

Training for CA_2

Single window of past history : (100, 4)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 63ms/step - loss: 0.5166 - val_loss: 0.6670

Epoch 2/100

50/50 [=====] - 3s 55ms/step - loss: 0.3307 - val_loss: 0.5982

Epoch 3/100

50/50 [=====] - 3s 55ms/step - loss: 0.3265 - val_loss: 0.5943

Epoch 4/100

50/50 [=====] - 3s 55ms/step - loss: 0.3156 - val_loss: 0.5854

Epoch 5/100

50/50 [=====] - 3s 55ms/step - loss: 0.3115 - val_loss: 0.5786

Epoch 6/100

50/50 [=====] - 3s 55ms/step - loss: 0.3087 - val_loss: 0.5865

Epoch 7/100

50/50 [=====] - 3s 55ms/step - loss: 0.3022 - val_loss: 0.5819

Epoch 8/100

50/50 [=====] - 3s 55ms/step - loss: 0.2963 - val_loss: 0.5856

Epoch 9/100

50/50 [=====] - 3s 55ms/step - loss: 0.2918 - val_loss: 0.5884

Epoch 10/100

50/50 [=====] - 3s 56ms/step - loss: 0.2887 - val_loss: 0.5924

Epoch 11/100

50/50 [=====] - 3s 54ms/step - loss: 0.2839 - val_loss: 0.5912

Epoch 12/100

50/50 [=====] - 3s 55ms/step - loss: 0.2789 - val_loss: 0.6025

Epoch 13/100

50/50 [=====] - 3s 55ms/step - loss: 0.2768 - val_loss: 0.5934

Epoch 14/100

50/50 [=====] - 3s 55ms/step - loss: 0.2712 - val_loss: 0.5912

Epoch 15/100

50/50 [=====] - 3s 57ms/step - loss: 0.2688 - val_loss: 0.6244

Epoch 16/100

50/50 [=====] - 3s 57ms/step - loss: 0.2680 - val_loss: 0.5947

Epoch 17/100

50/50 [=====] - 3s 57ms/step - loss: 0.2610 - val_loss: 0.5919

Epoch 18/100

50/50 [=====] - 3s 56ms/step - loss: 0.2595 - val_loss: 0.6095

Epoch 19/100

50/50 [=====] - 3s 54ms/step - loss: 0.2568 - val_loss: 0.6068

Epoch 20/100

50/50 [=====] - 3s 54ms/step - loss: 0.2509 - val_loss: 0.6050

Epoch 21/100

50/50 [=====] - 3s 54ms/step - loss: 0.2478 - val_loss: 0.5745

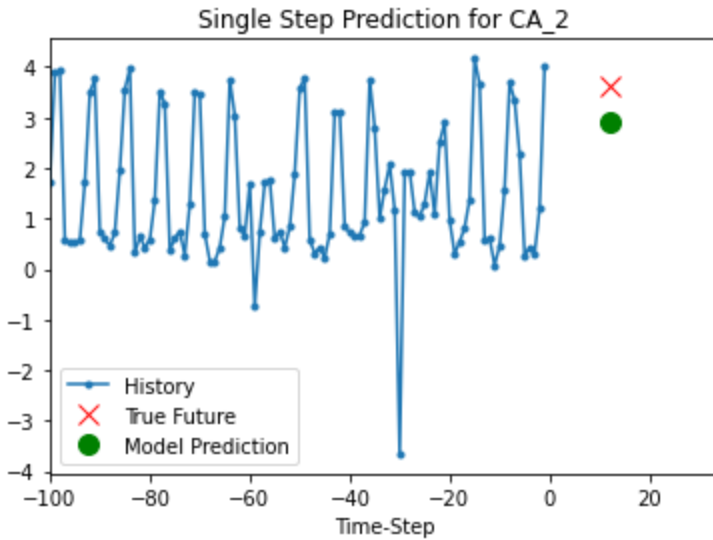
Epoch 22/100
50/50 [=====] - 3s 55ms/step - loss: 0.2498 - val_loss: 0.5977
Epoch 23/100
50/50 [=====] - 3s 55ms/step - loss: 0.2457 - val_loss: 0.5837
Epoch 24/100
50/50 [=====] - 3s 55ms/step - loss: 0.2413 - val_loss: 0.5663
Epoch 25/100
50/50 [=====] - 3s 54ms/step - loss: 0.2359 - val_loss: 0.5856
Epoch 26/100
50/50 [=====] - 3s 55ms/step - loss: 0.2390 - val_loss: 0.5676
Epoch 27/100
50/50 [=====] - 3s 54ms/step - loss: 0.2338 - val_loss: 0.5617
Epoch 28/100
50/50 [=====] - 3s 55ms/step - loss: 0.2340 - val_loss: 0.5485
Epoch 29/100
50/50 [=====] - 3s 55ms/step - loss: 0.2275 - val_loss: 0.5600
Epoch 30/100
50/50 [=====] - 3s 55ms/step - loss: 0.2292 - val_loss: 0.5844
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.2245 - val_loss: 0.6284
Epoch 32/100
50/50 [=====] - 3s 54ms/step - loss: 0.2225 - val_loss: 0.5406
Epoch 33/100
50/50 [=====] - 3s 56ms/step - loss: 0.2202 - val_loss: 0.5555
Epoch 34/100
50/50 [=====] - 3s 55ms/step - loss: 0.2154 - val_loss: 0.5579
Epoch 35/100
50/50 [=====] - 3s 54ms/step - loss: 0.2162 - val_loss: 0.5964
Epoch 36/100
50/50 [=====] - 3s 55ms/step - loss: 0.2134 - val_loss: 0.6415
Epoch 37/100
50/50 [=====] - 3s 55ms/step - loss: 0.2091 - val_loss: 0.5625
Epoch 38/100
50/50 [=====] - 3s 55ms/step - loss: 0.2064 - val_loss: 0.5770
Epoch 39/100
50/50 [=====] - 3s 55ms/step - loss: 0.2078 - val_loss: 0.6419
Epoch 40/100
50/50 [=====] - 3s 55ms/step - loss: 0.2055 - val_loss: 0.5439
Epoch 41/100
50/50 [=====] - 3s 55ms/step - loss: 0.1990 - val_loss: 0.5793
Epoch 42/100
50/50 [=====] - 3s 54ms/step - loss: 0.2000 - val_loss: 0.5803
Epoch 43/100
50/50 [=====] - 3s 54ms/step - loss: 0.1991 - val_loss: 0.5698
Epoch 44/100

50/50 [=====] - 3s 54ms/step - loss: 0.1944 - val_loss: 0.5904
Epoch 45/100
50/50 [=====] - 3s 55ms/step - loss: 0.1918 - val_loss: 0.6144
Epoch 46/100
50/50 [=====] - 3s 55ms/step - loss: 0.1905 - val_loss: 0.5772
Epoch 47/100
50/50 [=====] - 3s 53ms/step - loss: 0.1889 - val_loss: 0.5831
Epoch 48/100
50/50 [=====] - 3s 54ms/step - loss: 0.1880 - val_loss: 0.6046
Epoch 49/100
50/50 [=====] - 3s 54ms/step - loss: 0.1860 - val_loss: 0.5587
Epoch 50/100
50/50 [=====] - 3s 54ms/step - loss: 0.1849 - val_loss: 0.5429
Epoch 51/100
50/50 [=====] - 3s 54ms/step - loss: 0.1805 - val_loss: 0.5792
Epoch 52/100
50/50 [=====] - 3s 53ms/step - loss: 0.1774 - val_loss: 0.5569
Epoch 53/100
50/50 [=====] - 3s 53ms/step - loss: 0.1771 - val_loss: 0.5615
Epoch 54/100
50/50 [=====] - 3s 52ms/step - loss: 0.1793 - val_loss: 0.5663
Epoch 55/100
50/50 [=====] - 3s 52ms/step - loss: 0.1754 - val_loss: 0.5569
Epoch 56/100
50/50 [=====] - 3s 54ms/step - loss: 0.1748 - val_loss: 0.6372
Epoch 57/100
50/50 [=====] - 3s 53ms/step - loss: 0.1746 - val_loss: 0.5547
Epoch 58/100
50/50 [=====] - 3s 53ms/step - loss: 0.1698 - val_loss: 0.5847
Epoch 59/100
50/50 [=====] - 3s 54ms/step - loss: 0.1659 - val_loss: 0.5383
Epoch 60/100
50/50 [=====] - 3s 54ms/step - loss: 0.1656 - val_loss: 0.5568
Epoch 61/100
50/50 [=====] - 3s 54ms/step - loss: 0.1655 - val_loss: 0.5866
Epoch 62/100
50/50 [=====] - 3s 53ms/step - loss: 0.1624 - val_loss: 0.5372
Epoch 63/100
50/50 [=====] - 3s 52ms/step - loss: 0.1673 - val_loss: 0.5567
Epoch 64/100
50/50 [=====] - 3s 54ms/step - loss: 0.1595 - val_loss: 0.5661
Epoch 65/100
50/50 [=====] - 3s 53ms/step - loss: 0.1613 - val_loss: 0.5810
Epoch 66/100
50/50 [=====] - 3s 54ms/step - loss: 0.1601 - val_loss: 0.6141

Epoch 67/100
50/50 [=====] - 3s 53ms/step - loss: 0.1574 - val_loss: 0.5496
Epoch 68/100
50/50 [=====] - 3s 53ms/step - loss: 0.1577 - val_loss: 0.5390
Epoch 69/100
50/50 [=====] - 3s 53ms/step - loss: 0.1556 - val_loss: 0.5473
Epoch 70/100
50/50 [=====] - 3s 54ms/step - loss: 0.1528 - val_loss: 0.5823
Epoch 71/100
50/50 [=====] - 3s 53ms/step - loss: 0.1506 - val_loss: 0.5482
Epoch 72/100
50/50 [=====] - 3s 55ms/step - loss: 0.1512 - val_loss: 0.5797
Epoch 73/100
50/50 [=====] - 3s 54ms/step - loss: 0.1495 - val_loss: 0.5645
Epoch 74/100
50/50 [=====] - 3s 54ms/step - loss: 0.1484 - val_loss: 0.5670
Epoch 75/100
50/50 [=====] - 3s 53ms/step - loss: 0.1478 - val_loss: 0.5800
Epoch 76/100
50/50 [=====] - 3s 54ms/step - loss: 0.1452 - val_loss: 0.5526
Epoch 77/100
50/50 [=====] - 3s 54ms/step - loss: 0.1464 - val_loss: 0.5781
Epoch 78/100
50/50 [=====] - 3s 53ms/step - loss: 0.1447 - val_loss: 0.5644
Epoch 79/100
50/50 [=====] - 3s 54ms/step - loss: 0.1421 - val_loss: 0.5819
Epoch 80/100
50/50 [=====] - 3s 53ms/step - loss: 0.1403 - val_loss: 0.5565
Epoch 81/100
50/50 [=====] - 3s 54ms/step - loss: 0.1411 - val_loss: 0.5939
Epoch 82/100
50/50 [=====] - 3s 53ms/step - loss: 0.1394 - val_loss: 0.5618
Epoch 83/100
50/50 [=====] - 3s 53ms/step - loss: 0.1399 - val_loss: 0.5682
Epoch 84/100
50/50 [=====] - 3s 53ms/step - loss: 0.1379 - val_loss: 0.5641
Epoch 85/100
50/50 [=====] - 3s 52ms/step - loss: 0.1385 - val_loss: 0.5576
Epoch 86/100
50/50 [=====] - 3s 54ms/step - loss: 0.1353 - val_loss: 0.5620
Epoch 87/100
50/50 [=====] - 3s 54ms/step - loss: 0.1364 - val_loss: 0.5835
Epoch 88/100
50/50 [=====] - 3s 54ms/step - loss: 0.1337 - val_loss: 0.5922
Epoch 89/100

50/50 [=====] - 3s 54ms/step - loss: 0.1341 - val_loss: 0.5914
Epoch 90/100
50/50 [=====] - 3s 53ms/step - loss: 0.1344 - val_loss: 0.5957
Epoch 91/100
50/50 [=====] - 3s 53ms/step - loss: 0.1299 - val_loss: 0.5331
Epoch 92/100
50/50 [=====] - 3s 54ms/step - loss: 0.1279 - val_loss: 0.5817
Epoch 93/100
50/50 [=====] - 3s 54ms/step - loss: 0.1304 - val_loss: 0.5793
Epoch 94/100
50/50 [=====] - 3s 54ms/step - loss: 0.1284 - val_loss: 0.5567
Epoch 95/100
50/50 [=====] - 3s 54ms/step - loss: 0.1266 - val_loss: 0.5728
Epoch 96/100
50/50 [=====] - 3s 53ms/step - loss: 0.1255 - val_loss: 0.5971
Epoch 97/100
50/50 [=====] - 3s 54ms/step - loss: 0.1249 - val_loss: 0.5536
Epoch 98/100
50/50 [=====] - 3s 54ms/step - loss: 0.1240 - val_loss: 0.5959
Epoch 99/100
50/50 [=====] - 3s 54ms/step - loss: 0.1224 - val_loss: 0.6190
Epoch 100/100
50/50 [=====] - 3s 53ms/step - loss: 0.1222 - val_loss: 0.5744





CA_2 - True Future: 5645

CA_2 - Model Prediction: 5094

CA_2 - Model Percentage Error: 9.76%

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Training for CA_4

Single window of past history : (100, 4)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 60ms/step - loss: 0.4539 - val_loss: 0.4118

