/step - loss: 43.3363 - reconstruction_error: 27.7274 - regularization_error: 15.6089 - val_loss: 51.2733 - val_reconstruction_error: 35.9031 - val_regularization_error: 15.3702
Epoch 110/1000
120/120 [=====] - 19s 156ms/step - loss: 43.0369 - reconstruction_error: 27.5446 - regularization_error: 15.4922 - val_loss: 51.5871 - val_reconstruction_error: 36.9986 - val_regularization_error: 14.5885
Epoch 111/1000
120/120 [=====] - ETA: 0s - loss: 42.8970 - reconstruction_error: 27.3508 - regularization_error: 15.5462
[2023-12-01 15:29:28.741108]: Reconstructing images for epoch 111 ...
```



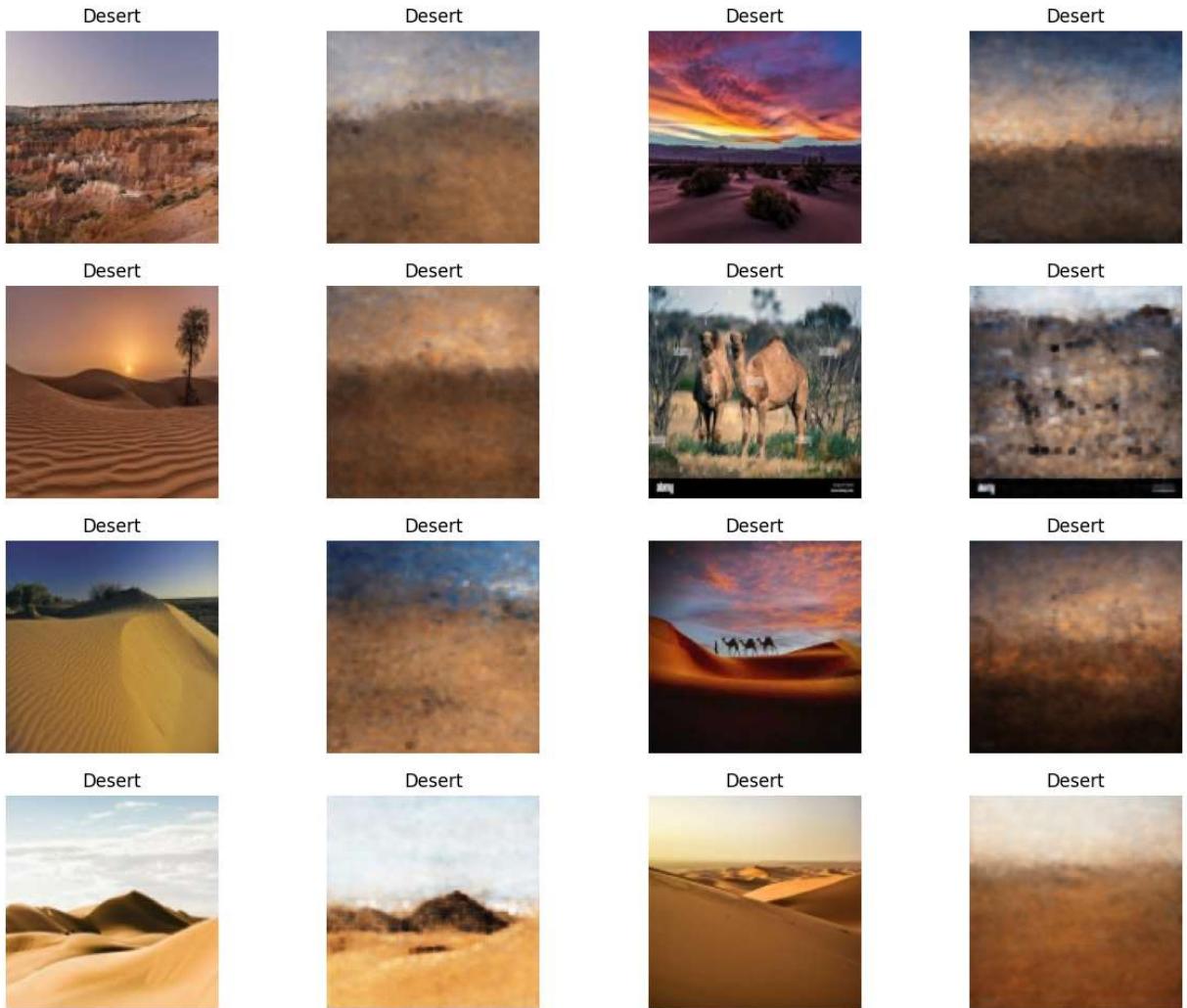
```
120/120 [=====] - 18s 149ms/step - loss: 42.8970 - reconstruction_error: 27.3508 - regularization_error: 15.5462 - val_loss: 53.0246 - val_reconstruction_error: 37.4610 - val_regularization_error: 15.5636
Epoch 112/1000
120/120 [=====] - 17s 142ms/step - loss: 43.1061 - reconstruction_error: 27.5403 - regularization_error: 15.5658 - val_loss: 51.6190 - val_reconstruction_error: 35.2252 - val_regularization_error: 16.3937
Epoch 113/1000
120/120 [=====] - 17s 140ms/step - loss: 42.7748 - reconstruction_error: 27.2174 - regularization_error: 15.5574 - val_loss: 52.2002 - val_reconstruction_error: 36.3124 - val_regularization_error: 15.8877
Epoch 114/1000
120/120 [=====] - 18s 144ms/step - loss: 42.8999 - reconstruction_error: 27.3778 - regularization_error: 15.5221 - val_loss: 51.5066 - val_reconstruction_error: 36.0159 - val_regularization_error: 15.4907
Epoch 115/1000
120/120 [=====] - 19s 155ms/step - loss: 42.8949 - reconstruction_error: 27.2433 - regularization_error: 15.6515 - val_loss: 51.8563 - val_reconstruction_error: 36.1719 - val_regularization_error: 15.6844
Epoch 116/1000
120/120 [=====] - 19s 157ms/step - loss: 42.5483 - reconstruction_error: 27.0064 - regularization_error: 15.5419 - val_loss: 51.7140 - val_reconstruction_error: 36.2603 - val_regularization_error: 15.4537
Epoch 117/1000
120/120 [=====] - 21s 176ms/step - loss: 42.8144 - reconstruction_error: 27.1688 - regularization_error: 15.6456 - val_loss: 52.1046 - val_reconstruction_error: 36.9670 - val_regularization_error: 15.1377
Epoch 118/1000
120/120 [=====] - 16s 134ms/step - loss: 43.0894 - reconstruction_error: 27.3813 - regularization_error: 15.7080 - val_loss: 52.6862 - val_reconstruction_error: 37.0766 - val_regularization_error: 15.6096
Epoch 119/1000
120/120 [=====] - 17s 143ms/step - loss: 42.5970 - reconstruction_error: 26.9576 - regularization_error: 15.6394 - val_loss: 52.2448 - val_reconstruction_error: 35.9224 - val_regularization_error: 16.3224
Epoch 120/1000
120/120 [=====] - 20s 164ms/step - loss: 42.4792 - reconstruction_error: 26.7182 - regularization_error: 15.7610 - val_loss: 51.9260 - val_reconstruction_error: 37.2601 - val_regularization_error: 14.6659
Epoch 121/1000
120/120 [=====] - ETA: 0s - loss: 42.5036 - reconstruction_error: 26.8291 - regularization_error: 15.6745
[2023-12-01 15:32:40.248281]: Reconstructing images for epoch 121 ...
```



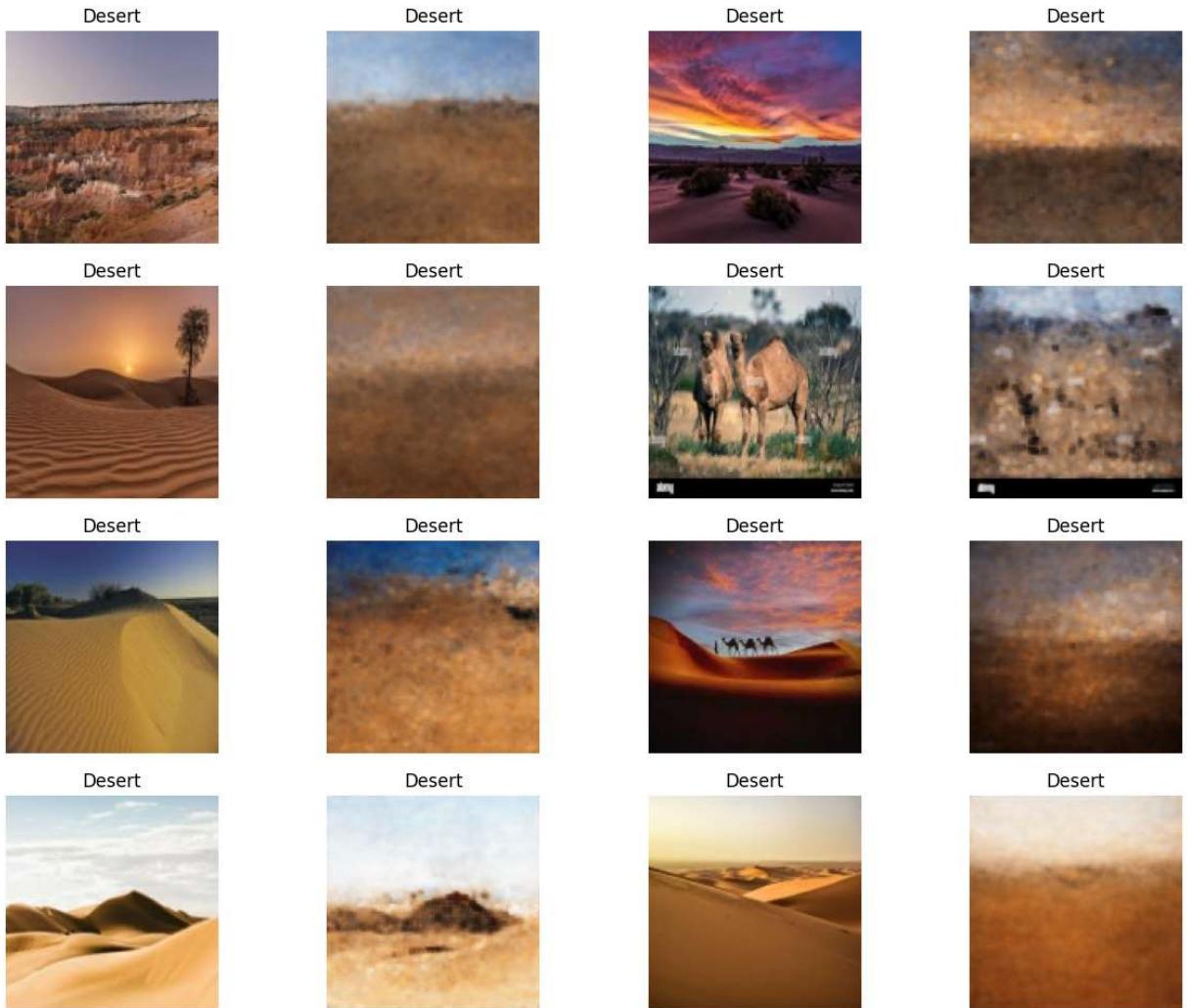
```
120/120 [=====] - 26s 215ms/step - loss: 42.5036 - reconstruction_error: 26.8291 - regularization_error: 15.6745 - val_loss: 51.9808 - val_reconstruction_error: 36.3821 - val_regularization_error: 15.5987
Epoch 122/1000
120/120 [=====] - 17s 139ms/step - loss: 42.4995 - reconstruction_error: 26.8641 - regularization_error: 15.6354 - val_loss: 51.7169 - val_reconstruction_error: 37.2260 - val_regularization_error: 14.4909
Epoch 123/1000
120/120 [=====] - 19s 158ms/step - loss: 42.1072 - reconstruction_error: 26.4044 - regularization_error: 15.7028 - val_loss: 51.2103 - val_reconstruction_error: 36.1960 - val_regularization_error: 15.0143
Epoch 124/1000
120/120 [=====] - 18s 148ms/step - loss: 42.2529 - reconstruction_error: 26.5150 - regularization_error: 15.7379 - val_loss: 52.4550 - val_reconstruction_error: 37.4789 - val_regularization_error: 14.9760
Epoch 125/1000
120/120 [=====] - 19s 162ms/step - loss: 42.6570 - reconstruction_error: 27.0075 - regularization_error: 15.6495 - val_loss: 52.0741 - val_reconstruction_error: 36.7255 - val_regularization_error: 15.3486
Epoch 126/1000
120/120 [=====] - 18s 151ms/step - loss: 42.2177 - reconstruction_error: 26.5390 - regularization_error: 15.6787 - val_loss: 53.1159 - val_reconstruction_error: 37.6746 - val_regularization_error: 15.4413
Epoch 127/1000
120/120 [=====] - 19s 154ms/step - loss: 42.2660 - reconstruction_error: 26.5663 - regularization_error: 15.6997 - val_loss: 52.9755 - val_reconstruction_error: 36.5015 - val_regularization_error: 16.4740
Epoch 128/1000
120/120 [=====] - 21s 176ms/step - loss: 42.0966 - reconstruction_error: 26.2252 - regularization_error: 15.8714 - val_loss: 52.5230 - val_reconstruction_error: 36.8822 - val_regularization_error: 15.6408
Epoch 129/1000
120/120 [=====] - 18s 148ms/step - loss: 42.1414 - reconstruction_error: 26.4532 - regularization_error: 15.6882 - val_loss: 52.0654 - val_reconstruction_error: 36.0791 - val_regularization_error: 15.9863
Epoch 130/1000
120/120 [=====] - 18s 150ms/step - loss: 41.8890 - reconstruction_error: 26.1442 - regularization_error: 15.7447 - val_loss: 52.3914 - val_reconstruction_error: 36.4181 - val_regularization_error: 15.9733
Epoch 131/1000
120/120 [=====] - ETA: 0s - loss: 41.8906 - reconstruction_error: 26.0484 - regularization_error: 15.8422
[2023-12-01 15:35:53.176741]: Reconstructing images for epoch 131 ...
```



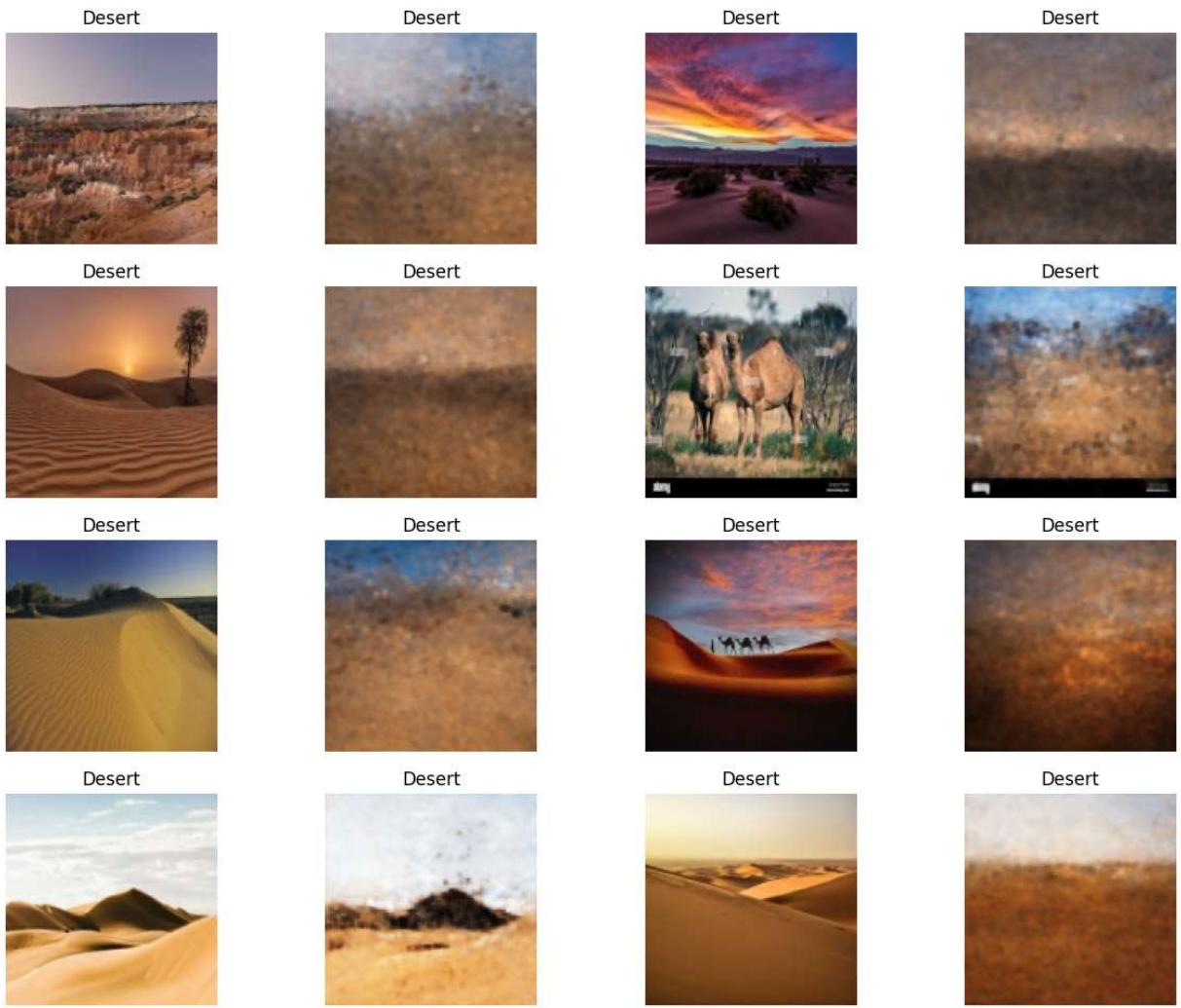
```
120/120 [=====] - 23s 189ms/step - loss: 41.8906 - reconstruction_error: 26.0484 - regularization_error: 15.8422 - val_loss: 52.9458 - val_reconstruction_error: 36.5124 - val_regularization_error: 16.4334
Epoch 132/1000
120/120 [=====] - 18s 147ms/step - loss: 41.9800 - reconstruction_error: 26.0440 - regularization_error: 15.9360 - val_loss: 52.0519 - val_reconstruction_error: 37.5797 - val_regularization_error: 14.4722
Epoch 133/1000
120/120 [=====] - 19s 156ms/step - loss: 41.8478 - reconstruction_error: 25.9463 - regularization_error: 15.9015 - val_loss: 52.6628 - val_reconstruction_error: 37.5374 - val_regularization_error: 15.1254
Epoch 134/1000
120/120 [=====] - 20s 162ms/step - loss: 41.9561 - reconstruction_error: 25.9857 - regularization_error: 15.9705 - val_loss: 52.3916 - val_reconstruction_error: 37.5458 - val_regularization_error: 14.8458
Epoch 135/1000
120/120 [=====] - 20s 166ms/step - loss: 41.9333 - reconstruction_error: 26.0321 - regularization_error: 15.9012 - val_loss: 51.5718 - val_reconstruction_error: 37.0406 - val_regularization_error: 14.5312
Epoch 136/1000
120/120 [=====] - 18s 146ms/step - loss: 42.2408 - reconstruction_error: 26.2718 - regularization_error: 15.9691 - val_loss: 52.9695 - val_reconstruction_error: 35.2248 - val_regularization_error: 17.7447
Epoch 137/1000
120/120 [=====] - 21s 176ms/step - loss: 41.9450 - reconstruction_error: 26.0249 - regularization_error: 15.9201 - val_loss: 52.6395 - val_reconstruction_error: 37.4431 - val_regularization_error: 15.1964
Epoch 138/1000
120/120 [=====] - 15s 125ms/step - loss: 41.6443 - reconstruction_error: 25.7569 - regularization_error: 15.8874 - val_loss: 52.0492 - val_reconstruction_error: 36.9943 - val_regularization_error: 15.0550
Epoch 139/1000
120/120 [=====] - 20s 162ms/step - loss: 41.4922 - reconstruction_error: 25.7027 - regularization_error: 15.7895 - val_loss: 51.8720 - val_reconstruction_error: 36.4629 - val_regularization_error: 15.4091
Epoch 140/1000
120/120 [=====] - 18s 150ms/step - loss: 41.6564 - reconstruction_error: 25.6976 - regularization_error: 15.9588 - val_loss: 52.3663 - val_reconstruction_error: 36.2142 - val_regularization_error: 16.1521
Epoch 141/1000
120/120 [=====] - ETA: 0s - loss: 41.2163 - reconstruction_error: 25.4408 - regularization_error: 15.7755
[2023-12-01 15:39:06.910880]: Reconstructing images for epoch 141 ...
```



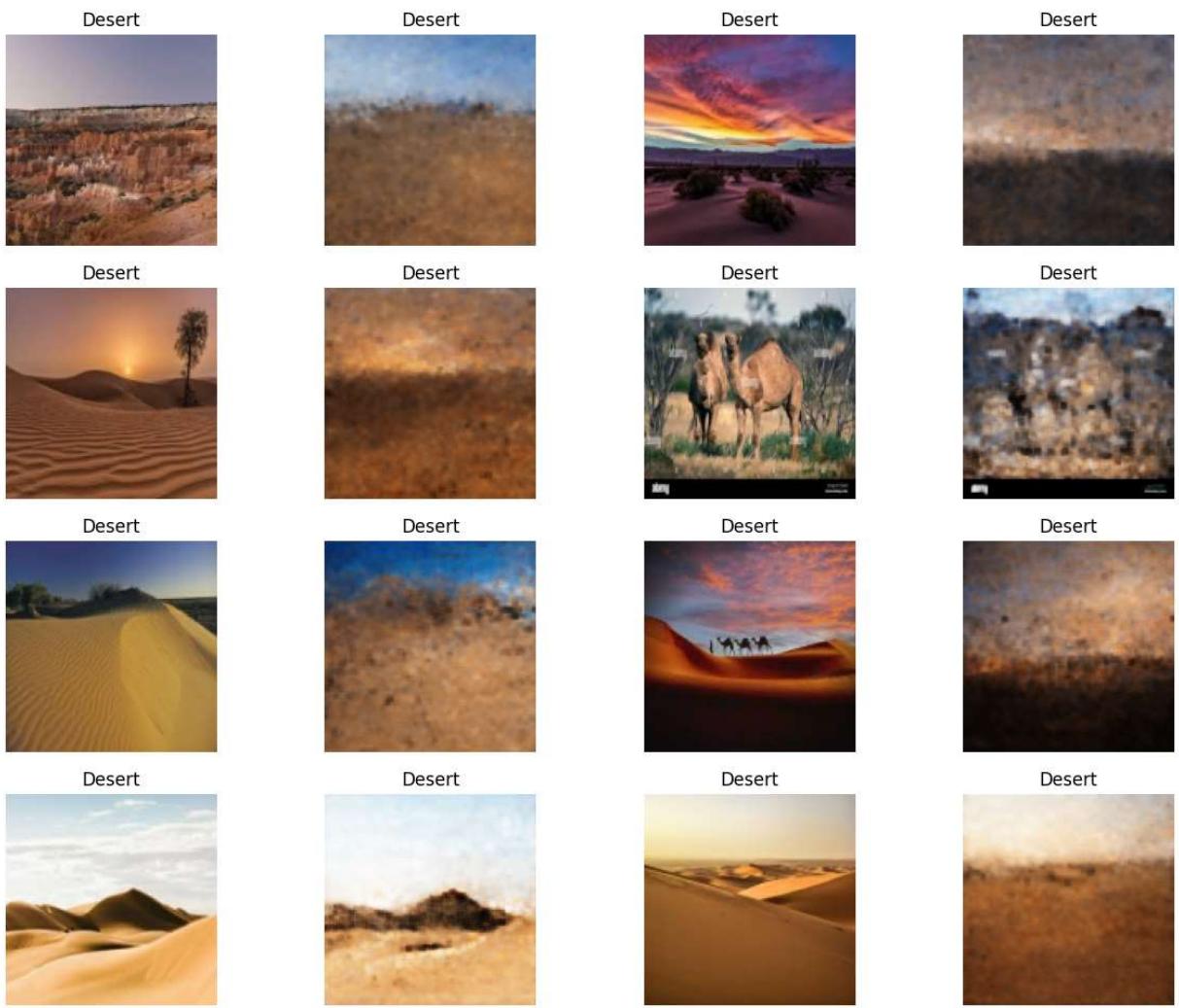
```
120/120 [=====] - 23s 189ms/step - loss: 41.2163 - reconstruction_error: 25.4408 - regularization_error: 15.7755 - val_loss: 51.2026 - val_reconstruction_error: 35.4713 - val_regularization_error: 15.7314
Epoch 142/1000
120/120 [=====] - 20s 170ms/step - loss: 41.4351 - reconstruction_error: 25.5024 - regularization_error: 15.9327 - val_loss: 52.1903 - val_reconstruction_error: 37.2899 - val_regularization_error: 14.9004
Epoch 143/1000
120/120 [=====] - 19s 153ms/step - loss: 41.7796 - reconstruction_error: 25.7185 - regularization_error: 16.0611 - val_loss: 51.3472 - val_reconstruction_error: 36.1341 - val_regularization_error: 15.2131
Epoch 144/1000
120/120 [=====] - 16s 137ms/step - loss: 41.4326 - reconstruction_error: 25.3828 - regularization_error: 16.0498 - val_loss: 51.6061 - val_reconstruction_error: 36.4881 - val_regularization_error: 15.1180
Epoch 145/1000
120/120 [=====] - 19s 159ms/step - loss: 41.3661 - reconstruction_error: 25.4834 - regularization_error: 15.8827 - val_loss: 52.5710 - val_reconstruction_error: 36.5312 - val_regularization_error: 16.0398
Epoch 146/1000
120/120 [=====] - 20s 166ms/step - loss: 41.0552 - reconstruction_error: 25.0830 - regularization_error: 15.9721 - val_loss: 52.2305 - val_reconstruction_error: 37.2273 - val_regularization_error: 15.0032
Epoch 147/1000
120/120 [=====] - 18s 150ms/step - loss: 41.1508 - reconstruction_error: 25.2651 - regularization_error: 15.8857 - val_loss: 52.6710 - val_reconstruction_error: 37.6954 - val_regularization_error: 14.9756
Epoch 148/1000
120/120 [=====] - 18s 148ms/step - loss: 41.3696 - reconstruction_error: 25.4319 - regularization_error: 15.9377 - val_loss: 52.0623 - val_reconstruction_error: 36.1584 - val_regularization_error: 15.9039
Epoch 149/1000
120/120 [=====] - 18s 147ms/step - loss: 41.3283 - reconstruction_error: 25.2834 - regularization_error: 16.0449 - val_loss: 52.3225 - val_reconstruction_error: 36.5550 - val_regularization_error: 15.7675
Epoch 150/1000
120/120 [=====] - 17s 138ms/step - loss: 41.2376 - reconstruction_error: 25.2037 - regularization_error: 16.0339 - val_loss: 53.2349 - val_reconstruction_error: 37.3686 - val_regularization_error: 15.8663
Epoch 151/1000
120/120 [=====] - ETA: 0s - loss: 41.3445 - reconstruction_error: 25.5029 - regularization_error: 15.8415
[2023-12-01 15:42:12.974070]: Reconstructing images for epoch 151 ...
```



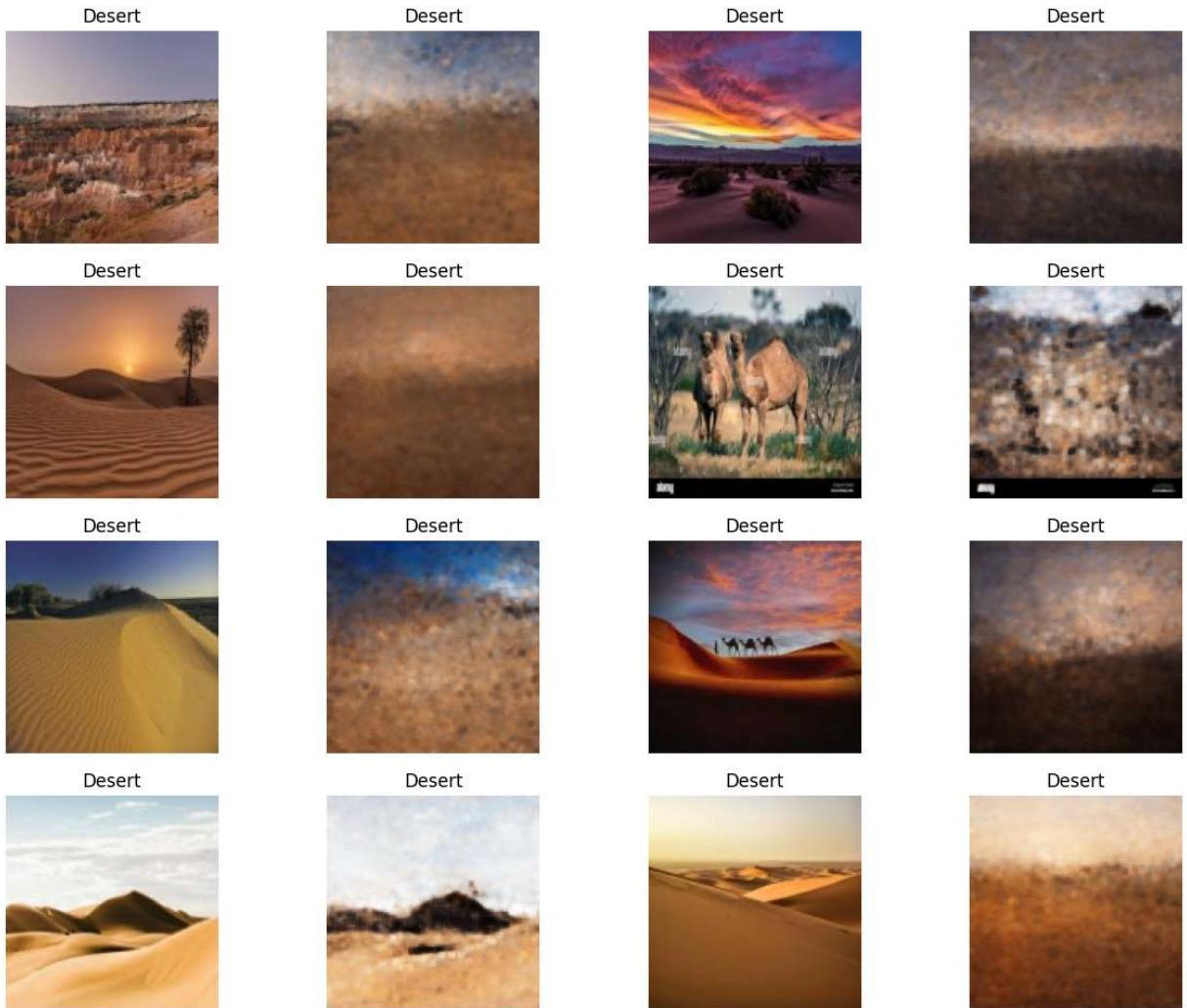
```
120/120 [=====] - 20s 162ms/step - loss: 41.3445 - reconstruction_error: 25.5029 - regularization_error: 15.8415 - val_loss: 51.5157 - val_reconstruction_error: 36.8299 - val_regularization_error: 14.6858
Epoch 152/1000
120/120 [=====] - 17s 140ms/step - loss: 40.9792 - reconstruction_error: 25.0050 - regularization_error: 15.9743 - val_loss: 52.5018 - val_reconstruction_error: 37.4066 - val_regularization_error: 15.0952
Epoch 153/1000
120/120 [=====] - 19s 159ms/step - loss: 41.1799 - reconstruction_error: 25.1565 - regularization_error: 16.0234 - val_loss: 52.1943 - val_reconstruction_error: 37.3454 - val_regularization_error: 14.8488
Epoch 154/1000
120/120 [=====] - 17s 141ms/step - loss: 41.1266 - reconstruction_error: 25.1283 - regularization_error: 15.9983 - val_loss: 52.3910 - val_reconstruction_error: 36.5641 - val_regularization_error: 15.8270
Epoch 155/1000
120/120 [=====] - 16s 133ms/step - loss: 41.0791 - reconstruction_error: 25.0305 - regularization_error: 16.0486 - val_loss: 53.7555 - val_reconstruction_error: 38.2523 - val_regularization_error: 15.5032
Epoch 156/1000
120/120 [=====] - 21s 169ms/step - loss: 40.9663 - reconstruction_error: 24.7241 - regularization_error: 16.2422 - val_loss: 52.0214 - val_reconstruction_error: 36.4105 - val_regularization_error: 15.6109
Epoch 157/1000
120/120 [=====] - 18s 151ms/step - loss: 41.2233 - reconstruction_error: 25.1501 - regularization_error: 16.0732 - val_loss: 52.4682 - val_reconstruction_error: 37.0267 - val_regularization_error: 15.4416
Epoch 158/1000
120/120 [=====] - 18s 153ms/step - loss: 41.2168 - reconstruction_error: 25.0227 - regularization_error: 16.1941 - val_loss: 52.8770 - val_reconstruction_error: 37.6146 - val_regularization_error: 15.2624
Epoch 159/1000
120/120 [=====] - 19s 156ms/step - loss: 40.8175 - reconstruction_error: 24.6512 - regularization_error: 16.1663 - val_loss: 52.3840 - val_reconstruction_error: 37.2946 - val_regularization_error: 15.0894
Epoch 160/1000
120/120 [=====] - 19s 156ms/step - loss: 40.7646 - reconstruction_error: 24.8234 - regularization_error: 15.9412 - val_loss: 52.1176 - val_reconstruction_error: 36.5248 - val_regularization_error: 15.5928
Epoch 161/1000
120/120 [=====] - ETA: 0s - loss: 40.9258 - reconstruction_error: 24.7981 - regularization_error: 16.1277
[2023-12-01 15:45:23.204334]: Reconstructing images for epoch 161 ...
```



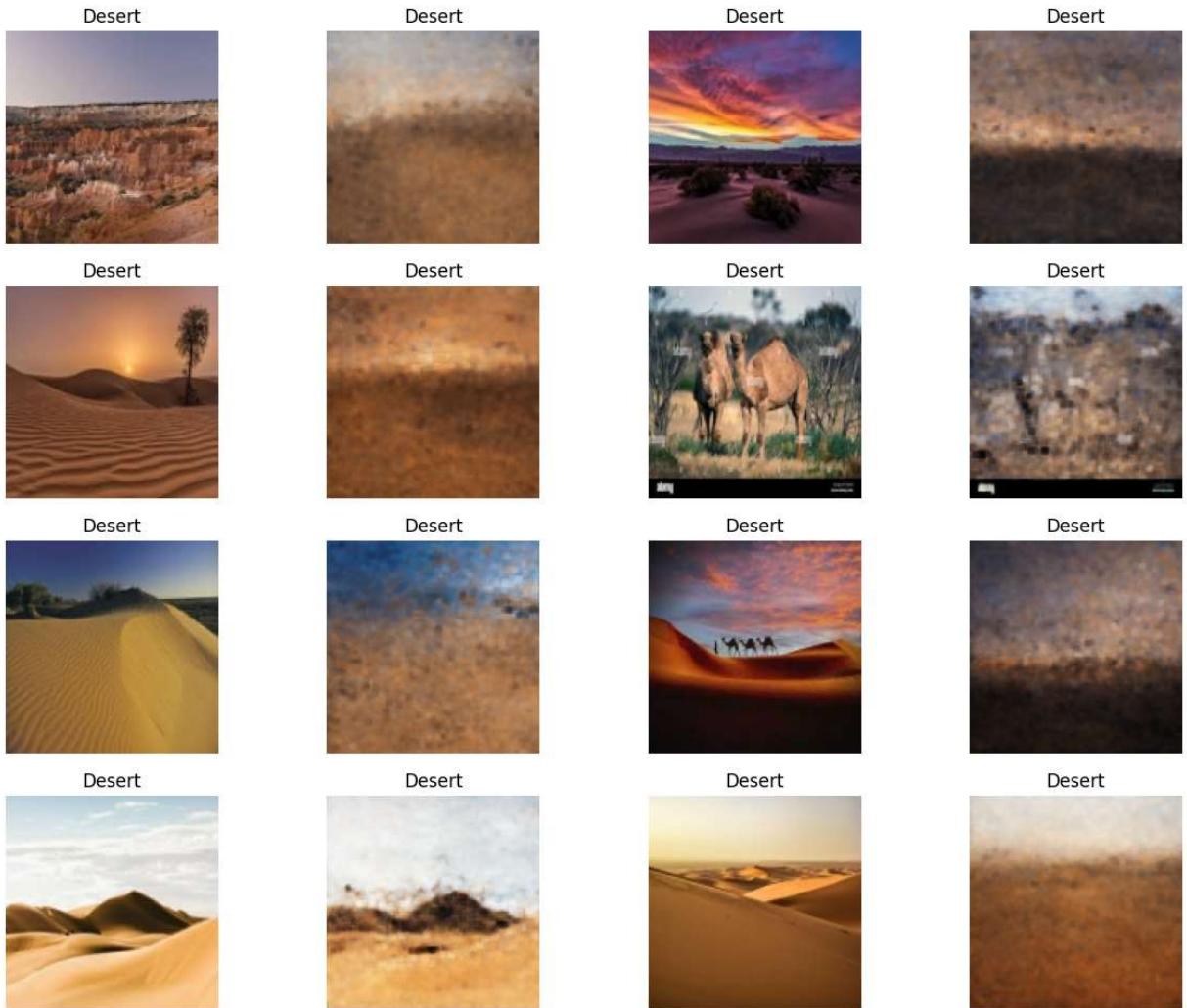
```
120/120 [=====] - 24s 199ms/step - loss: 40.9258 - reconstruction_error: 24.7981 - regularization_error: 16.1277 - val_loss: 52.2029 - val_reconstruction_error: 36.8556 - val_regularization_error: 15.3473
Epoch 162/1000
120/120 [=====] - 15s 125ms/step - loss: 40.5808 - reconstruction_error: 24.4565 - regularization_error: 16.1243 - val_loss: 52.1433 - val_reconstruction_error: 36.2280 - val_regularization_error: 15.9153
Epoch 163/1000
120/120 [=====] - 21s 175ms/step - loss: 40.4905 - reconstruction_error: 24.4927 - regularization_error: 15.9978 - val_loss: 51.9118 - val_reconstruction_error: 37.0376 - val_regularization_error: 14.8742
Epoch 164/1000
120/120 [=====] - 18s 151ms/step - loss: 40.6154 - reconstruction_error: 24.4500 - regularization_error: 16.1654 - val_loss: 52.4579 - val_reconstruction_error: 37.1828 - val_regularization_error: 15.2751
Epoch 165/1000
120/120 [=====] - 17s 137ms/step - loss: 40.6951 - reconstruction_error: 24.4322 - regularization_error: 16.2629 - val_loss: 52.9559 - val_reconstruction_error: 36.2611 - val_regularization_error: 16.6949
Epoch 166/1000
120/120 [=====] - 20s 164ms/step - loss: 40.6128 - reconstruction_error: 24.5144 - regularization_error: 16.0985 - val_loss: 53.2175 - val_reconstruction_error: 38.0679 - val_regularization_error: 15.1497
Epoch 167/1000
120/120 [=====] - 19s 159ms/step - loss: 40.8339 - reconstruction_error: 24.5759 - regularization_error: 16.2579 - val_loss: 52.6029 - val_reconstruction_error: 36.3610 - val_regularization_error: 16.2419
Epoch 168/1000
120/120 [=====] - 20s 160ms/step - loss: 40.3568 - reconstruction_error: 24.0902 - regularization_error: 16.2666 - val_loss: 52.6034 - val_reconstruction_error: 36.6713 - val_regularization_error: 15.9321
Epoch 169/1000
120/120 [=====] - 17s 139ms/step - loss: 40.3497 - reconstruction_error: 24.1762 - regularization_error: 16.1735 - val_loss: 52.2970 - val_reconstruction_error: 36.9252 - val_regularization_error: 15.3718
Epoch 170/1000
120/120 [=====] - 20s 160ms/step - loss: 40.3536 - reconstruction_error: 24.1564 - regularization_error: 16.1972 - val_loss: 53.5960 - val_reconstruction_error: 37.4885 - val_regularization_error: 16.1075
Epoch 171/1000
120/120 [=====] - ETA: 0s - loss: 40.3517 - reconstruction_error: 24.2000 - regularization_error: 16.1516
[2023-12-01 15:48:34.499175]: Reconstructing images for epoch 171 ...
```



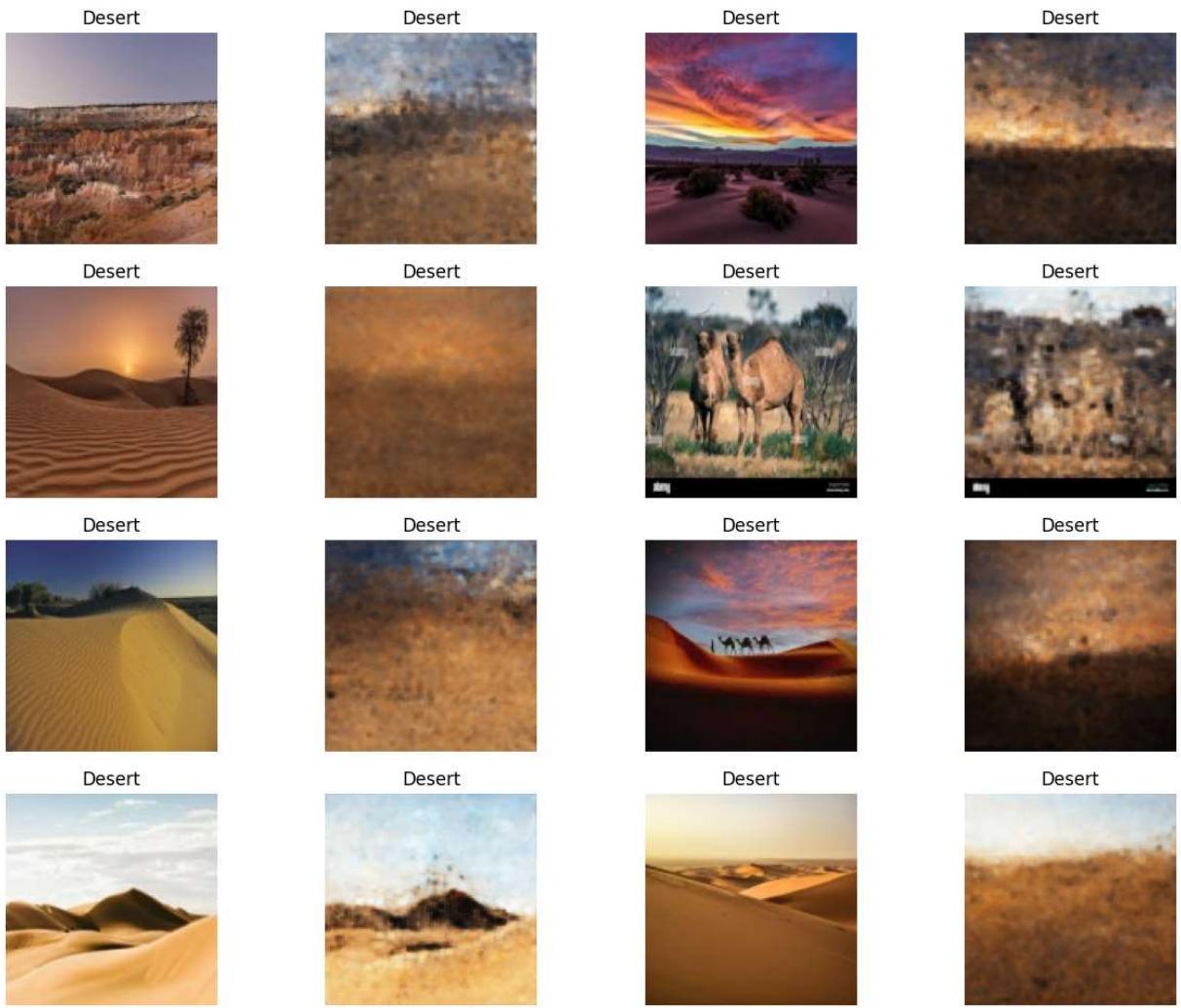
```
120/120 [=====] - 23s 191ms/step - loss: 40.3517 - reconstruction_error: 24.2000 - regularization_error: 16.1516 - val_loss: 52.3090 - val_reconstruction_error: 35.9199 - val_regularization_error: 16.3892
Epoch 172/1000
120/120 [=====] - 17s 141ms/step - loss: 40.2618 - reconstruction_error: 24.0700 - regularization_error: 16.1918 - val_loss: 52.8298 - val_reconstruction_error: 37.1865 - val_regularization_error: 15.6433
Epoch 173/1000
120/120 [=====] - 17s 144ms/step - loss: 40.4330 - reconstruction_error: 24.2218 - regularization_error: 16.2112 - val_loss: 51.9910 - val_reconstruction_error: 36.2039 - val_regularization_error: 15.7871
Epoch 174/1000
120/120 [=====] - 20s 163ms/step - loss: 40.4108 - reconstruction_error: 24.2072 - regularization_error: 16.2035 - val_loss: 52.6413 - val_reconstruction_error: 37.1502 - val_regularization_error: 15.4911
Epoch 175/1000
120/120 [=====] - 20s 164ms/step - loss: 40.2975 - reconstruction_error: 24.1256 - regularization_error: 16.1719 - val_loss: 51.9968 - val_reconstruction_error: 37.1912 - val_regularization_error: 14.8056
Epoch 176/1000
120/120 [=====] - 21s 177ms/step - loss: 40.1653 - reconstruction_error: 23.9719 - regularization_error: 16.1934 - val_loss: 52.6922 - val_reconstruction_error: 37.0845 - val_regularization_error: 15.6077
Epoch 177/1000
120/120 [=====] - 18s 149ms/step - loss: 39.9986 - reconstruction_error: 23.8970 - regularization_error: 16.1016 - val_loss: 52.6486 - val_reconstruction_error: 36.5039 - val_regularization_error: 16.1448
Epoch 178/1000
120/120 [=====] - 18s 148ms/step - loss: 40.1120 - reconstruction_error: 23.7716 - regularization_error: 16.3404 - val_loss: 53.1204 - val_reconstruction_error: 37.4929 - val_regularization_error: 15.6275
Epoch 179/1000
120/120 [=====] - 17s 141ms/step - loss: 39.9605 - reconstruction_error: 23.7489 - regularization_error: 16.2116 - val_loss: 52.8595 - val_reconstruction_error: 37.4319 - val_regularization_error: 15.4276
Epoch 180/1000
120/120 [=====] - 17s 145ms/step - loss: 40.1534 - reconstruction_error: 23.9137 - regularization_error: 16.2397 - val_loss: 53.0163 - val_reconstruction_error: 37.3043 - val_regularization_error: 15.7120
Epoch 181/1000
120/120 [=====] - ETA: 0s - loss: 40.0949 - reconstruction_error: 23.8322 - regularization_error: 16.2627
[2023-12-01 15:51:47.228545]: Reconstructing images for epoch 181 ...
```



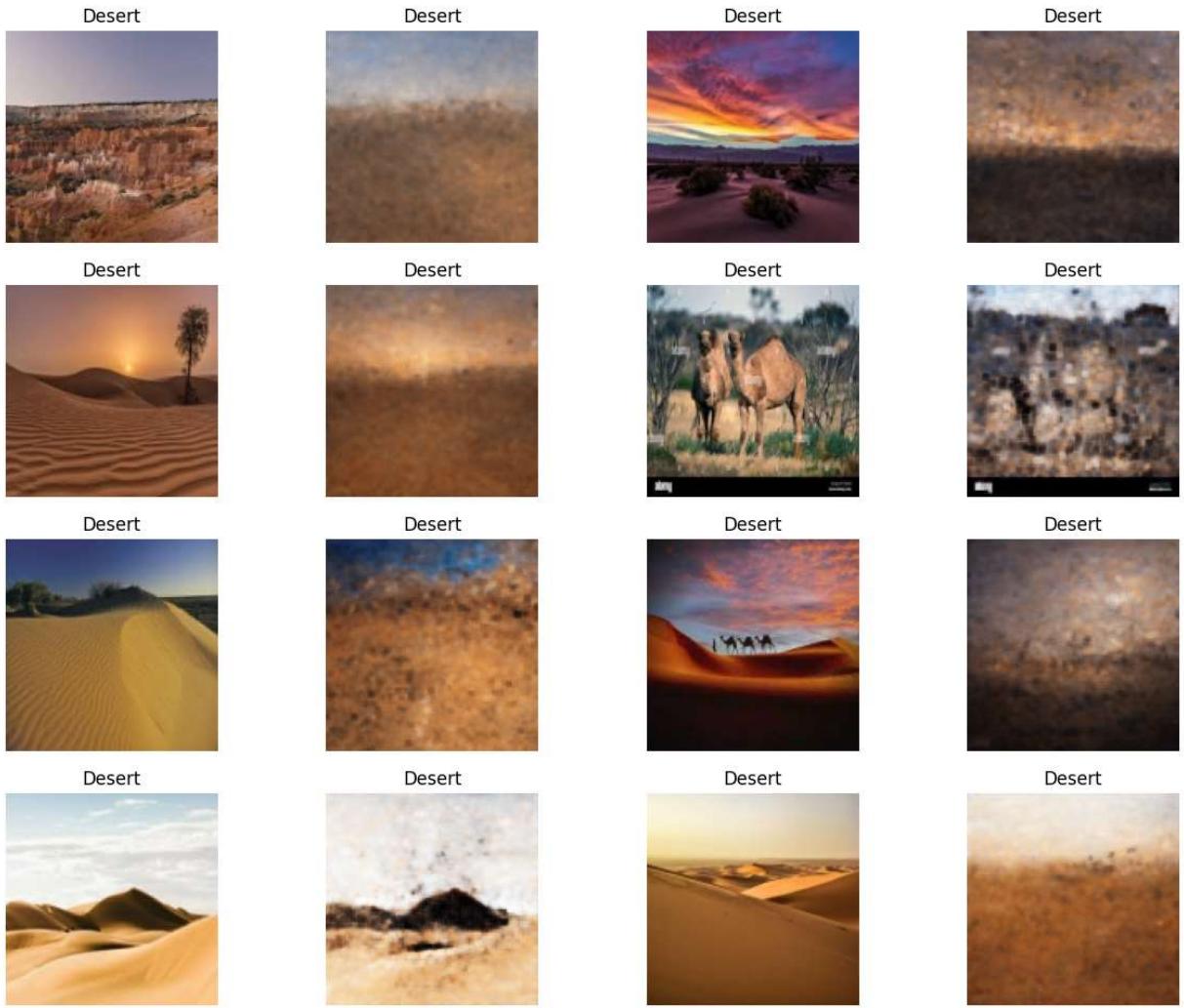
```
120/120 [=====] - 24s 195ms/step - loss: 40.0949 - reconstruction_error: 23.8322 - regularization_error: 16.2627 - val_loss: 52.3670 - val_reconstruction_error: 36.8232 - val_regularization_error: 15.5438
Epoch 182/1000
120/120 [=====] - 19s 159ms/step - loss: 39.8135 - reconstruction_error: 23.6298 - regularization_error: 16.1837 - val_loss: 54.0856 - val_reconstruction_error: 37.0225 - val_regularization_error: 17.0631
Epoch 183/1000
120/120 [=====] - 18s 148ms/step - loss: 40.0857 - reconstruction_error: 23.8148 - regularization_error: 16.2709 - val_loss: 52.8665 - val_reconstruction_error: 37.1962 - val_regularization_error: 15.6703
Epoch 184/1000
120/120 [=====] - 21s 175ms/step - loss: 39.6595 - reconstruction_error: 23.3705 - regularization_error: 16.2891 - val_loss: 53.3260 - val_reconstruction_error: 37.4743 - val_regularization_error: 15.8518
Epoch 185/1000
120/120 [=====] - 15s 128ms/step - loss: 39.7033 - reconstruction_error: 23.5284 - regularization_error: 16.1749 - val_loss: 53.4238 - val_reconstruction_error: 37.8172 - val_regularization_error: 15.6066
Epoch 186/1000
120/120 [=====] - 20s 164ms/step - loss: 39.7699 - reconstruction_error: 23.4804 - regularization_error: 16.2895 - val_loss: 52.2600 - val_reconstruction_error: 35.9030 - val_regularization_error: 16.3569
Epoch 187/1000
120/120 [=====] - 16s 133ms/step - loss: 39.5959 - reconstruction_error: 23.3313 - regularization_error: 16.2647 - val_loss: 53.3547 - val_reconstruction_error: 38.0801 - val_regularization_error: 15.2746
Epoch 188/1000
120/120 [=====] - 17s 145ms/step - loss: 39.8116 - reconstruction_error: 23.4005 - regularization_error: 16.4111 - val_loss: 53.7944 - val_reconstruction_error: 36.6503 - val_regularization_error: 17.1442
Epoch 189/1000
120/120 [=====] - 18s 151ms/step - loss: 39.6110 - reconstruction_error: 23.1741 - regularization_error: 16.4370 - val_loss: 52.7788 - val_reconstruction_error: 37.4874 - val_regularization_error: 15.2913
Epoch 190/1000
120/120 [=====] - 17s 140ms/step - loss: 39.6936 - reconstruction_error: 23.3382 - regularization_error: 16.3554 - val_loss: 52.5322 - val_reconstruction_error: 36.5043 - val_regularization_error: 16.0279
Epoch 191/1000
120/120 [=====] - ETA: 0s - loss: 39.5609 - reconstruction_error: 23.2748 - regularization_error: 16.2861
[2023-12-01 15:54:57.520833]: Reconstructing images for epoch 191 ...
```



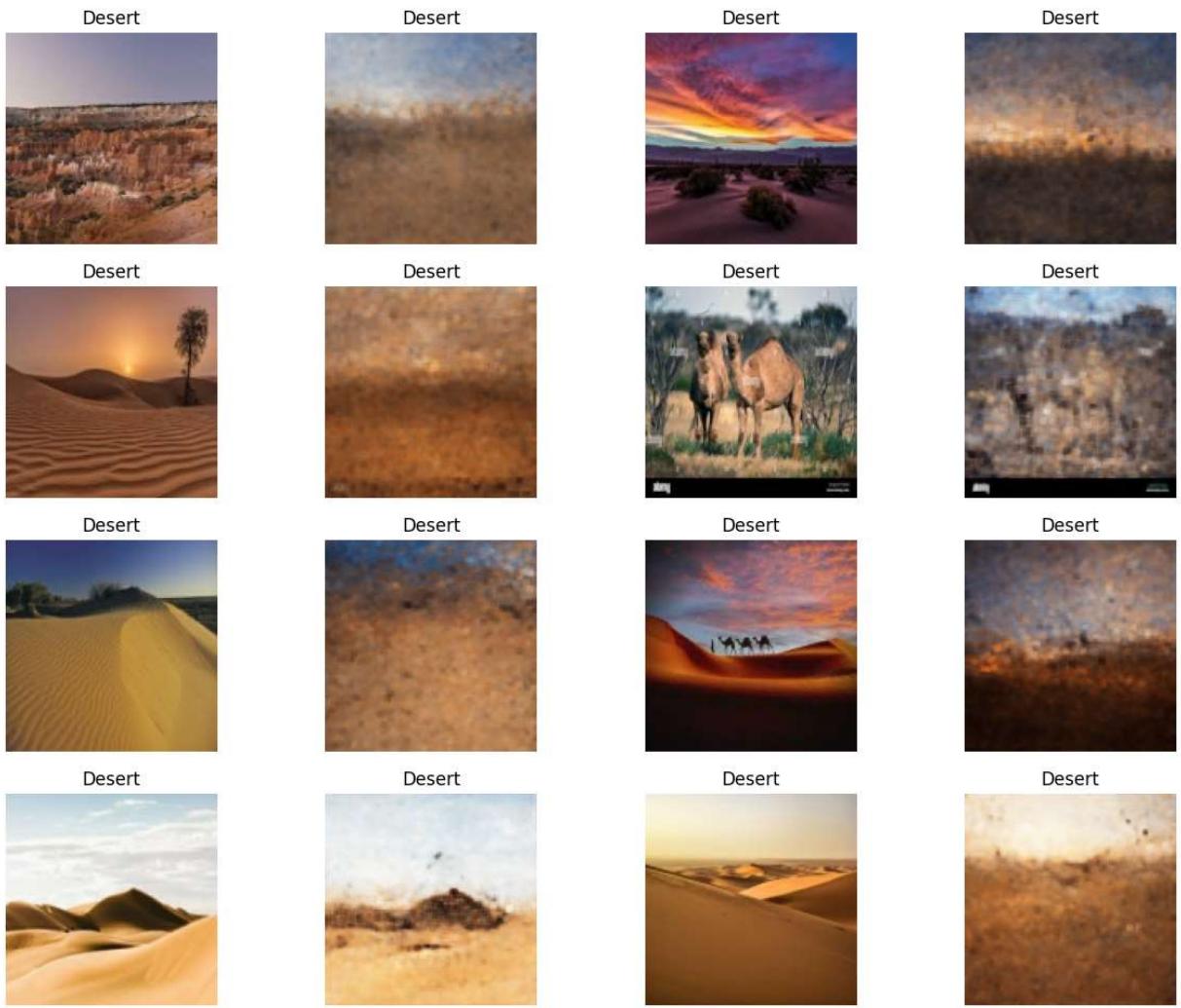
```
120/120 [=====] - 24s 198ms/step - loss: 39.5609 - reconstruction_error: 23.2748 - regularization_error: 16.2861 - val_loss: 52.5336 - val_reconstruction_error: 37.5440 - val_regularization_error: 14.9897
Epoch 192/1000
120/120 [=====] - 21s 177ms/step - loss: 39.4747 - reconstruction_error: 23.2433 - regularization_error: 16.2313 - val_loss: 54.0482 - val_reconstruction_error: 37.8688 - val_regularization_error: 16.1793
Epoch 193/1000
120/120 [=====] - 21s 169ms/step - loss: 39.5509 - reconstruction_error: 23.2370 - regularization_error: 16.3139 - val_loss: 52.4306 - val_reconstruction_error: 37.2535 - val_regularization_error: 15.1771
Epoch 194/1000
120/120 [=====] - 19s 158ms/step - loss: 39.6892 - reconstruction_error: 23.3118 - regularization_error: 16.3774 - val_loss: 52.8194 - val_reconstruction_error: 36.0537 - val_regularization_error: 16.7657
Epoch 195/1000
120/120 [=====] - 18s 148ms/step - loss: 39.4010 - reconstruction_error: 23.0646 - regularization_error: 16.3364 - val_loss: 53.0697 - val_reconstruction_error: 36.8148 - val_regularization_error: 16.2549
Epoch 196/1000
120/120 [=====] - 19s 160ms/step - loss: 39.2167 - reconstruction_error: 22.9391 - regularization_error: 16.2777 - val_loss: 52.6663 - val_reconstruction_error: 36.8452 - val_regularization_error: 15.8211
Epoch 197/1000
120/120 [=====] - 20s 166ms/step - loss: 39.5275 - reconstruction_error: 22.9861 - regularization_error: 16.5414 - val_loss: 52.6792 - val_reconstruction_error: 37.4821 - val_regularization_error: 15.1971
Epoch 198/1000
120/120 [=====] - 17s 145ms/step - loss: 39.4756 - reconstruction_error: 23.2185 - regularization_error: 16.2572 - val_loss: 52.7657 - val_reconstruction_error: 37.1781 - val_regularization_error: 15.5876
Epoch 199/1000
120/120 [=====] - 19s 161ms/step - loss: 39.4134 - reconstruction_error: 23.1134 - regularization_error: 16.3000 - val_loss: 52.6458 - val_reconstruction_error: 37.3247 - val_regularization_error: 15.3211
Epoch 200/1000
120/120 [=====] - 21s 164ms/step - loss: 39.3625 - reconstruction_error: 23.0427 - regularization_error: 16.3199 - val_loss: 53.2126 - val_reconstruction_error: 36.8690 - val_regularization_error: 16.3436
Epoch 201/1000
120/120 [=====] - ETA: 0s - loss: 39.3268 - reconstruction_error: 22.8706 - regularization_error: 16.4562
[2023-12-01 15:58:18.313671]: Reconstructing images for epoch 201 ...