Epoch 2/100

50/50 [=====] - 3s 54ms/step - loss: 0.3768 - val_loss: 0.4204

Epoch 3/100

50/50 [=====] - 3s 53ms/step - loss: 0.3646 - val_loss: 0.4177

Epoch 4/100

50/50 [=====] - 3s 54ms/step - loss: 0.3595 - val_loss: 0.3782

Epoch 5/100

50/50 [=====] - 3s 55ms/step - loss: 0.3561 - val_loss: 0.3908

Epoch 6/100

50/50 [=====] - 3s 54ms/step - loss: 0.3497 - val_loss: 0.3734

Epoch 7/100

50/50 [=====] - 3s 54ms/step - loss: 0.3477 - val_loss: 0.3753

Epoch 8/100

50/50 [=====] - 3s 54ms/step - loss: 0.3427 - val_loss: 0.3738

Epoch 9/100

50/50 [=====] - 3s 55ms/step - loss: 0.3435 - val_loss: 0.4044

Epoch 10/100

50/50 [=====] - 3s 55ms/step - loss: 0.3346 - val_loss: 0.3761

Epoch 11/100

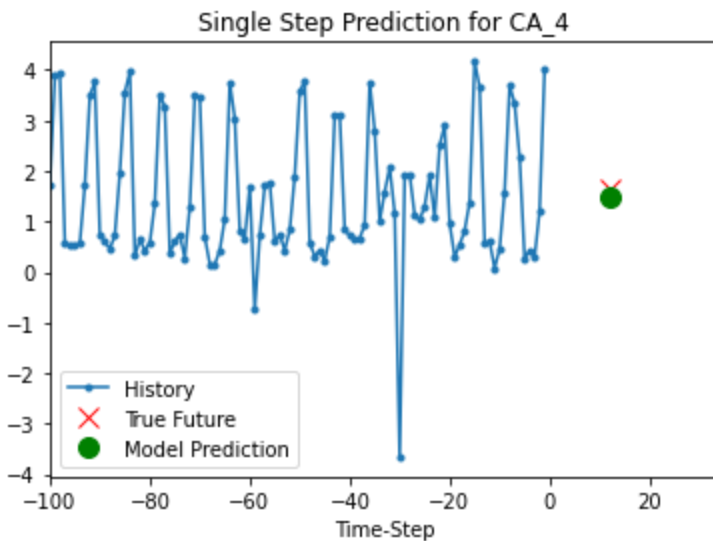
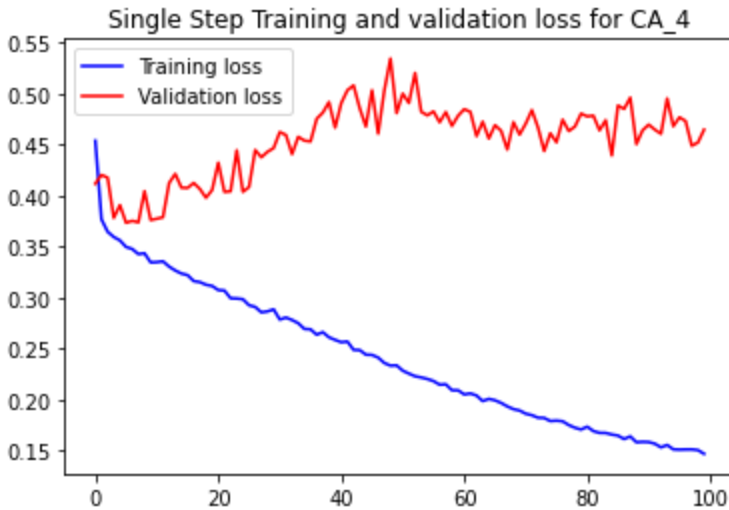
50/50 [=====] - 3s 55ms/step - loss: 0.3348 - val_loss: 0.3774

Epoch 12/100
50/50 [=====] - 3s 54ms/step - loss: 0.3356 - val_loss: 0.3788
Epoch 13/100
50/50 [=====] - 3s 54ms/step - loss: 0.3304 - val_loss: 0.4124
Epoch 14/100
50/50 [=====] - 3s 54ms/step - loss: 0.3266 - val_loss: 0.4214
Epoch 15/100
50/50 [=====] - 3s 54ms/step - loss: 0.3236 - val_loss: 0.4079
Epoch 16/100
50/50 [=====] - 3s 56ms/step - loss: 0.3221 - val_loss: 0.4076
Epoch 17/100
50/50 [=====] - 3s 53ms/step - loss: 0.3162 - val_loss: 0.4125
Epoch 18/100
50/50 [=====] - 3s 53ms/step - loss: 0.3152 - val_loss: 0.4066
Epoch 19/100
50/50 [=====] - 3s 54ms/step - loss: 0.3127 - val_loss: 0.3980
Epoch 20/100
50/50 [=====] - 3s 55ms/step - loss: 0.3114 - val_loss: 0.4056
Epoch 21/100
50/50 [=====] - 3s 54ms/step - loss: 0.3074 - val_loss: 0.4324
Epoch 22/100
50/50 [=====] - 3s 53ms/step - loss: 0.3070 - val_loss: 0.4037
Epoch 23/100
50/50 [=====] - 3s 55ms/step - loss: 0.2994 - val_loss: 0.4043
Epoch 24/100
50/50 [=====] - 3s 55ms/step - loss: 0.2991 - val_loss: 0.4445
Epoch 25/100
50/50 [=====] - 3s 54ms/step - loss: 0.2985 - val_loss: 0.4037
Epoch 26/100
50/50 [=====] - 3s 54ms/step - loss: 0.2925 - val_loss: 0.4085
Epoch 27/100
50/50 [=====] - 3s 56ms/step - loss: 0.2909 - val_loss: 0.4448
Epoch 28/100
50/50 [=====] - 3s 57ms/step - loss: 0.2856 - val_loss: 0.4377
Epoch 29/100
50/50 [=====] - 3s 57ms/step - loss: 0.2865 - val_loss: 0.4430
Epoch 30/100
50/50 [=====] - 3s 56ms/step - loss: 0.2885 - val_loss: 0.4467
Epoch 31/100
50/50 [=====] - 3s 56ms/step - loss: 0.2785 - val_loss: 0.4624
Epoch 32/100
50/50 [=====] - 3s 55ms/step - loss: 0.2805 - val_loss: 0.4596
Epoch 33/100
50/50 [=====] - 3s 54ms/step - loss: 0.2780 - val_loss: 0.4408
Epoch 34/100

50/50 [=====] - 3s 54ms/step - loss: 0.2749 - val_loss: 0.4578
Epoch 35/100
50/50 [=====] - 3s 55ms/step - loss: 0.2693 - val_loss: 0.4540
Epoch 36/100
50/50 [=====] - 3s 55ms/step - loss: 0.2689 - val_loss: 0.4532
Epoch 37/100
50/50 [=====] - 3s 55ms/step - loss: 0.2636 - val_loss: 0.4754
Epoch 38/100
50/50 [=====] - 3s 55ms/step - loss: 0.2661 - val_loss: 0.4815
Epoch 39/100
50/50 [=====] - 3s 55ms/step - loss: 0.2611 - val_loss: 0.4919
Epoch 40/100
50/50 [=====] - 3s 55ms/step - loss: 0.2585 - val_loss: 0.4668
Epoch 41/100
50/50 [=====] - 3s 55ms/step - loss: 0.2562 - val_loss: 0.4909
Epoch 42/100
50/50 [=====] - 3s 56ms/step - loss: 0.2569 - val_loss: 0.5035
Epoch 43/100
50/50 [=====] - 3s 56ms/step - loss: 0.2487 - val_loss: 0.5082
Epoch 44/100
50/50 [=====] - 3s 56ms/step - loss: 0.2485 - val_loss: 0.4858
Epoch 45/100
50/50 [=====] - 3s 55ms/step - loss: 0.2440 - val_loss: 0.4679
Epoch 46/100
50/50 [=====] - 3s 55ms/step - loss: 0.2438 - val_loss: 0.5035
Epoch 47/100
50/50 [=====] - 3s 56ms/step - loss: 0.2412 - val_loss: 0.4609
Epoch 48/100
50/50 [=====] - 3s 56ms/step - loss: 0.2359 - val_loss: 0.5032
Epoch 49/100
50/50 [=====] - 3s 55ms/step - loss: 0.2333 - val_loss: 0.5346
Epoch 50/100
50/50 [=====] - 3s 55ms/step - loss: 0.2336 - val_loss: 0.4810
Epoch 51/100
50/50 [=====] - 3s 55ms/step - loss: 0.2283 - val_loss: 0.5002
Epoch 52/100
50/50 [=====] - 3s 55ms/step - loss: 0.2255 - val_loss: 0.4909
Epoch 53/100
50/50 [=====] - 3s 54ms/step - loss: 0.2229 - val_loss: 0.5204
Epoch 54/100
50/50 [=====] - 3s 55ms/step - loss: 0.2217 - val_loss: 0.4823
Epoch 55/100
50/50 [=====] - 3s 56ms/step - loss: 0.2202 - val_loss: 0.4788
Epoch 56/100
50/50 [=====] - 3s 55ms/step - loss: 0.2181 - val_loss: 0.4827

Epoch 57/100
50/50 [=====] - 3s 57ms/step - loss: 0.2146 - val_loss: 0.4720
Epoch 58/100
50/50 [=====] - 3s 56ms/step - loss: 0.2150 - val_loss: 0.4820
Epoch 59/100
50/50 [=====] - 3s 56ms/step - loss: 0.2091 - val_loss: 0.4685
Epoch 60/100
50/50 [=====] - 3s 55ms/step - loss: 0.2091 - val_loss: 0.4784
Epoch 61/100
50/50 [=====] - 3s 55ms/step - loss: 0.2050 - val_loss: 0.4848
Epoch 62/100
50/50 [=====] - 3s 56ms/step - loss: 0.2060 - val_loss: 0.4822
Epoch 63/100
50/50 [=====] - 3s 56ms/step - loss: 0.2039 - val_loss: 0.4585
Epoch 64/100
50/50 [=====] - 3s 56ms/step - loss: 0.1985 - val_loss: 0.4726
Epoch 65/100
50/50 [=====] - 3s 55ms/step - loss: 0.2007 - val_loss: 0.4561
Epoch 66/100
50/50 [=====] - 3s 55ms/step - loss: 0.1992 - val_loss: 0.4692
Epoch 67/100
50/50 [=====] - 3s 56ms/step - loss: 0.1967 - val_loss: 0.4637
Epoch 68/100
50/50 [=====] - 3s 56ms/step - loss: 0.1933 - val_loss: 0.4453
Epoch 69/100
50/50 [=====] - 3s 55ms/step - loss: 0.1906 - val_loss: 0.4721
Epoch 70/100
50/50 [=====] - 3s 55ms/step - loss: 0.1892 - val_loss: 0.4600
Epoch 71/100
50/50 [=====] - 3s 55ms/step - loss: 0.1861 - val_loss: 0.4707
Epoch 72/100
50/50 [=====] - 3s 55ms/step - loss: 0.1847 - val_loss: 0.4840
Epoch 73/100
50/50 [=====] - 3s 56ms/step - loss: 0.1822 - val_loss: 0.4668
Epoch 74/100
50/50 [=====] - 3s 55ms/step - loss: 0.1820 - val_loss: 0.4438
Epoch 75/100
50/50 [=====] - 3s 55ms/step - loss: 0.1789 - val_loss: 0.4612
Epoch 76/100
50/50 [=====] - 3s 55ms/step - loss: 0.1793 - val_loss: 0.4524
Epoch 77/100
50/50 [=====] - 3s 56ms/step - loss: 0.1787 - val_loss: 0.4746
Epoch 78/100
50/50 [=====] - 3s 56ms/step - loss: 0.1750 - val_loss: 0.4634
Epoch 79/100

50/50 [=====] - 3s 56ms/step - loss: 0.1724 - val_loss: 0.4678
Epoch 80/100
50/50 [=====] - 3s 56ms/step - loss: 0.1706 - val_loss: 0.4805
Epoch 81/100
50/50 [=====] - 3s 56ms/step - loss: 0.1734 - val_loss: 0.4778
Epoch 82/100
50/50 [=====] - 3s 56ms/step - loss: 0.1691 - val_loss: 0.4785
Epoch 83/100
50/50 [=====] - 4s 81ms/step - loss: 0.1673 - val_loss: 0.4641
Epoch 84/100
50/50 [=====] - 4s 73ms/step - loss: 0.1672 - val_loss: 0.4740
Epoch 85/100
50/50 [=====] - 3s 56ms/step - loss: 0.1657 - val_loss: 0.4394
Epoch 86/100
50/50 [=====] - 3s 55ms/step - loss: 0.1646 - val_loss: 0.4885
Epoch 87/100
50/50 [=====] - 3s 56ms/step - loss: 0.1612 - val_loss: 0.4851
Epoch 88/100
50/50 [=====] - 3s 55ms/step - loss: 0.1639 - val_loss: 0.4962
Epoch 89/100
50/50 [=====] - 3s 55ms/step - loss: 0.1581 - val_loss: 0.4506
Epoch 90/100
50/50 [=====] - 3s 55ms/step - loss: 0.1585 - val_loss: 0.4641
Epoch 91/100
50/50 [=====] - 3s 56ms/step - loss: 0.1583 - val_loss: 0.4697
Epoch 92/100
50/50 [=====] - 3s 56ms/step - loss: 0.1567 - val_loss: 0.4648
Epoch 93/100
50/50 [=====] - 3s 56ms/step - loss: 0.1531 - val_loss: 0.4607
Epoch 94/100
50/50 [=====] - 3s 56ms/step - loss: 0.1554 - val_loss: 0.4954
Epoch 95/100
50/50 [=====] - 3s 55ms/step - loss: 0.1511 - val_loss: 0.4682
Epoch 96/100
50/50 [=====] - 3s 56ms/step - loss: 0.1509 - val_loss: 0.4769
Epoch 97/100
50/50 [=====] - 3s 54ms/step - loss: 0.1510 - val_loss: 0.4732
Epoch 98/100
50/50 [=====] - 3s 55ms/step - loss: 0.1511 - val_loss: 0.4490
Epoch 99/100
50/50 [=====] - 3s 56ms/step - loss: 0.1504 - val_loss: 0.4521
Epoch 100/100
50/50 [=====] - 3s 54ms/step - loss: 0.1468 - val_loss: 0.4647



CA_4 - True Future: 2799

CA_4 - Model Prediction: 2741

CA_4 - Model Percentage Error: 2.07%

=====

Training for CA_1

Single window of past history : (100, 4)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 60ms/step - loss: 0.5022 - val_loss: 0.4350