```



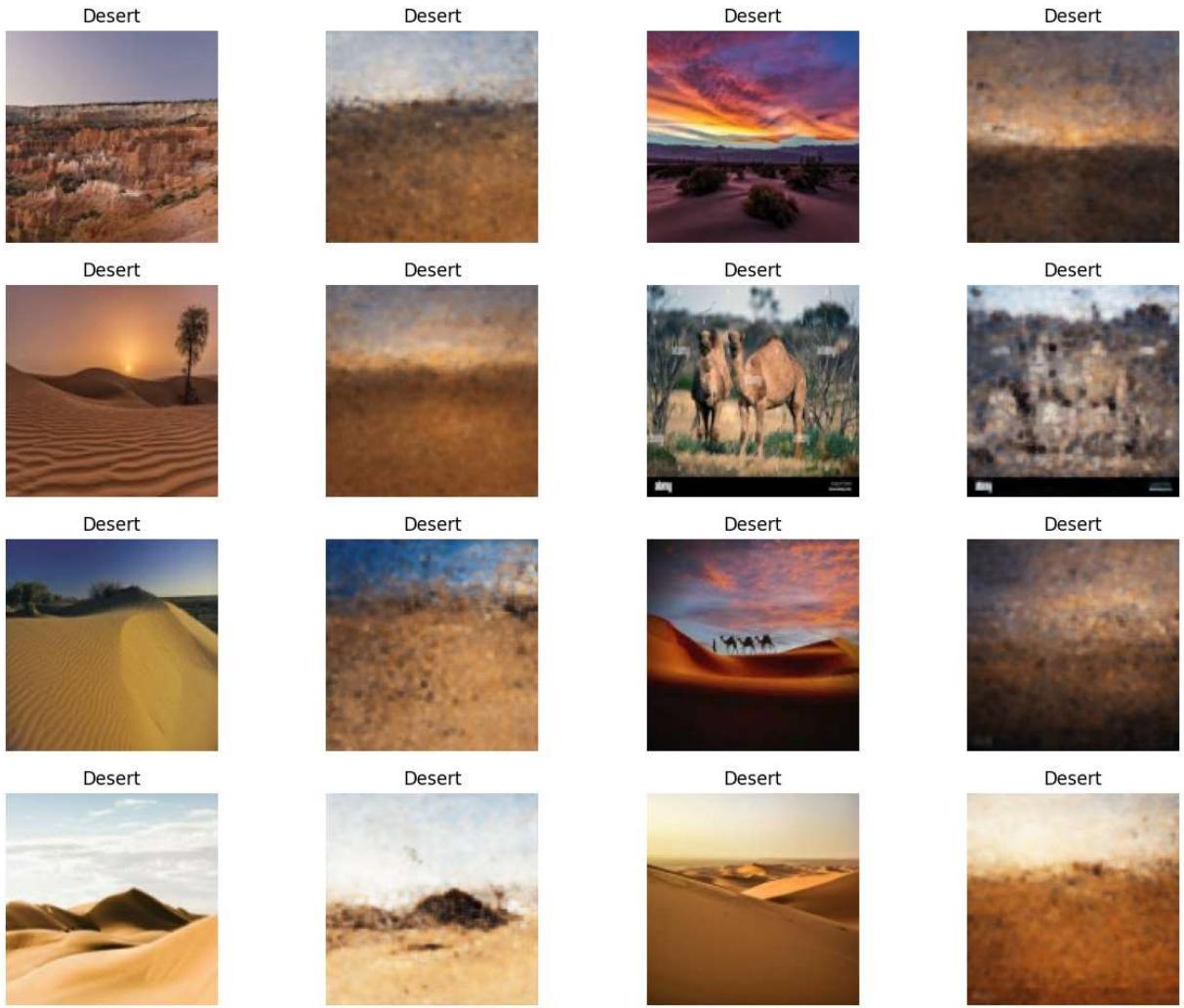
```
120/120 [=====] - 22s 183ms/step - loss: 39.3268 - reconstruction_error: 22.8706 - regularization_error: 16.4562 - val_loss: 54.3496 - val_reconstruction_error: 37.7425 - val_regularization_error: 16.6071
Epoch 202/1000
120/120 [=====] - 18s 154ms/step - loss: 39.2199 - reconstruction_error: 22.8070 - regularization_error: 16.4129 - val_loss: 53.5063 - val_reconstruction_error: 38.0490 - val_regularization_error: 15.4573
Epoch 203/1000
120/120 [=====] - 19s 155ms/step - loss: 39.4462 - reconstruction_error: 22.9230 - regularization_error: 16.5232 - val_loss: 52.8464 - val_reconstruction_error: 37.8755 - val_regularization_error: 14.9708
Epoch 204/1000
120/120 [=====] - 17s 139ms/step - loss: 39.5115 - reconstruction_error: 23.1542 - regularization_error: 16.3573 - val_loss: 52.0231 - val_reconstruction_error: 36.6654 - val_regularization_error: 15.3577
Epoch 205/1000
120/120 [=====] - 18s 151ms/step - loss: 39.3071 - reconstruction_error: 22.8664 - regularization_error: 16.4408 - val_loss: 54.3013 - val_reconstruction_error: 37.7943 - val_regularization_error: 16.5069
Epoch 206/1000
120/120 [=====] - 20s 165ms/step - loss: 39.1663 - reconstruction_error: 22.7538 - regularization_error: 16.4125 - val_loss: 52.5471 - val_reconstruction_error: 36.2508 - val_regularization_error: 16.2963
Epoch 207/1000
120/120 [=====] - 17s 142ms/step - loss: 39.0311 - reconstruction_error: 22.6193 - regularization_error: 16.4118 - val_loss: 53.2106 - val_reconstruction_error: 37.0238 - val_regularization_error: 16.1868
Epoch 208/1000
120/120 [=====] - 19s 159ms/step - loss: 38.9766 - reconstruction_error: 22.6105 - regularization_error: 16.3661 - val_loss: 52.9102 - val_reconstruction_error: 37.1010 - val_regularization_error: 15.8092
Epoch 209/1000
120/120 [=====] - 18s 147ms/step - loss: 39.2336 - reconstruction_error: 22.8016 - regularization_error: 16.4320 - val_loss: 52.3237 - val_reconstruction_error: 36.9560 - val_regularization_error: 15.3676
Epoch 210/1000
120/120 [=====] - 18s 148ms/step - loss: 39.3985 - reconstruction_error: 22.8380 - regularization_error: 16.5605 - val_loss: 52.5905 - val_reconstruction_error: 38.0744 - val_regularization_error: 14.5161
Epoch 211/1000
120/120 [=====] - ETA: 0s - loss: 38.8774 - reconstruction_error: 22.6388 - regularization_error: 16.2387
[2023-12-01 16:01:26.387099]: Reconstructing images for epoch 211 ...
```



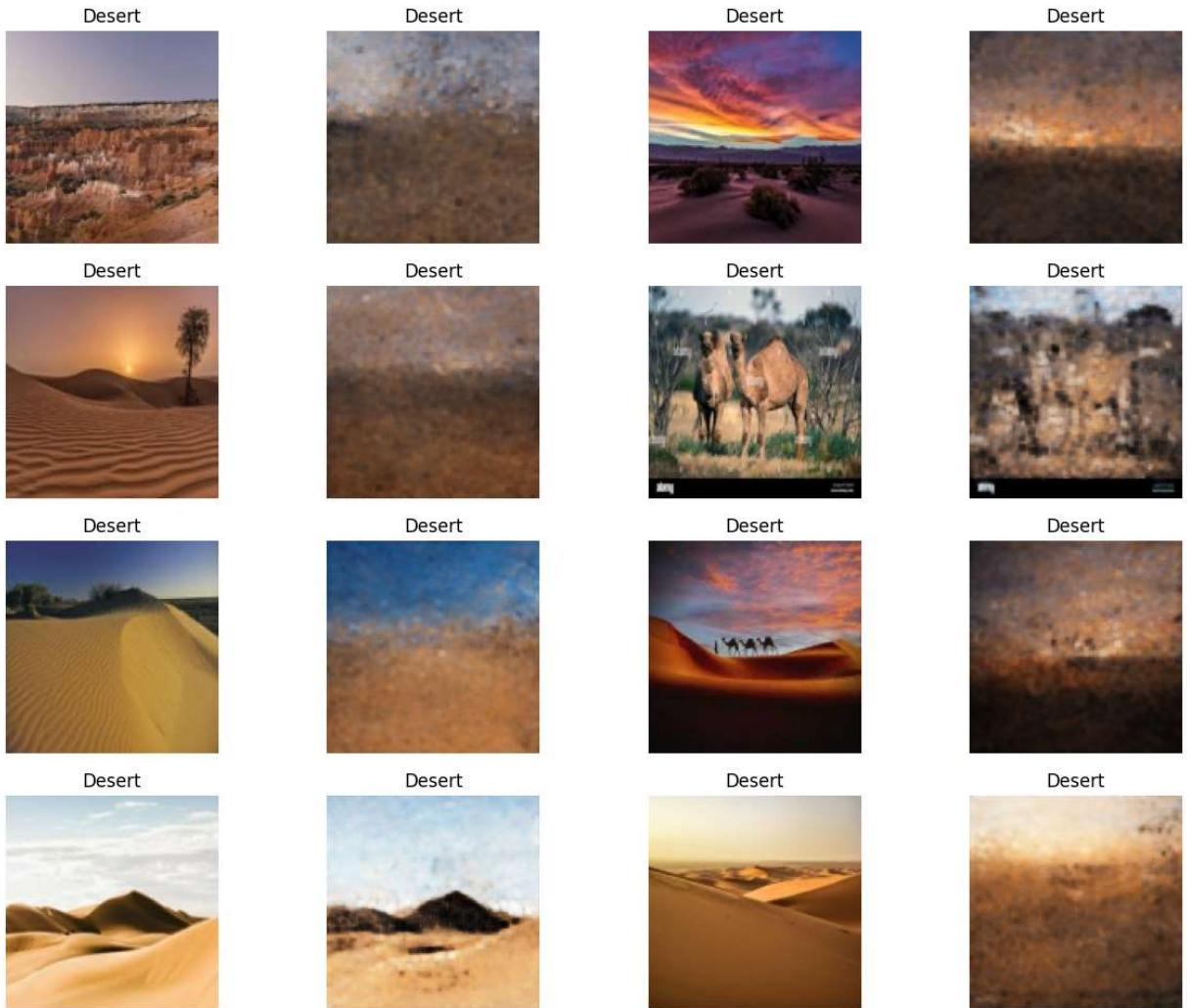
```
120/120 [=====] - 22s 179ms/step - loss: 38.8774 - reconstruction_error: 22.6388 - regularization_error: 16.2387 - val_loss: 53.5406 - val_reconstruction_error: 37.5433 - val_regularization_error: 15.9973
Epoch 212/1000
120/120 [=====] - 18s 150ms/step - loss: 38.8795 - reconstruction_error: 22.4601 - regularization_error: 16.4194 - val_loss: 53.7597 - val_reconstruction_error: 37.2031 - val_regularization_error: 16.5566
Epoch 213/1000
120/120 [=====] - 18s 149ms/step - loss: 38.8895 - reconstruction_error: 22.5105 - regularization_error: 16.3789 - val_loss: 52.7536 - val_reconstruction_error: 37.1000 - val_regularization_error: 15.6536
Epoch 214/1000
120/120 [=====] - 20s 168ms/step - loss: 39.1719 - reconstruction_error: 22.7145 - regularization_error: 16.4573 - val_loss: 53.7303 - val_reconstruction_error: 37.9136 - val_regularization_error: 15.8167
Epoch 215/1000
120/120 [=====] - 20s 165ms/step - loss: 38.8883 - reconstruction_error: 22.4693 - regularization_error: 16.4190 - val_loss: 52.9837 - val_reconstruction_error: 37.5736 - val_regularization_error: 15.4101
Epoch 216/1000
120/120 [=====] - 17s 139ms/step - loss: 39.0222 - reconstruction_error: 22.5873 - regularization_error: 16.4349 - val_loss: 52.3093 - val_reconstruction_error: 36.8823 - val_regularization_error: 15.4271
Epoch 217/1000
120/120 [=====] - 19s 158ms/step - loss: 38.9390 - reconstruction_error: 22.4793 - regularization_error: 16.4598 - val_loss: 54.6172 - val_reconstruction_error: 37.8411 - val_regularization_error: 16.7761
Epoch 218/1000
120/120 [=====] - 22s 181ms/step - loss: 38.8254 - reconstruction_error: 22.2946 - regularization_error: 16.5308 - val_loss: 53.0324 - val_reconstruction_error: 37.5388 - val_regularization_error: 15.4936
Epoch 219/1000
120/120 [=====] - 19s 152ms/step - loss: 38.7745 - reconstruction_error: 22.3498 - regularization_error: 16.4247 - val_loss: 53.9830 - val_reconstruction_error: 38.2013 - val_regularization_error: 15.7816
Epoch 220/1000
120/120 [=====] - 19s 156ms/step - loss: 38.9545 - reconstruction_error: 22.4116 - regularization_error: 16.5429 - val_loss: 53.7202 - val_reconstruction_error: 38.3617 - val_regularization_error: 15.3585
Epoch 221/1000
120/120 [=====] - ETA: 0s - loss: 38.5754 - reconstruction_error: 22.1780 - regularization_error: 16.3974
[2023-12-01 16:04:44.800883]: Reconstructing images for epoch 221 ...
```



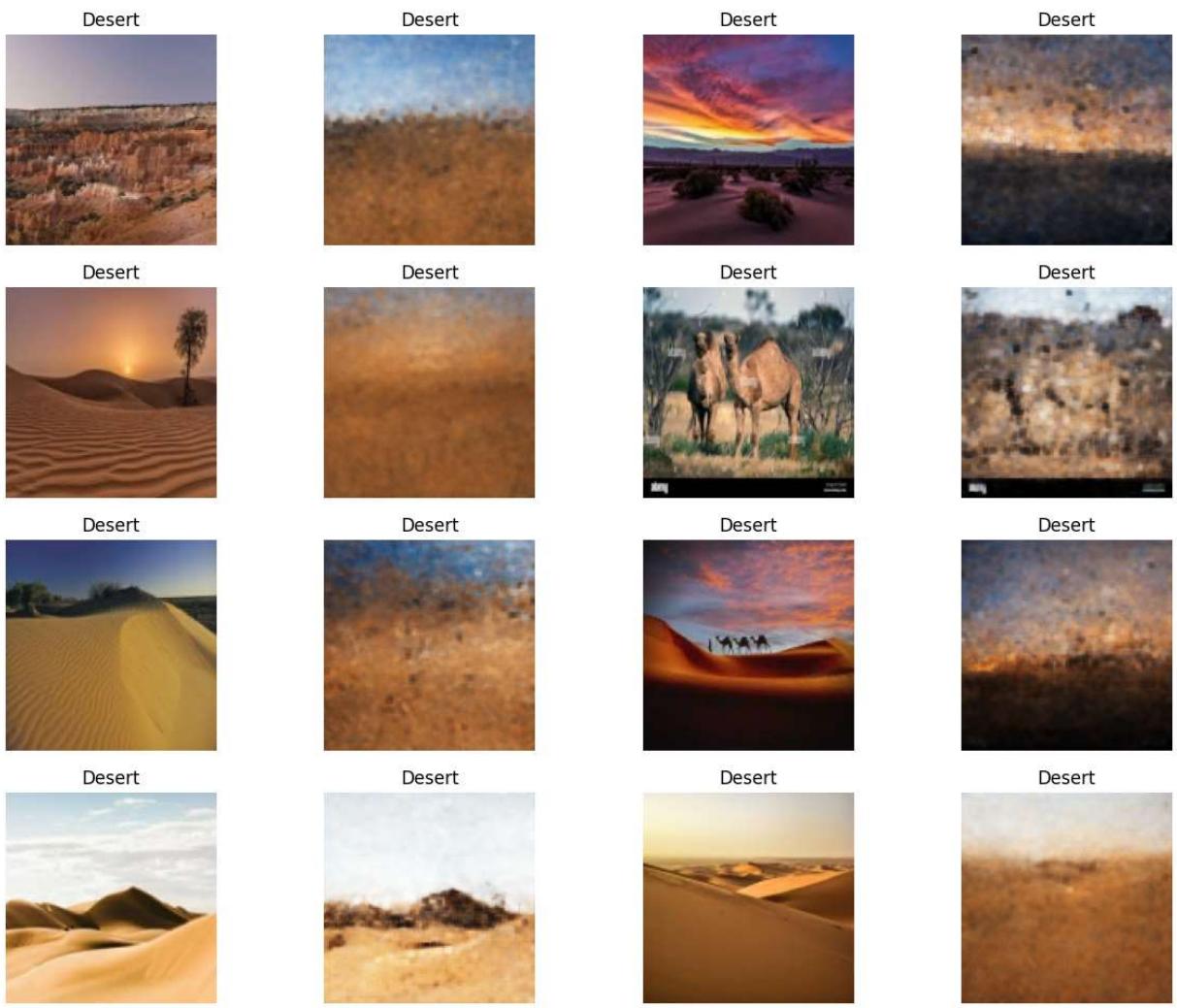
```
120/120 [=====] - 22s 183ms/step - loss: 38.5754 - reconstruction_error: 22.1780 - regularization_error: 16.3974 - val_loss: 53.0300 - val_reconstruction_error: 36.4358 - val_regularization_error: 16.5942
Epoch 222/1000
120/120 [=====] - 21s 174ms/step - loss: 38.7656 - reconstruction_error: 22.1743 - regularization_error: 16.5913 - val_loss: 52.4581 - val_reconstruction_error: 37.4703 - val_regularization_error: 14.9878
Epoch 223/1000
120/120 [=====] - 18s 153ms/step - loss: 38.5652 - reconstruction_error: 22.1125 - regularization_error: 16.4527 - val_loss: 52.9735 - val_reconstruction_error: 37.1807 - val_regularization_error: 15.7928
Epoch 224/1000
120/120 [=====] - 20s 160ms/step - loss: 38.8395 - reconstruction_error: 22.2500 - regularization_error: 16.5895 - val_loss: 53.7751 - val_reconstruction_error: 37.7012 - val_regularization_error: 16.0739
Epoch 225/1000
120/120 [=====] - 19s 160ms/step - loss: 38.7570 - reconstruction_error: 22.1774 - regularization_error: 16.5796 - val_loss: 52.5944 - val_reconstruction_error: 37.3683 - val_regularization_error: 15.2261
Epoch 226/1000
120/120 [=====] - 20s 163ms/step - loss: 38.6380 - reconstruction_error: 22.1918 - regularization_error: 16.4462 - val_loss: 53.7212 - val_reconstruction_error: 37.6856 - val_regularization_error: 16.0356
Epoch 227/1000
120/120 [=====] - 20s 164ms/step - loss: 38.6265 - reconstruction_error: 22.0778 - regularization_error: 16.5488 - val_loss: 53.1942 - val_reconstruction_error: 37.1115 - val_regularization_error: 16.0826
Epoch 228/1000
120/120 [=====] - 18s 152ms/step - loss: 38.8476 - reconstruction_error: 22.2095 - regularization_error: 16.6380 - val_loss: 52.8552 - val_reconstruction_error: 36.9969 - val_regularization_error: 15.8583
Epoch 229/1000
120/120 [=====] - 21s 170ms/step - loss: 38.5925 - reconstruction_error: 22.1104 - regularization_error: 16.4821 - val_loss: 53.9094 - val_reconstruction_error: 37.8030 - val_regularization_error: 16.1064
Epoch 230/1000
120/120 [=====] - 16s 133ms/step - loss: 38.5913 - reconstruction_error: 22.0326 - regularization_error: 16.5588 - val_loss: 52.6443 - val_reconstruction_error: 38.1087 - val_regularization_error: 14.5355
Epoch 231/1000
120/120 [=====] - ETA: 0s - loss: 38.4054 - reconstruction_error: 21.9491 - regularization_error: 16.4563
[2023-12-01 16:07:58.655434]: Reconstructing images for epoch 231 ...
```



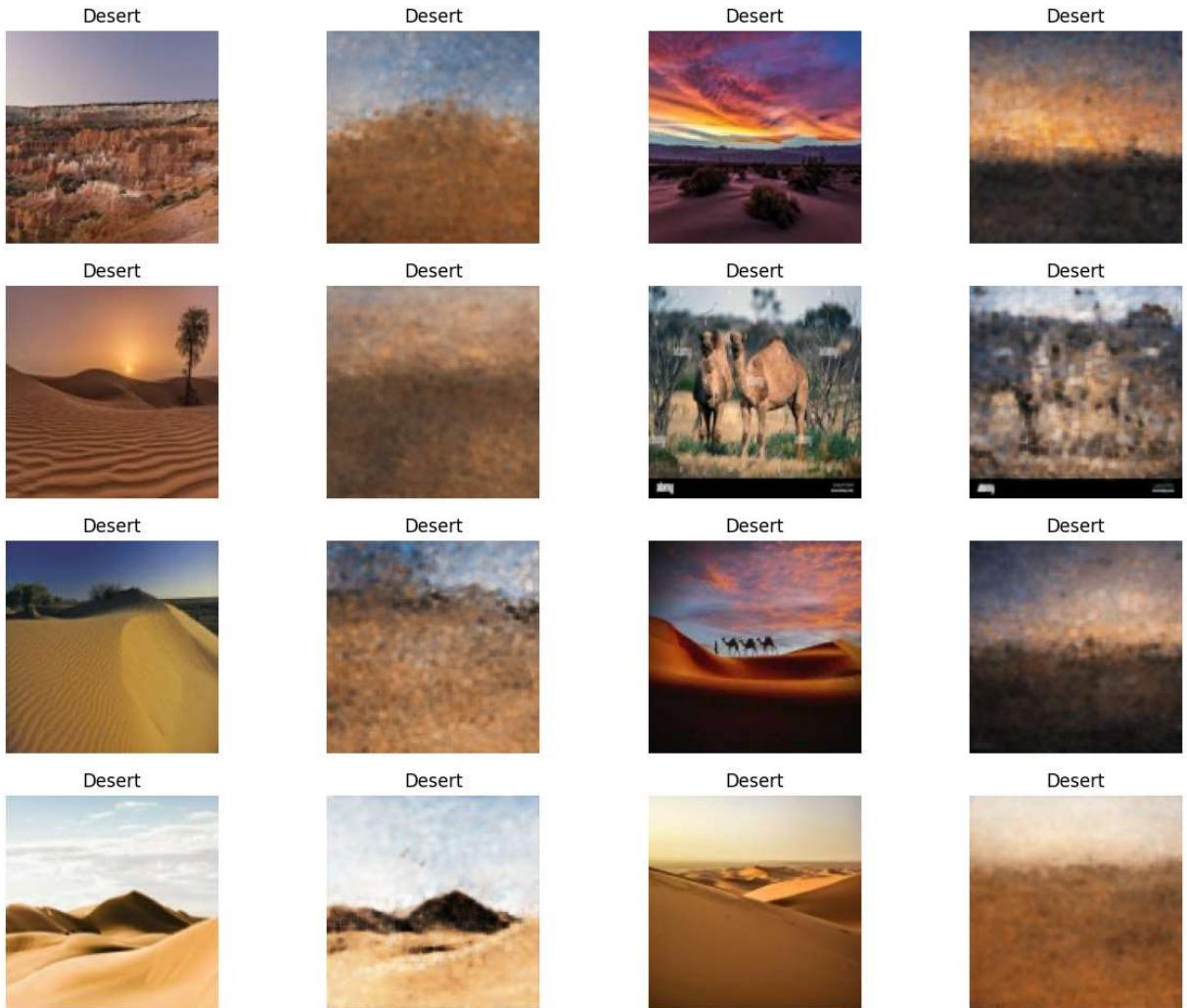
```
120/120 [=====] - 20s 165ms/step - loss: 38.4054 - reconstruction_error: 21.9491 - regularization_error: 16.4563 - val_loss: 52.6455 - val_reconstruction_error: 36.7664 - val_regularization_error: 15.8791
Epoch 232/1000
120/120 [=====] - 17s 145ms/step - loss: 38.4732 - reconstruction_error: 21.8501 - regularization_error: 16.6231 - val_loss: 55.0420 - val_reconstruction_error: 38.6288 - val_regularization_error: 16.4131
Epoch 233/1000
120/120 [=====] - 19s 162ms/step - loss: 38.5581 - reconstruction_error: 22.0067 - regularization_error: 16.5514 - val_loss: 53.9707 - val_reconstruction_error: 37.5589 - val_regularization_error: 16.4118
Epoch 234/1000
120/120 [=====] - 20s 168ms/step - loss: 38.4312 - reconstruction_error: 21.8012 - regularization_error: 16.6300 - val_loss: 53.3608 - val_reconstruction_error: 37.5057 - val_regularization_error: 15.8551
Epoch 235/1000
120/120 [=====] - 22s 181ms/step - loss: 38.4767 - reconstruction_error: 21.8303 - regularization_error: 16.6464 - val_loss: 54.2769 - val_reconstruction_error: 39.3078 - val_regularization_error: 14.9691
Epoch 236/1000
120/120 [=====] - 17s 142ms/step - loss: 38.1991 - reconstruction_error: 21.6970 - regularization_error: 16.5021 - val_loss: 53.0830 - val_reconstruction_error: 37.5373 - val_regularization_error: 15.5456
Epoch 237/1000
120/120 [=====] - 17s 143ms/step - loss: 38.3182 - reconstruction_error: 21.8156 - regularization_error: 16.5026 - val_loss: 52.6328 - val_reconstruction_error: 37.0747 - val_regularization_error: 15.5581
Epoch 238/1000
120/120 [=====] - 18s 150ms/step - loss: 38.2808 - reconstruction_error: 21.7619 - regularization_error: 16.5189 - val_loss: 54.2442 - val_reconstruction_error: 38.2137 - val_regularization_error: 16.0305
Epoch 239/1000
120/120 [=====] - 17s 141ms/step - loss: 38.1057 - reconstruction_error: 21.5828 - regularization_error: 16.5229 - val_loss: 53.0687 - val_reconstruction_error: 37.6887 - val_regularization_error: 15.3800
Epoch 240/1000
120/120 [=====] - 19s 154ms/step - loss: 38.2343 - reconstruction_error: 21.5928 - regularization_error: 16.6415 - val_loss: 51.6213 - val_reconstruction_error: 37.1220 - val_regularization_error: 14.4993
Epoch 241/1000
120/120 [=====] - ETA: 0s - loss: 38.2387 - reconstruction_error: 21.7531 - regularization_error: 16.4856
[2023-12-01 16:11:09.972166]: Reconstructing images for epoch 241 ...
```



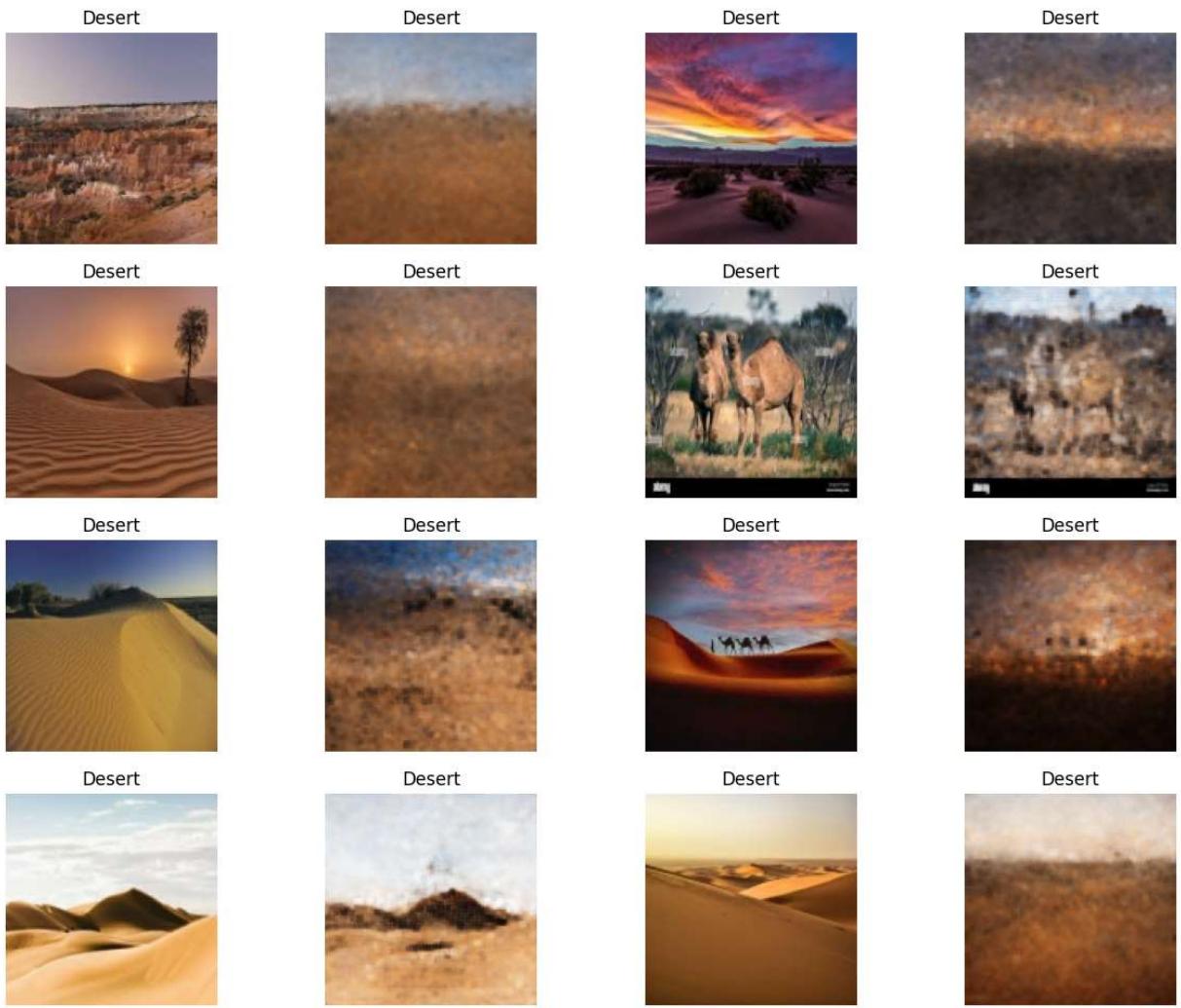
```
120/120 [=====] - 23s 191ms/step - loss: 38.2387 - reconstruction_error: 21.7531 - regularization_error: 16.4856 - val_loss: 54.9655 - val_reconstruction_error: 39.6032 - val_regularization_error: 15.3623
Epoch 242/1000
120/120 [=====] - 18s 150ms/step - loss: 38.2697 - reconstruction_error: 21.6926 - regularization_error: 16.5771 - val_loss: 53.3671 - val_reconstruction_error: 37.5387 - val_regularization_error: 15.8284
Epoch 243/1000
120/120 [=====] - 19s 154ms/step - loss: 38.0339 - reconstruction_error: 21.4796 - regularization_error: 16.5543 - val_loss: 53.5849 - val_reconstruction_error: 37.0889 - val_regularization_error: 16.4960
Epoch 244/1000
120/120 [=====] - 19s 156ms/step - loss: 38.2793 - reconstruction_error: 21.6445 - regularization_error: 16.6347 - val_loss: 53.9197 - val_reconstruction_error: 37.4291 - val_regularization_error: 16.4906
Epoch 245/1000
120/120 [=====] - 20s 165ms/step - loss: 38.0879 - reconstruction_error: 21.5872 - regularization_error: 16.5007 - val_loss: 54.1692 - val_reconstruction_error: 38.5438 - val_regularization_error: 15.6254
Epoch 246/1000
120/120 [=====] - 19s 160ms/step - loss: 38.0957 - reconstruction_error: 21.4576 - regularization_error: 16.6381 - val_loss: 53.2100 - val_reconstruction_error: 37.4366 - val_regularization_error: 15.7733
Epoch 247/1000
120/120 [=====] - 21s 169ms/step - loss: 38.1207 - reconstruction_error: 21.4704 - regularization_error: 16.6503 - val_loss: 53.2970 - val_reconstruction_error: 36.9845 - val_regularization_error: 16.3125
Epoch 248/1000
120/120 [=====] - 19s 154ms/step - loss: 38.0989 - reconstruction_error: 21.5199 - regularization_error: 16.5790 - val_loss: 52.7328 - val_reconstruction_error: 37.2352 - val_regularization_error: 15.4976
Epoch 249/1000
120/120 [=====] - 18s 148ms/step - loss: 38.0160 - reconstruction_error: 21.4402 - regularization_error: 16.5758 - val_loss: 53.9435 - val_reconstruction_error: 36.8084 - val_regularization_error: 17.1351
Epoch 250/1000
120/120 [=====] - 18s 149ms/step - loss: 38.1581 - reconstruction_error: 21.5225 - regularization_error: 16.6356 - val_loss: 53.0694 - val_reconstruction_error: 38.3909 - val_regularization_error: 14.6785
Epoch 251/1000
120/120 [=====] - ETA: 0s - loss: 38.0780 - reconstruction_error: 21.4833 - regularization_error: 16.5947
[2023-12-01 16:14:30.117347]: Reconstructing images for epoch 251 ...