Epoch 2/100

50/50 [=====] - 3s 54ms/step - loss: 0.3604 - val_loss: 0.4597

Epoch 3/100

50/50 [=====] - 3s 54ms/step - loss: 0.3436 - val_loss: 0.4748

Epoch 4/100

50/50 [=====] - 3s 53ms/step - loss: 0.3332 - val_loss: 0.4601

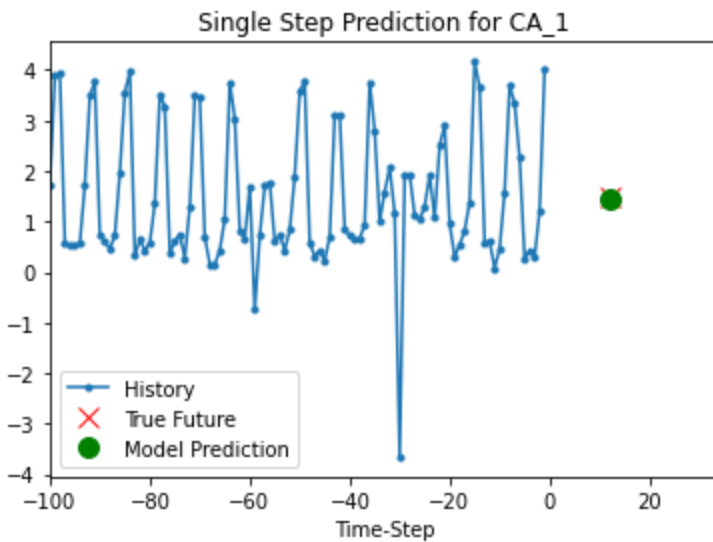
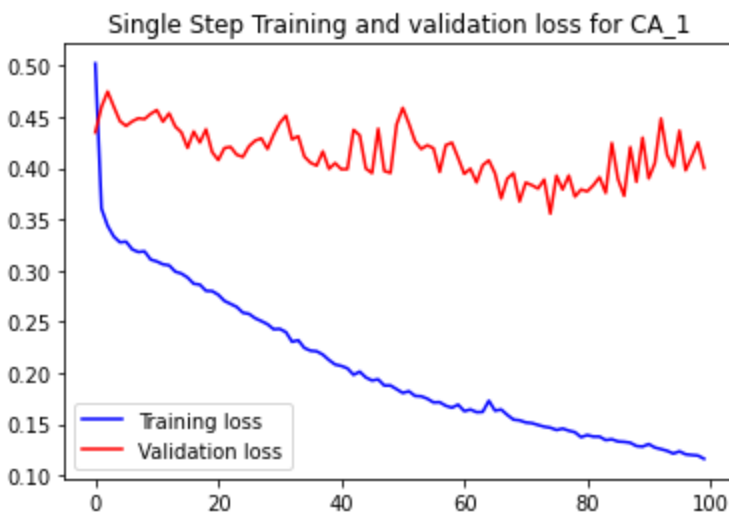
Epoch 5/100
50/50 [=====] - 3s 52ms/step - loss: 0.3275 - val_loss: 0.4459
Epoch 6/100
50/50 [=====] - 3s 53ms/step - loss: 0.3282 - val_loss: 0.4412
Epoch 7/100
50/50 [=====] - 3s 53ms/step - loss: 0.3206 - val_loss: 0.4457
Epoch 8/100
50/50 [=====] - 3s 53ms/step - loss: 0.3180 - val_loss: 0.4487
Epoch 9/100
50/50 [=====] - 3s 53ms/step - loss: 0.3187 - val_loss: 0.4479
Epoch 10/100
50/50 [=====] - 3s 53ms/step - loss: 0.3107 - val_loss: 0.4530
Epoch 11/100
50/50 [=====] - 3s 53ms/step - loss: 0.3088 - val_loss: 0.4567
Epoch 12/100
50/50 [=====] - 3s 54ms/step - loss: 0.3060 - val_loss: 0.4453
Epoch 13/100
50/50 [=====] - 3s 54ms/step - loss: 0.3050 - val_loss: 0.4536
Epoch 14/100
50/50 [=====] - 3s 53ms/step - loss: 0.2989 - val_loss: 0.4407
Epoch 15/100
50/50 [=====] - 3s 54ms/step - loss: 0.2970 - val_loss: 0.4349
Epoch 16/100
50/50 [=====] - 3s 56ms/step - loss: 0.2932 - val_loss: 0.4198
Epoch 17/100
50/50 [=====] - 3s 54ms/step - loss: 0.2871 - val_loss: 0.4357
Epoch 18/100
50/50 [=====] - 3s 53ms/step - loss: 0.2862 - val_loss: 0.4250
Epoch 19/100
50/50 [=====] - 3s 53ms/step - loss: 0.2801 - val_loss: 0.4379
Epoch 20/100
50/50 [=====] - 3s 53ms/step - loss: 0.2799 - val_loss: 0.4157
Epoch 21/100
50/50 [=====] - 3s 55ms/step - loss: 0.2763 - val_loss: 0.4079
Epoch 22/100
50/50 [=====] - 3s 54ms/step - loss: 0.2703 - val_loss: 0.4197
Epoch 23/100
50/50 [=====] - 3s 53ms/step - loss: 0.2674 - val_loss: 0.4207
Epoch 24/100
50/50 [=====] - 3s 54ms/step - loss: 0.2644 - val_loss: 0.4131
Epoch 25/100
50/50 [=====] - 3s 54ms/step - loss: 0.2588 - val_loss: 0.4110
Epoch 26/100
50/50 [=====] - 3s 54ms/step - loss: 0.2576 - val_loss: 0.4215
Epoch 27/100

50/50 [=====] - 3s 53ms/step - loss: 0.2534 - val_loss: 0.4269
Epoch 28/100
50/50 [=====] - 3s 54ms/step - loss: 0.2506 - val_loss: 0.4291
Epoch 29/100
50/50 [=====] - 3s 54ms/step - loss: 0.2475 - val_loss: 0.4187
Epoch 30/100
50/50 [=====] - 3s 55ms/step - loss: 0.2426 - val_loss: 0.4328
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.2429 - val_loss: 0.4441
Epoch 32/100
50/50 [=====] - 3s 53ms/step - loss: 0.2398 - val_loss: 0.4513
Epoch 33/100
50/50 [=====] - 3s 54ms/step - loss: 0.2304 - val_loss: 0.4281
Epoch 34/100
50/50 [=====] - 3s 54ms/step - loss: 0.2319 - val_loss: 0.4312
Epoch 35/100
50/50 [=====] - 3s 54ms/step - loss: 0.2243 - val_loss: 0.4113
Epoch 36/100
50/50 [=====] - 3s 56ms/step - loss: 0.2216 - val_loss: 0.4053
Epoch 37/100
50/50 [=====] - 3s 57ms/step - loss: 0.2211 - val_loss: 0.4024
Epoch 38/100
50/50 [=====] - 3s 57ms/step - loss: 0.2178 - val_loss: 0.4163
Epoch 39/100
50/50 [=====] - 3s 57ms/step - loss: 0.2125 - val_loss: 0.3993
Epoch 40/100
50/50 [=====] - 3s 54ms/step - loss: 0.2082 - val_loss: 0.4049
Epoch 41/100
50/50 [=====] - 3s 54ms/step - loss: 0.2068 - val_loss: 0.3989
Epoch 42/100
50/50 [=====] - 3s 54ms/step - loss: 0.2044 - val_loss: 0.3991
Epoch 43/100
50/50 [=====] - 3s 54ms/step - loss: 0.1981 - val_loss: 0.4374
Epoch 44/100
50/50 [=====] - 3s 54ms/step - loss: 0.2012 - val_loss: 0.4320
Epoch 45/100
50/50 [=====] - 3s 59ms/step - loss: 0.1955 - val_loss: 0.3995
Epoch 46/100
50/50 [=====] - 3s 56ms/step - loss: 0.1925 - val_loss: 0.3951
Epoch 47/100
50/50 [=====] - 3s 54ms/step - loss: 0.1937 - val_loss: 0.4385
Epoch 48/100
50/50 [=====] - 3s 54ms/step - loss: 0.1876 - val_loss: 0.3972
Epoch 49/100
50/50 [=====] - 3s 55ms/step - loss: 0.1877 - val_loss: 0.3953

Epoch 50/100
50/50 [=====] - 3s 54ms/step - loss: 0.1840 - val_loss: 0.4427
Epoch 51/100
50/50 [=====] - 3s 54ms/step - loss: 0.1804 - val_loss: 0.4589
Epoch 52/100
50/50 [=====] - 3s 54ms/step - loss: 0.1820 - val_loss: 0.4435
Epoch 53/100
50/50 [=====] - 3s 54ms/step - loss: 0.1775 - val_loss: 0.4263
Epoch 54/100
50/50 [=====] - 3s 53ms/step - loss: 0.1771 - val_loss: 0.4187
Epoch 55/100
50/50 [=====] - 3s 54ms/step - loss: 0.1748 - val_loss: 0.4223
Epoch 56/100
50/50 [=====] - 3s 54ms/step - loss: 0.1711 - val_loss: 0.4194
Epoch 57/100
50/50 [=====] - 3s 54ms/step - loss: 0.1713 - val_loss: 0.3962
Epoch 58/100
50/50 [=====] - 3s 54ms/step - loss: 0.1678 - val_loss: 0.4225
Epoch 59/100
50/50 [=====] - 3s 54ms/step - loss: 0.1660 - val_loss: 0.4249
Epoch 60/100
50/50 [=====] - 3s 54ms/step - loss: 0.1690 - val_loss: 0.4100
Epoch 61/100
50/50 [=====] - 3s 55ms/step - loss: 0.1626 - val_loss: 0.3944
Epoch 62/100
50/50 [=====] - 3s 53ms/step - loss: 0.1642 - val_loss: 0.3994
Epoch 63/100
50/50 [=====] - 3s 55ms/step - loss: 0.1616 - val_loss: 0.3860
Epoch 64/100
50/50 [=====] - 3s 54ms/step - loss: 0.1618 - val_loss: 0.4027
Epoch 65/100
50/50 [=====] - 3s 54ms/step - loss: 0.1728 - val_loss: 0.4076
Epoch 66/100
50/50 [=====] - 3s 53ms/step - loss: 0.1631 - val_loss: 0.3950
Epoch 67/100
50/50 [=====] - 3s 53ms/step - loss: 0.1642 - val_loss: 0.3704
Epoch 68/100
50/50 [=====] - 3s 53ms/step - loss: 0.1589 - val_loss: 0.3898
Epoch 69/100
50/50 [=====] - 3s 54ms/step - loss: 0.1543 - val_loss: 0.3951
Epoch 70/100
50/50 [=====] - 3s 53ms/step - loss: 0.1536 - val_loss: 0.3675
Epoch 71/100
50/50 [=====] - 3s 53ms/step - loss: 0.1515 - val_loss: 0.3858
Epoch 72/100

50/50 [=====] - 3s 53ms/step - loss: 0.1509 - val_loss: 0.3833
Epoch 73/100
50/50 [=====] - 3s 54ms/step - loss: 0.1491 - val_loss: 0.3800
Epoch 74/100
50/50 [=====] - 3s 55ms/step - loss: 0.1474 - val_loss: 0.3889
Epoch 75/100
50/50 [=====] - 3s 54ms/step - loss: 0.1465 - val_loss: 0.3555
Epoch 76/100
50/50 [=====] - 3s 51ms/step - loss: 0.1442 - val_loss: 0.3927
Epoch 77/100
50/50 [=====] - 3s 51ms/step - loss: 0.1456 - val_loss: 0.3791
Epoch 78/100
50/50 [=====] - 3s 52ms/step - loss: 0.1435 - val_loss: 0.3928
Epoch 79/100
50/50 [=====] - 3s 52ms/step - loss: 0.1420 - val_loss: 0.3721
Epoch 80/100
50/50 [=====] - 3s 53ms/step - loss: 0.1371 - val_loss: 0.3791
Epoch 81/100
50/50 [=====] - 3s 52ms/step - loss: 0.1392 - val_loss: 0.3772
Epoch 82/100
50/50 [=====] - 3s 54ms/step - loss: 0.1377 - val_loss: 0.3832
Epoch 83/100
50/50 [=====] - 3s 53ms/step - loss: 0.1377 - val_loss: 0.3912
Epoch 84/100
50/50 [=====] - 3s 53ms/step - loss: 0.1343 - val_loss: 0.3758
Epoch 85/100
50/50 [=====] - 3s 54ms/step - loss: 0.1351 - val_loss: 0.4246
Epoch 86/100
50/50 [=====] - 3s 54ms/step - loss: 0.1330 - val_loss: 0.3893
Epoch 87/100
50/50 [=====] - 3s 53ms/step - loss: 0.1326 - val_loss: 0.3729
Epoch 88/100
50/50 [=====] - 3s 54ms/step - loss: 0.1317 - val_loss: 0.4205
Epoch 89/100
50/50 [=====] - 3s 54ms/step - loss: 0.1285 - val_loss: 0.3866
Epoch 90/100
50/50 [=====] - 3s 53ms/step - loss: 0.1279 - val_loss: 0.4298
Epoch 91/100
50/50 [=====] - 3s 53ms/step - loss: 0.1304 - val_loss: 0.3899
Epoch 92/100
50/50 [=====] - 3s 53ms/step - loss: 0.1270 - val_loss: 0.4049
Epoch 93/100
50/50 [=====] - 3s 52ms/step - loss: 0.1255 - val_loss: 0.4484
Epoch 94/100
50/50 [=====] - 3s 52ms/step - loss: 0.1238 - val_loss: 0.4126

Epoch 95/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1211 - val_loss: 0.4013
 Epoch 96/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1233 - val_loss: 0.4366
 Epoch 97/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1204 - val_loss: 0.3978
 Epoch 98/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1197 - val_loss: 0.4110
 Epoch 99/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1192 - val_loss: 0.4251
 Epoch 100/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1160 - val_loss: 0.4000



CA_1 - True Future: 5483
 CA_1 - Model Prediction: 5418
 CA_1 - Model Percentage Error: 1.19%

=====

Training for CA_3

Single window of past history : (100, 4)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 64ms/step - loss: 0.5119 - val_loss: 0.4008

Epoch 2/100

50/50 [=====] - 3s 57ms/step - loss: 0.4089 - val_loss: 0.4246

Epoch 3/100

50/50 [=====] - 3s 56ms/step - loss: 0.3746 - val_loss: 0.4253

Epoch 4/100

50/50 [=====] - 3s 57ms/step - loss: 0.3624 - val_loss: 0.4021

Epoch 5/100

50/50 [=====] - 3s 57ms/step - loss: 0.3575 - val_loss: 0.4385

Epoch 6/100

50/50 [=====] - 3s 57ms/step - loss: 0.3489 - val_loss: 0.4239

Epoch 7/100

50/50 [=====] - 3s 57ms/step - loss: 0.3456 - val_loss: 0.4385

Epoch 8/100

50/50 [=====] - 3s 56ms/step - loss: 0.3397 - val_loss: 0.4413

Epoch 9/100

50/50 [=====] - 3s 56ms/step - loss: 0.3315 - val_loss: 0.4437

Epoch 10/100

50/50 [=====] - 3s 57ms/step - loss: 0.3306 - val_loss: 0.4484

Epoch 11/100

50/50 [=====] - 3s 57ms/step - loss: 0.3269 - val_loss: 0.4823

Epoch 12/100

50/50 [=====] - 3s 57ms/step - loss: 0.3202 - val_loss: 0.5009

Epoch 13/100

50/50 [=====] - 3s 57ms/step - loss: 0.3190 - val_loss: 0.4654

Epoch 14/100

50/50 [=====] - 3s 57ms/step - loss: 0.3150 - val_loss: 0.4832

Epoch 15/100

50/50 [=====] - 3s 57ms/step - loss: 0.3064 - val_loss: 0.4574

Epoch 16/100

50/50 [=====] - 3s 57ms/step - loss: 0.3026 - val_loss: 0.5073

Epoch 17/100

50/50 [=====] - 3s 57ms/step - loss: 0.3002 - val_loss: 0.4934

Epoch 18/100

50/50 [=====] - 3s 56ms/step - loss: 0.2935 - val_loss: 0.4828

Epoch 19/100

50/50 [=====] - 3s 57ms/step - loss: 0.2890 - val_loss: 0.4486

Epoch 20/100

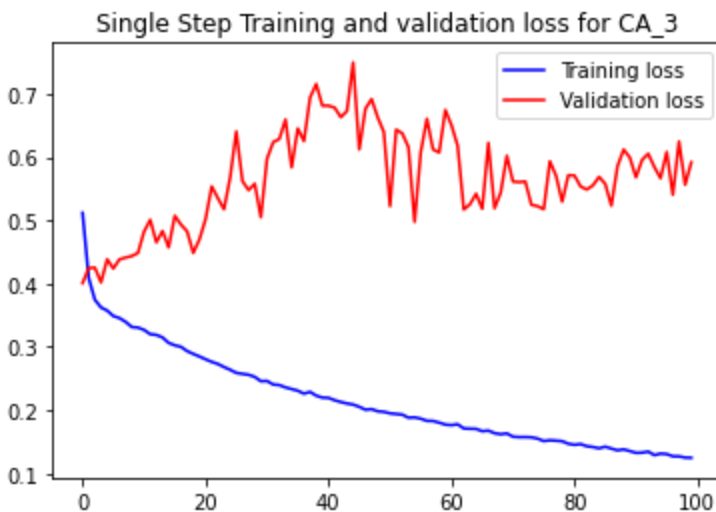
50/50 [=====] - 3s 57ms/step - loss: 0.2849 - val_loss: 0.4699