```



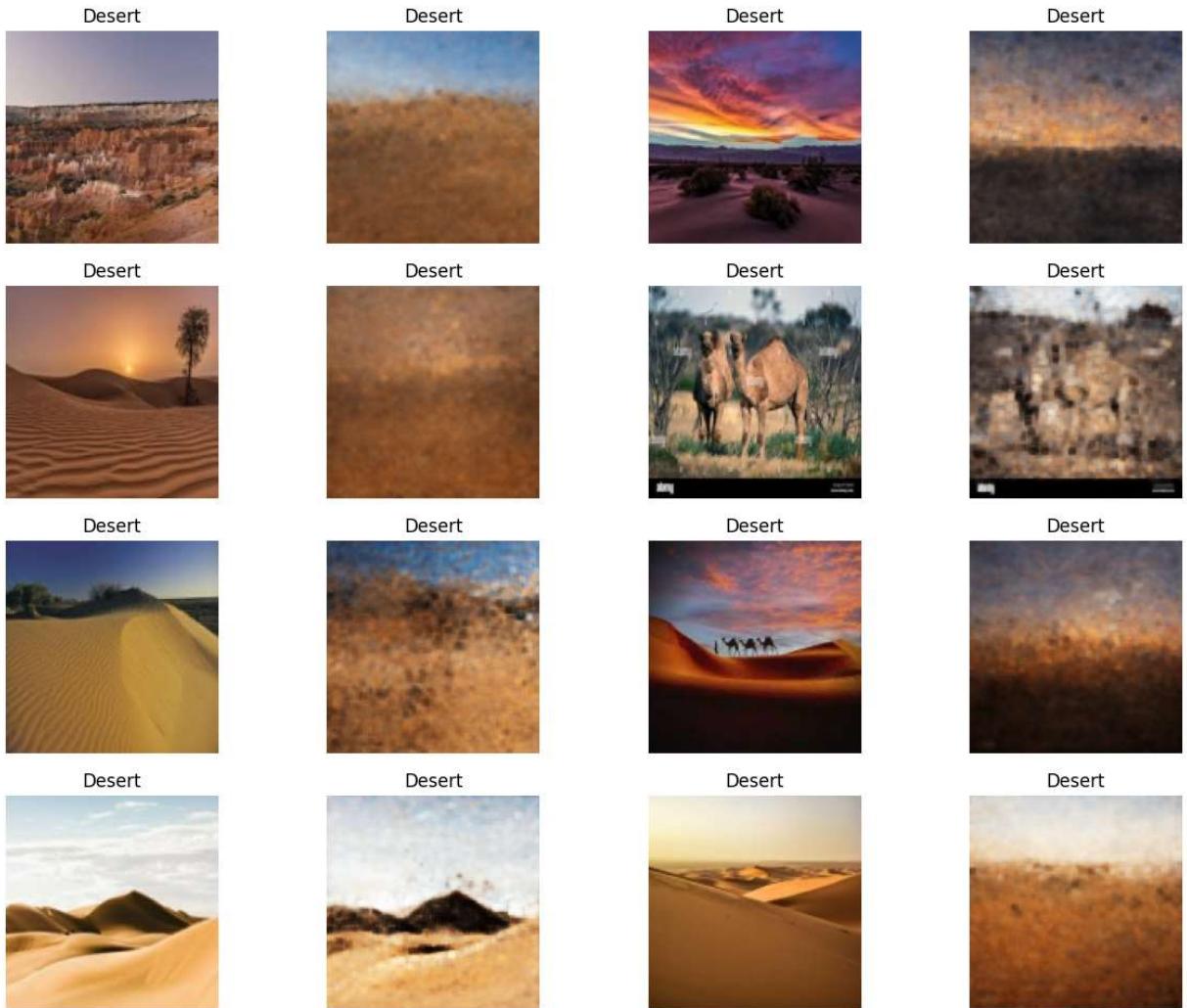
```
120/120 [=====] - 28s 232ms/step - loss: 38.0780 - reconstruction_error: 21.4833 - regularization_error: 16.5947 - val_loss: 53.6666 - val_reconstruction_error: 38.7541 - val_regularization_error: 14.9125
Epoch 252/1000
120/120 [=====] - 17s 136ms/step - loss: 38.0238 - reconstruction_error: 21.4476 - regularization_error: 16.5761 - val_loss: 53.3663 - val_reconstruction_error: 37.6329 - val_regularization_error: 15.7334
Epoch 253/1000
120/120 [=====] - 22s 183ms/step - loss: 38.0133 - reconstruction_error: 21.3692 - regularization_error: 16.6442 - val_loss: 54.0308 - val_reconstruction_error: 37.9426 - val_regularization_error: 16.0882
Epoch 254/1000
120/120 [=====] - 21s 175ms/step - loss: 38.1938 - reconstruction_error: 21.3632 - regularization_error: 16.8306 - val_loss: 54.2070 - val_reconstruction_error: 38.0448 - val_regularization_error: 16.1622
Epoch 255/1000
120/120 [=====] - 18s 150ms/step - loss: 37.7471 - reconstruction_error: 21.1373 - regularization_error: 16.6098 - val_loss: 53.5387 - val_reconstruction_error: 38.0636 - val_regularization_error: 15.4751
Epoch 256/1000
120/120 [=====] - 18s 152ms/step - loss: 37.8067 - reconstruction_error: 21.2431 - regularization_error: 16.5637 - val_loss: 53.4423 - val_reconstruction_error: 37.3189 - val_regularization_error: 16.1234
Epoch 257/1000
120/120 [=====] - 19s 160ms/step - loss: 37.8260 - reconstruction_error: 21.3549 - regularization_error: 16.4710 - val_loss: 53.5145 - val_reconstruction_error: 37.0631 - val_regularization_error: 16.4514
Epoch 258/1000
120/120 [=====] - 23s 189ms/step - loss: 37.9887 - reconstruction_error: 21.3511 - regularization_error: 16.6376 - val_loss: 54.1093 - val_reconstruction_error: 37.3671 - val_regularization_error: 16.7423
Epoch 259/1000
120/120 [=====] - 18s 148ms/step - loss: 37.9098 - reconstruction_error: 21.0870 - regularization_error: 16.8228 - val_loss: 52.6620 - val_reconstruction_error: 37.5675 - val_regularization_error: 15.0945
Epoch 260/1000
120/120 [=====] - 18s 148ms/step - loss: 37.8952 - reconstruction_error: 21.2450 - regularization_error: 16.6502 - val_loss: 53.5638 - val_reconstruction_error: 36.9775 - val_regularization_error: 16.5863
Epoch 261/1000
120/120 [=====] - ETA: 0s - loss: 37.6776 - reconstruction_error: 21.0923 - regularization_error: 16.5853
[2023-12-01 16:17:50.418024]: Reconstructing images for epoch 261 ...
```



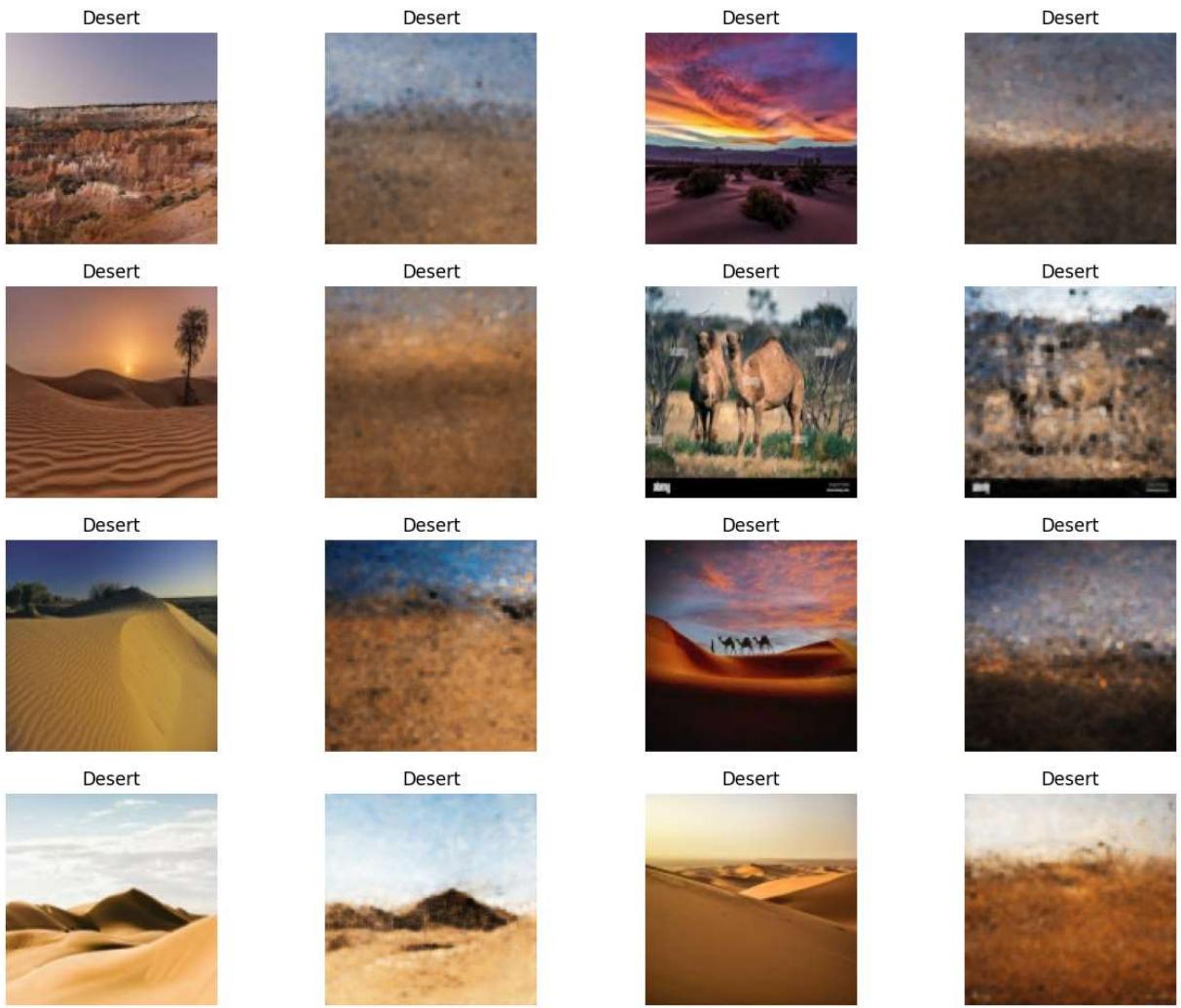
```
120/120 [=====] - 23s 193ms/step - loss: 37.6776 - reconstruction_error: 21.0923 - regularization_error: 16.5853 - val_loss: 52.8234 - val_reconstruction_error: 38.1395 - val_regularization_error: 14.6839
Epoch 262/1000
120/120 [=====] - 18s 153ms/step - loss: 37.8211 - reconstruction_error: 21.1771 - regularization_error: 16.6441 - val_loss: 53.8889 - val_reconstruction_error: 37.6343 - val_regularization_error: 16.2546
Epoch 263/1000
120/120 [=====] - 22s 185ms/step - loss: 37.8247 - reconstruction_error: 21.2205 - regularization_error: 16.6042 - val_loss: 53.8817 - val_reconstruction_error: 38.9956 - val_regularization_error: 14.8861
Epoch 264/1000
120/120 [=====] - 19s 155ms/step - loss: 37.8835 - reconstruction_error: 21.1475 - regularization_error: 16.7360 - val_loss: 54.3660 - val_reconstruction_error: 36.5767 - val_regularization_error: 17.7893
Epoch 265/1000
120/120 [=====] - 18s 151ms/step - loss: 37.6461 - reconstruction_error: 20.9881 - regularization_error: 16.6580 - val_loss: 54.4504 - val_reconstruction_error: 38.4322 - val_regularization_error: 16.0183
Epoch 266/1000
120/120 [=====] - 20s 163ms/step - loss: 37.6929 - reconstruction_error: 21.0616 - regularization_error: 16.6313 - val_loss: 54.1399 - val_reconstruction_error: 37.1960 - val_regularization_error: 16.9439
Epoch 267/1000
120/120 [=====] - 19s 159ms/step - loss: 37.7632 - reconstruction_error: 21.2595 - regularization_error: 16.5037 - val_loss: 53.7901 - val_reconstruction_error: 36.9962 - val_regularization_error: 16.7940
Epoch 268/1000
120/120 [=====] - 19s 152ms/step - loss: 37.4813 - reconstruction_error: 20.8232 - regularization_error: 16.6581 - val_loss: 54.0649 - val_reconstruction_error: 37.5088 - val_regularization_error: 16.5561
Epoch 269/1000
120/120 [=====] - 20s 163ms/step - loss: 37.2745 - reconstruction_error: 20.8195 - regularization_error: 16.4549 - val_loss: 53.5733 - val_reconstruction_error: 38.0560 - val_regularization_error: 15.5173
Epoch 270/1000
120/120 [=====] - 18s 150ms/step - loss: 37.9507 - reconstruction_error: 21.2092 - regularization_error: 16.7415 - val_loss: 54.0593 - val_reconstruction_error: 37.9539 - val_regularization_error: 16.1055
Epoch 271/1000
120/120 [=====] - ETA: 0s - loss: 37.5241 - reconstruction_error: 20.9234 - regularization_error: 16.6007
[2023-12-01 16:21:07.183407]: Reconstructing images for epoch 271 ...
```



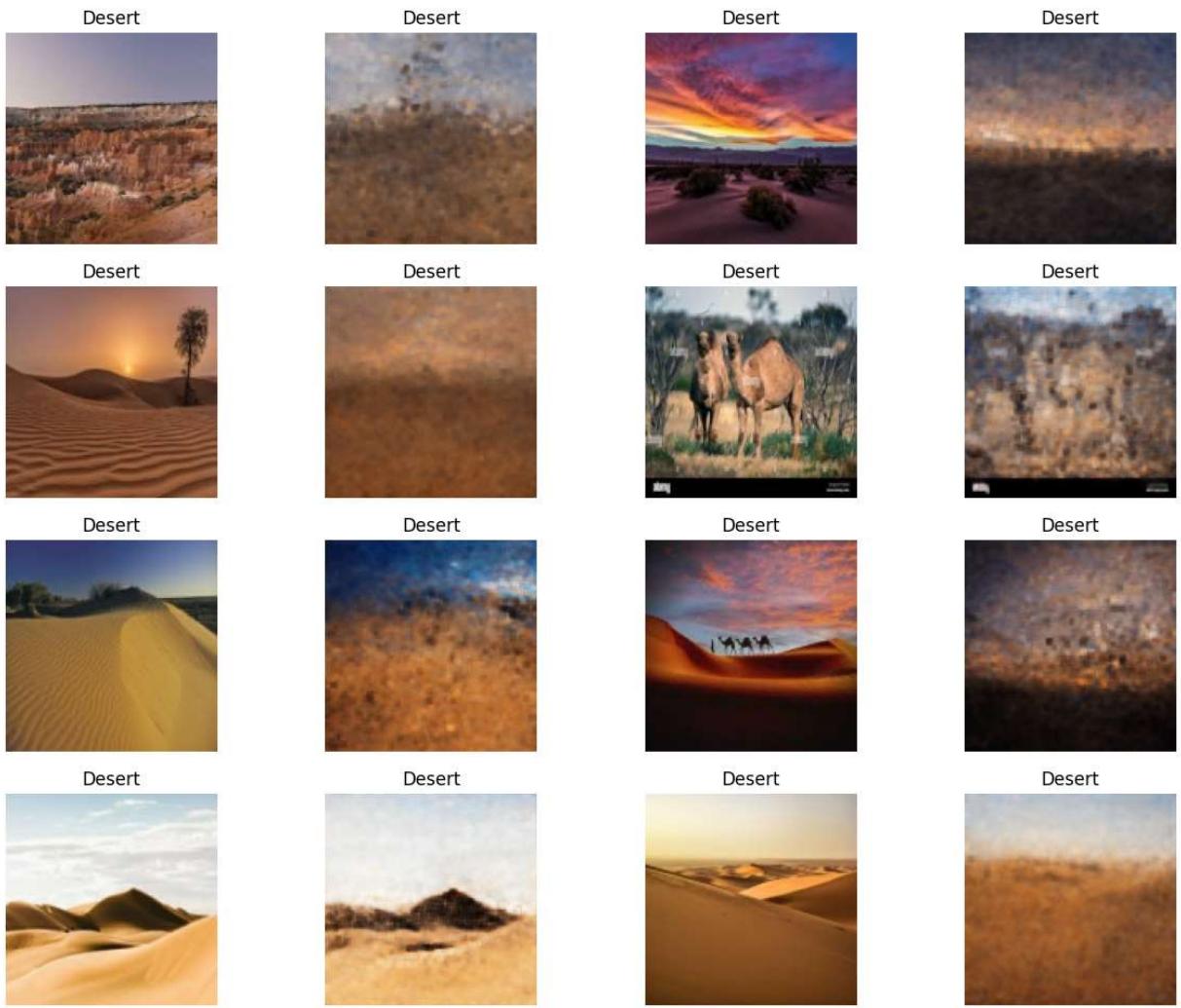
```
120/120 [=====] - 23s 188ms/step - loss: 37.5241 - reconstruction_error: 20.9234 - regularization_error: 16.6007 - val_loss: 53.4400 - val_reconstruction_error: 37.6803 - val_regularization_error: 15.7597
Epoch 272/1000
120/120 [=====] - 20s 164ms/step - loss: 37.3979 - reconstruction_error: 20.7896 - regularization_error: 16.6083 - val_loss: 53.4404 - val_reconstruction_error: 37.5854 - val_regularization_error: 15.8550
Epoch 273/1000
120/120 [=====] - 18s 146ms/step - loss: 37.5062 - reconstruction_error: 20.8741 - regularization_error: 16.6320 - val_loss: 52.8680 - val_reconstruction_error: 37.6651 - val_regularization_error: 15.2029
Epoch 274/1000
120/120 [=====] - 18s 150ms/step - loss: 37.3191 - reconstruction_error: 20.8305 - regularization_error: 16.4887 - val_loss: 53.9761 - val_reconstruction_error: 38.0932 - val_regularization_error: 15.8828
Epoch 275/1000
120/120 [=====] - 19s 156ms/step - loss: 37.3556 - reconstruction_error: 20.8172 - regularization_error: 16.5385 - val_loss: 53.7785 - val_reconstruction_error: 37.8698 - val_regularization_error: 15.9087
Epoch 276/1000
120/120 [=====] - 23s 190ms/step - loss: 37.4783 - reconstruction_error: 20.7491 - regularization_error: 16.7292 - val_loss: 52.8831 - val_reconstruction_error: 36.9370 - val_regularization_error: 15.9461
Epoch 277/1000
120/120 [=====] - 22s 183ms/step - loss: 37.4777 - reconstruction_error: 20.7082 - regularization_error: 16.7696 - val_loss: 53.5086 - val_reconstruction_error: 37.2477 - val_regularization_error: 16.2609
Epoch 278/1000
120/120 [=====] - 20s 170ms/step - loss: 37.3748 - reconstruction_error: 20.8225 - regularization_error: 16.5523 - val_loss: 53.1966 - val_reconstruction_error: 38.0258 - val_regularization_error: 15.1708
Epoch 279/1000
120/120 [=====] - 19s 159ms/step - loss: 37.4439 - reconstruction_error: 20.8381 - regularization_error: 16.6057 - val_loss: 54.4711 - val_reconstruction_error: 38.8525 - val_regularization_error: 15.6185
Epoch 280/1000
120/120 [=====] - 18s 145ms/step - loss: 37.2876 - reconstruction_error: 20.6709 - regularization_error: 16.6168 - val_loss: 53.2059 - val_reconstruction_error: 37.7880 - val_regularization_error: 15.4179
Epoch 281/1000
120/120 [=====] - ETA: 0s - loss: 37.4467 - reconstruction_error: 20.6288 - regularization_error: 16.8179
[2023-12-01 16:24:30.855396]: Reconstructing images for epoch 281 ...
```



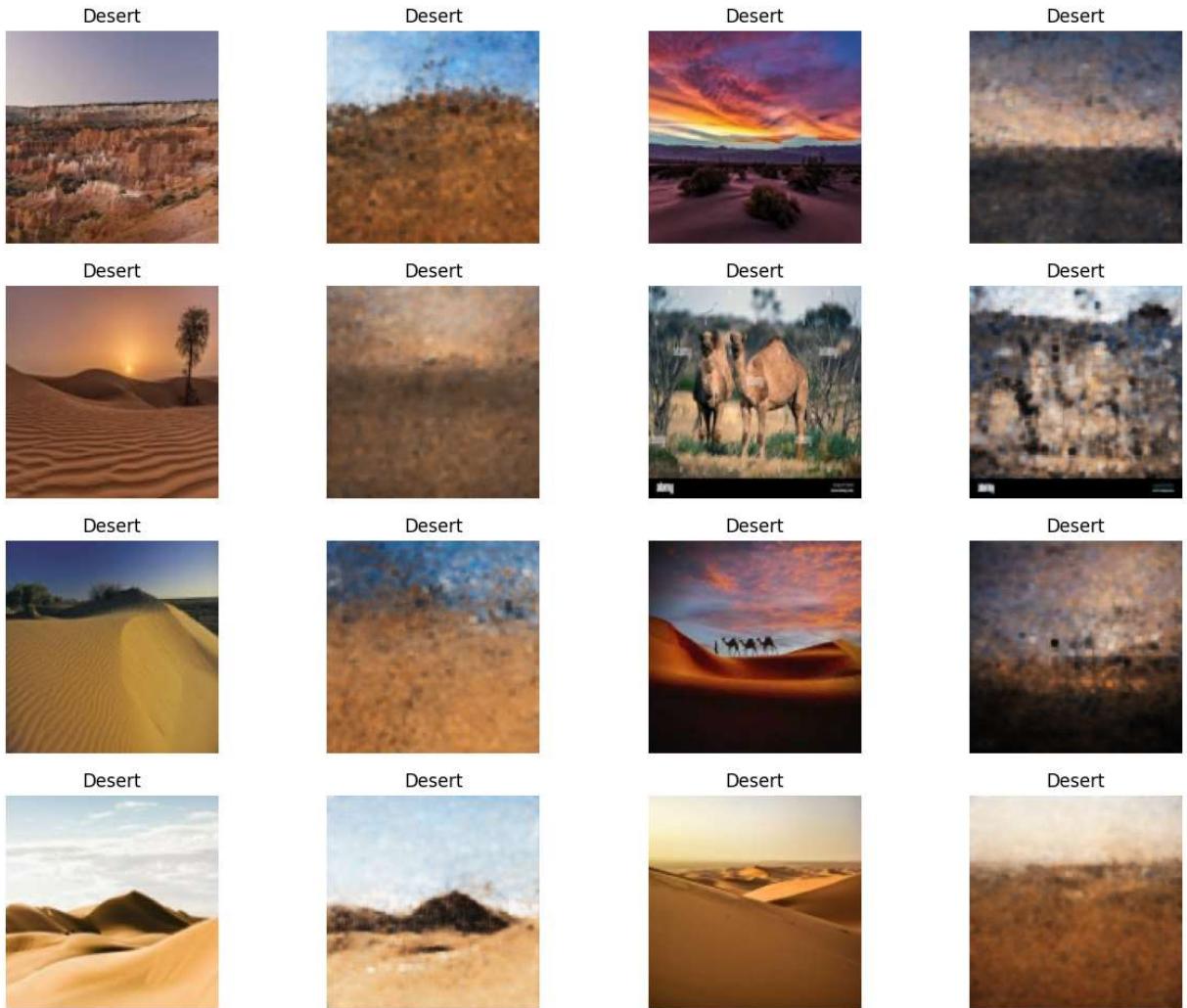
```
120/120 [=====] - 25s 208ms/step - loss: 37.4467 - reconstruction_error: 20.6288 - regularization_error: 16.8179 - val_loss: 53.7448 - val_reconstruction_error: 38.0485 - val_regularization_error: 15.6962
Epoch 282/1000
120/120 [=====] - 21s 177ms/step - loss: 37.5057 - reconstruction_error: 20.7606 - regularization_error: 16.7451 - val_loss: 53.2770 - val_reconstruction_error: 37.8679 - val_regularization_error: 15.4091
Epoch 283/1000
120/120 [=====] - 16s 130ms/step - loss: 37.2636 - reconstruction_error: 20.5221 - regularization_error: 16.7415 - val_loss: 53.4975 - val_reconstruction_error: 38.1332 - val_regularization_error: 15.3643
Epoch 284/1000
120/120 [=====] - 22s 181ms/step - loss: 37.2176 - reconstruction_error: 20.5434 - regularization_error: 16.6742 - val_loss: 53.4386 - val_reconstruction_error: 37.2915 - val_regularization_error: 16.1471
Epoch 285/1000
120/120 [=====] - 19s 157ms/step - loss: 37.3519 - reconstruction_error: 20.7858 - regularization_error: 16.5661 - val_loss: 53.8761 - val_reconstruction_error: 38.8185 - val_regularization_error: 15.0576
Epoch 286/1000
120/120 [=====] - 20s 164ms/step - loss: 37.2052 - reconstruction_error: 20.5626 - regularization_error: 16.6426 - val_loss: 55.0474 - val_reconstruction_error: 39.4801 - val_regularization_error: 15.5673
Epoch 287/1000
120/120 [=====] - 20s 166ms/step - loss: 37.4380 - reconstruction_error: 20.5703 - regularization_error: 16.8677 - val_loss: 53.5726 - val_reconstruction_error: 37.7709 - val_regularization_error: 15.8017
Epoch 288/1000
120/120 [=====] - 19s 157ms/step - loss: 36.9540 - reconstruction_error: 20.4338 - regularization_error: 16.5202 - val_loss: 53.5138 - val_reconstruction_error: 37.5277 - val_regularization_error: 15.9861
Epoch 289/1000
120/120 [=====] - 19s 158ms/step - loss: 37.3192 - reconstruction_error: 20.5649 - regularization_error: 16.7543 - val_loss: 53.8954 - val_reconstruction_error: 38.9827 - val_regularization_error: 14.9127
Epoch 290/1000
120/120 [=====] - 22s 181ms/step - loss: 37.1297 - reconstruction_error: 20.4867 - regularization_error: 16.6430 - val_loss: 53.3619 - val_reconstruction_error: 37.1446 - val_regularization_error: 16.2173
Epoch 291/1000
120/120 [=====] - ETA: 0s - loss: 37.2576 - reconstruction_error: 20.4817 - regularization_error: 16.7759
[2023-12-01 16:27:51.644524]: Reconstructing images for epoch 291 ...
```



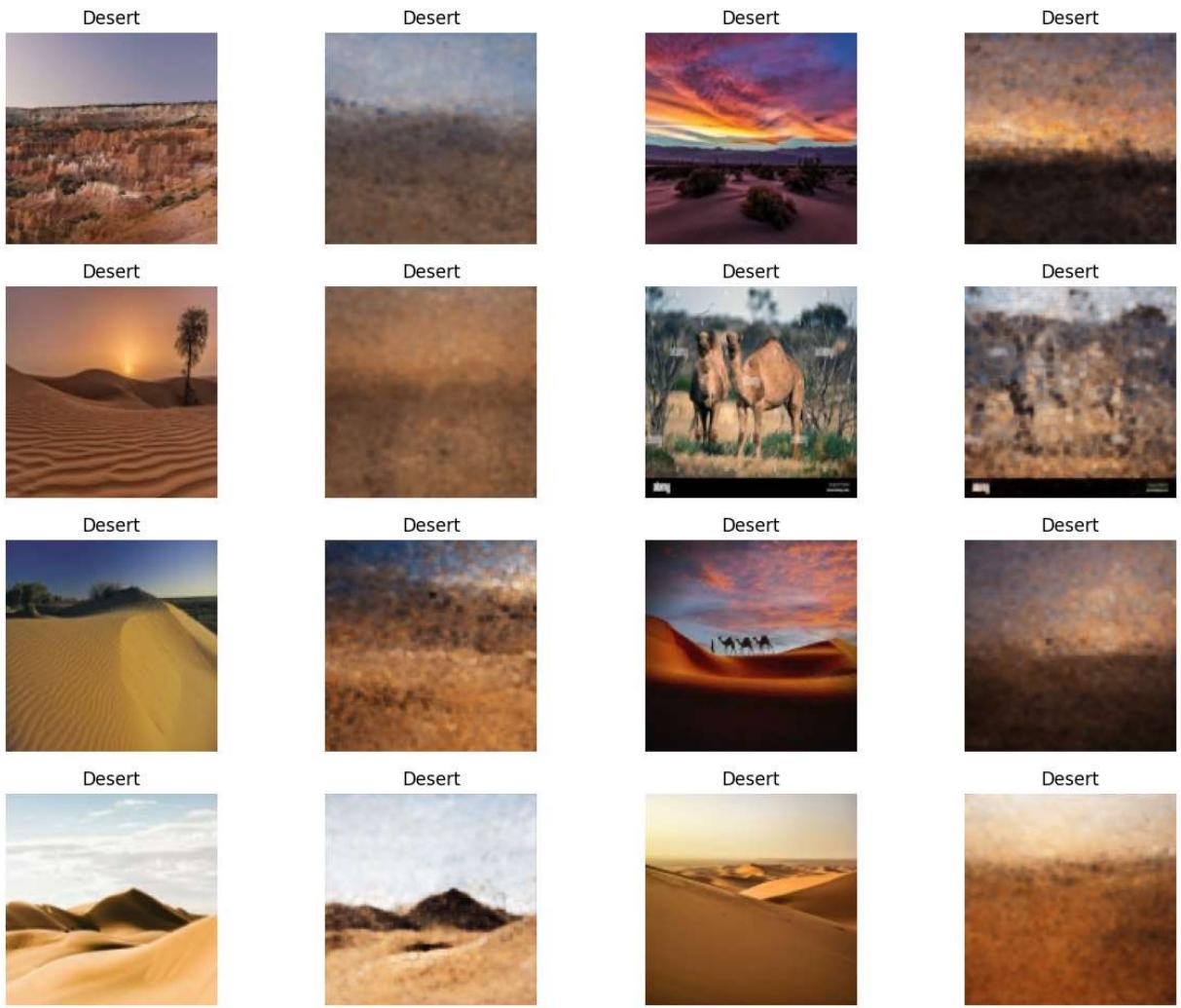
```
120/120 [=====] - 21s 172ms/step - loss: 37.2576 - reconstruction_error: 20.4817 - regularization_error: 16.7759 - val_loss: 53.7783 - val_reconstruction_error: 38.0332 - val_regularization_error: 15.7452
Epoch 292/1000
120/120 [=====] - 21s 171ms/step - loss: 37.2645 - reconstruction_error: 20.4026 - regularization_error: 16.8619 - val_loss: 53.9494 - val_reconstruction_error: 37.3800 - val_regularization_error: 16.5694
Epoch 293/1000
120/120 [=====] - 21s 176ms/step - loss: 37.0534 - reconstruction_error: 20.4310 - regularization_error: 16.6223 - val_loss: 53.5401 - val_reconstruction_error: 37.8972 - val_regularization_error: 15.6430
Epoch 294/1000
120/120 [=====] - 19s 162ms/step - loss: 37.0354 - reconstruction_error: 20.2639 - regularization_error: 16.7715 - val_loss: 53.1264 - val_reconstruction_error: 38.2286 - val_regularization_error: 14.8977
Epoch 295/1000
120/120 [=====] - 23s 187ms/step - loss: 36.8750 - reconstruction_error: 20.3440 - regularization_error: 16.5310 - val_loss: 53.5878 - val_reconstruction_error: 37.8610 - val_regularization_error: 15.7268
Epoch 296/1000
120/120 [=====] - 21s 172ms/step - loss: 37.0634 - reconstruction_error: 20.3205 - regularization_error: 16.7429 - val_loss: 54.0198 - val_reconstruction_error: 38.3771 - val_regularization_error: 15.6427
Epoch 297/1000
120/120 [=====] - 19s 157ms/step - loss: 37.0656 - reconstruction_error: 20.3007 - regularization_error: 16.7648 - val_loss: 53.2643 - val_reconstruction_error: 38.3146 - val_regularization_error: 14.9498
Epoch 298/1000
120/120 [=====] - 18s 146ms/step - loss: 37.0742 - reconstruction_error: 20.3019 - regularization_error: 16.7723 - val_loss: 54.8083 - val_reconstruction_error: 37.5787 - val_regularization_error: 17.2296
Epoch 299/1000
120/120 [=====] - 18s 146ms/step - loss: 36.8112 - reconstruction_error: 20.2775 - regularization_error: 16.5338 - val_loss: 56.4237 - val_reconstruction_error: 38.1075 - val_regularization_error: 18.3162
Epoch 300/1000
120/120 [=====] - 18s 146ms/step - loss: 37.1698 - reconstruction_error: 20.4391 - regularization_error: 16.7307 - val_loss: 53.5057 - val_reconstruction_error: 38.2120 - val_regularization_error: 15.2937
Epoch 301/1000
120/120 [=====] - ETA: 0s - loss: 37.0273 - reconstruction_error: 20.3514 - regularization_error: 16.6760
[2023-12-01 16:31:10.170217]: Reconstructing images for epoch 301 ...