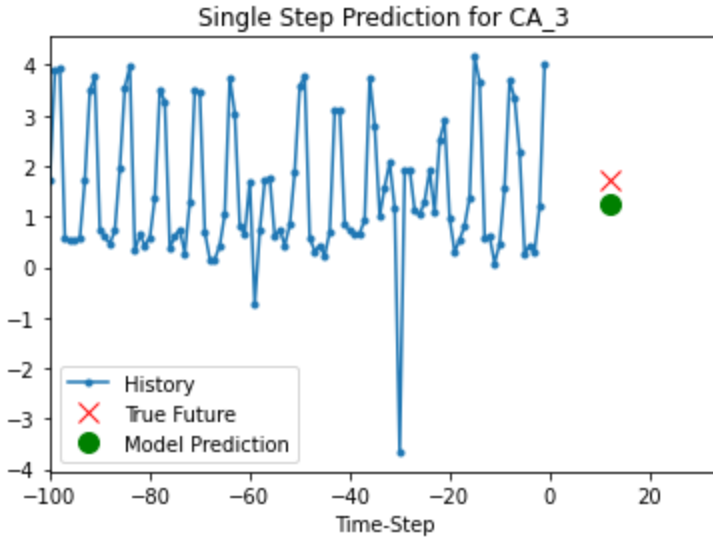
Epoch 21/100
50/50 [=====] - 3s 56ms/step - loss: 0.2805 - val_loss: 0.5019
Epoch 22/100
50/50 [=====] - 3s 56ms/step - loss: 0.2764 - val_loss: 0.5538
Epoch 23/100
50/50 [=====] - 3s 56ms/step - loss: 0.2731 - val_loss: 0.5353
Epoch 24/100
50/50 [=====] - 3s 57ms/step - loss: 0.2682 - val_loss: 0.5177
Epoch 25/100
50/50 [=====] - 3s 56ms/step - loss: 0.2639 - val_loss: 0.5680
Epoch 26/100
50/50 [=====] - 3s 56ms/step - loss: 0.2590 - val_loss: 0.6406
Epoch 27/100
50/50 [=====] - 3s 56ms/step - loss: 0.2574 - val_loss: 0.5622
Epoch 28/100
50/50 [=====] - 3s 56ms/step - loss: 0.2560 - val_loss: 0.5479
Epoch 29/100
50/50 [=====] - 3s 56ms/step - loss: 0.2526 - val_loss: 0.5580
Epoch 30/100
50/50 [=====] - 3s 57ms/step - loss: 0.2458 - val_loss: 0.5052
Epoch 31/100
50/50 [=====] - 3s 58ms/step - loss: 0.2462 - val_loss: 0.5976
Epoch 32/100
50/50 [=====] - 3s 57ms/step - loss: 0.2406 - val_loss: 0.6237
Epoch 33/100
50/50 [=====] - 3s 57ms/step - loss: 0.2397 - val_loss: 0.6287
Epoch 34/100
50/50 [=====] - 3s 56ms/step - loss: 0.2360 - val_loss: 0.6596
Epoch 35/100
50/50 [=====] - 3s 58ms/step - loss: 0.2334 - val_loss: 0.5839
Epoch 36/100
50/50 [=====] - 3s 57ms/step - loss: 0.2308 - val_loss: 0.6454
Epoch 37/100
50/50 [=====] - 3s 57ms/step - loss: 0.2261 - val_loss: 0.6255
Epoch 38/100
50/50 [=====] - 3s 57ms/step - loss: 0.2289 - val_loss: 0.6944
Epoch 39/100
50/50 [=====] - 3s 57ms/step - loss: 0.2229 - val_loss: 0.7157
Epoch 40/100
50/50 [=====] - 3s 57ms/step - loss: 0.2198 - val_loss: 0.6814
Epoch 41/100
50/50 [=====] - 3s 56ms/step - loss: 0.2194 - val_loss: 0.6814
Epoch 42/100
50/50 [=====] - 3s 57ms/step - loss: 0.2157 - val_loss: 0.6782
Epoch 43/100

50/50 [=====] - 3s 57ms/step - loss: 0.2129 - val_loss: 0.6633
Epoch 44/100
50/50 [=====] - 3s 57ms/step - loss: 0.2106 - val_loss: 0.6729
Epoch 45/100
50/50 [=====] - 3s 57ms/step - loss: 0.2089 - val_loss: 0.7497
Epoch 46/100
50/50 [=====] - 3s 59ms/step - loss: 0.2053 - val_loss: 0.6122
Epoch 47/100
50/50 [=====] - 3s 59ms/step - loss: 0.2008 - val_loss: 0.6765
Epoch 48/100
50/50 [=====] - 3s 59ms/step - loss: 0.2017 - val_loss: 0.6919
Epoch 49/100
50/50 [=====] - 3s 57ms/step - loss: 0.1982 - val_loss: 0.6630
Epoch 50/100
50/50 [=====] - 3s 57ms/step - loss: 0.1974 - val_loss: 0.6397
Epoch 51/100
50/50 [=====] - 3s 57ms/step - loss: 0.1950 - val_loss: 0.5226
Epoch 52/100
50/50 [=====] - 3s 57ms/step - loss: 0.1940 - val_loss: 0.6437
Epoch 53/100
50/50 [=====] - 3s 56ms/step - loss: 0.1929 - val_loss: 0.6376
Epoch 54/100
50/50 [=====] - 3s 56ms/step - loss: 0.1881 - val_loss: 0.6156
Epoch 55/100
50/50 [=====] - 3s 56ms/step - loss: 0.1886 - val_loss: 0.4978
Epoch 56/100
50/50 [=====] - 3s 55ms/step - loss: 0.1866 - val_loss: 0.6080
Epoch 57/100
50/50 [=====] - 3s 57ms/step - loss: 0.1831 - val_loss: 0.6608
Epoch 58/100
50/50 [=====] - 3s 55ms/step - loss: 0.1829 - val_loss: 0.6122
Epoch 59/100
50/50 [=====] - 3s 56ms/step - loss: 0.1802 - val_loss: 0.6074
Epoch 60/100
50/50 [=====] - 3s 57ms/step - loss: 0.1772 - val_loss: 0.6746
Epoch 61/100
50/50 [=====] - 3s 55ms/step - loss: 0.1764 - val_loss: 0.6505
Epoch 62/100
50/50 [=====] - 3s 55ms/step - loss: 0.1777 - val_loss: 0.6181
Epoch 63/100
50/50 [=====] - 3s 57ms/step - loss: 0.1711 - val_loss: 0.5173
Epoch 64/100
50/50 [=====] - 3s 55ms/step - loss: 0.1707 - val_loss: 0.5255
Epoch 65/100
50/50 [=====] - 3s 56ms/step - loss: 0.1705 - val_loss: 0.5422

Epoch 66/100
50/50 [=====] - 3s 56ms/step - loss: 0.1667 - val_loss: 0.5184
Epoch 67/100
50/50 [=====] - 3s 55ms/step - loss: 0.1677 - val_loss: 0.6226
Epoch 68/100
50/50 [=====] - 3s 56ms/step - loss: 0.1636 - val_loss: 0.5192
Epoch 69/100
50/50 [=====] - 3s 56ms/step - loss: 0.1620 - val_loss: 0.5439
Epoch 70/100
50/50 [=====] - 3s 56ms/step - loss: 0.1633 - val_loss: 0.6022
Epoch 71/100
50/50 [=====] - 3s 55ms/step - loss: 0.1581 - val_loss: 0.5615
Epoch 72/100
50/50 [=====] - 3s 56ms/step - loss: 0.1574 - val_loss: 0.5606
Epoch 73/100
50/50 [=====] - 3s 57ms/step - loss: 0.1575 - val_loss: 0.5616
Epoch 74/100
50/50 [=====] - 3s 57ms/step - loss: 0.1571 - val_loss: 0.5247
Epoch 75/100
50/50 [=====] - 3s 57ms/step - loss: 0.1551 - val_loss: 0.5226
Epoch 76/100
50/50 [=====] - 3s 56ms/step - loss: 0.1512 - val_loss: 0.5177
Epoch 77/100
50/50 [=====] - 3s 56ms/step - loss: 0.1524 - val_loss: 0.5935
Epoch 78/100
50/50 [=====] - 3s 56ms/step - loss: 0.1518 - val_loss: 0.5707
Epoch 79/100
50/50 [=====] - 3s 56ms/step - loss: 0.1510 - val_loss: 0.5297
Epoch 80/100
50/50 [=====] - 3s 56ms/step - loss: 0.1469 - val_loss: 0.5714
Epoch 81/100
50/50 [=====] - 3s 57ms/step - loss: 0.1453 - val_loss: 0.5710
Epoch 82/100
50/50 [=====] - 3s 56ms/step - loss: 0.1464 - val_loss: 0.5537
Epoch 83/100
50/50 [=====] - 3s 55ms/step - loss: 0.1430 - val_loss: 0.5489
Epoch 84/100
50/50 [=====] - 3s 55ms/step - loss: 0.1418 - val_loss: 0.5554
Epoch 85/100
50/50 [=====] - 3s 55ms/step - loss: 0.1397 - val_loss: 0.5689
Epoch 86/100
50/50 [=====] - 3s 56ms/step - loss: 0.1423 - val_loss: 0.5579
Epoch 87/100
50/50 [=====] - 3s 56ms/step - loss: 0.1393 - val_loss: 0.5234
Epoch 88/100

50/50 [=====] - 3s 55ms/step - loss: 0.1366 - val_loss: 0.5859
Epoch 89/100
50/50 [=====] - 3s 56ms/step - loss: 0.1380 - val_loss: 0.6122
Epoch 90/100
50/50 [=====] - 3s 56ms/step - loss: 0.1354 - val_loss: 0.5995
Epoch 91/100
50/50 [=====] - 3s 55ms/step - loss: 0.1325 - val_loss: 0.5682
Epoch 92/100
50/50 [=====] - 3s 56ms/step - loss: 0.1328 - val_loss: 0.5958
Epoch 93/100
50/50 [=====] - 3s 56ms/step - loss: 0.1345 - val_loss: 0.6055
Epoch 94/100
50/50 [=====] - 3s 57ms/step - loss: 0.1289 - val_loss: 0.5844
Epoch 95/100
50/50 [=====] - 3s 56ms/step - loss: 0.1313 - val_loss: 0.5667
Epoch 96/100
50/50 [=====] - 3s 59ms/step - loss: 0.1306 - val_loss: 0.6082
Epoch 97/100
50/50 [=====] - 4s 87ms/step - loss: 0.1271 - val_loss: 0.5406
Epoch 98/100
50/50 [=====] - 3s 63ms/step - loss: 0.1270 - val_loss: 0.6247
Epoch 99/100
50/50 [=====] - 3s 60ms/step - loss: 0.1250 - val_loss: 0.5565
Epoch 100/100
50/50 [=====] - 3s 56ms/step - loss: 0.1247 - val_loss: 0.5919





CA_3 - True Future: 7921

CA_3 - Model Prediction: 7330

CA_3 - Model Percentage Error: 7.46%

=====
=====

Training for TX_2

Single window of past history : (100, 3)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 60ms/step - loss: 0.5864 - val_loss: 0.4200

Epoch 2/100

50/50 [=====] - 3s 53ms/step - loss: 0.4457 - val_loss: 0.4286

Epoch 3/100

50/50 [=====] - 3s 53ms/step - loss: 0.4262 - val_loss: 0.4217

Epoch 4/100

50/50 [=====] - 3s 54ms/step - loss: 0.4161 - val_loss: 0.3874

Epoch 5/100

50/50 [=====] - 3s 53ms/step - loss: 0.4100 - val_loss: 0.3926

Epoch 6/100

50/50 [=====] - 3s 53ms/step - loss: 0.4041 - val_loss: 0.4055

Epoch 7/100

50/50 [=====] - 3s 53ms/step - loss: 0.3995 - val_loss: 0.4049

Epoch 8/100

50/50 [=====] - 3s 53ms/step - loss: 0.3944 - val_loss: 0.4353

Epoch 9/100

50/50 [=====] - 3s 53ms/step - loss: 0.3905 - val_loss: 0.4436

Epoch 10/100

50/50 [=====] - 3s 53ms/step - loss: 0.3824 - val_loss: 0.4404

Epoch 11/100

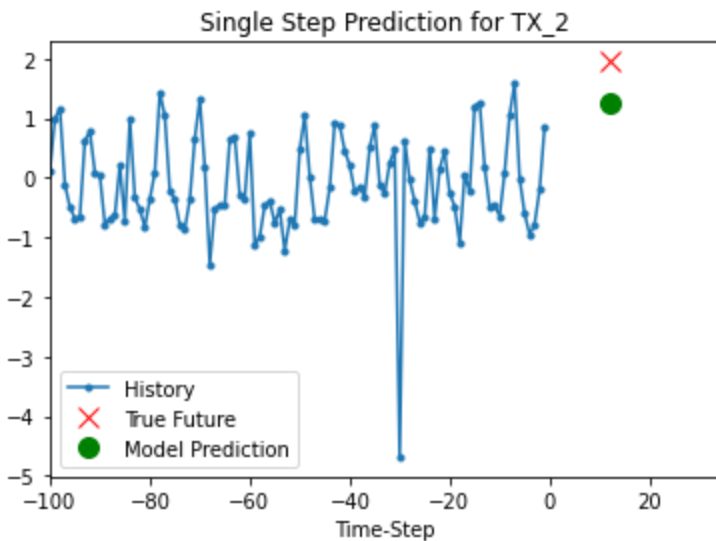
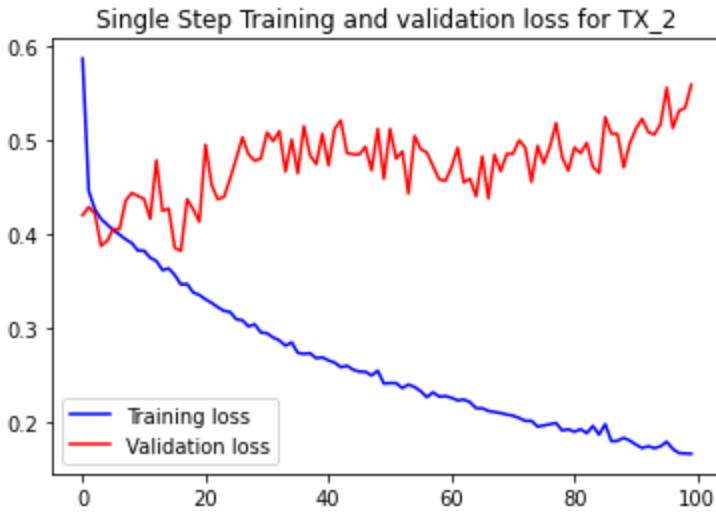
50/50 [=====] - 3s 52ms/step - loss: 0.3823 - val_loss: 0.4373