```



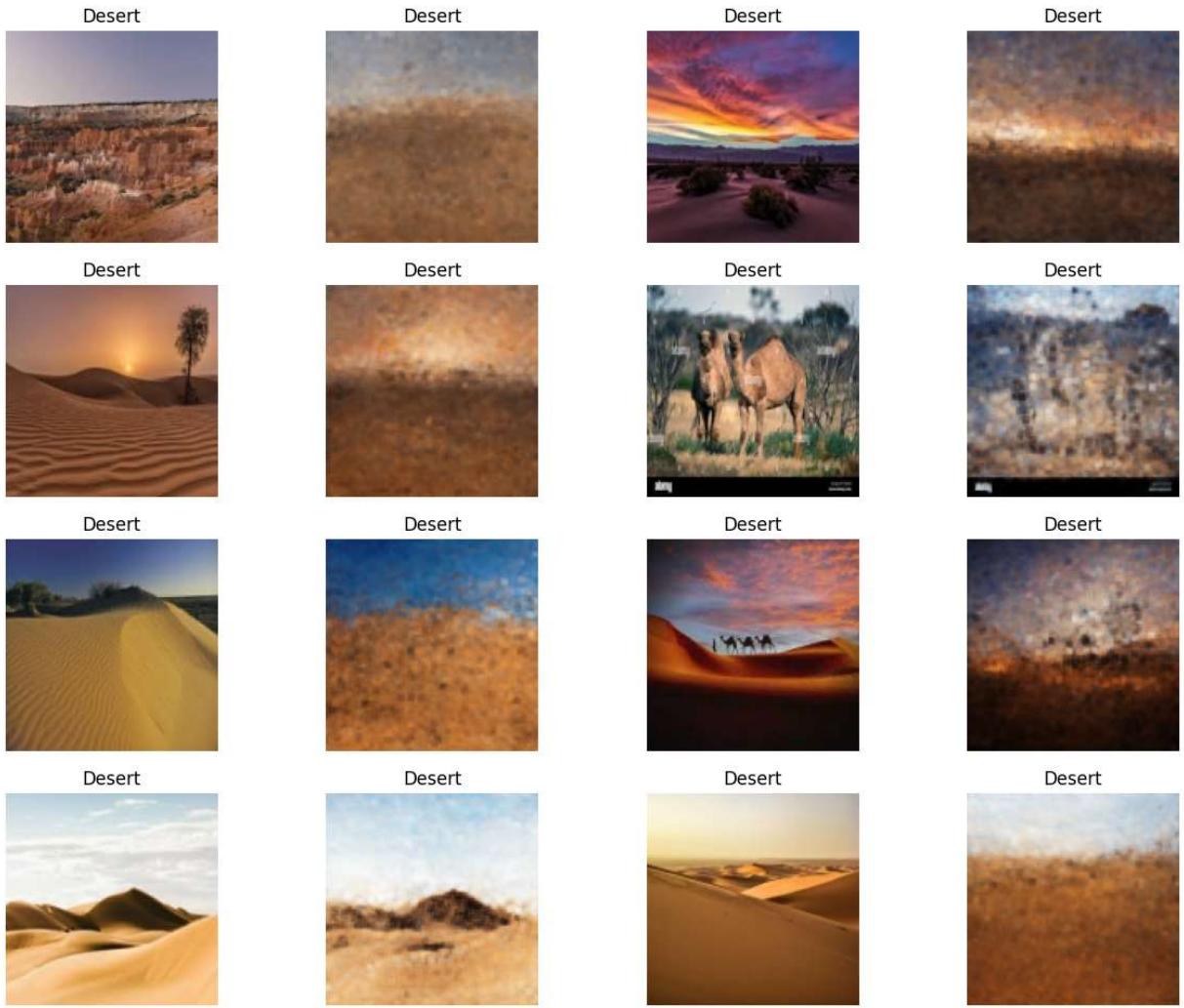
```
120/120 [=====] - 20s 165ms/step - loss: 37.0273 - reconstruction_error: 20.3514 - regularization_error: 16.6760 - val_loss: 53.5720 - val_reconstruction_error: 37.5237 - val_regularization_error: 16.0483
Epoch 302/1000
120/120 [=====] - 22s 180ms/step - loss: 36.7872 - reconstruction_error: 20.1715 - regularization_error: 16.6157 - val_loss: 53.8714 - val_reconstruction_error: 39.1221 - val_regularization_error: 14.7493
Epoch 303/1000
120/120 [=====] - 17s 139ms/step - loss: 36.9573 - reconstruction_error: 20.2047 - regularization_error: 16.7526 - val_loss: 53.5863 - val_reconstruction_error: 38.1102 - val_regularization_error: 15.4761
Epoch 304/1000
120/120 [=====] - 21s 175ms/step - loss: 36.7670 - reconstruction_error: 20.1571 - regularization_error: 16.6099 - val_loss: 53.9149 - val_reconstruction_error: 37.9081 - val_regularization_error: 16.0067
Epoch 305/1000
120/120 [=====] - 19s 162ms/step - loss: 36.7892 - reconstruction_error: 20.0781 - regularization_error: 16.7111 - val_loss: 53.9547 - val_reconstruction_error: 39.4884 - val_regularization_error: 14.4663
Epoch 306/1000
120/120 [=====] - 15s 123ms/step - loss: 36.9084 - reconstruction_error: 20.2079 - regularization_error: 16.7005 - val_loss: 52.9232 - val_reconstruction_error: 36.9866 - val_regularization_error: 15.9366
Epoch 307/1000
120/120 [=====] - 20s 161ms/step - loss: 36.8099 - reconstruction_error: 20.1316 - regularization_error: 16.6783 - val_loss: 53.9306 - val_reconstruction_error: 38.3575 - val_regularization_error: 15.5731
Epoch 308/1000
120/120 [=====] - 19s 159ms/step - loss: 36.8560 - reconstruction_error: 20.0902 - regularization_error: 16.7659 - val_loss: 52.9793 - val_reconstruction_error: 36.9488 - val_regularization_error: 16.0305
Epoch 309/1000
120/120 [=====] - 18s 150ms/step - loss: 36.9424 - reconstruction_error: 20.1234 - regularization_error: 16.8190 - val_loss: 53.9286 - val_reconstruction_error: 37.8578 - val_regularization_error: 16.0707
Epoch 310/1000
120/120 [=====] - 17s 139ms/step - loss: 36.7802 - reconstruction_error: 20.0956 - regularization_error: 16.6846 - val_loss: 53.9948 - val_reconstruction_error: 38.1731 - val_regularization_error: 15.8217
Epoch 311/1000
120/120 [=====] - ETA: 0s - loss: 36.9145 - reconstruction_error: 20.1755 - regularization_error: 16.7390
[2023-12-01 16:34:26.223950]: Reconstructing images for epoch 311 ...
```



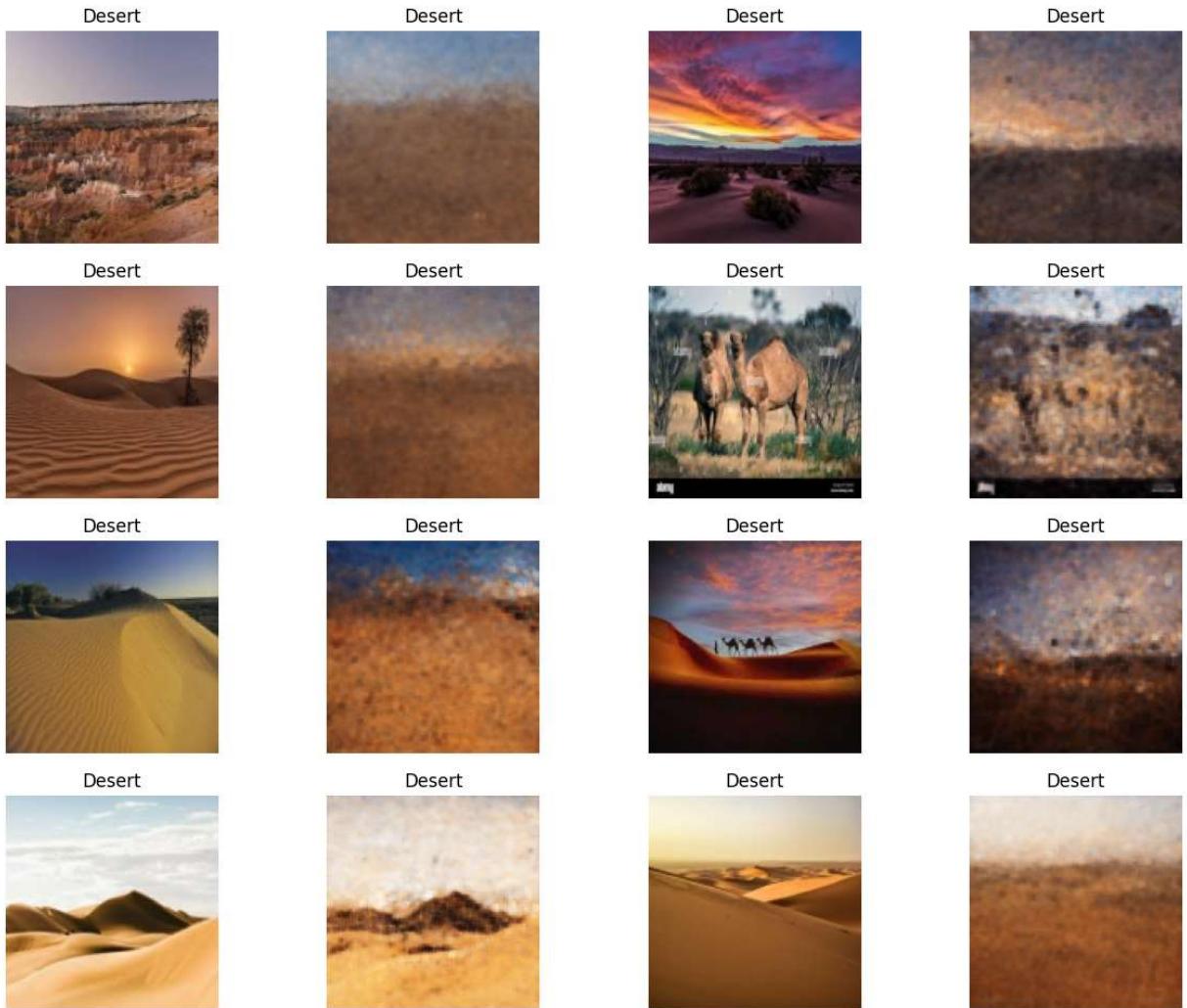
```
120/120 [=====] - 25s 209ms/step - loss: 36.9145 - reconstruction_error: 20.1755 - regularization_error: 16.7390 - val_loss: 55.3212 - val_reconstruction_error: 39.3924 - val_regularization_error: 15.9288
Epoch 312/1000
120/120 [=====] - 19s 159ms/step - loss: 36.6166 - reconstruction_error: 19.9988 - regularization_error: 16.6177 - val_loss: 53.8712 - val_reconstruction_error: 37.4849 - val_regularization_error: 16.3863
Epoch 313/1000
120/120 [=====] - 21s 177ms/step - loss: 36.8060 - reconstruction_error: 20.0402 - regularization_error: 16.7658 - val_loss: 53.8212 - val_reconstruction_error: 37.3652 - val_regularization_error: 16.4560
Epoch 314/1000
120/120 [=====] - 18s 152ms/step - loss: 36.5745 - reconstruction_error: 19.8437 - regularization_error: 16.7308 - val_loss: 53.4291 - val_reconstruction_error: 38.4150 - val_regularization_error: 15.0141
Epoch 315/1000
120/120 [=====] - 20s 165ms/step - loss: 36.7443 - reconstruction_error: 19.9909 - regularization_error: 16.7534 - val_loss: 55.0705 - val_reconstruction_error: 39.5193 - val_regularization_error: 15.5512
Epoch 316/1000
120/120 [=====] - 19s 158ms/step - loss: 36.5013 - reconstruction_error: 19.7841 - regularization_error: 16.7172 - val_loss: 53.4667 - val_reconstruction_error: 38.3234 - val_regularization_error: 15.1433
Epoch 317/1000
120/120 [=====] - 20s 167ms/step - loss: 36.4736 - reconstruction_error: 19.8339 - regularization_error: 16.6397 - val_loss: 54.3644 - val_reconstruction_error: 38.0591 - val_regularization_error: 16.3053
Epoch 318/1000
120/120 [=====] - 20s 162ms/step - loss: 36.6786 - reconstruction_error: 19.8851 - regularization_error: 16.7935 - val_loss: 54.2666 - val_reconstruction_error: 37.7851 - val_regularization_error: 16.4815
Epoch 319/1000
120/120 [=====] - 19s 154ms/step - loss: 36.9075 - reconstruction_error: 19.9403 - regularization_error: 16.9672 - val_loss: 54.0702 - val_reconstruction_error: 38.3448 - val_regularization_error: 15.7254
Epoch 320/1000
120/120 [=====] - 16s 137ms/step - loss: 36.5307 - reconstruction_error: 19.8269 - regularization_error: 16.7038 - val_loss: 54.1389 - val_reconstruction_error: 37.6777 - val_regularization_error: 16.4612
Epoch 321/1000
120/120 [=====] - ETA: 0s - loss: 36.4279 - reconstruction_error: 19.8024 - regularization_error: 16.6255
[2023-12-01 16:37:43.522188]: Reconstructing images for epoch 321 ...
```



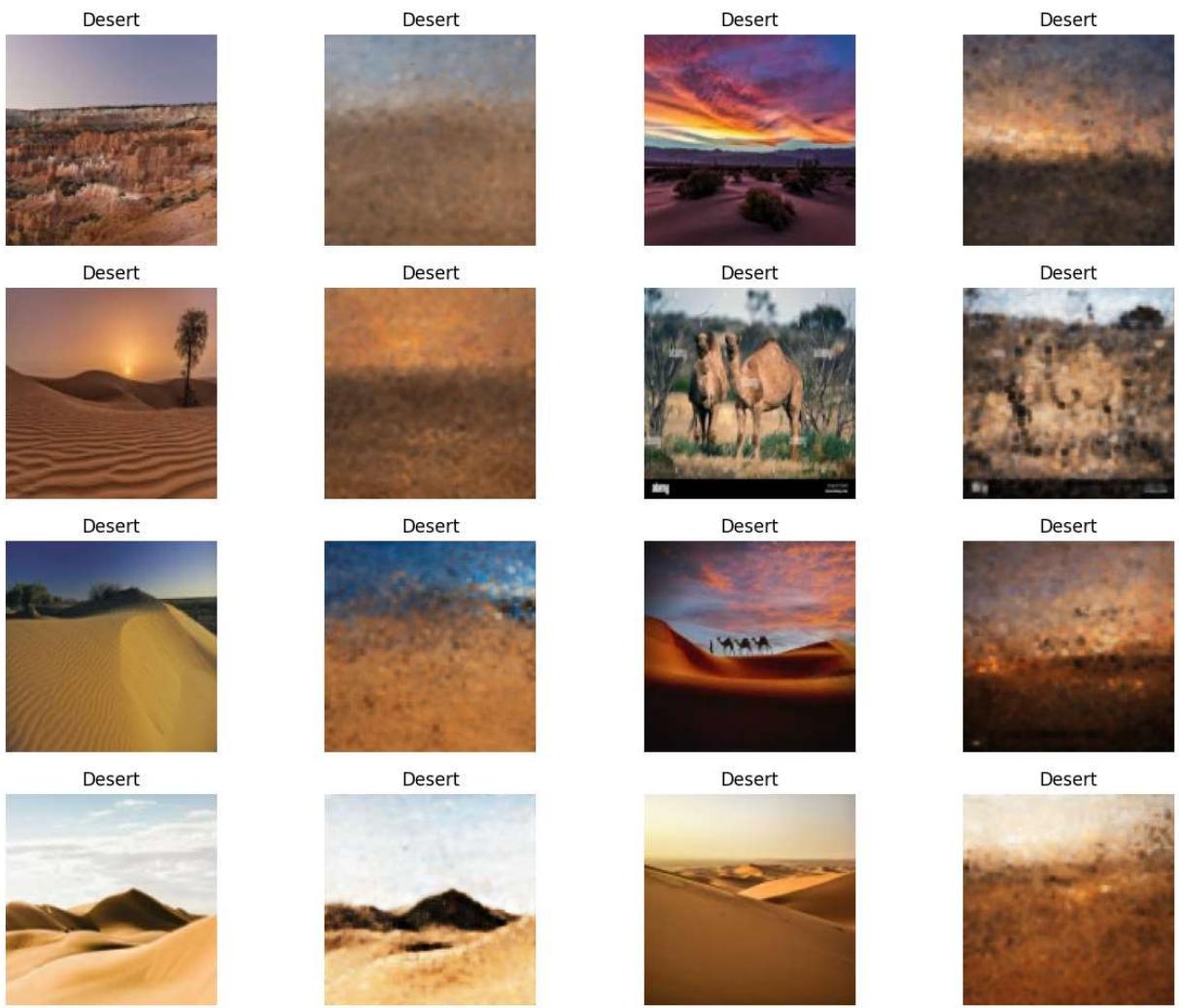
```
120/120 [=====] - 23s 189ms/step - loss: 36.4279 - reconstruction_error: 19.8024 - regularization_error: 16.6255 - val_loss: 53.5007 - val_reconstruction_error: 37.9292 - val_regularization_error: 15.5715
Epoch 322/1000
120/120 [=====] - 18s 153ms/step - loss: 36.6488 - reconstruction_error: 19.8077 - regularization_error: 16.8411 - val_loss: 53.6365 - val_reconstruction_error: 38.1030 - val_regularization_error: 15.5335
Epoch 323/1000
120/120 [=====] - 20s 168ms/step - loss: 36.3252 - reconstruction_error: 19.7043 - regularization_error: 16.6208 - val_loss: 53.4120 - val_reconstruction_error: 38.8358 - val_regularization_error: 14.5762
Epoch 324/1000
120/120 [=====] - 17s 144ms/step - loss: 36.6230 - reconstruction_error: 19.9409 - regularization_error: 16.6821 - val_loss: 55.2913 - val_reconstruction_error: 38.0753 - val_regularization_error: 17.2160
Epoch 325/1000
120/120 [=====] - 19s 158ms/step - loss: 36.7093 - reconstruction_error: 19.9072 - regularization_error: 16.8021 - val_loss: 53.7449 - val_reconstruction_error: 38.4033 - val_regularization_error: 15.3416
Epoch 326/1000
120/120 [=====] - 19s 162ms/step - loss: 36.5172 - reconstruction_error: 19.8421 - regularization_error: 16.6751 - val_loss: 54.4970 - val_reconstruction_error: 39.2633 - val_regularization_error: 15.2337
Epoch 327/1000
120/120 [=====] - 22s 179ms/step - loss: 36.5889 - reconstruction_error: 19.8976 - regularization_error: 16.6913 - val_loss: 53.1827 - val_reconstruction_error: 38.7267 - val_regularization_error: 14.4560
Epoch 328/1000
120/120 [=====] - 19s 158ms/step - loss: 36.3451 - reconstruction_error: 19.6737 - regularization_error: 16.6715 - val_loss: 54.7331 - val_reconstruction_error: 38.1083 - val_regularization_error: 16.6249
Epoch 329/1000
120/120 [=====] - 18s 151ms/step - loss: 36.5170 - reconstruction_error: 19.7333 - regularization_error: 16.7837 - val_loss: 54.8658 - val_reconstruction_error: 39.1207 - val_regularization_error: 15.7451
Epoch 330/1000
120/120 [=====] - 21s 171ms/step - loss: 36.4910 - reconstruction_error: 19.7309 - regularization_error: 16.7602 - val_loss: 53.9843 - val_reconstruction_error: 37.6192 - val_regularization_error: 16.3651
Epoch 331/1000
120/120 [=====] - ETA: 0s - loss: 36.4310 - reconstruction_error: 19.6662 - regularization_error: 16.7648
[2023-12-01 16:41:00.605037]: Reconstructing images for epoch 331 ...
```



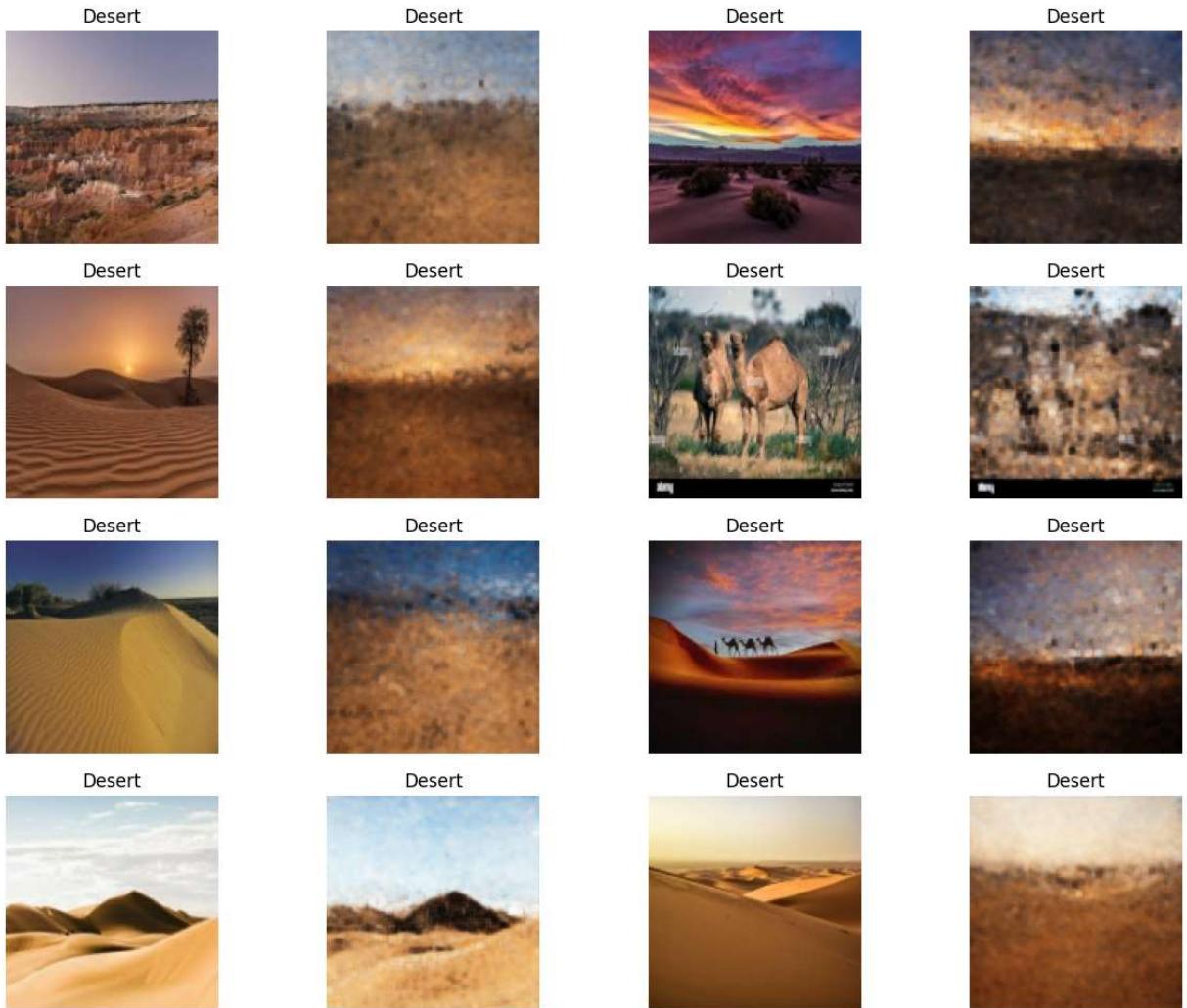
```
120/120 [=====] - 22s 178ms/step - loss: 36.4310 - reconstruction_error: 19.6662 - regularization_error: 16.7648 - val_loss: 54.2019 - val_reconstruction_error: 38.2570 - val_regularization_error: 15.9448
Epoch 332/1000
120/120 [=====] - 19s 160ms/step - loss: 36.1443 - reconstruction_error: 19.5452 - regularization_error: 16.5991 - val_loss: 53.9206 - val_reconstruction_error: 39.1291 - val_regularization_error: 14.7914
Epoch 333/1000
120/120 [=====] - 16s 133ms/step - loss: 36.3978 - reconstruction_error: 19.6302 - regularization_error: 16.7676 - val_loss: 54.7340 - val_reconstruction_error: 38.7426 - val_regularization_error: 15.9914
Epoch 334/1000
120/120 [=====] - 19s 156ms/step - loss: 36.4337 - reconstruction_error: 19.6631 - regularization_error: 16.7706 - val_loss: 53.5720 - val_reconstruction_error: 38.4568 - val_regularization_error: 15.1151
Epoch 335/1000
120/120 [=====] - 18s 147ms/step - loss: 36.4909 - reconstruction_error: 19.6764 - regularization_error: 16.8145 - val_loss: 53.1862 - val_reconstruction_error: 38.2322 - val_regularization_error: 14.9540
Epoch 336/1000
120/120 [=====] - 18s 150ms/step - loss: 36.4675 - reconstruction_error: 19.5859 - regularization_error: 16.8816 - val_loss: 54.1737 - val_reconstruction_error: 37.8712 - val_regularization_error: 16.3025
Epoch 337/1000
120/120 [=====] - 18s 150ms/step - loss: 36.2280 - reconstruction_error: 19.4459 - regularization_error: 16.7822 - val_loss: 53.7705 - val_reconstruction_error: 38.0191 - val_regularization_error: 15.7514
Epoch 338/1000
120/120 [=====] - 19s 158ms/step - loss: 36.3862 - reconstruction_error: 19.6579 - regularization_error: 16.7283 - val_loss: 53.8466 - val_reconstruction_error: 37.9306 - val_regularization_error: 15.9160
Epoch 339/1000
120/120 [=====] - 23s 193ms/step - loss: 36.4150 - reconstruction_error: 19.6679 - regularization_error: 16.7471 - val_loss: 54.3015 - val_reconstruction_error: 38.1649 - val_regularization_error: 16.1366
Epoch 340/1000
120/120 [=====] - 22s 179ms/step - loss: 36.0759 - reconstruction_error: 19.3526 - regularization_error: 16.7233 - val_loss: 53.5847 - val_reconstruction_error: 38.6090 - val_regularization_error: 14.9757
Epoch 341/1000
120/120 [=====] - ETA: 0s - loss: 36.2594 - reconstruction_error: 19.5791 - regularization_error: 16.6803
[2023-12-01 16:44:16.638906]: Reconstructing images for epoch 341 ...