Epoch 12/100
50/50 [=====] - 3s 53ms/step - loss: 0.3748 - val_loss: 0.4162
Epoch 13/100
50/50 [=====] - 3s 53ms/step - loss: 0.3714 - val_loss: 0.4784
Epoch 14/100
50/50 [=====] - 3s 54ms/step - loss: 0.3616 - val_loss: 0.4245
Epoch 15/100
50/50 [=====] - 3s 54ms/step - loss: 0.3635 - val_loss: 0.4272
Epoch 16/100
50/50 [=====] - 3s 55ms/step - loss: 0.3565 - val_loss: 0.3853
Epoch 17/100
50/50 [=====] - 3s 55ms/step - loss: 0.3464 - val_loss: 0.3822
Epoch 18/100
50/50 [=====] - 3s 55ms/step - loss: 0.3469 - val_loss: 0.4369
Epoch 19/100
50/50 [=====] - 3s 56ms/step - loss: 0.3379 - val_loss: 0.4262
Epoch 20/100
50/50 [=====] - 3s 55ms/step - loss: 0.3353 - val_loss: 0.4131
Epoch 21/100
50/50 [=====] - 3s 55ms/step - loss: 0.3306 - val_loss: 0.4949
Epoch 22/100
50/50 [=====] - 3s 55ms/step - loss: 0.3268 - val_loss: 0.4520
Epoch 23/100
50/50 [=====] - 3s 53ms/step - loss: 0.3223 - val_loss: 0.4369
Epoch 24/100
50/50 [=====] - 3s 54ms/step - loss: 0.3184 - val_loss: 0.4395
Epoch 25/100
50/50 [=====] - 3s 54ms/step - loss: 0.3172 - val_loss: 0.4588
Epoch 26/100
50/50 [=====] - 3s 54ms/step - loss: 0.3095 - val_loss: 0.4805
Epoch 27/100
50/50 [=====] - 3s 54ms/step - loss: 0.3084 - val_loss: 0.5026
Epoch 28/100
50/50 [=====] - 3s 54ms/step - loss: 0.3018 - val_loss: 0.4845
Epoch 29/100
50/50 [=====] - 3s 53ms/step - loss: 0.3042 - val_loss: 0.4779
Epoch 30/100
50/50 [=====] - 3s 54ms/step - loss: 0.2954 - val_loss: 0.4800
Epoch 31/100
50/50 [=====] - 3s 54ms/step - loss: 0.2946 - val_loss: 0.5079
Epoch 32/100
50/50 [=====] - 3s 54ms/step - loss: 0.2901 - val_loss: 0.4986
Epoch 33/100
50/50 [=====] - 3s 53ms/step - loss: 0.2870 - val_loss: 0.5092
Epoch 34/100

50/50 [=====] - 3s 54ms/step - loss: 0.2814 - val_loss: 0.4663
Epoch 35/100
50/50 [=====] - 3s 55ms/step - loss: 0.2849 - val_loss: 0.5003
Epoch 36/100
50/50 [=====] - 3s 55ms/step - loss: 0.2738 - val_loss: 0.4645
Epoch 37/100
50/50 [=====] - 3s 55ms/step - loss: 0.2727 - val_loss: 0.5146
Epoch 38/100
50/50 [=====] - 3s 53ms/step - loss: 0.2734 - val_loss: 0.4837
Epoch 39/100
50/50 [=====] - 3s 53ms/step - loss: 0.2681 - val_loss: 0.4742
Epoch 40/100
50/50 [=====] - 3s 54ms/step - loss: 0.2690 - val_loss: 0.5065
Epoch 41/100
50/50 [=====] - 3s 54ms/step - loss: 0.2657 - val_loss: 0.4730
Epoch 42/100
50/50 [=====] - 3s 54ms/step - loss: 0.2634 - val_loss: 0.5117
Epoch 43/100
50/50 [=====] - 3s 55ms/step - loss: 0.2585 - val_loss: 0.5206
Epoch 44/100
50/50 [=====] - 3s 55ms/step - loss: 0.2601 - val_loss: 0.4860
Epoch 45/100
50/50 [=====] - 3s 55ms/step - loss: 0.2559 - val_loss: 0.4847
Epoch 46/100
50/50 [=====] - 3s 54ms/step - loss: 0.2539 - val_loss: 0.4845
Epoch 47/100
50/50 [=====] - 3s 54ms/step - loss: 0.2538 - val_loss: 0.4928
Epoch 48/100
50/50 [=====] - 3s 55ms/step - loss: 0.2498 - val_loss: 0.4676
Epoch 49/100
50/50 [=====] - 3s 55ms/step - loss: 0.2549 - val_loss: 0.5118
Epoch 50/100
50/50 [=====] - 3s 55ms/step - loss: 0.2412 - val_loss: 0.4587
Epoch 51/100
50/50 [=====] - 3s 55ms/step - loss: 0.2417 - val_loss: 0.5117
Epoch 52/100
50/50 [=====] - 3s 54ms/step - loss: 0.2417 - val_loss: 0.4802
Epoch 53/100
50/50 [=====] - 3s 55ms/step - loss: 0.2364 - val_loss: 0.4876
Epoch 54/100
50/50 [=====] - 3s 56ms/step - loss: 0.2402 - val_loss: 0.4431
Epoch 55/100
50/50 [=====] - 3s 56ms/step - loss: 0.2375 - val_loss: 0.5043
Epoch 56/100
50/50 [=====] - 3s 57ms/step - loss: 0.2331 - val_loss: 0.4902

Epoch 57/100
50/50 [=====] - 3s 57ms/step - loss: 0.2268 - val_loss: 0.4864
Epoch 58/100
50/50 [=====] - 3s 56ms/step - loss: 0.2319 - val_loss: 0.4721
Epoch 59/100
50/50 [=====] - 3s 55ms/step - loss: 0.2273 - val_loss: 0.4581
Epoch 60/100
50/50 [=====] - 3s 55ms/step - loss: 0.2279 - val_loss: 0.4563
Epoch 61/100
50/50 [=====] - 3s 55ms/step - loss: 0.2261 - val_loss: 0.4709
Epoch 62/100
50/50 [=====] - 3s 54ms/step - loss: 0.2233 - val_loss: 0.4917
Epoch 63/100
50/50 [=====] - 3s 55ms/step - loss: 0.2242 - val_loss: 0.4548
Epoch 64/100
50/50 [=====] - 3s 56ms/step - loss: 0.2215 - val_loss: 0.4588
Epoch 65/100
50/50 [=====] - 3s 55ms/step - loss: 0.2150 - val_loss: 0.4401
Epoch 66/100
50/50 [=====] - 3s 55ms/step - loss: 0.2149 - val_loss: 0.4824
Epoch 67/100
50/50 [=====] - 3s 55ms/step - loss: 0.2120 - val_loss: 0.4379
Epoch 68/100
50/50 [=====] - 3s 55ms/step - loss: 0.2110 - val_loss: 0.4842
Epoch 69/100
50/50 [=====] - 3s 55ms/step - loss: 0.2099 - val_loss: 0.4666
Epoch 70/100
50/50 [=====] - 3s 55ms/step - loss: 0.2083 - val_loss: 0.4851
Epoch 71/100
50/50 [=====] - 3s 55ms/step - loss: 0.2071 - val_loss: 0.4852
Epoch 72/100
50/50 [=====] - 3s 55ms/step - loss: 0.2045 - val_loss: 0.4996
Epoch 73/100
50/50 [=====] - 3s 56ms/step - loss: 0.2016 - val_loss: 0.4917
Epoch 74/100
50/50 [=====] - 3s 55ms/step - loss: 0.2016 - val_loss: 0.4555
Epoch 75/100
50/50 [=====] - 3s 54ms/step - loss: 0.1955 - val_loss: 0.4936
Epoch 76/100
50/50 [=====] - 3s 55ms/step - loss: 0.1967 - val_loss: 0.4751
Epoch 77/100
50/50 [=====] - 3s 54ms/step - loss: 0.1980 - val_loss: 0.4925
Epoch 78/100
50/50 [=====] - 3s 55ms/step - loss: 0.1993 - val_loss: 0.5179
Epoch 79/100

50/50 [=====] - 3s 56ms/step - loss: 0.1913 - val_loss: 0.4815
Epoch 80/100
50/50 [=====] - 3s 56ms/step - loss: 0.1926 - val_loss: 0.4673
Epoch 81/100
50/50 [=====] - 3s 56ms/step - loss: 0.1900 - val_loss: 0.4919
Epoch 82/100
50/50 [=====] - 3s 55ms/step - loss: 0.1927 - val_loss: 0.4858
Epoch 83/100
50/50 [=====] - 3s 55ms/step - loss: 0.1885 - val_loss: 0.4967
Epoch 84/100
50/50 [=====] - 3s 55ms/step - loss: 0.1962 - val_loss: 0.4713
Epoch 85/100
50/50 [=====] - 3s 55ms/step - loss: 0.1869 - val_loss: 0.4649
Epoch 86/100
50/50 [=====] - 3s 55ms/step - loss: 0.1981 - val_loss: 0.5241
Epoch 87/100
50/50 [=====] - 3s 56ms/step - loss: 0.1799 - val_loss: 0.5066
Epoch 88/100
50/50 [=====] - 3s 55ms/step - loss: 0.1804 - val_loss: 0.5062
Epoch 89/100
50/50 [=====] - 3s 57ms/step - loss: 0.1835 - val_loss: 0.4707
Epoch 90/100
50/50 [=====] - 3s 54ms/step - loss: 0.1806 - val_loss: 0.4962
Epoch 91/100
50/50 [=====] - 3s 55ms/step - loss: 0.1763 - val_loss: 0.5119
Epoch 92/100
50/50 [=====] - 3s 56ms/step - loss: 0.1727 - val_loss: 0.5225
Epoch 93/100
50/50 [=====] - 3s 57ms/step - loss: 0.1746 - val_loss: 0.5083
Epoch 94/100
50/50 [=====] - 3s 55ms/step - loss: 0.1726 - val_loss: 0.5057
Epoch 95/100
50/50 [=====] - 3s 55ms/step - loss: 0.1746 - val_loss: 0.5169
Epoch 96/100
50/50 [=====] - 3s 55ms/step - loss: 0.1793 - val_loss: 0.5554
Epoch 97/100
50/50 [=====] - 3s 55ms/step - loss: 0.1717 - val_loss: 0.5125
Epoch 98/100
50/50 [=====] - 3s 55ms/step - loss: 0.1674 - val_loss: 0.5308
Epoch 99/100
50/50 [=====] - 3s 55ms/step - loss: 0.1670 - val_loss: 0.5341
Epoch 100/100
50/50 [=====] - 3s 56ms/step - loss: 0.1666 - val_loss: 0.5587



TX_2 - True Future: 5327

TX_2 - Model Prediction: 4772

TX_2 - Model Percentage Error: 10.42%

=====

Training for TX_3

Single window of past history : (100, 3)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 63ms/step - loss: 0.5605 - val_loss: 0.4953

Epoch 2/100

50/50 [=====] - 3s 56ms/step - loss: 0.4517 - val_loss: 0.4362

Epoch 3/100

50/50 [=====] - 3s 57ms/step - loss: 0.4218 - val_loss: 0.4380

Epoch 4/100

50/50 [=====] - 3s 56ms/step - loss: 0.4131 - val_loss: 0.4124

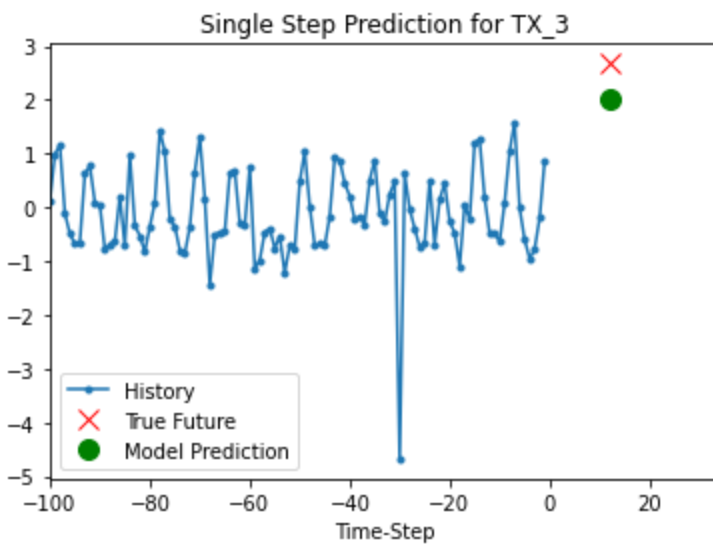
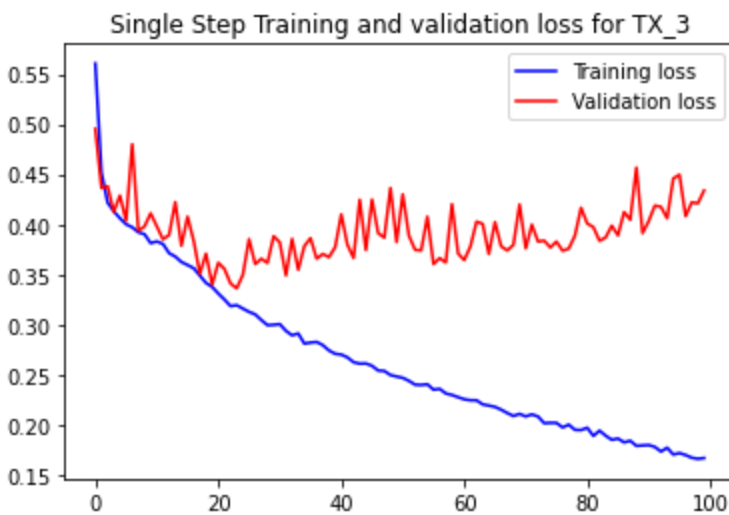
Epoch 5/100
50/50 [=====] - 3s 55ms/step - loss: 0.4061 - val_loss: 0.4288
Epoch 6/100
50/50 [=====] - 3s 56ms/step - loss: 0.4002 - val_loss: 0.4036
Epoch 7/100
50/50 [=====] - 3s 55ms/step - loss: 0.3971 - val_loss: 0.4800
Epoch 8/100
50/50 [=====] - 3s 56ms/step - loss: 0.3921 - val_loss: 0.3937
Epoch 9/100
50/50 [=====] - 3s 55ms/step - loss: 0.3902 - val_loss: 0.3979
Epoch 10/100
50/50 [=====] - 3s 54ms/step - loss: 0.3813 - val_loss: 0.4111
Epoch 11/100
50/50 [=====] - 3s 55ms/step - loss: 0.3830 - val_loss: 0.3981
Epoch 12/100
50/50 [=====] - 3s 54ms/step - loss: 0.3805 - val_loss: 0.3852
Epoch 13/100
50/50 [=====] - 3s 54ms/step - loss: 0.3713 - val_loss: 0.3895
Epoch 14/100
50/50 [=====] - 3s 54ms/step - loss: 0.3679 - val_loss: 0.4222
Epoch 15/100
50/50 [=====] - 3s 54ms/step - loss: 0.3625 - val_loss: 0.3787
Epoch 16/100
50/50 [=====] - 3s 54ms/step - loss: 0.3595 - val_loss: 0.4077
Epoch 17/100
50/50 [=====] - 3s 55ms/step - loss: 0.3562 - val_loss: 0.3836
Epoch 18/100
50/50 [=====] - 3s 55ms/step - loss: 0.3490 - val_loss: 0.3507
Epoch 19/100
50/50 [=====] - 3s 56ms/step - loss: 0.3416 - val_loss: 0.3708
Epoch 20/100
50/50 [=====] - 3s 55ms/step - loss: 0.3377 - val_loss: 0.3400
Epoch 21/100
50/50 [=====] - 3s 55ms/step - loss: 0.3311 - val_loss: 0.3617
Epoch 22/100
50/50 [=====] - 3s 56ms/step - loss: 0.3251 - val_loss: 0.3555
Epoch 23/100
50/50 [=====] - 3s 55ms/step - loss: 0.3185 - val_loss: 0.3409
Epoch 24/100
50/50 [=====] - 3s 55ms/step - loss: 0.3194 - val_loss: 0.3362
Epoch 25/100
50/50 [=====] - 3s 56ms/step - loss: 0.3160 - val_loss: 0.3498
Epoch 26/100
50/50 [=====] - 3s 55ms/step - loss: 0.3127 - val_loss: 0.3853
Epoch 27/100