```



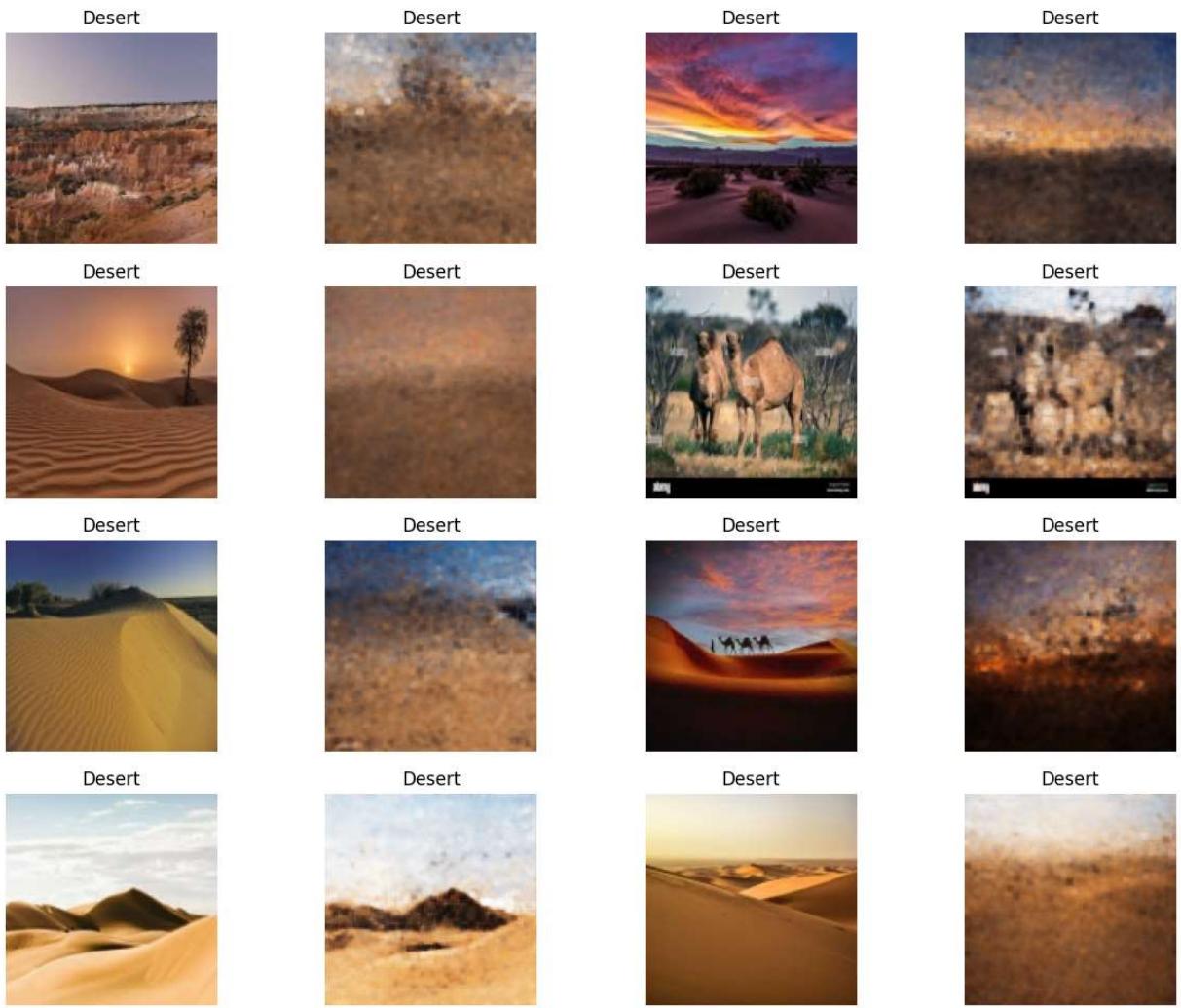
```
120/120 [=====] - 22s 179ms/step - loss: 36.2594 - reconstruction_error: 19.5791 - regularization_error: 16.6803 - val_loss: 54.8027 - val_reconstruction_error: 38.7118 - val_regularization_error: 16.0909
Epoch 342/1000
120/120 [=====] - 19s 158ms/step - loss: 36.2613 - reconstruction_error: 19.4531 - regularization_error: 16.8082 - val_loss: 54.4343 - val_reconstruction_error: 38.4631 - val_regularization_error: 15.9711
Epoch 343/1000
120/120 [=====] - 22s 183ms/step - loss: 36.3959 - reconstruction_error: 19.6251 - regularization_error: 16.7709 - val_loss: 54.7892 - val_reconstruction_error: 38.0487 - val_regularization_error: 16.7406
Epoch 344/1000
120/120 [=====] - 17s 143ms/step - loss: 36.3563 - reconstruction_error: 19.6764 - regularization_error: 16.6799 - val_loss: 53.8140 - val_reconstruction_error: 38.0033 - val_regularization_error: 15.8107
Epoch 345/1000
120/120 [=====] - 22s 184ms/step - loss: 36.3004 - reconstruction_error: 19.5487 - regularization_error: 16.7517 - val_loss: 54.1643 - val_reconstruction_error: 39.5500 - val_regularization_error: 14.6143
Epoch 346/1000
120/120 [=====] - 18s 144ms/step - loss: 36.2385 - reconstruction_error: 19.4257 - regularization_error: 16.8127 - val_loss: 54.3217 - val_reconstruction_error: 39.0407 - val_regularization_error: 15.2810
Epoch 347/1000
120/120 [=====] - 20s 165ms/step - loss: 35.9919 - reconstruction_error: 19.2438 - regularization_error: 16.7481 - val_loss: 53.8716 - val_reconstruction_error: 38.1633 - val_regularization_error: 15.7082
Epoch 348/1000
120/120 [=====] - 18s 145ms/step - loss: 36.1035 - reconstruction_error: 19.5034 - regularization_error: 16.6001 - val_loss: 54.0029 - val_reconstruction_error: 38.5280 - val_regularization_error: 15.4748
Epoch 349/1000
120/120 [=====] - 23s 188ms/step - loss: 36.0573 - reconstruction_error: 19.2334 - regularization_error: 16.8239 - val_loss: 52.9886 - val_reconstruction_error: 37.9171 - val_regularization_error: 15.0715
Epoch 350/1000
120/120 [=====] - 19s 152ms/step - loss: 36.0782 - reconstruction_error: 19.3337 - regularization_error: 16.7445 - val_loss: 54.1481 - val_reconstruction_error: 37.8980 - val_regularization_error: 16.2501
Epoch 351/1000
120/120 [=====] - ETA: 0s - loss: 36.3833 - reconstruction_error: 19.5639 - regularization_error: 16.8193
[2023-12-01 16:47:40.212723]: Reconstructing images for epoch 351 ...
```



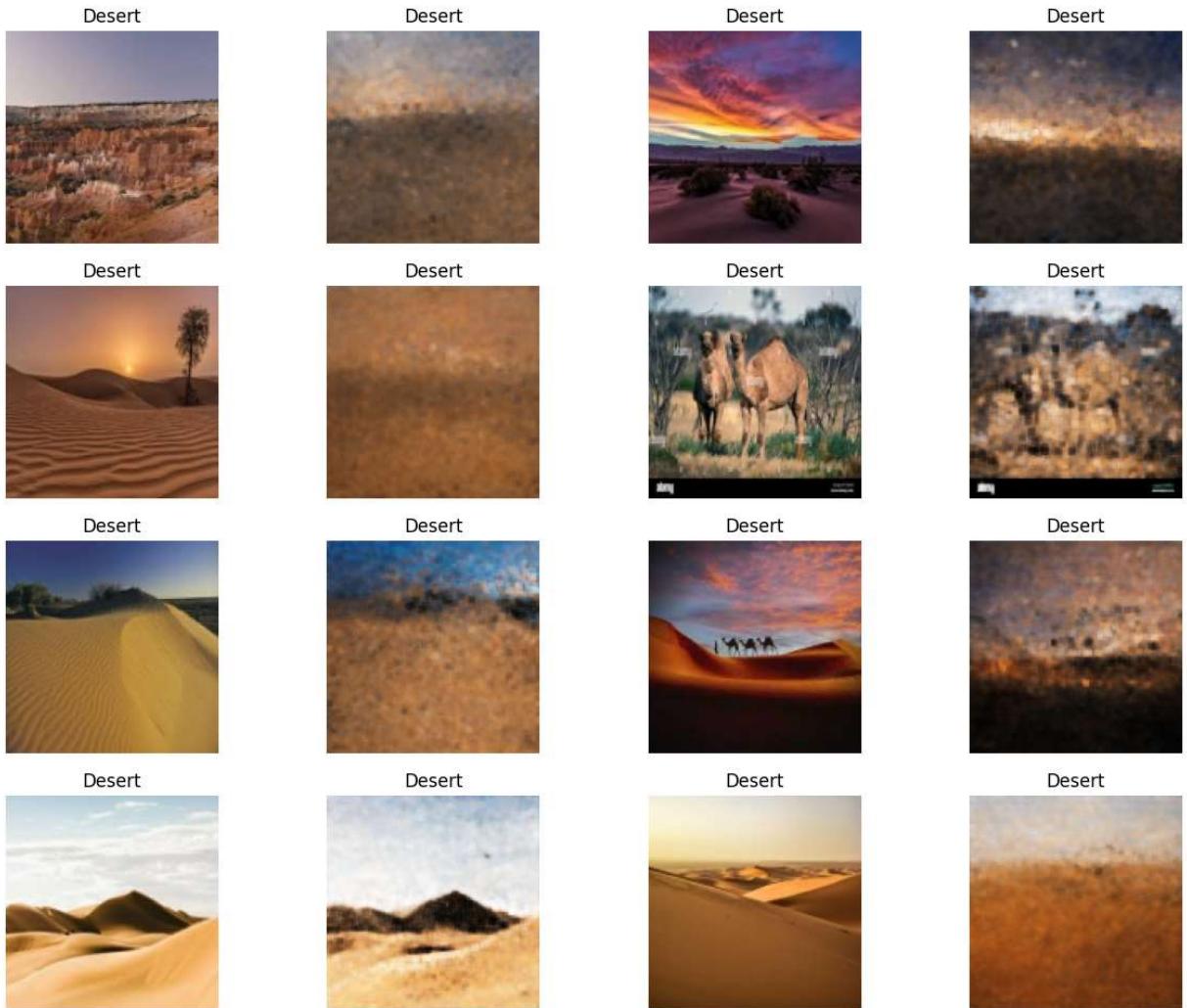
```
120/120 [=====] - 23s 191ms/step - loss: 36.3833 - reconstruction_error: 19.5639 - regularization_error: 16.8193 - val_loss: 55.0387 - val_reconstruction_error: 38.3831 - val_regularization_error: 16.6556
Epoch 352/1000
120/120 [=====] - 18s 148ms/step - loss: 36.2272 - reconstruction_error: 19.2763 - regularization_error: 16.9509 - val_loss: 54.2308 - val_reconstruction_error: 37.6832 - val_regularization_error: 16.5475
Epoch 353/1000
120/120 [=====] - 21s 174ms/step - loss: 35.8891 - reconstruction_error: 19.1633 - regularization_error: 16.7258 - val_loss: 54.7693 - val_reconstruction_error: 39.4735 - val_regularization_error: 15.2958
Epoch 354/1000
120/120 [=====] - 24s 204ms/step - loss: 36.0719 - reconstruction_error: 19.2923 - regularization_error: 16.7796 - val_loss: 54.3440 - val_reconstruction_error: 37.9751 - val_regularization_error: 16.3689
Epoch 355/1000
120/120 [=====] - 19s 156ms/step - loss: 36.2019 - reconstruction_error: 19.2877 - regularization_error: 16.9142 - val_loss: 54.6436 - val_reconstruction_error: 38.2376 - val_regularization_error: 16.4060
Epoch 356/1000
120/120 [=====] - 23s 190ms/step - loss: 35.9051 - reconstruction_error: 19.1245 - regularization_error: 16.7806 - val_loss: 53.8989 - val_reconstruction_error: 38.9222 - val_regularization_error: 14.9767
Epoch 357/1000
120/120 [=====] - 19s 154ms/step - loss: 35.8564 - reconstruction_error: 19.2666 - regularization_error: 16.5898 - val_loss: 54.3631 - val_reconstruction_error: 38.7378 - val_regularization_error: 15.6254
Epoch 358/1000
120/120 [=====] - 18s 150ms/step - loss: 36.0157 - reconstruction_error: 19.2988 - regularization_error: 16.7169 - val_loss: 53.5504 - val_reconstruction_error: 38.6763 - val_regularization_error: 14.8741
Epoch 359/1000
120/120 [=====] - 17s 141ms/step - loss: 35.9455 - reconstruction_error: 19.2214 - regularization_error: 16.7241 - val_loss: 54.5807 - val_reconstruction_error: 38.3195 - val_regularization_error: 16.2613
Epoch 360/1000
120/120 [=====] - 19s 159ms/step - loss: 36.0082 - reconstruction_error: 19.3259 - regularization_error: 16.6823 - val_loss: 54.4514 - val_reconstruction_error: 38.6590 - val_regularization_error: 15.7924
Epoch 361/1000
120/120 [=====] - ETA: 0s - loss: 35.9418 - reconstruction_error: 19.2417 - regularization_error: 16.7001
[2023-12-01 16:51:05.472359]: Reconstructing images for epoch 361 ...
```



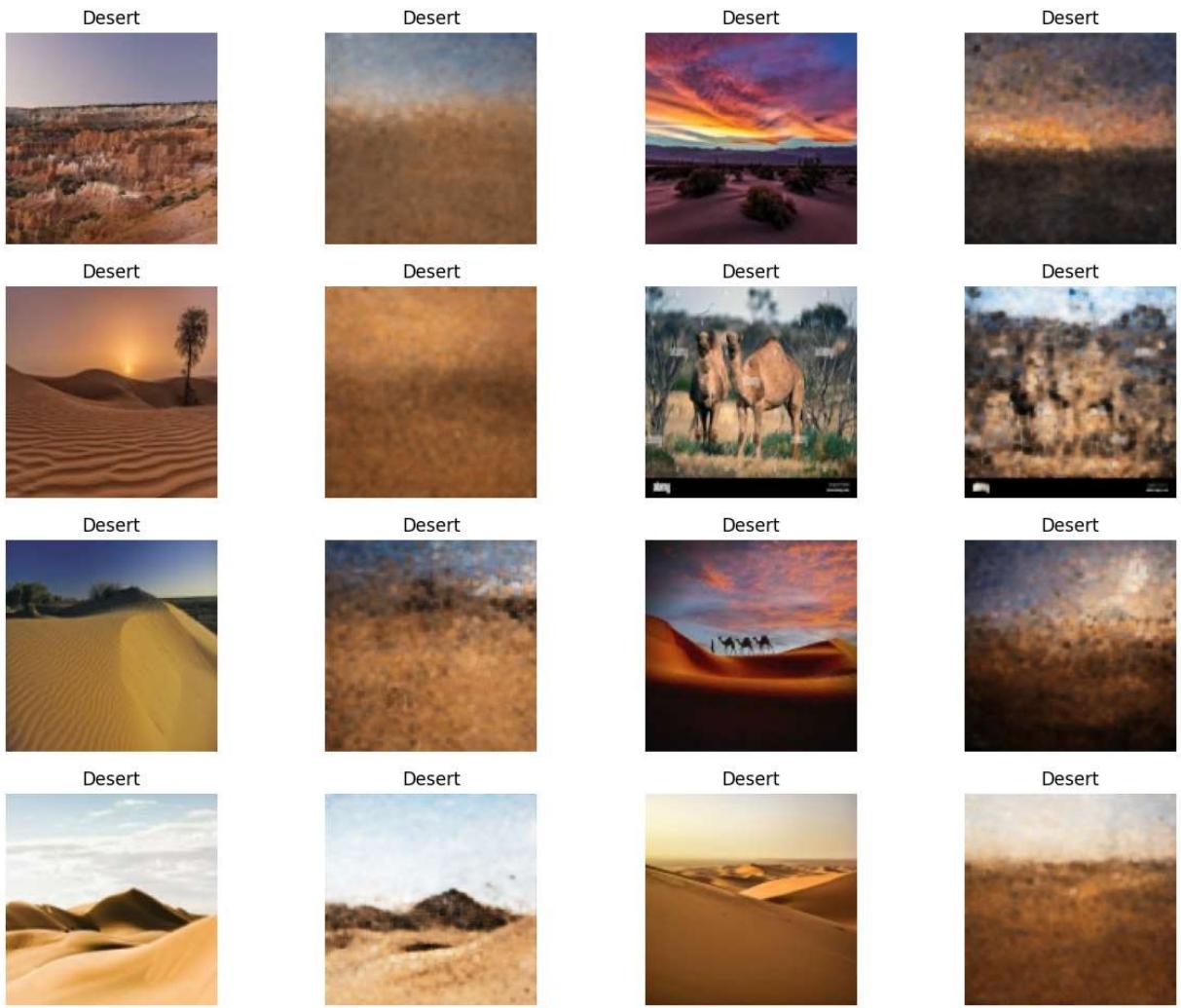
```
120/120 [=====] - 24s 198ms/step - loss: 35.9418 - reconstruction_error: 19.2417 - regularization_error: 16.7001 - val_loss: 55.5342 - val_reconstruction_error: 38.3083 - val_regularization_error: 17.2258
Epoch 362/1000
120/120 [=====] - 19s 156ms/step - loss: 36.0207 - reconstruction_error: 19.0700 - regularization_error: 16.9507 - val_loss: 54.3066 - val_reconstruction_error: 38.1450 - val_regularization_error: 16.1616
Epoch 363/1000
120/120 [=====] - 20s 166ms/step - loss: 35.8429 - reconstruction_error: 19.0097 - regularization_error: 16.8332 - val_loss: 53.9982 - val_reconstruction_error: 38.0277 - val_regularization_error: 15.9704
Epoch 364/1000
120/120 [=====] - 19s 159ms/step - loss: 35.8675 - reconstruction_error: 19.0441 - regularization_error: 16.8234 - val_loss: 54.5457 - val_reconstruction_error: 38.3267 - val_regularization_error: 16.2190
Epoch 365/1000
120/120 [=====] - 20s 163ms/step - loss: 35.9263 - reconstruction_error: 19.0501 - regularization_error: 16.8762 - val_loss: 53.4642 - val_reconstruction_error: 38.3789 - val_regularization_error: 15.0853
Epoch 366/1000
120/120 [=====] - 18s 151ms/step - loss: 35.8297 - reconstruction_error: 19.1247 - regularization_error: 16.7050 - val_loss: 53.8696 - val_reconstruction_error: 38.2883 - val_regularization_error: 15.5813
Epoch 367/1000
120/120 [=====] - 18s 149ms/step - loss: 35.7009 - reconstruction_error: 18.9933 - regularization_error: 16.7076 - val_loss: 53.9065 - val_reconstruction_error: 38.3000 - val_regularization_error: 15.6065
Epoch 368/1000
120/120 [=====] - 16s 133ms/step - loss: 35.7109 - reconstruction_error: 18.9803 - regularization_error: 16.7306 - val_loss: 54.5681 - val_reconstruction_error: 37.9668 - val_regularization_error: 16.6013
Epoch 369/1000
120/120 [=====] - 18s 151ms/step - loss: 35.9909 - reconstruction_error: 19.1196 - regularization_error: 16.8712 - val_loss: 54.7267 - val_reconstruction_error: 39.3174 - val_regularization_error: 15.4093
Epoch 370/1000
120/120 [=====] - 19s 153ms/step - loss: 36.1948 - reconstruction_error: 19.4130 - regularization_error: 16.7818 - val_loss: 54.6378 - val_reconstruction_error: 38.3969 - val_regularization_error: 16.2408
Epoch 371/1000
120/120 [=====] - ETA: 0s - loss: 35.7183 - reconstruction_error: 19.0354 - regularization_error: 16.6828
[2023-12-01 16:54:15.414181]: Reconstructing images for epoch 371 ...
```



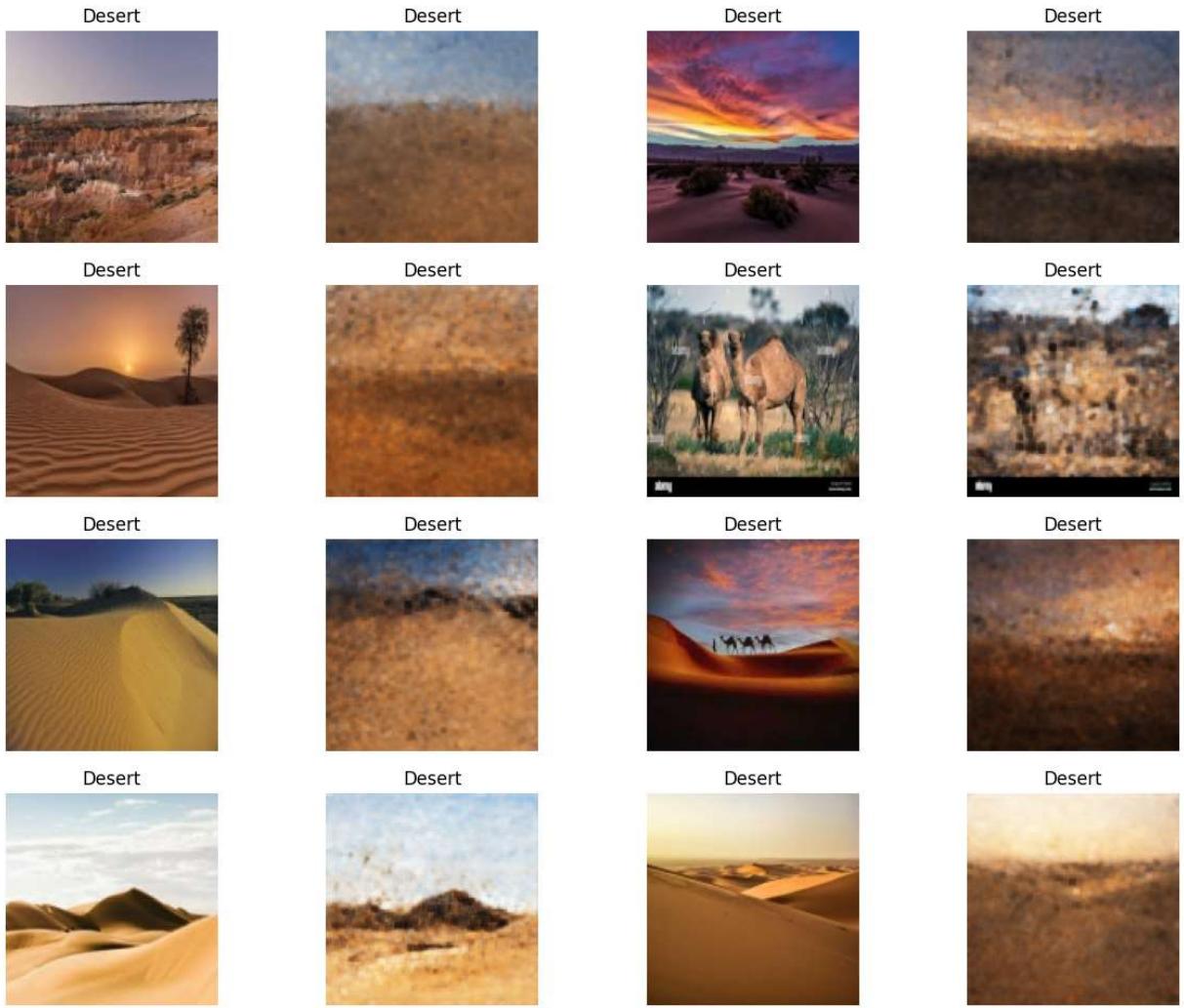
```
120/120 [=====] - 22s 181ms/step - loss: 35.7183 - reconstruction_error: 19.0354 - regularization_error: 16.6828 - val_loss: 53.9429 - val_reconstruction_error: 38.7497 - val_regularization_error: 15.1932
Epoch 372/1000
120/120 [=====] - 22s 184ms/step - loss: 35.7738 - reconstruction_error: 18.9796 - regularization_error: 16.7943 - val_loss: 53.9988 - val_reconstruction_error: 38.1058 - val_regularization_error: 15.8930
Epoch 373/1000
120/120 [=====] - 17s 143ms/step - loss: 35.6719 - reconstruction_error: 18.8834 - regularization_error: 16.7885 - val_loss: 53.9126 - val_reconstruction_error: 39.3113 - val_regularization_error: 14.6013
Epoch 374/1000
120/120 [=====] - 20s 163ms/step - loss: 35.6667 - reconstruction_error: 18.9407 - regularization_error: 16.7260 - val_loss: 53.7460 - val_reconstruction_error: 38.4273 - val_regularization_error: 15.3187
Epoch 375/1000
120/120 [=====] - 18s 146ms/step - loss: 36.0062 - reconstruction_error: 19.0725 - regularization_error: 16.9337 - val_loss: 55.2332 - val_reconstruction_error: 38.6705 - val_regularization_error: 16.5627
Epoch 376/1000
120/120 [=====] - 19s 160ms/step - loss: 35.7160 - reconstruction_error: 18.9450 - regularization_error: 16.7709 - val_loss: 54.1670 - val_reconstruction_error: 38.0494 - val_regularization_error: 16.1175
Epoch 377/1000
120/120 [=====] - 21s 178ms/step - loss: 35.6495 - reconstruction_error: 18.8239 - regularization_error: 16.8256 - val_loss: 53.9605 - val_reconstruction_error: 38.2819 - val_regularization_error: 15.6786
Epoch 378/1000
120/120 [=====] - 22s 182ms/step - loss: 35.6064 - reconstruction_error: 18.8734 - regularization_error: 16.7331 - val_loss: 53.6412 - val_reconstruction_error: 37.6567 - val_regularization_error: 15.9845
Epoch 379/1000
120/120 [=====] - 26s 214ms/step - loss: 35.6480 - reconstruction_error: 18.8162 - regularization_error: 16.8318 - val_loss: 54.6999 - val_reconstruction_error: 38.6937 - val_regularization_error: 16.0062
Epoch 380/1000
120/120 [=====] - 18s 147ms/step - loss: 35.5570 - reconstruction_error: 18.8332 - regularization_error: 16.7237 - val_loss: 56.2378 - val_reconstruction_error: 38.2345 - val_regularization_error: 18.0033
Epoch 381/1000
120/120 [=====] - ETA: 0s - loss: 35.9248 - reconstruction_error: 19.0806 - regularization_error: 16.8443
[2023-12-01 16:57:44.055795]: Reconstructing images for epoch 381 ...
```



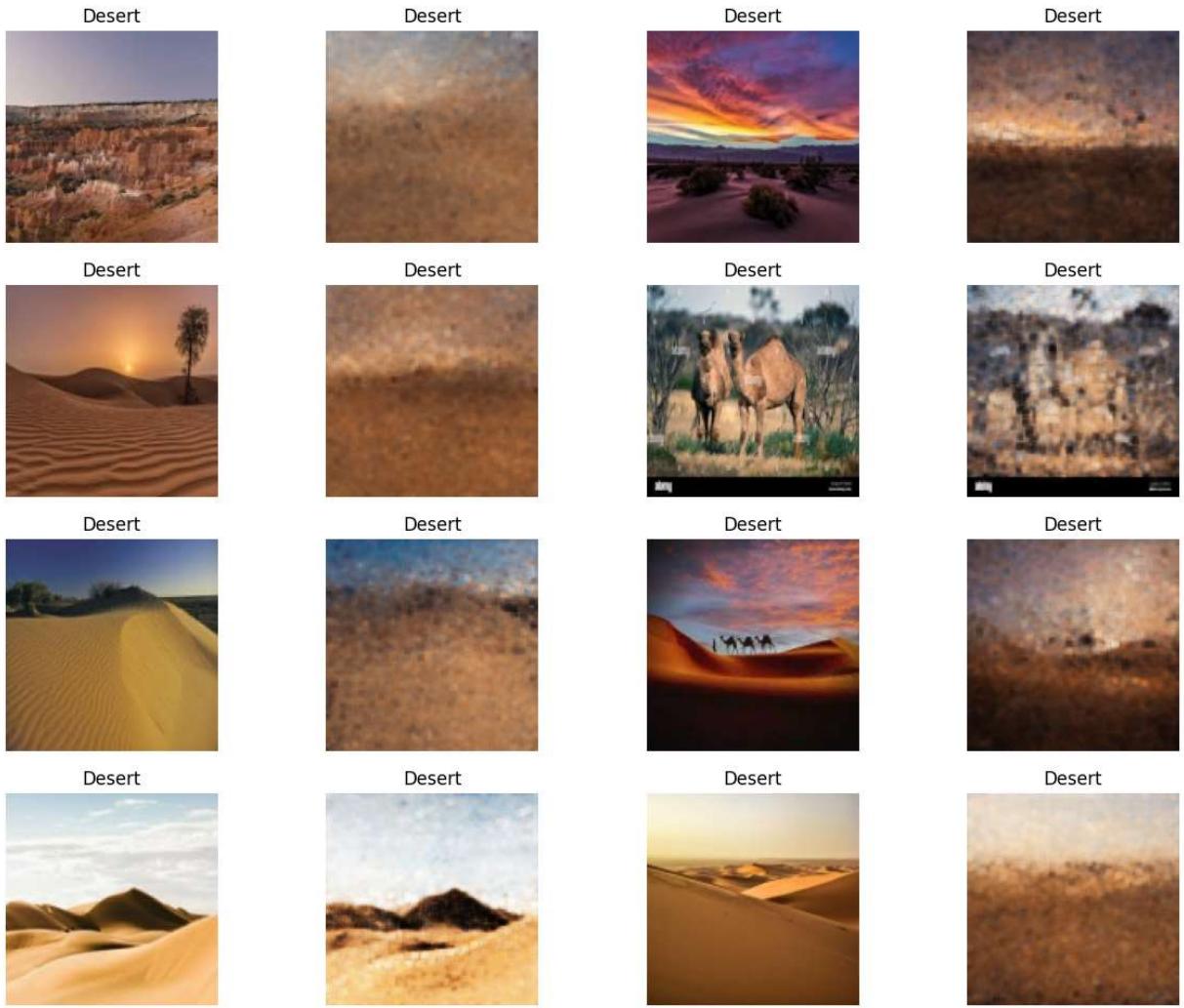
```
120/120 [=====] - 23s 190ms/step - loss: 35.9248 - reconstruction_error: 19.0806 - regularization_error: 16.8443 - val_loss: 54.1488 - val_reconstruction_error: 38.2061 - val_regularization_error: 15.9427
Epoch 382/1000
120/120 [=====] - 19s 161ms/step - loss: 35.8244 - reconstruction_error: 18.9514 - regularization_error: 16.8729 - val_loss: 53.6827 - val_reconstruction_error: 38.1814 - val_regularization_error: 15.5013
Epoch 383/1000
120/120 [=====] - 21s 173ms/step - loss: 35.6279 - reconstruction_error: 18.8271 - regularization_error: 16.8009 - val_loss: 53.3543 - val_reconstruction_error: 38.2580 - val_regularization_error: 15.0963
Epoch 384/1000
120/120 [=====] - 23s 190ms/step - loss: 35.5016 - reconstruction_error: 18.7374 - regularization_error: 16.7642 - val_loss: 53.2632 - val_reconstruction_error: 38.2913 - val_regularization_error: 14.9718
Epoch 385/1000
120/120 [=====] - 18s 146ms/step - loss: 35.5254 - reconstruction_error: 18.8315 - regularization_error: 16.6938 - val_loss: 55.3498 - val_reconstruction_error: 37.9869 - val_regularization_error: 17.3629
Epoch 386/1000
120/120 [=====] - 17s 140ms/step - loss: 35.5395 - reconstruction_error: 18.7204 - regularization_error: 16.8191 - val_loss: 54.3018 - val_reconstruction_error: 38.4714 - val_regularization_error: 15.8305
Epoch 387/1000
120/120 [=====] - 20s 162ms/step - loss: 35.3963 - reconstruction_error: 18.7152 - regularization_error: 16.6811 - val_loss: 54.0654 - val_reconstruction_error: 38.8766 - val_regularization_error: 15.1888
Epoch 388/1000
120/120 [=====] - 21s 173ms/step - loss: 35.5665 - reconstruction_error: 18.7326 - regularization_error: 16.8338 - val_loss: 53.7314 - val_reconstruction_error: 38.5409 - val_regularization_error: 15.1904
Epoch 389/1000
120/120 [=====] - 24s 202ms/step - loss: 35.4496 - reconstruction_error: 18.6896 - regularization_error: 16.7600 - val_loss: 55.2820 - val_reconstruction_error: 38.3765 - val_regularization_error: 16.9055
Epoch 390/1000
120/120 [=====] - 18s 148ms/step - loss: 35.5648 - reconstruction_error: 18.8443 - regularization_error: 16.7205 - val_loss: 54.2655 - val_reconstruction_error: 38.2890 - val_regularization_error: 15.9765
Epoch 391/1000
120/120 [=====] - ETA: 0s - loss: 35.6423 - reconstruction_error: 18.7379 - regularization_error: 16.9043
[2023-12-01 17:01:07.549418]: Reconstructing images for epoch 391 ...