50/50 [=====] - 3s 55ms/step - loss: 0.3102 - val_loss: 0.3604
Epoch 28/100
50/50 [=====] - 3s 55ms/step - loss: 0.3046 - val_loss: 0.3657
Epoch 29/100
50/50 [=====] - 3s 55ms/step - loss: 0.2995 - val_loss: 0.3615
Epoch 30/100
50/50 [=====] - 3s 54ms/step - loss: 0.2998 - val_loss: 0.3883
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.3005 - val_loss: 0.3821
Epoch 32/100
50/50 [=====] - 3s 54ms/step - loss: 0.2938 - val_loss: 0.3491
Epoch 33/100
50/50 [=====] - 3s 55ms/step - loss: 0.2893 - val_loss: 0.3856
Epoch 34/100
50/50 [=====] - 3s 55ms/step - loss: 0.2912 - val_loss: 0.3548
Epoch 35/100
50/50 [=====] - 3s 54ms/step - loss: 0.2810 - val_loss: 0.3784
Epoch 36/100
50/50 [=====] - 3s 55ms/step - loss: 0.2821 - val_loss: 0.3862
Epoch 37/100
50/50 [=====] - 3s 54ms/step - loss: 0.2827 - val_loss: 0.3658
Epoch 38/100
50/50 [=====] - 3s 54ms/step - loss: 0.2795 - val_loss: 0.3705
Epoch 39/100
50/50 [=====] - 3s 54ms/step - loss: 0.2743 - val_loss: 0.3673
Epoch 40/100
50/50 [=====] - 3s 54ms/step - loss: 0.2709 - val_loss: 0.3772
Epoch 41/100
50/50 [=====] - 3s 54ms/step - loss: 0.2701 - val_loss: 0.4100
Epoch 42/100
50/50 [=====] - 3s 54ms/step - loss: 0.2674 - val_loss: 0.3798
Epoch 43/100
50/50 [=====] - 3s 54ms/step - loss: 0.2625 - val_loss: 0.3665
Epoch 44/100
50/50 [=====] - 3s 55ms/step - loss: 0.2610 - val_loss: 0.4247
Epoch 45/100
50/50 [=====] - 3s 54ms/step - loss: 0.2613 - val_loss: 0.3744
Epoch 46/100
50/50 [=====] - 3s 54ms/step - loss: 0.2589 - val_loss: 0.4248
Epoch 47/100
50/50 [=====] - 3s 54ms/step - loss: 0.2542 - val_loss: 0.3913
Epoch 48/100
50/50 [=====] - 3s 54ms/step - loss: 0.2538 - val_loss: 0.3868
Epoch 49/100
50/50 [=====] - 3s 54ms/step - loss: 0.2497 - val_loss: 0.4364

Epoch 50/100
50/50 [=====] - 3s 54ms/step - loss: 0.2482 - val_loss: 0.3824
Epoch 51/100
50/50 [=====] - 3s 55ms/step - loss: 0.2469 - val_loss: 0.4299
Epoch 52/100
50/50 [=====] - 3s 55ms/step - loss: 0.2439 - val_loss: 0.3888
Epoch 53/100
50/50 [=====] - 3s 54ms/step - loss: 0.2401 - val_loss: 0.3747
Epoch 54/100
50/50 [=====] - 3s 54ms/step - loss: 0.2398 - val_loss: 0.3740
Epoch 55/100
50/50 [=====] - 3s 54ms/step - loss: 0.2405 - val_loss: 0.4077
Epoch 56/100
50/50 [=====] - 3s 54ms/step - loss: 0.2351 - val_loss: 0.3604
Epoch 57/100
50/50 [=====] - 3s 54ms/step - loss: 0.2359 - val_loss: 0.3664
Epoch 58/100
50/50 [=====] - 3s 56ms/step - loss: 0.2314 - val_loss: 0.3620
Epoch 59/100
50/50 [=====] - 3s 53ms/step - loss: 0.2298 - val_loss: 0.4202
Epoch 60/100
50/50 [=====] - 3s 54ms/step - loss: 0.2276 - val_loss: 0.3710
Epoch 61/100
50/50 [=====] - 3s 53ms/step - loss: 0.2255 - val_loss: 0.3644
Epoch 62/100
50/50 [=====] - 3s 54ms/step - loss: 0.2246 - val_loss: 0.3779
Epoch 63/100
50/50 [=====] - 3s 55ms/step - loss: 0.2245 - val_loss: 0.4027
Epoch 64/100
50/50 [=====] - 3s 57ms/step - loss: 0.2205 - val_loss: 0.4005
Epoch 65/100
50/50 [=====] - 3s 55ms/step - loss: 0.2193 - val_loss: 0.3705
Epoch 66/100
50/50 [=====] - 3s 56ms/step - loss: 0.2180 - val_loss: 0.4023
Epoch 67/100
50/50 [=====] - 3s 55ms/step - loss: 0.2151 - val_loss: 0.3781
Epoch 68/100
50/50 [=====] - 3s 55ms/step - loss: 0.2118 - val_loss: 0.3740
Epoch 69/100
50/50 [=====] - 3s 54ms/step - loss: 0.2088 - val_loss: 0.3796
Epoch 70/100
50/50 [=====] - 3s 54ms/step - loss: 0.2110 - val_loss: 0.4199
Epoch 71/100
50/50 [=====] - 3s 53ms/step - loss: 0.2084 - val_loss: 0.3760
Epoch 72/100

50/50 [=====] - 3s 54ms/step - loss: 0.2105 - val_loss: 0.3997
Epoch 73/100
50/50 [=====] - 3s 56ms/step - loss: 0.2083 - val_loss: 0.3829
Epoch 74/100
50/50 [=====] - 3s 54ms/step - loss: 0.2017 - val_loss: 0.3838
Epoch 75/100
50/50 [=====] - 3s 54ms/step - loss: 0.2020 - val_loss: 0.3770
Epoch 76/100
50/50 [=====] - 3s 54ms/step - loss: 0.2020 - val_loss: 0.3828
Epoch 77/100
50/50 [=====] - 3s 55ms/step - loss: 0.1974 - val_loss: 0.3737
Epoch 78/100
50/50 [=====] - 3s 54ms/step - loss: 0.2002 - val_loss: 0.3758
Epoch 79/100
50/50 [=====] - 3s 55ms/step - loss: 0.1951 - val_loss: 0.3887
Epoch 80/100
50/50 [=====] - 3s 55ms/step - loss: 0.1948 - val_loss: 0.4166
Epoch 81/100
50/50 [=====] - 3s 53ms/step - loss: 0.1972 - val_loss: 0.4009
Epoch 82/100
50/50 [=====] - 3s 55ms/step - loss: 0.1890 - val_loss: 0.3973
Epoch 83/100
50/50 [=====] - 3s 54ms/step - loss: 0.1942 - val_loss: 0.3836
Epoch 84/100
50/50 [=====] - 3s 54ms/step - loss: 0.1892 - val_loss: 0.3870
Epoch 85/100
50/50 [=====] - 3s 55ms/step - loss: 0.1851 - val_loss: 0.3987
Epoch 86/100
50/50 [=====] - 3s 54ms/step - loss: 0.1864 - val_loss: 0.3890
Epoch 87/100
50/50 [=====] - 3s 54ms/step - loss: 0.1826 - val_loss: 0.4123
Epoch 88/100
50/50 [=====] - 3s 54ms/step - loss: 0.1842 - val_loss: 0.4046
Epoch 89/100
50/50 [=====] - 3s 54ms/step - loss: 0.1791 - val_loss: 0.4567
Epoch 90/100
50/50 [=====] - 3s 54ms/step - loss: 0.1795 - val_loss: 0.3913
Epoch 91/100
50/50 [=====] - 3s 54ms/step - loss: 0.1799 - val_loss: 0.4033
Epoch 92/100
50/50 [=====] - 3s 54ms/step - loss: 0.1780 - val_loss: 0.4187
Epoch 93/100
50/50 [=====] - 3s 54ms/step - loss: 0.1734 - val_loss: 0.4175
Epoch 94/100
50/50 [=====] - 3s 55ms/step - loss: 0.1772 - val_loss: 0.4061

Epoch 95/100
 50/50 [=====] - 3s 55ms/step - loss: 0.1704 - val_loss: 0.4458
 Epoch 96/100
 50/50 [=====] - 3s 53ms/step - loss: 0.1719 - val_loss: 0.4496
 Epoch 97/100
 50/50 [=====] - 3s 55ms/step - loss: 0.1699 - val_loss: 0.4082
 Epoch 98/100
 50/50 [=====] - 3s 55ms/step - loss: 0.1672 - val_loss: 0.4220
 Epoch 99/100
 50/50 [=====] - 3s 55ms/step - loss: 0.1661 - val_loss: 0.4211
 Epoch 100/100
 50/50 [=====] - 3s 54ms/step - loss: 0.1669 - val_loss: 0.4338



TX_3 - True Future: 4929
 TX_3 - Model Prediction: 4475
 TX_3 - Model Percentage Error: 9.21%

=====
=====

Training for TX_1

Single window of past history : (100, 3)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 62ms/step - loss: 0.6098 - val_loss: 0.4803

Epoch 2/100

50/50 [=====] - 3s 55ms/step - loss: 0.4809 - val_loss: 0.4422

Epoch 3/100

50/50 [=====] - 3s 54ms/step - loss: 0.4319 - val_loss: 0.3996

Epoch 4/100

50/50 [=====] - 3s 54ms/step - loss: 0.4245 - val_loss: 0.3999

Epoch 5/100

50/50 [=====] - 3s 55ms/step - loss: 0.4174 - val_loss: 0.4111

Epoch 6/100

50/50 [=====] - 3s 55ms/step - loss: 0.4096 - val_loss: 0.4162

Epoch 7/100

50/50 [=====] - 3s 56ms/step - loss: 0.4069 - val_loss: 0.4585

Epoch 8/100

50/50 [=====] - 3s 55ms/step - loss: 0.4033 - val_loss: 0.4502

Epoch 9/100

50/50 [=====] - 3s 56ms/step - loss: 0.3974 - val_loss: 0.4134

Epoch 10/100

50/50 [=====] - 3s 56ms/step - loss: 0.3967 - val_loss: 0.4258

Epoch 11/100

50/50 [=====] - 4s 81ms/step - loss: 0.3916 - val_loss: 0.4594

Epoch 12/100

50/50 [=====] - 5s 95ms/step - loss: 0.3863 - val_loss: 0.4377

Epoch 13/100

50/50 [=====] - 3s 56ms/step - loss: 0.3811 - val_loss: 0.4527

Epoch 14/100

50/50 [=====] - 3s 55ms/step - loss: 0.3783 - val_loss: 0.4592

Epoch 15/100

50/50 [=====] - 3s 56ms/step - loss: 0.3757 - val_loss: 0.4718

Epoch 16/100

50/50 [=====] - 3s 56ms/step - loss: 0.3692 - val_loss: 0.4451

Epoch 17/100

50/50 [=====] - 3s 56ms/step - loss: 0.3651 - val_loss: 0.4551

Epoch 18/100

50/50 [=====] - 3s 55ms/step - loss: 0.3630 - val_loss: 0.4193

Epoch 19/100

50/50 [=====] - 3s 55ms/step - loss: 0.3578 - val_loss: 0.4494

Epoch 20/100

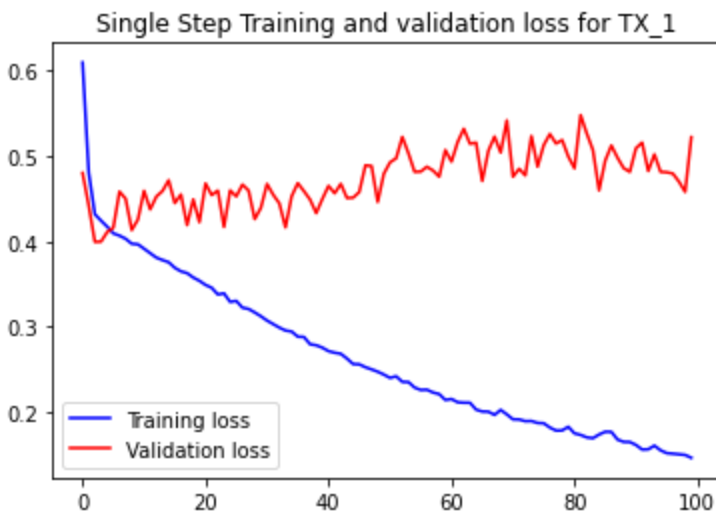
50/50 [=====] - 3s 56ms/step - loss: 0.3540 - val_loss: 0.4227