```



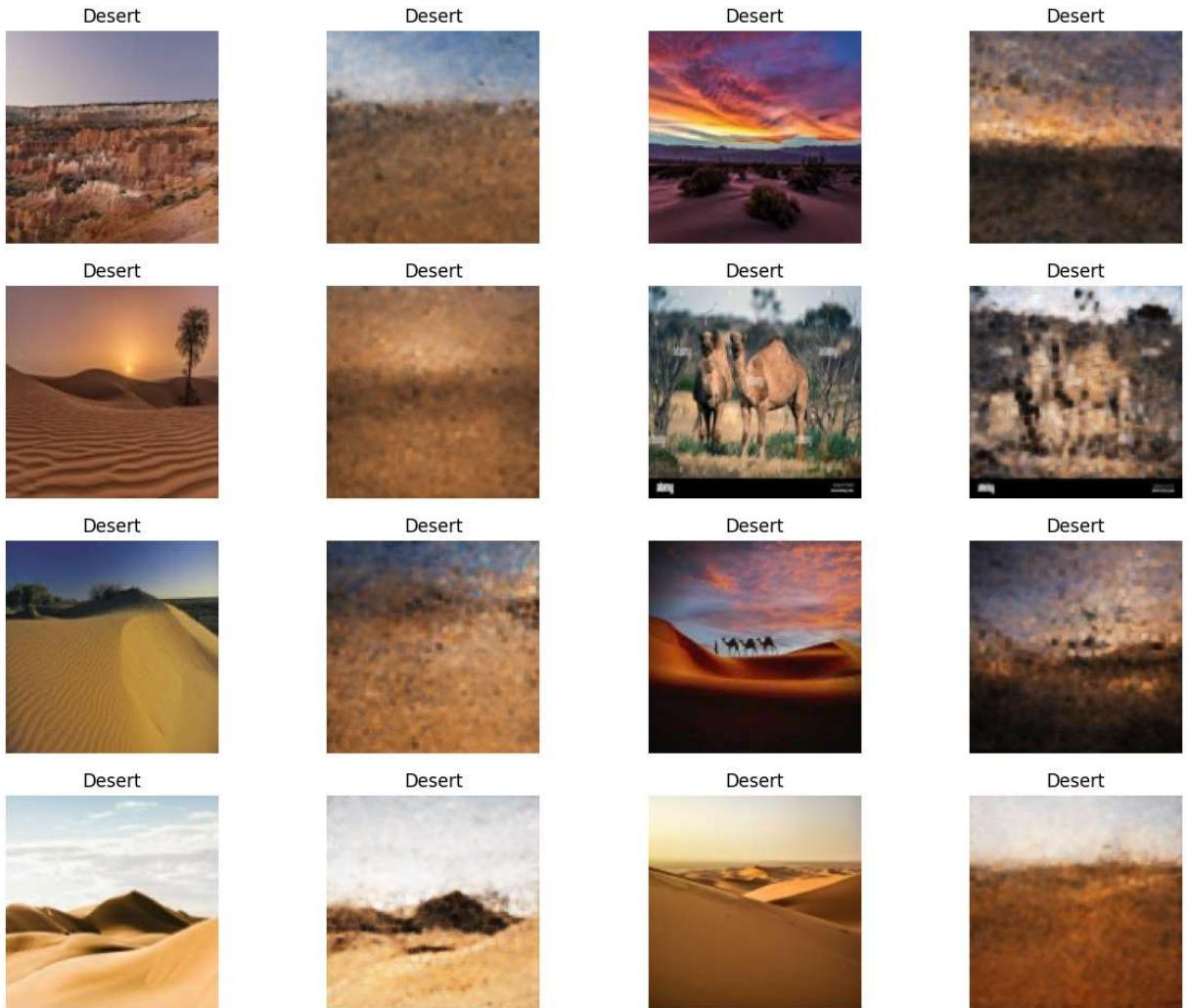
```
120/120 [=====] - 20s 168ms/step - loss: 35.6423 - reconstruction_error: 18.7379 - regularization_error: 16.9043 - val_loss: 54.0110 - val_reconstruction_error: 38.6435 - val_regularization_error: 15.3676
Epoch 392/1000
120/120 [=====] - 18s 153ms/step - loss: 35.3499 - reconstruction_error: 18.6622 - regularization_error: 16.6877 - val_loss: 53.9036 - val_reconstruction_error: 38.5259 - val_regularization_error: 15.3778
Epoch 393/1000
120/120 [=====] - 17s 143ms/step - loss: 35.7484 - reconstruction_error: 19.0013 - regularization_error: 16.7471 - val_loss: 55.3209 - val_reconstruction_error: 38.4222 - val_regularization_error: 16.8987
Epoch 394/1000
120/120 [=====] - 19s 155ms/step - loss: 35.4096 - reconstruction_error: 18.5855 - regularization_error: 16.8241 - val_loss: 54.3006 - val_reconstruction_error: 37.7677 - val_regularization_error: 16.5328
Epoch 395/1000
120/120 [=====] - 19s 162ms/step - loss: 35.5766 - reconstruction_error: 18.7610 - regularization_error: 16.8155 - val_loss: 54.6522 - val_reconstruction_error: 37.7314 - val_regularization_error: 16.9208
Epoch 396/1000
120/120 [=====] - 18s 150ms/step - loss: 35.3330 - reconstruction_error: 18.6259 - regularization_error: 16.7071 - val_loss: 53.9057 - val_reconstruction_error: 38.0927 - val_regularization_error: 15.8130
Epoch 397/1000
120/120 [=====] - 17s 143ms/step - loss: 35.2302 - reconstruction_error: 18.5007 - regularization_error: 16.7295 - val_loss: 54.0183 - val_reconstruction_error: 38.1264 - val_regularization_error: 15.8919
Epoch 398/1000
120/120 [=====] - 21s 176ms/step - loss: 35.1533 - reconstruction_error: 18.5286 - regularization_error: 16.6247 - val_loss: 53.8136 - val_reconstruction_error: 38.5948 - val_regularization_error: 15.2188
Epoch 399/1000
120/120 [=====] - 17s 135ms/step - loss: 35.3192 - reconstruction_error: 18.5469 - regularization_error: 16.7723 - val_loss: 54.0306 - val_reconstruction_error: 37.7122 - val_regularization_error: 16.3184
Epoch 400/1000
120/120 [=====] - 20s 168ms/step - loss: 35.4691 - reconstruction_error: 18.6775 - regularization_error: 16.7916 - val_loss: 54.4301 - val_reconstruction_error: 38.5423 - val_regularization_error: 15.8878
Epoch 401/1000
120/120 [=====] - ETA: 0s - loss: 35.4309 - reconstruction_error: 18.5721 - regularization_error: 16.8588
[2023-12-01 17:04:13.749220]: Reconstructing images for epoch 401 ...
```



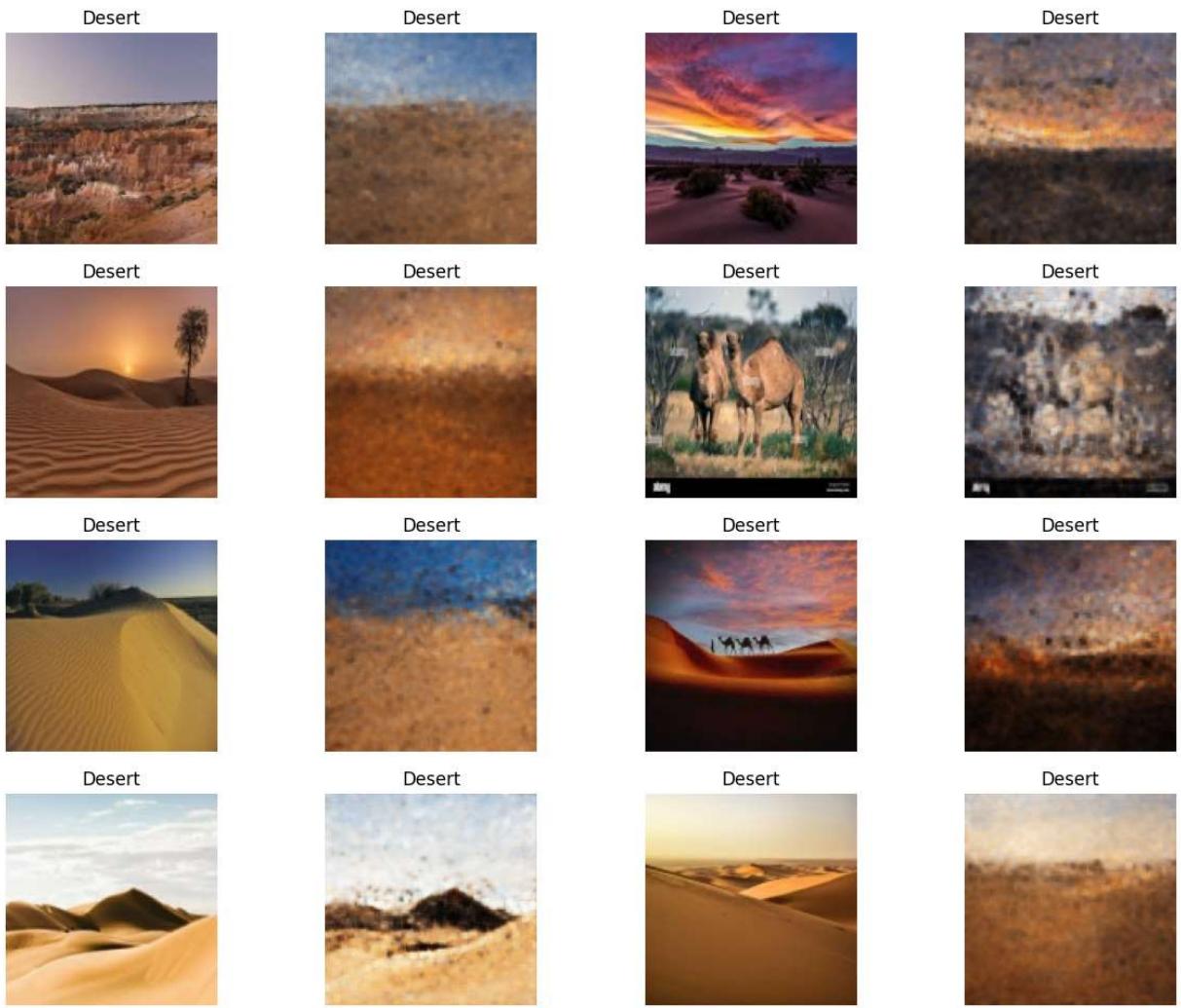
```
120/120 [=====] - 18s 147ms/step - loss: 35.4309 - reconstruction_error: 18.5721 - regularization_error: 16.8588 - val_loss: 53.6989 - val_reconstruction_error: 37.6974 - val_regularization_error: 16.0015
Epoch 402/1000
120/120 [=====] - 19s 154ms/step - loss: 35.2469 - reconstruction_error: 18.4929 - regularization_error: 16.7540 - val_loss: 53.9560 - val_reconstruction_error: 37.6723 - val_regularization_error: 16.2836
Epoch 403/1000
120/120 [=====] - 17s 138ms/step - loss: 35.2946 - reconstruction_error: 18.5627 - regularization_error: 16.7319 - val_loss: 54.4279 - val_reconstruction_error: 38.6187 - val_regularization_error: 15.8092
Epoch 404/1000
120/120 [=====] - 20s 163ms/step - loss: 35.2984 - reconstruction_error: 18.6825 - regularization_error: 16.6159 - val_loss: 54.3607 - val_reconstruction_error: 39.2470 - val_regularization_error: 15.1137
Epoch 405/1000
120/120 [=====] - 21s 176ms/step - loss: 35.6429 - reconstruction_error: 18.7610 - regularization_error: 16.8819 - val_loss: 54.2096 - val_reconstruction_error: 38.7802 - val_regularization_error: 15.4294
Epoch 406/1000
120/120 [=====] - 19s 155ms/step - loss: 35.3299 - reconstruction_error: 18.4941 - regularization_error: 16.8357 - val_loss: 54.0655 - val_reconstruction_error: 38.4553 - val_regularization_error: 15.6102
Epoch 407/1000
120/120 [=====] - 21s 177ms/step - loss: 35.1810 - reconstruction_error: 18.3961 - regularization_error: 16.7848 - val_loss: 55.1437 - val_reconstruction_error: 38.8770 - val_regularization_error: 16.2667
Epoch 408/1000
120/120 [=====] - 20s 162ms/step - loss: 35.6045 - reconstruction_error: 18.6661 - regularization_error: 16.9384 - val_loss: 53.8783 - val_reconstruction_error: 38.2417 - val_regularization_error: 15.6366
Epoch 409/1000
120/120 [=====] - 18s 148ms/step - loss: 35.3404 - reconstruction_error: 18.4557 - regularization_error: 16.8847 - val_loss: 54.9255 - val_reconstruction_error: 39.6227 - val_regularization_error: 15.3028
Epoch 410/1000
120/120 [=====] - 20s 165ms/step - loss: 35.2233 - reconstruction_error: 18.5541 - regularization_error: 16.6691 - val_loss: 54.0954 - val_reconstruction_error: 39.2654 - val_regularization_error: 14.8300
Epoch 411/1000
120/120 [=====] - ETA: 0s - loss: 35.4871 - reconstruction_error: 18.5107 - regularization_error: 16.9764
[2023-12-01 17:07:33.108048]: Reconstructing images for epoch 411 ...
```



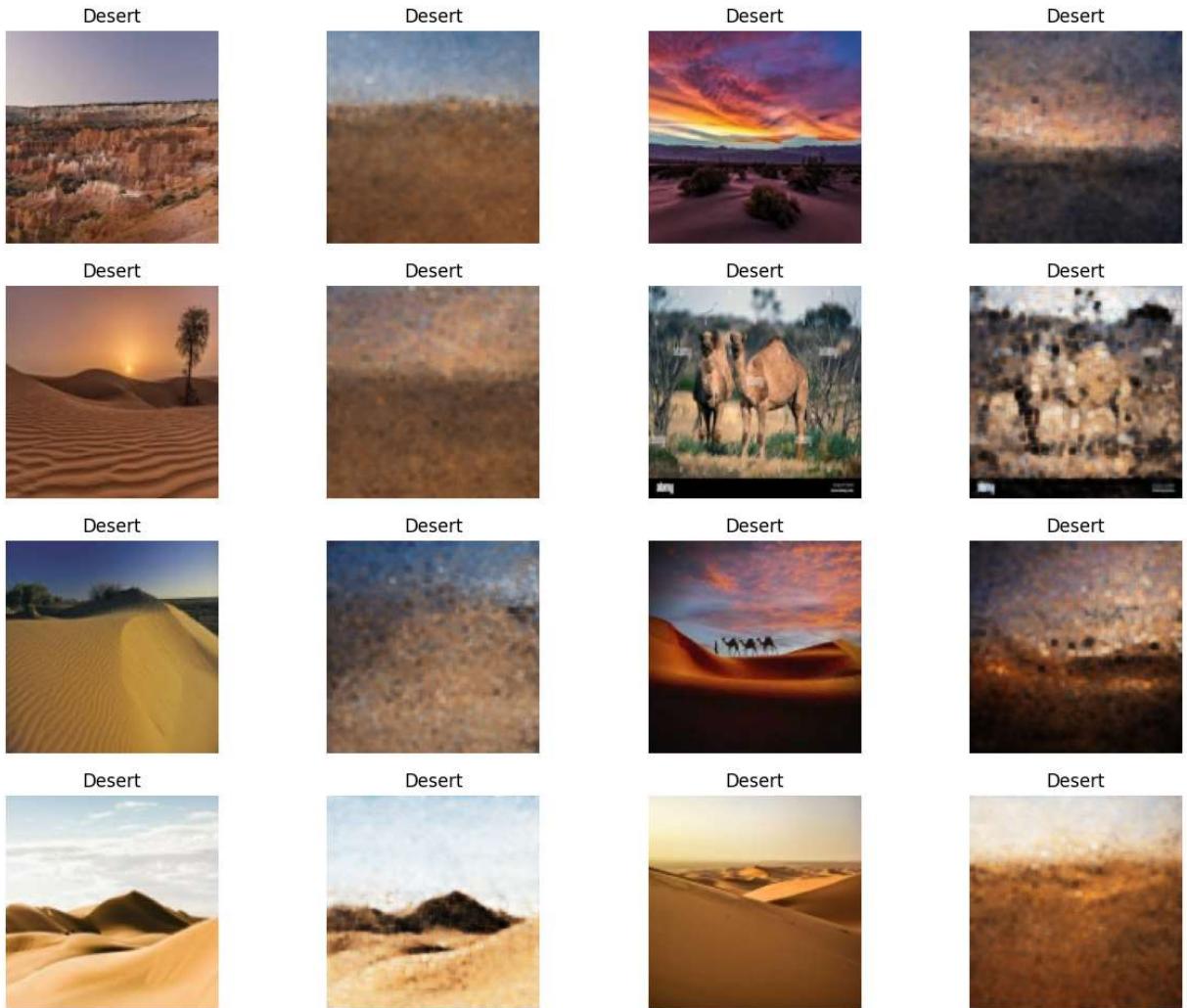
```
120/120 [=====] - 22s 187ms/step - loss: 35.4871 - reconstruction_error: 18.5107 - regularization_error: 16.9764 - val_loss: 54.3055 - val_reconstruction_error: 39.2455 - val_regularization_error: 15.0600
Epoch 412/1000
120/120 [=====] - 19s 160ms/step - loss: 35.2709 - reconstruction_error: 18.5552 - regularization_error: 16.7158 - val_loss: 54.8160 - val_reconstruction_error: 39.3886 - val_regularization_error: 15.4273
Epoch 413/1000
120/120 [=====] - 16s 132ms/step - loss: 35.1654 - reconstruction_error: 18.4156 - regularization_error: 16.7497 - val_loss: 55.4751 - val_reconstruction_error: 39.3085 - val_regularization_error: 16.1665
Epoch 414/1000
120/120 [=====] - 19s 156ms/step - loss: 35.1040 - reconstruction_error: 18.3196 - regularization_error: 16.7844 - val_loss: 54.4112 - val_reconstruction_error: 39.3179 - val_regularization_error: 15.0933
Epoch 415/1000
120/120 [=====] - 18s 150ms/step - loss: 35.3901 - reconstruction_error: 18.4351 - regularization_error: 16.9550 - val_loss: 54.3770 - val_reconstruction_error: 38.3500 - val_regularization_error: 16.0270
Epoch 416/1000
120/120 [=====] - 20s 161ms/step - loss: 35.2112 - reconstruction_error: 18.4504 - regularization_error: 16.7608 - val_loss: 54.2853 - val_reconstruction_error: 39.5636 - val_regularization_error: 14.7217
Epoch 417/1000
120/120 [=====] - 18s 145ms/step - loss: 35.1464 - reconstruction_error: 18.3787 - regularization_error: 16.7677 - val_loss: 54.0830 - val_reconstruction_error: 38.1817 - val_regularization_error: 15.9013
Epoch 418/1000
120/120 [=====] - 20s 166ms/step - loss: 35.2216 - reconstruction_error: 18.4331 - regularization_error: 16.7885 - val_loss: 53.8575 - val_reconstruction_error: 38.1472 - val_regularization_error: 15.7103
Epoch 419/1000
120/120 [=====] - 21s 172ms/step - loss: 35.0179 - reconstruction_error: 18.3393 - regularization_error: 16.6786 - val_loss: 54.4121 - val_reconstruction_error: 38.8258 - val_regularization_error: 15.5863
Epoch 420/1000
120/120 [=====] - 19s 157ms/step - loss: 35.0751 - reconstruction_error: 18.2668 - regularization_error: 16.8082 - val_loss: 55.1561 - val_reconstruction_error: 39.4256 - val_regularization_error: 15.7305
Epoch 421/1000
120/120 [=====] - ETA: 0s - loss: 35.1200 - reconstruction_error: 18.3286 - regularization_error: 16.7914
[2023-12-01 17:10:46.255884]: Reconstructing images for epoch 421 ...
```



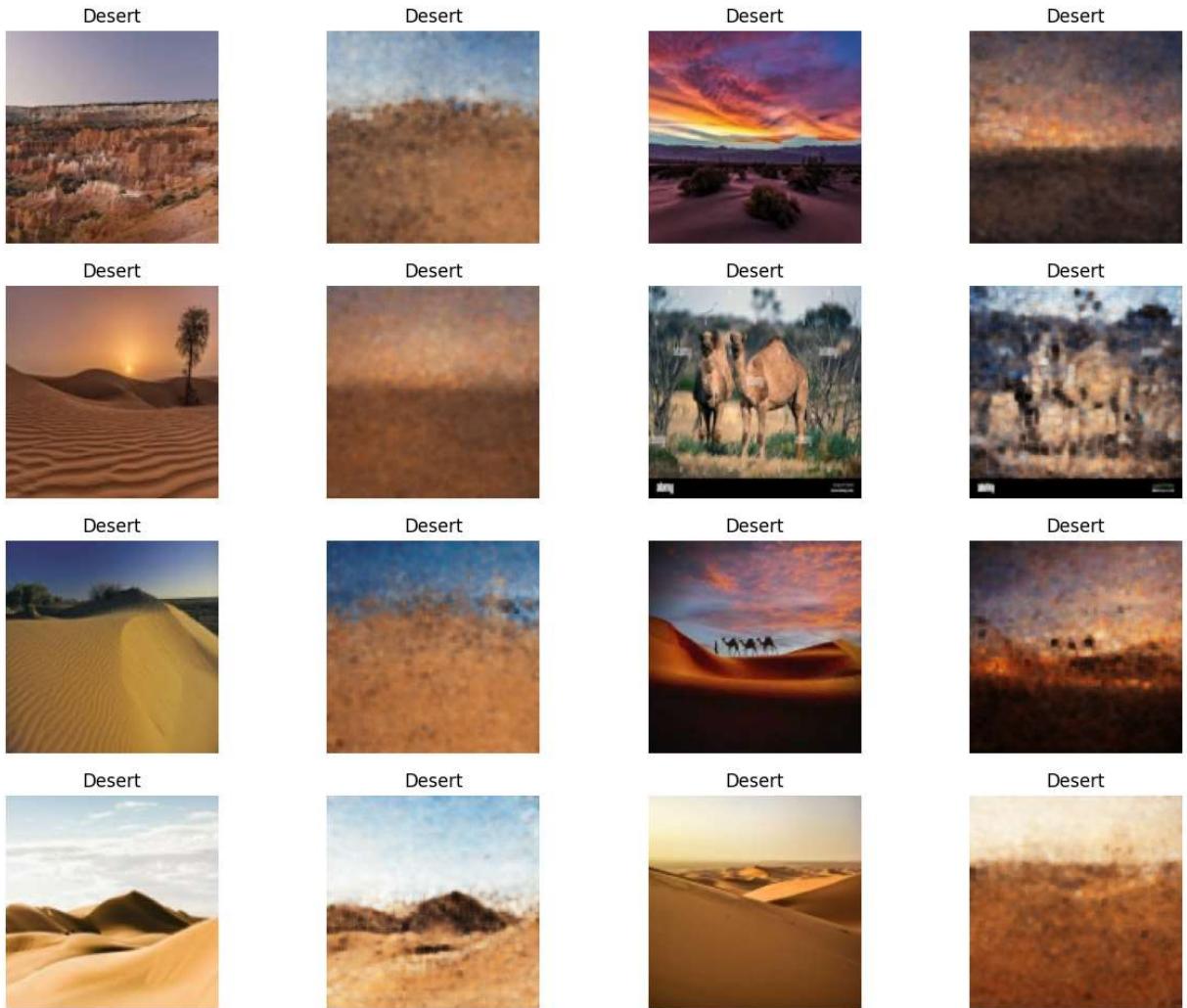
```
120/120 [=====] - 22s 182ms/step - loss: 35.1200 - reconstruction_error: 18.3286 - regularization_error: 16.7914 - val_loss: 54.5068 - val_reconstruction_error: 38.0630 - val_regularization_error: 16.4438
Epoch 422/1000
120/120 [=====] - 19s 159ms/step - loss: 35.2898 - reconstruction_error: 18.5443 - regularization_error: 16.7455 - val_loss: 54.4370 - val_reconstruction_error: 38.9517 - val_regularization_error: 15.4853
Epoch 423/1000
120/120 [=====] - 21s 174ms/step - loss: 35.0456 - reconstruction_error: 18.2848 - regularization_error: 16.7608 - val_loss: 54.1268 - val_reconstruction_error: 39.5176 - val_regularization_error: 14.6092
Epoch 424/1000
120/120 [=====] - 17s 140ms/step - loss: 35.3489 - reconstruction_error: 18.4905 - regularization_error: 16.8583 - val_loss: 54.0467 - val_reconstruction_error: 37.5712 - val_regularization_error: 16.4755
Epoch 425/1000
120/120 [=====] - 18s 150ms/step - loss: 35.1196 - reconstruction_error: 18.2706 - regularization_error: 16.8489 - val_loss: 55.2823 - val_reconstruction_error: 37.9380 - val_regularization_error: 17.3443
Epoch 426/1000
120/120 [=====] - 22s 183ms/step - loss: 35.0939 - reconstruction_error: 18.2607 - regularization_error: 16.8332 - val_loss: 54.5513 - val_reconstruction_error: 38.7013 - val_regularization_error: 15.8500
Epoch 427/1000
120/120 [=====] - 21s 176ms/step - loss: 34.9950 - reconstruction_error: 18.1485 - regularization_error: 16.8465 - val_loss: 53.7993 - val_reconstruction_error: 38.5576 - val_regularization_error: 15.2417
Epoch 428/1000
120/120 [=====] - 18s 149ms/step - loss: 34.9656 - reconstruction_error: 18.2832 - regularization_error: 16.6824 - val_loss: 54.0677 - val_reconstruction_error: 38.1329 - val_regularization_error: 15.9349
Epoch 429/1000
120/120 [=====] - 20s 169ms/step - loss: 34.9583 - reconstruction_error: 18.2281 - regularization_error: 16.7301 - val_loss: 54.3199 - val_reconstruction_error: 38.3647 - val_regularization_error: 15.9552
Epoch 430/1000
120/120 [=====] - 20s 164ms/step - loss: 35.0764 - reconstruction_error: 18.3137 - regularization_error: 16.7627 - val_loss: 54.5032 - val_reconstruction_error: 38.8589 - val_regularization_error: 15.6443
Epoch 431/1000
120/120 [=====] - ETA: 0s - loss: 35.1411 - reconstruction_error: 18.2634 - regularization_error: 16.8776
[2023-12-01 17:14:05.115541]: Reconstructing images for epoch 431 ...
```



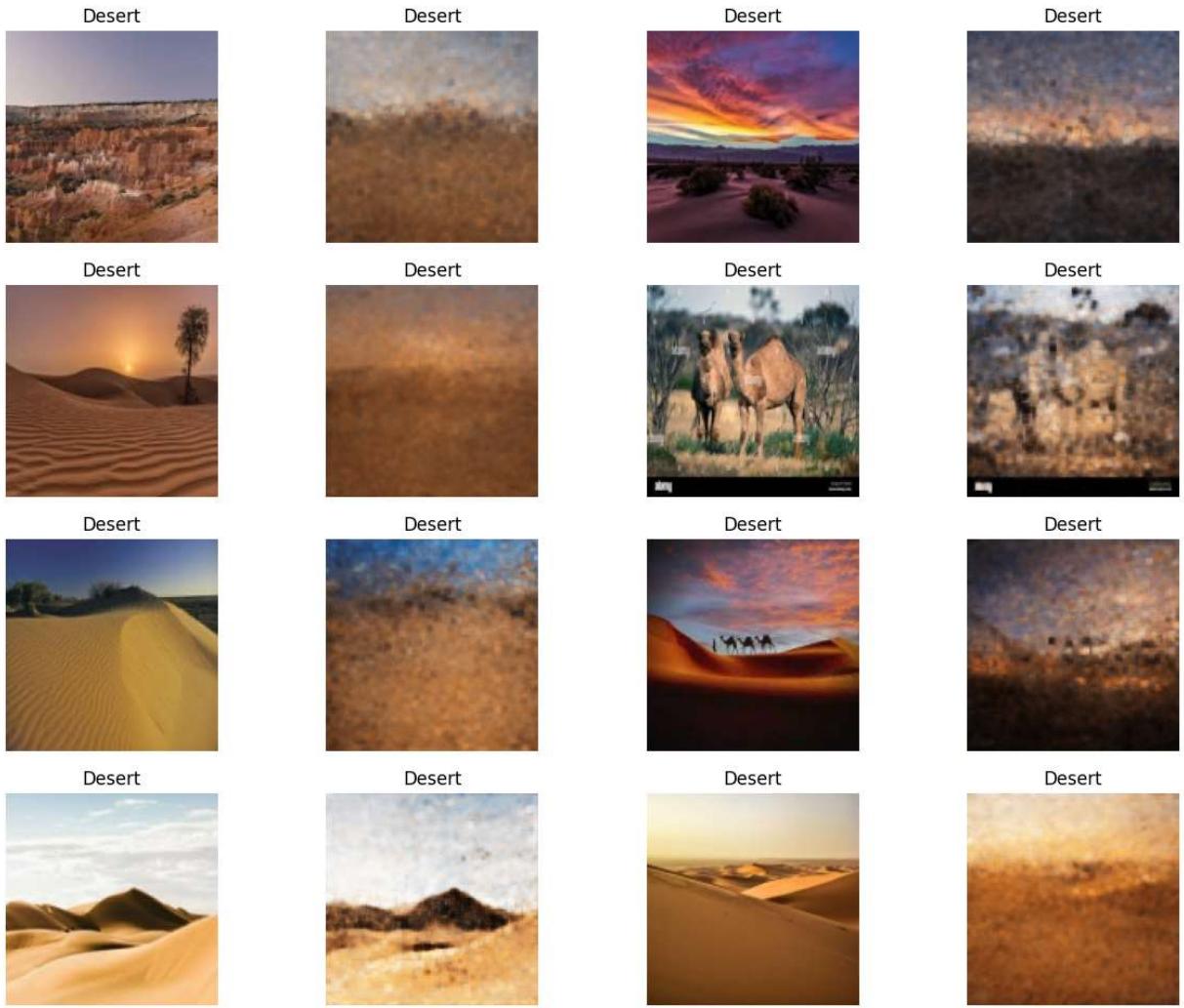
```
120/120 [=====] - 21s 172ms/step - loss: 35.1411 - reconstruction_error: 18.2634 - regularization_error: 16.8776 - val_loss: 54.4824 - val_reconstruction_error: 37.3942 - val_regularization_error: 17.0882
Epoch 432/1000
120/120 [=====] - 17s 145ms/step - loss: 34.9303 - reconstruction_error: 18.1877 - regularization_error: 16.7426 - val_loss: 54.8043 - val_reconstruction_error: 39.0323 - val_regularization_error: 15.7719
Epoch 433/1000
120/120 [=====] - 18s 144ms/step - loss: 35.0662 - reconstruction_error: 18.2313 - regularization_error: 16.8349 - val_loss: 54.8281 - val_reconstruction_error: 38.9199 - val_regularization_error: 15.9082
Epoch 434/1000
120/120 [=====] - 21s 174ms/step - loss: 34.9644 - reconstruction_error: 18.0966 - regularization_error: 16.8678 - val_loss: 54.9119 - val_reconstruction_error: 37.8889 - val_regularization_error: 17.0230
Epoch 435/1000
120/120 [=====] - 17s 142ms/step - loss: 35.0619 - reconstruction_error: 18.2572 - regularization_error: 16.8048 - val_loss: 54.2737 - val_reconstruction_error: 38.7701 - val_regularization_error: 15.5036
Epoch 436/1000
120/120 [=====] - 20s 166ms/step - loss: 34.8778 - reconstruction_error: 18.0542 - regularization_error: 16.8236 - val_loss: 54.2981 - val_reconstruction_error: 39.2925 - val_regularization_error: 15.0056
Epoch 437/1000
120/120 [=====] - 18s 147ms/step - loss: 34.9250 - reconstruction_error: 18.2059 - regularization_error: 16.7191 - val_loss: 54.6810 - val_reconstruction_error: 38.2070 - val_regularization_error: 16.4740
Epoch 438/1000
120/120 [=====] - 21s 177ms/step - loss: 34.9764 - reconstruction_error: 18.0967 - regularization_error: 16.8797 - val_loss: 54.7480 - val_reconstruction_error: 39.1791 - val_regularization_error: 15.5690
Epoch 439/1000
120/120 [=====] - 19s 159ms/step - loss: 34.8337 - reconstruction_error: 18.0380 - regularization_error: 16.7957 - val_loss: 54.3403 - val_reconstruction_error: 38.4983 - val_regularization_error: 15.8420
Epoch 440/1000
120/120 [=====] - 19s 159ms/step - loss: 34.6617 - reconstruction_error: 17.9429 - regularization_error: 16.7187 - val_loss: 54.8852 - val_reconstruction_error: 38.7843 - val_regularization_error: 16.1009
Epoch 441/1000
120/120 [=====] - ETA: 0s - loss: 35.3105 - reconstruction_error: 18.3680 - regularization_error: 16.9424
[2023-12-01 17:17:19.368966]: Reconstructing images for epoch 441 ...