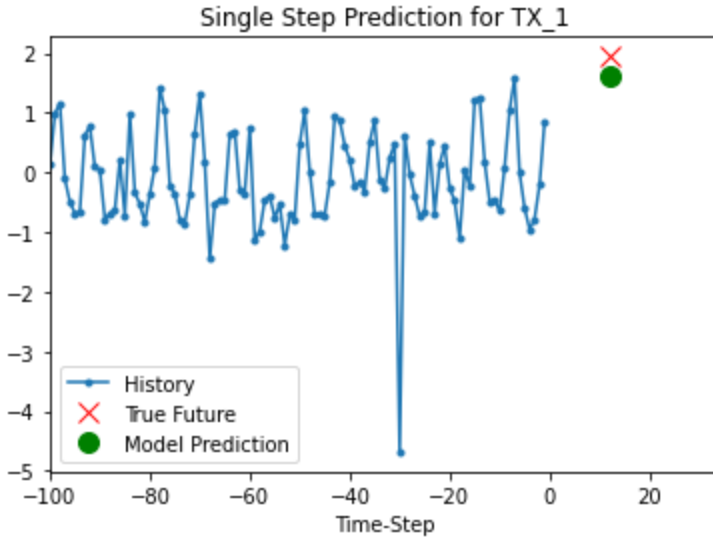
Epoch 21/100
50/50 [=====] - 3s 55ms/step - loss: 0.3491 - val_loss: 0.4680
Epoch 22/100
50/50 [=====] - 3s 55ms/step - loss: 0.3458 - val_loss: 0.4544
Epoch 23/100
50/50 [=====] - 3s 55ms/step - loss: 0.3380 - val_loss: 0.4597
Epoch 24/100
50/50 [=====] - 3s 56ms/step - loss: 0.3392 - val_loss: 0.4171
Epoch 25/100
50/50 [=====] - 3s 56ms/step - loss: 0.3293 - val_loss: 0.4599
Epoch 26/100
50/50 [=====] - 3s 55ms/step - loss: 0.3304 - val_loss: 0.4529
Epoch 27/100
50/50 [=====] - 3s 57ms/step - loss: 0.3225 - val_loss: 0.4668
Epoch 28/100
50/50 [=====] - 3s 55ms/step - loss: 0.3210 - val_loss: 0.4598
Epoch 29/100
50/50 [=====] - 3s 56ms/step - loss: 0.3169 - val_loss: 0.4263
Epoch 30/100
50/50 [=====] - 3s 56ms/step - loss: 0.3124 - val_loss: 0.4395
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.3074 - val_loss: 0.4675
Epoch 32/100
50/50 [=====] - 3s 56ms/step - loss: 0.3032 - val_loss: 0.4549
Epoch 33/100
50/50 [=====] - 3s 56ms/step - loss: 0.2991 - val_loss: 0.4447
Epoch 34/100
50/50 [=====] - 3s 56ms/step - loss: 0.2957 - val_loss: 0.4166
Epoch 35/100
50/50 [=====] - 3s 56ms/step - loss: 0.2945 - val_loss: 0.4530
Epoch 36/100
50/50 [=====] - 3s 56ms/step - loss: 0.2885 - val_loss: 0.4684
Epoch 37/100
50/50 [=====] - 3s 55ms/step - loss: 0.2882 - val_loss: 0.4591
Epoch 38/100
50/50 [=====] - 3s 57ms/step - loss: 0.2796 - val_loss: 0.4492
Epoch 39/100
50/50 [=====] - 3s 56ms/step - loss: 0.2784 - val_loss: 0.4333
Epoch 40/100
50/50 [=====] - 3s 55ms/step - loss: 0.2756 - val_loss: 0.4499
Epoch 41/100
50/50 [=====] - 3s 56ms/step - loss: 0.2716 - val_loss: 0.4653
Epoch 42/100
50/50 [=====] - 3s 55ms/step - loss: 0.2697 - val_loss: 0.4565
Epoch 43/100

50/50 [=====] - 3s 55ms/step - loss: 0.2685 - val_loss: 0.4676
Epoch 44/100
50/50 [=====] - 3s 56ms/step - loss: 0.2628 - val_loss: 0.4510
Epoch 45/100
50/50 [=====] - 3s 54ms/step - loss: 0.2564 - val_loss: 0.4513
Epoch 46/100
50/50 [=====] - 3s 55ms/step - loss: 0.2561 - val_loss: 0.4580
Epoch 47/100
50/50 [=====] - 3s 56ms/step - loss: 0.2527 - val_loss: 0.4893
Epoch 48/100
50/50 [=====] - 3s 56ms/step - loss: 0.2502 - val_loss: 0.4885
Epoch 49/100
50/50 [=====] - 3s 55ms/step - loss: 0.2474 - val_loss: 0.4464
Epoch 50/100
50/50 [=====] - 3s 55ms/step - loss: 0.2441 - val_loss: 0.4795
Epoch 51/100
50/50 [=====] - 3s 55ms/step - loss: 0.2402 - val_loss: 0.4928
Epoch 52/100
50/50 [=====] - 3s 56ms/step - loss: 0.2421 - val_loss: 0.4976
Epoch 53/100
50/50 [=====] - 3s 55ms/step - loss: 0.2355 - val_loss: 0.5226
Epoch 54/100
50/50 [=====] - 3s 55ms/step - loss: 0.2353 - val_loss: 0.5034
Epoch 55/100
50/50 [=====] - 3s 55ms/step - loss: 0.2289 - val_loss: 0.4817
Epoch 56/100
50/50 [=====] - 3s 55ms/step - loss: 0.2261 - val_loss: 0.4820
Epoch 57/100
50/50 [=====] - 3s 54ms/step - loss: 0.2264 - val_loss: 0.4876
Epoch 58/100
50/50 [=====] - 3s 55ms/step - loss: 0.2231 - val_loss: 0.4832
Epoch 59/100
50/50 [=====] - 3s 55ms/step - loss: 0.2212 - val_loss: 0.4759
Epoch 60/100
50/50 [=====] - 3s 55ms/step - loss: 0.2143 - val_loss: 0.5072
Epoch 61/100
50/50 [=====] - 3s 57ms/step - loss: 0.2154 - val_loss: 0.4936
Epoch 62/100
50/50 [=====] - 3s 55ms/step - loss: 0.2116 - val_loss: 0.5166
Epoch 63/100
50/50 [=====] - 3s 55ms/step - loss: 0.2111 - val_loss: 0.5321
Epoch 64/100
50/50 [=====] - 3s 55ms/step - loss: 0.2111 - val_loss: 0.5146
Epoch 65/100
50/50 [=====] - 3s 55ms/step - loss: 0.2030 - val_loss: 0.5159

Epoch 66/100
50/50 [=====] - 3s 55ms/step - loss: 0.2008 - val_loss: 0.4710
Epoch 67/100
50/50 [=====] - 3s 55ms/step - loss: 0.2006 - val_loss: 0.5064
Epoch 68/100
50/50 [=====] - 3s 55ms/step - loss: 0.1968 - val_loss: 0.5230
Epoch 69/100
50/50 [=====] - 3s 54ms/step - loss: 0.2027 - val_loss: 0.5043
Epoch 70/100
50/50 [=====] - 3s 55ms/step - loss: 0.1974 - val_loss: 0.5419
Epoch 71/100
50/50 [=====] - 3s 55ms/step - loss: 0.1917 - val_loss: 0.4760
Epoch 72/100
50/50 [=====] - 3s 55ms/step - loss: 0.1915 - val_loss: 0.4852
Epoch 73/100
50/50 [=====] - 3s 57ms/step - loss: 0.1895 - val_loss: 0.4775
Epoch 74/100
50/50 [=====] - 3s 57ms/step - loss: 0.1897 - val_loss: 0.5236
Epoch 75/100
50/50 [=====] - 3s 57ms/step - loss: 0.1874 - val_loss: 0.4878
Epoch 76/100
50/50 [=====] - 3s 57ms/step - loss: 0.1870 - val_loss: 0.5130
Epoch 77/100
50/50 [=====] - 3s 55ms/step - loss: 0.1820 - val_loss: 0.5260
Epoch 78/100
50/50 [=====] - 3s 55ms/step - loss: 0.1785 - val_loss: 0.5149
Epoch 79/100
50/50 [=====] - 3s 54ms/step - loss: 0.1786 - val_loss: 0.5189
Epoch 80/100
50/50 [=====] - 3s 54ms/step - loss: 0.1829 - val_loss: 0.4996
Epoch 81/100
50/50 [=====] - 3s 54ms/step - loss: 0.1752 - val_loss: 0.4858
Epoch 82/100
50/50 [=====] - 3s 53ms/step - loss: 0.1734 - val_loss: 0.5482
Epoch 83/100
50/50 [=====] - 3s 54ms/step - loss: 0.1705 - val_loss: 0.5267
Epoch 84/100
50/50 [=====] - 3s 53ms/step - loss: 0.1695 - val_loss: 0.5072
Epoch 85/100
50/50 [=====] - 3s 53ms/step - loss: 0.1738 - val_loss: 0.4600
Epoch 86/100
50/50 [=====] - 3s 54ms/step - loss: 0.1771 - val_loss: 0.4948
Epoch 87/100
50/50 [=====] - 3s 54ms/step - loss: 0.1770 - val_loss: 0.5125
Epoch 88/100

50/50 [=====] - 3s 54ms/step - loss: 0.1679 - val_loss: 0.4982
Epoch 89/100
50/50 [=====] - 3s 54ms/step - loss: 0.1652 - val_loss: 0.4860
Epoch 90/100
50/50 [=====] - 3s 53ms/step - loss: 0.1651 - val_loss: 0.4816
Epoch 91/100
50/50 [=====] - 3s 54ms/step - loss: 0.1616 - val_loss: 0.5093
Epoch 92/100
50/50 [=====] - 3s 53ms/step - loss: 0.1563 - val_loss: 0.5160
Epoch 93/100
50/50 [=====] - 3s 53ms/step - loss: 0.1565 - val_loss: 0.4826
Epoch 94/100
50/50 [=====] - 3s 55ms/step - loss: 0.1608 - val_loss: 0.5022
Epoch 95/100
50/50 [=====] - 3s 54ms/step - loss: 0.1553 - val_loss: 0.4817
Epoch 96/100
50/50 [=====] - 3s 55ms/step - loss: 0.1520 - val_loss: 0.4812
Epoch 97/100
50/50 [=====] - 3s 53ms/step - loss: 0.1514 - val_loss: 0.4796
Epoch 98/100
50/50 [=====] - 3s 55ms/step - loss: 0.1507 - val_loss: 0.4701
Epoch 99/100
50/50 [=====] - 3s 54ms/step - loss: 0.1499 - val_loss: 0.4582
Epoch 100/100
50/50 [=====] - 3s 53ms/step - loss: 0.1465 - val_loss: 0.5223





TX_1 - True Future: 4107

TX_1 - Model Prediction: 3908

TX_1 - Model Percentage Error: 4.85%

=====

Training for WL_1

Single window of past history : (100, 3)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 68ms/step - loss: 0.4509 - val_loss: 0.5291

Epoch 2/100

50/50 [=====] - 3s 53ms/step - loss: 0.3289 - val_loss: 0.4488

Epoch 3/100

50/50 [=====] - 3s 53ms/step - loss: 0.3072 - val_loss: 0.4166

Epoch 4/100

50/50 [=====] - 3s 55ms/step - loss: 0.2990 - val_loss: 0.4179

Epoch 5/100

50/50 [=====] - 3s 54ms/step - loss: 0.2928 - val_loss: 0.3870

Epoch 6/100

50/50 [=====] - 3s 53ms/step - loss: 0.2884 - val_loss: 0.4042

Epoch 7/100

50/50 [=====] - 3s 53ms/step - loss: 0.2856 - val_loss: 0.3942

Epoch 8/100

50/50 [=====] - 3s 52ms/step - loss: 0.2802 - val_loss: 0.3789

Epoch 9/100

50/50 [=====] - 3s 55ms/step - loss: 0.2753 - val_loss: 0.4196

Epoch 10/100

50/50 [=====] - 3s 54ms/step - loss: 0.2755 - val_loss: 0.3902

Epoch 11/100

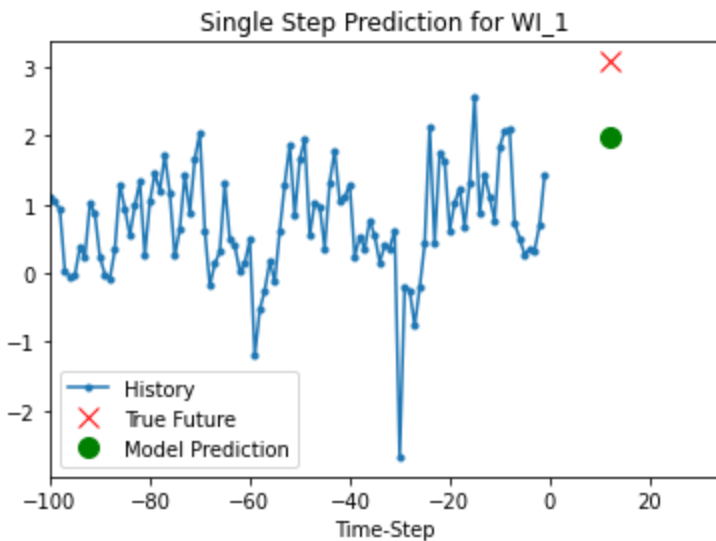
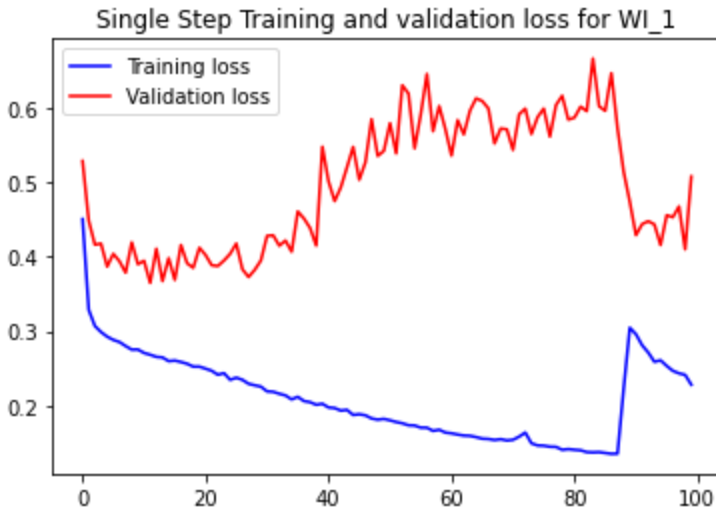
50/50 [=====] - 3s 54ms/step - loss: 0.2709 - val_loss: 0.3949

Epoch 12/100
50/50 [=====] - 3s 53ms/step - loss: 0.2685 - val_loss: 0.3651
Epoch 13/100
50/50 [=====] - 3s 53ms/step - loss: 0.2656 - val_loss: 0.4111
Epoch 14/100
50/50 [=====] - 3s 54ms/step - loss: 0.2648 - val_loss: 0.3675
Epoch 15/100
50/50 [=====] - 3s 53ms/step - loss: 0.2599 - val_loss: 0.3984
Epoch 16/100
50/50 [=====] - 3s 53ms/step - loss: 0.2606 - val_loss: 0.3691
Epoch 17/100
50/50 [=====] - 3s 53ms/step - loss: 0.2587 - val_loss: 0.4161
Epoch 18/100
50/50 [=====] - 3s 55ms/step - loss: 0.2563 - val_loss: 0.3915
Epoch 19/100
50/50 [=====] - 3s 54ms/step - loss: 0.2525 - val_loss: 0.3854
Epoch 20/100
50/50 [=====] - 3s 54ms/step - loss: 0.2525 - val_loss: 0.4124
Epoch 21/100
50/50 [=====] - 3s 55ms/step - loss: 0.2497 - val_loss: 0.4026
Epoch 22/100
50/50 [=====] - 3s 54ms/step - loss: 0.2469 - val_loss: 0.3889
Epoch 23/100
50/50 [=====] - 3s 55ms/step - loss: 0.2416 - val_loss: 0.3878
Epoch 24/100
50/50 [=====] - 3s 54ms/step - loss: 0.2437 - val_loss: 0.3952
Epoch 25/100
50/50 [=====] - 3s 54ms/step - loss: 0.2348 - val_loss: 0.4042
Epoch 26/100
50/50 [=====] - 3s 53ms/step - loss: 0.2376 - val_loss: 0.4180
Epoch 27/100
50/50 [=====] - 3s 55ms/step - loss: 0.2347 - val_loss: 0.3833
Epoch 28/100
50/50 [=====] - 3s 54ms/step - loss: 0.2294 - val_loss: 0.3730
Epoch 29/100
50/50 [=====] - 3s 55ms/step - loss: 0.2274 - val_loss: 0.3827
Epoch 30/100
50/50 [=====] - 3s 54ms/step - loss: 0.2256 - val_loss: 0.3952
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.2192 - val_loss: 0.4284
Epoch 32/100
50/50 [=====] - 3s 53ms/step - loss: 0.2186 - val_loss: 0.4291
Epoch 33/100
50/50 [=====] - 3s 53ms/step - loss: 0.2160 - val_loss: 0.4151
Epoch 34/100