```



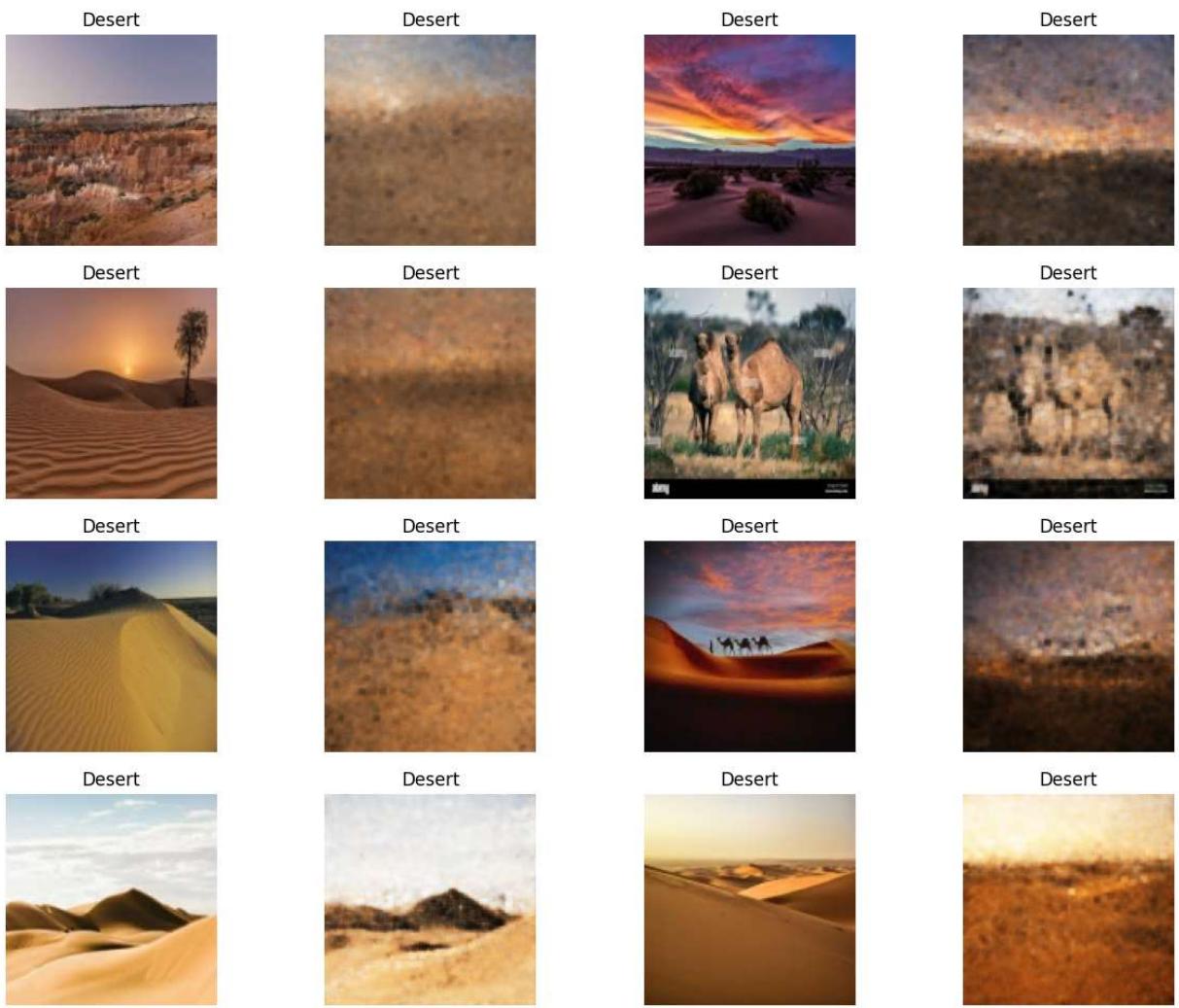
```
120/120 [=====] - 21s 173ms/step - loss: 35.3105 - reconstruction_error: 18.3680 - regularization_error: 16.9424 - val_loss: 54.6877 - val_reconstruction_error: 38.1782 - val_regularization_error: 16.5095
Epoch 442/1000
120/120 [=====] - 19s 158ms/step - loss: 34.7506 - reconstruction_error: 18.0459 - regularization_error: 16.7047 - val_loss: 53.8985 - val_reconstruction_error: 37.2869 - val_regularization_error: 16.6116
Epoch 443/1000
120/120 [=====] - 15s 124ms/step - loss: 34.9128 - reconstruction_error: 18.0906 - regularization_error: 16.8222 - val_loss: 54.3393 - val_reconstruction_error: 38.8170 - val_regularization_error: 15.5224
Epoch 444/1000
120/120 [=====] - 20s 168ms/step - loss: 34.8863 - reconstruction_error: 17.9365 - regularization_error: 16.9498 - val_loss: 54.2559 - val_reconstruction_error: 39.4169 - val_regularization_error: 14.8390
Epoch 445/1000
120/120 [=====] - 21s 173ms/step - loss: 34.8211 - reconstruction_error: 18.1230 - regularization_error: 16.6981 - val_loss: 56.9071 - val_reconstruction_error: 40.6157 - val_regularization_error: 16.2913
Epoch 446/1000
120/120 [=====] - 17s 143ms/step - loss: 34.9941 - reconstruction_error: 18.1577 - regularization_error: 16.8363 - val_loss: 54.4595 - val_reconstruction_error: 38.4606 - val_regularization_error: 15.9988
Epoch 447/1000
120/120 [=====] - 20s 164ms/step - loss: 34.9608 - reconstruction_error: 18.1557 - regularization_error: 16.8051 - val_loss: 54.2654 - val_reconstruction_error: 38.7637 - val_regularization_error: 15.5017
Epoch 448/1000
120/120 [=====] - 18s 153ms/step - loss: 34.7710 - reconstruction_error: 17.9919 - regularization_error: 16.7790 - val_loss: 54.4406 - val_reconstruction_error: 38.5143 - val_regularization_error: 15.9263
Epoch 449/1000
120/120 [=====] - 18s 152ms/step - loss: 34.8037 - reconstruction_error: 17.9752 - regularization_error: 16.8284 - val_loss: 54.7039 - val_reconstruction_error: 39.7109 - val_regularization_error: 14.9929
Epoch 450/1000
120/120 [=====] - 21s 173ms/step - loss: 34.9125 - reconstruction_error: 18.0218 - regularization_error: 16.8907 - val_loss: 54.4704 - val_reconstruction_error: 39.5344 - val_regularization_error: 14.9361
Epoch 451/1000
120/120 [=====] - ETA: 0s - loss: 34.7036 - reconstruction_error: 17.9459 - regularization_error: 16.7577
[2023-12-01 17:20:35.171859]: Reconstructing images for epoch 451 ...
```



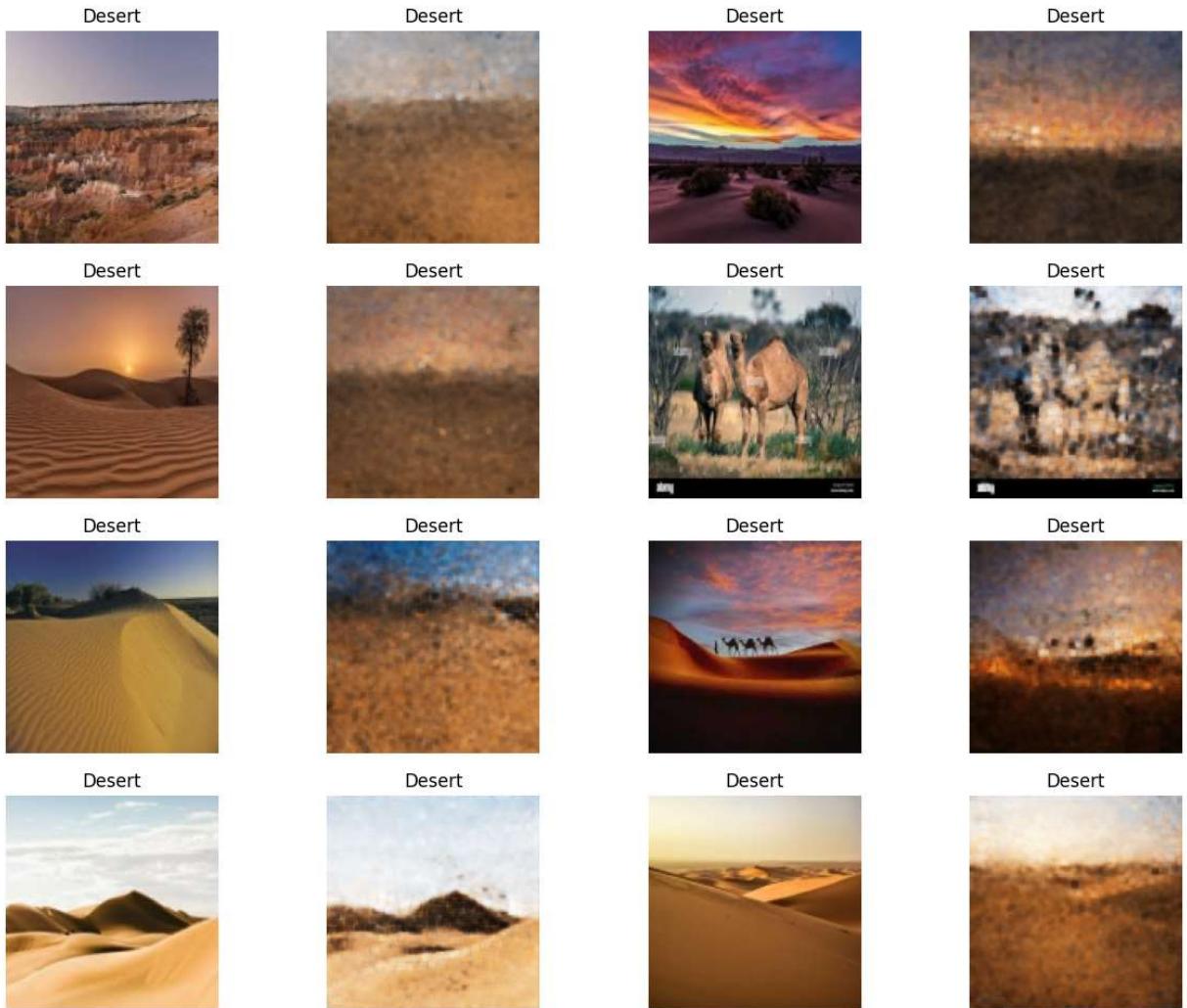
```
120/120 [=====] - 24s 200ms/step - loss: 34.7036 - reconstruction_error: 17.9459 - regularization_error: 16.7577 - val_loss: 53.7354 - val_reconstruction_error: 38.9325 - val_regularization_error: 14.8029
Epoch 452/1000
120/120 [=====] - 21s 170ms/step - loss: 34.6391 - reconstruction_error: 17.9005 - regularization_error: 16.7386 - val_loss: 54.6399 - val_reconstruction_error: 39.1153 - val_regularization_error: 15.5246
Epoch 453/1000
120/120 [=====] - 18s 150ms/step - loss: 34.9518 - reconstruction_error: 18.0574 - regularization_error: 16.8944 - val_loss: 54.9831 - val_reconstruction_error: 39.0134 - val_regularization_error: 15.9697
Epoch 454/1000
120/120 [=====] - 18s 149ms/step - loss: 34.8914 - reconstruction_error: 18.0425 - regularization_error: 16.8489 - val_loss: 55.9311 - val_reconstruction_error: 38.8513 - val_regularization_error: 17.0797
Epoch 455/1000
120/120 [=====] - 20s 161ms/step - loss: 34.6280 - reconstruction_error: 17.8995 - regularization_error: 16.7285 - val_loss: 54.9880 - val_reconstruction_error: 39.5478 - val_regularization_error: 15.4402
Epoch 456/1000
120/120 [=====] - 18s 152ms/step - loss: 34.8761 - reconstruction_error: 17.9855 - regularization_error: 16.8907 - val_loss: 54.4750 - val_reconstruction_error: 38.4667 - val_regularization_error: 16.0083
Epoch 457/1000
120/120 [=====] - 20s 165ms/step - loss: 34.6042 - reconstruction_error: 17.8735 - regularization_error: 16.7307 - val_loss: 54.1606 - val_reconstruction_error: 38.0317 - val_regularization_error: 16.1289
Epoch 458/1000
120/120 [=====] - 19s 156ms/step - loss: 34.6559 - reconstruction_error: 17.8107 - regularization_error: 16.8453 - val_loss: 56.1709 - val_reconstruction_error: 39.5335 - val_regularization_error: 16.6374
Epoch 459/1000
120/120 [=====] - 21s 174ms/step - loss: 34.6730 - reconstruction_error: 17.7280 - regularization_error: 16.9450 - val_loss: 55.3340 - val_reconstruction_error: 40.0260 - val_regularization_error: 15.3080
Epoch 460/1000
120/120 [=====] - 24s 197ms/step - loss: 34.8298 - reconstruction_error: 17.9602 - regularization_error: 16.8695 - val_loss: 54.3741 - val_reconstruction_error: 38.4221 - val_regularization_error: 15.9520
Epoch 461/1000
120/120 [=====] - ETA: 0s - loss: 34.6074 - reconstruction_error: 17.9629 - regularization_error: 16.6445
[2023-12-01 17:23:56.798554]: Reconstructing images for epoch 461 ...
```



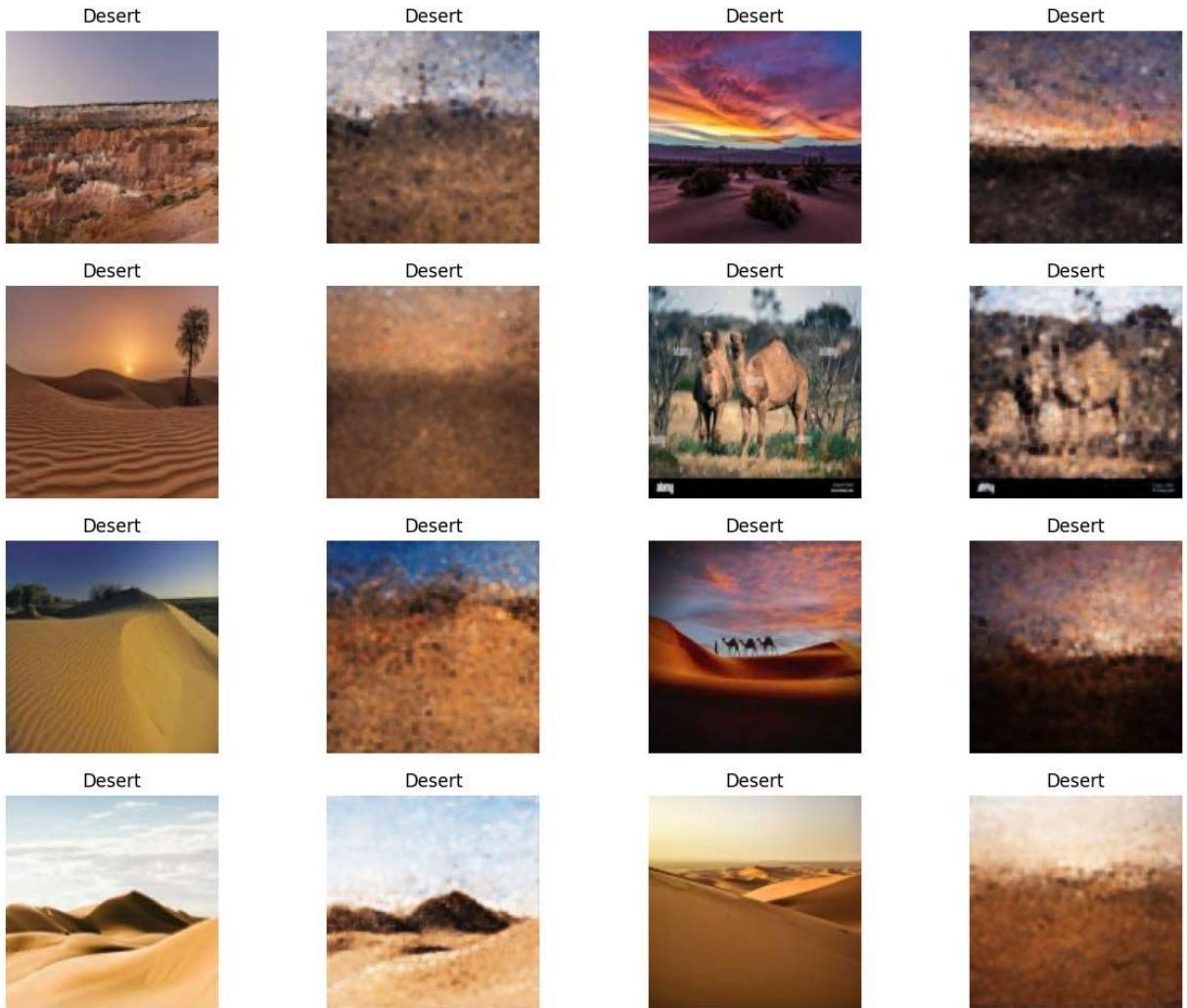
```
120/120 [=====] - 20s 168ms/step - loss: 34.6074 - reconstruction_error: 17.9629 - regularization_error: 16.6445 - val_loss: 54.6157 - val_reconstruction_error: 39.0605 - val_regularization_error: 15.5552
Epoch 462/1000
120/120 [=====] - 15s 128ms/step - loss: 34.8229 - reconstruction_error: 17.9305 - regularization_error: 16.8924 - val_loss: 55.3238 - val_reconstruction_error: 39.4575 - val_regularization_error: 15.8664
Epoch 463/1000
120/120 [=====] - 19s 159ms/step - loss: 34.5207 - reconstruction_error: 17.7095 - regularization_error: 16.8111 - val_loss: 54.8365 - val_reconstruction_error: 39.8893 - val_regularization_error: 14.9471
Epoch 464/1000
120/120 [=====] - 21s 176ms/step - loss: 34.5207 - reconstruction_error: 17.7622 - regularization_error: 16.7585 - val_loss: 54.4695 - val_reconstruction_error: 39.9868 - val_regularization_error: 14.4827
Epoch 465/1000
120/120 [=====] - 23s 187ms/step - loss: 34.6821 - reconstruction_error: 17.8546 - regularization_error: 16.8275 - val_loss: 55.0723 - val_reconstruction_error: 38.0021 - val_regularization_error: 17.0702
Epoch 466/1000
120/120 [=====] - 21s 176ms/step - loss: 34.4683 - reconstruction_error: 17.7432 - regularization_error: 16.7251 - val_loss: 54.9338 - val_reconstruction_error: 39.3144 - val_regularization_error: 15.6194
Epoch 467/1000
120/120 [=====] - 18s 146ms/step - loss: 34.6658 - reconstruction_error: 17.8423 - regularization_error: 16.8234 - val_loss: 56.7362 - val_reconstruction_error: 40.4820 - val_regularization_error: 16.2543
Epoch 468/1000
120/120 [=====] - 18s 144ms/step - loss: 34.3394 - reconstruction_error: 17.6795 - regularization_error: 16.6599 - val_loss: 54.9150 - val_reconstruction_error: 38.3393 - val_regularization_error: 16.5757
Epoch 469/1000
120/120 [=====] - 18s 146ms/step - loss: 34.6958 - reconstruction_error: 17.7087 - regularization_error: 16.9870 - val_loss: 54.9185 - val_reconstruction_error: 38.8367 - val_regularization_error: 16.0818
Epoch 470/1000
120/120 [=====] - 19s 158ms/step - loss: 34.7499 - reconstruction_error: 17.9526 - regularization_error: 16.7973 - val_loss: 53.8870 - val_reconstruction_error: 38.7808 - val_regularization_error: 15.1061
Epoch 471/1000
120/120 [=====] - ETA: 0s - loss: 34.5056 - reconstruction_error: 17.6251 - regularization_error: 16.8805
[2023-12-01 17:27:11.989075]: Reconstructing images for epoch 471 ...
```



```
120/120 [=====] - 22s 184ms/step - loss: 34.5056 - reconstruction_error: 17.6251 - regularization_error: 16.8805 - val_loss: 54.8090 - val_reconstruction_error: 38.4275 - val_regularization_error: 16.3815
Epoch 472/1000
120/120 [=====] - 18s 151ms/step - loss: 34.5989 - reconstruction_error: 17.7017 - regularization_error: 16.8973 - val_loss: 54.5181 - val_reconstruction_error: 38.4429 - val_regularization_error: 16.0752
Epoch 473/1000
120/120 [=====] - 20s 165ms/step - loss: 34.4158 - reconstruction_error: 17.7015 - regularization_error: 16.7143 - val_loss: 54.6408 - val_reconstruction_error: 39.1504 - val_regularization_error: 15.4904
Epoch 474/1000
120/120 [=====] - 21s 178ms/step - loss: 34.3868 - reconstruction_error: 17.5934 - regularization_error: 16.7934 - val_loss: 54.8403 - val_reconstruction_error: 38.5002 - val_regularization_error: 16.3400
Epoch 475/1000
120/120 [=====] - 20s 167ms/step - loss: 34.4253 - reconstruction_error: 17.5673 - regularization_error: 16.8580 - val_loss: 55.0985 - val_reconstruction_error: 39.7810 - val_regularization_error: 15.3174
Epoch 476/1000
120/120 [=====] - 23s 190ms/step - loss: 34.5706 - reconstruction_error: 17.7172 - regularization_error: 16.8534 - val_loss: 54.5495 - val_reconstruction_error: 38.7488 - val_regularization_error: 15.8007
Epoch 477/1000
120/120 [=====] - 19s 157ms/step - loss: 34.5182 - reconstruction_error: 17.7839 - regularization_error: 16.7342 - val_loss: 54.1838 - val_reconstruction_error: 38.9104 - val_regularization_error: 15.2733
Epoch 478/1000
120/120 [=====] - 18s 144ms/step - loss: 34.7338 - reconstruction_error: 17.8118 - regularization_error: 16.9220 - val_loss: 55.5902 - val_reconstruction_error: 39.9416 - val_regularization_error: 15.6486
Epoch 479/1000
120/120 [=====] - 19s 161ms/step - loss: 34.5761 - reconstruction_error: 17.7553 - regularization_error: 16.8209 - val_loss: 54.5841 - val_reconstruction_error: 38.1655 - val_regularization_error: 16.4186
Epoch 480/1000
120/120 [=====] - 19s 155ms/step - loss: 34.4259 - reconstruction_error: 17.6031 - regularization_error: 16.8228 - val_loss: 54.5440 - val_reconstruction_error: 38.7505 - val_regularization_error: 15.7935
Epoch 481/1000
120/120 [=====] - ETA: 0s - loss: 34.2899 - reconstruction_error: 17.5323 - regularization_error: 16.7575
[2023-12-01 17:30:35.632535]: Reconstructing images for epoch 481 ...
```



```
120/120 [=====] - 23s 193ms/step - loss: 34.2899 - reconstruction_error: 17.5323 - regularization_error: 16.7575 - val_loss: 54.9242 - val_reconstruction_error: 38.8633 - val_regularization_error: 16.0609
Epoch 482/1000
120/120 [=====] - 20s 164ms/step - loss: 34.4844 - reconstruction_error: 17.6461 - regularization_error: 16.8382 - val_loss: 55.3223 - val_reconstruction_error: 38.7900 - val_regularization_error: 16.5323
Epoch 483/1000
120/120 [=====] - 19s 159ms/step - loss: 34.4312 - reconstruction_error: 17.5943 - regularization_error: 16.8369 - val_loss: 55.0305 - val_reconstruction_error: 39.1906 - val_regularization_error: 15.8399
Epoch 484/1000
120/120 [=====] - 20s 162ms/step - loss: 34.3212 - reconstruction_error: 17.5640 - regularization_error: 16.7573 - val_loss: 54.5772 - val_reconstruction_error: 39.4603 - val_regularization_error: 15.1168
Epoch 485/1000
120/120 [=====] - 17s 142ms/step - loss: 34.4862 - reconstruction_error: 17.7177 - regularization_error: 16.7686 - val_loss: 54.6713 - val_reconstruction_error: 39.3547 - val_regularization_error: 15.3165
Epoch 486/1000
120/120 [=====] - 18s 149ms/step - loss: 34.3229 - reconstruction_error: 17.5917 - regularization_error: 16.7312 - val_loss: 55.0351 - val_reconstruction_error: 38.8169 - val_regularization_error: 16.2183
Epoch 487/1000
120/120 [=====] - 19s 154ms/step - loss: 34.2269 - reconstruction_error: 17.4449 - regularization_error: 16.7820 - val_loss: 55.1481 - val_reconstruction_error: 40.0988 - val_regularization_error: 15.0494
Epoch 488/1000
120/120 [=====] - 20s 169ms/step - loss: 34.5044 - reconstruction_error: 17.6333 - regularization_error: 16.8710 - val_loss: 54.9172 - val_reconstruction_error: 38.6739 - val_regularization_error: 16.2433
Epoch 489/1000
120/120 [=====] - 21s 170ms/step - loss: 34.2948 - reconstruction_error: 17.5103 - regularization_error: 16.7845 - val_loss: 55.9153 - val_reconstruction_error: 40.1591 - val_regularization_error: 15.7563
Epoch 490/1000
120/120 [=====] - 18s 148ms/step - loss: 34.2810 - reconstruction_error: 17.5364 - regularization_error: 16.7446 - val_loss: 55.0909 - val_reconstruction_error: 39.0153 - val_regularization_error: 16.0756
Epoch 491/1000
120/120 [=====] - ETA: 0s - loss: 34.4016 - reconstruction_error: 17.6058 - regularization_error: 16.7958
[2023-12-01 17:33:50.485720]: Reconstructing images for epoch 491 ...
```



```
120/120 [=====] - 21s 175ms/step - loss: 34.4016 - reconstruction_error: 17.6058 - regularization_error: 16.7958 - val_loss: 55.7817 - val_reconstruction_error: 39.2340 - val_regularization_error: 16.5477
Epoch 492/1000
120/120 [=====] - 16s 131ms/step - loss: 34.4314 - reconstruction_error: 17.5187 - regularization_error: 16.9127 - val_loss: 54.0381 - val_reconstruction_error: 38.6701 - val_regularization_error: 15.3681
Epoch 493/1000
120/120 [=====] - 22s 186ms/step - loss: 34.0677 - reconstruction_error: 17.3434 - regularization_error: 16.7244 - val_loss: 54.8001 - val_reconstruction_error: 38.8733 - val_regularization_error: 15.9268
Epoch 494/1000
120/120 [=====] - 19s 155ms/step - loss: 34.3902 - reconstruction_error: 17.5130 - regularization_error: 16.8772 - val_loss: 55.9444 - val_reconstruction_error: 39.9739 - val_regularization_error: 15.9705
Epoch 495/1000
120/120 [=====] - 19s 161ms/step - loss: 34.1780 - reconstruction_error: 17.4368 - regularization_error: 16.7412 - val_loss: 55.0060 - val_reconstruction_error: 39.5788 - val_regularization_error: 15.4271
Epoch 496/1000
120/120 [=====] - 20s 163ms/step - loss: 34.0095 - reconstruction_error: 17.3562 - regularization_error: 16.6534 - val_loss: 55.2580 - val_reconstruction_error: 39.3335 - val_regularization_error: 15.9245
Epoch 497/1000
120/120 [=====] - 23s 188ms/step - loss: 34.5402 - reconstruction_error: 17.6646 - regularization_error: 16.8756 - val_loss: 54.2209 - val_reconstruction_error: 39.3137 - val_regularization_error: 14.9072
Epoch 498/1000
120/120 [=====] - 20s 166ms/step - loss: 34.2789 - reconstruction_error: 17.4833 - regularization_error: 16.7955 - val_loss: 55.8625 - val_reconstruction_error: 39.4013 - val_regularization_error: 16.4612
Epoch 499/1000
120/120 [=====] - 19s 156ms/step - loss: 34.3299 - reconstruction_error: 17.4458 - regularization_error: 16.8841 - val_loss: 54.6558 - val_reconstruction_error: 39.3625 - val_regularization_error: 15.2933
Epoch 500/1000
120/120 [=====] - 19s 155ms/step - loss: 34.1875 - reconstruction_error: 17.4056 - regularization_error: 16.7819 - val_loss: 55.2120 - val_reconstruction_error: 38.5816 - val_regularization_error: 16.6304
Epoch 501/1000
120/120 [=====] - ETA: 0s - loss: 34.1516 - reconstruction_error: 17.3912 - regularization_error: 16.7604
[2023-12-01 17:37:11.638481]: Reconstructing images for epoch 501 ...
```