50/50 [=====] - 3s 53ms/step - loss: 0.2138 - val_loss: 0.4221
Epoch 35/100
50/50 [=====] - 3s 53ms/step - loss: 0.2084 - val_loss: 0.4070
Epoch 36/100
50/50 [=====] - 3s 53ms/step - loss: 0.2119 - val_loss: 0.4612
Epoch 37/100
50/50 [=====] - 3s 54ms/step - loss: 0.2061 - val_loss: 0.4518
Epoch 38/100
50/50 [=====] - 3s 54ms/step - loss: 0.2047 - val_loss: 0.4389
Epoch 39/100
50/50 [=====] - 3s 55ms/step - loss: 0.2012 - val_loss: 0.4152
Epoch 40/100
50/50 [=====] - 3s 54ms/step - loss: 0.2026 - val_loss: 0.5483
Epoch 41/100
50/50 [=====] - 3s 53ms/step - loss: 0.1975 - val_loss: 0.5017
Epoch 42/100
50/50 [=====] - 3s 53ms/step - loss: 0.1968 - val_loss: 0.4751
Epoch 43/100
50/50 [=====] - 3s 54ms/step - loss: 0.1933 - val_loss: 0.4937
Epoch 44/100
50/50 [=====] - 3s 55ms/step - loss: 0.1943 - val_loss: 0.5205
Epoch 45/100
50/50 [=====] - 3s 55ms/step - loss: 0.1875 - val_loss: 0.5480
Epoch 46/100
50/50 [=====] - 3s 55ms/step - loss: 0.1885 - val_loss: 0.5038
Epoch 47/100
50/50 [=====] - 3s 55ms/step - loss: 0.1870 - val_loss: 0.5273
Epoch 48/100
50/50 [=====] - 3s 54ms/step - loss: 0.1828 - val_loss: 0.5854
Epoch 49/100
50/50 [=====] - 3s 54ms/step - loss: 0.1812 - val_loss: 0.5358
Epoch 50/100
50/50 [=====] - 3s 54ms/step - loss: 0.1822 - val_loss: 0.5427
Epoch 51/100
50/50 [=====] - 3s 55ms/step - loss: 0.1803 - val_loss: 0.5800
Epoch 52/100
50/50 [=====] - 3s 54ms/step - loss: 0.1780 - val_loss: 0.5392
Epoch 53/100
50/50 [=====] - 3s 55ms/step - loss: 0.1763 - val_loss: 0.6309
Epoch 54/100
50/50 [=====] - 3s 56ms/step - loss: 0.1736 - val_loss: 0.6198
Epoch 55/100
50/50 [=====] - 3s 55ms/step - loss: 0.1733 - val_loss: 0.5460
Epoch 56/100
50/50 [=====] - 3s 55ms/step - loss: 0.1704 - val_loss: 0.5918

Epoch 57/100
50/50 [=====] - 3s 55ms/step - loss: 0.1703 - val_loss: 0.6461
Epoch 58/100
50/50 [=====] - 3s 54ms/step - loss: 0.1661 - val_loss: 0.5691
Epoch 59/100
50/50 [=====] - 3s 55ms/step - loss: 0.1676 - val_loss: 0.6030
Epoch 60/100
50/50 [=====] - 3s 56ms/step - loss: 0.1638 - val_loss: 0.5721
Epoch 61/100
50/50 [=====] - 3s 55ms/step - loss: 0.1628 - val_loss: 0.5363
Epoch 62/100
50/50 [=====] - 3s 55ms/step - loss: 0.1611 - val_loss: 0.5840
Epoch 63/100
50/50 [=====] - 3s 55ms/step - loss: 0.1598 - val_loss: 0.5648
Epoch 64/100
50/50 [=====] - 3s 56ms/step - loss: 0.1594 - val_loss: 0.5968
Epoch 65/100
50/50 [=====] - 3s 56ms/step - loss: 0.1577 - val_loss: 0.6133
Epoch 66/100
50/50 [=====] - 3s 56ms/step - loss: 0.1556 - val_loss: 0.6097
Epoch 67/100
50/50 [=====] - 3s 56ms/step - loss: 0.1552 - val_loss: 0.5997
Epoch 68/100
50/50 [=====] - 3s 55ms/step - loss: 0.1538 - val_loss: 0.5527
Epoch 69/100
50/50 [=====] - 3s 56ms/step - loss: 0.1549 - val_loss: 0.5727
Epoch 70/100
50/50 [=====] - 3s 55ms/step - loss: 0.1532 - val_loss: 0.5717
Epoch 71/100
50/50 [=====] - 3s 55ms/step - loss: 0.1540 - val_loss: 0.5439
Epoch 72/100
50/50 [=====] - 3s 55ms/step - loss: 0.1583 - val_loss: 0.5918
Epoch 73/100
50/50 [=====] - 3s 55ms/step - loss: 0.1638 - val_loss: 0.5996
Epoch 74/100
50/50 [=====] - 3s 56ms/step - loss: 0.1494 - val_loss: 0.5653
Epoch 75/100
50/50 [=====] - 3s 55ms/step - loss: 0.1465 - val_loss: 0.5881
Epoch 76/100
50/50 [=====] - 3s 56ms/step - loss: 0.1461 - val_loss: 0.5996
Epoch 77/100
50/50 [=====] - 3s 55ms/step - loss: 0.1448 - val_loss: 0.5619
Epoch 78/100
50/50 [=====] - 3s 55ms/step - loss: 0.1445 - val_loss: 0.6044
Epoch 79/100

50/50 [=====] - 3s 56ms/step - loss: 0.1406 - val_loss: 0.6168
Epoch 80/100
50/50 [=====] - 3s 56ms/step - loss: 0.1415 - val_loss: 0.5847
Epoch 81/100
50/50 [=====] - 3s 56ms/step - loss: 0.1406 - val_loss: 0.5874
Epoch 82/100
50/50 [=====] - 3s 55ms/step - loss: 0.1400 - val_loss: 0.6022
Epoch 83/100
50/50 [=====] - 3s 56ms/step - loss: 0.1375 - val_loss: 0.5961
Epoch 84/100
50/50 [=====] - 3s 57ms/step - loss: 0.1372 - val_loss: 0.6669
Epoch 85/100
50/50 [=====] - 3s 57ms/step - loss: 0.1375 - val_loss: 0.6027
Epoch 86/100
50/50 [=====] - 3s 57ms/step - loss: 0.1364 - val_loss: 0.5965
Epoch 87/100
50/50 [=====] - 3s 56ms/step - loss: 0.1352 - val_loss: 0.6472
Epoch 88/100
50/50 [=====] - 3s 54ms/step - loss: 0.1354 - val_loss: 0.5732
Epoch 89/100
50/50 [=====] - 3s 55ms/step - loss: 0.2228 - val_loss: 0.5146
Epoch 90/100
50/50 [=====] - 3s 56ms/step - loss: 0.3048 - val_loss: 0.4741
Epoch 91/100
50/50 [=====] - 3s 55ms/step - loss: 0.2961 - val_loss: 0.4293
Epoch 92/100
50/50 [=====] - 3s 56ms/step - loss: 0.2813 - val_loss: 0.4441
Epoch 93/100
50/50 [=====] - 3s 56ms/step - loss: 0.2714 - val_loss: 0.4481
Epoch 94/100
50/50 [=====] - 3s 55ms/step - loss: 0.2590 - val_loss: 0.4438
Epoch 95/100
50/50 [=====] - 3s 55ms/step - loss: 0.2610 - val_loss: 0.4160
Epoch 96/100
50/50 [=====] - 3s 57ms/step - loss: 0.2534 - val_loss: 0.4561
Epoch 97/100
50/50 [=====] - 3s 56ms/step - loss: 0.2468 - val_loss: 0.4534
Epoch 98/100
50/50 [=====] - 3s 56ms/step - loss: 0.2435 - val_loss: 0.4680
Epoch 99/100
50/50 [=====] - 3s 56ms/step - loss: 0.2414 - val_loss: 0.4103
Epoch 100/100
50/50 [=====] - 3s 56ms/step - loss: 0.2282 - val_loss: 0.5082



WI_1 - True Future: 5490

WI_1 - Model Prediction: 4463

WI_1 - Model Percentage Error: 18.71%

=====

Training for WI_2

Single window of past history : (100, 3)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 64ms/step - loss: 0.4726 - val_loss: 0.6529

Epoch 2/100

50/50 [=====] - 3s 55ms/step - loss: 0.3568 - val_loss: 0.6739

Epoch 3/100

50/50 [=====] - 3s 56ms/step - loss: 0.3338 - val_loss: 0.7233

Epoch 4/100

50/50 [=====] - 3s 56ms/step - loss: 0.3237 - val_loss: 0.7029

Epoch 5/100
50/50 [=====] - 3s 55ms/step - loss: 0.3206 - val_loss: 0.7288
Epoch 6/100
50/50 [=====] - 3s 56ms/step - loss: 0.3187 - val_loss: 0.7740
Epoch 7/100
50/50 [=====] - 3s 58ms/step - loss: 0.3134 - val_loss: 0.8169
Epoch 8/100
50/50 [=====] - 3s 57ms/step - loss: 0.3104 - val_loss: 0.7592
Epoch 9/100
50/50 [=====] - 3s 56ms/step - loss: 0.3051 - val_loss: 0.8447
Epoch 10/100
50/50 [=====] - 3s 55ms/step - loss: 0.3066 - val_loss: 0.8134
Epoch 11/100
50/50 [=====] - 3s 57ms/step - loss: 0.3023 - val_loss: 0.8138
Epoch 12/100
50/50 [=====] - 3s 57ms/step - loss: 0.3004 - val_loss: 0.8317
Epoch 13/100
50/50 [=====] - 3s 57ms/step - loss: 0.2951 - val_loss: 0.8169
Epoch 14/100
50/50 [=====] - 3s 58ms/step - loss: 0.2903 - val_loss: 0.8936
Epoch 15/100
50/50 [=====] - 3s 56ms/step - loss: 0.2889 - val_loss: 0.8487
Epoch 16/100
50/50 [=====] - 3s 58ms/step - loss: 0.2863 - val_loss: 0.8526
Epoch 17/100
50/50 [=====] - 3s 56ms/step - loss: 0.2832 - val_loss: 0.9500
Epoch 18/100
50/50 [=====] - 3s 56ms/step - loss: 0.2764 - val_loss: 0.9342
Epoch 19/100
50/50 [=====] - 3s 56ms/step - loss: 0.2734 - val_loss: 0.8856
Epoch 20/100
50/50 [=====] - 3s 56ms/step - loss: 0.2737 - val_loss: 0.8384
Epoch 21/100
50/50 [=====] - 3s 56ms/step - loss: 0.2679 - val_loss: 0.9546
Epoch 22/100
50/50 [=====] - 3s 56ms/step - loss: 0.2647 - val_loss: 0.9047
Epoch 23/100
50/50 [=====] - 3s 55ms/step - loss: 0.2635 - val_loss: 0.8492
Epoch 24/100
50/50 [=====] - 3s 55ms/step - loss: 0.2609 - val_loss: 0.9175
Epoch 25/100
50/50 [=====] - 4s 86ms/step - loss: 0.2583 - val_loss: 0.9077
Epoch 26/100
50/50 [=====] - 3s 67ms/step - loss: 0.2533 - val_loss: 0.8939
Epoch 27/100

50/50 [=====] - 3s 55ms/step - loss: 0.2568 - val_loss: 0.9516
Epoch 28/100
50/50 [=====] - 3s 55ms/step - loss: 0.2500 - val_loss: 0.8166
Epoch 29/100
50/50 [=====] - 3s 55ms/step - loss: 0.2468 - val_loss: 0.9306
Epoch 30/100
50/50 [=====] - 3s 54ms/step - loss: 0.2457 - val_loss: 0.9861
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.2398 - val_loss: 0.9064
Epoch 32/100
50/50 [=====] - 3s 55ms/step - loss: 0.2390 - val_loss: 0.8070
Epoch 33/100
50/50 [=====] - 3s 55ms/step - loss: 0.2402 - val_loss: 0.9403
Epoch 34/100
50/50 [=====] - 3s 55ms/step - loss: 0.2385 - val_loss: 0.8180
Epoch 35/100
50/50 [=====] - 3s 55ms/step - loss: 0.2314 - val_loss: 0.7832
Epoch 36/100
50/50 [=====] - 3s 54ms/step - loss: 0.2320 - val_loss: 0.8631
Epoch 37/100
50/50 [=====] - 3s 54ms/step - loss: 0.2275 - val_loss: 0.8306
Epoch 38/100
50/50 [=====] - 3s 54ms/step - loss: 0.2297 - val_loss: 0.7912
Epoch 39/100
50/50 [=====] - 3s 54ms/step - loss: 0.2246 - val_loss: 0.8200
Epoch 40/100
50/50 [=====] - 3s 55ms/step - loss: 0.2250 - val_loss: 0.7894
Epoch 41/100
50/50 [=====] - 3s 56ms/step - loss: 0.2204 - val_loss: 0.7577
Epoch 42/100
50/50 [=====] - 3s 55ms/step - loss: 0.2212 - val_loss: 0.8282
Epoch 43/100
50/50 [=====] - 3s 55ms/step - loss: 0.2177 - val_loss: 0.8096
Epoch 44/100
50/50 [=====] - 3s 54ms/step - loss: 0.2168 - val_loss: 0.7952
Epoch 45/100
50/50 [=====] - 3s 53ms/step - loss: 0.2239 - val_loss: 0.8674
Epoch 46/100
50/50 [=====] - 3s 54ms/step - loss: 0.2397 - val_loss: 0.7349
Epoch 47/100
50/50 [=====] - 3s 55ms/step - loss: 0.2309 - val_loss: 0.7658
Epoch 48/100
50/50 [=====] - 3s 53ms/step - loss: 0.2320 - val_loss: 0.9389
Epoch 49/100
50/50 [=====] - 3s 55ms/step - loss: 0.2243 - val_loss: 0.8063

Epoch 50/100
50/50 [=====] - 3s 53ms/step - loss: 0.2164 - val_loss: 0.8289
Epoch 51/100
50/50 [=====] - 3s 53ms/step - loss: 0.2143 - val_loss: 0.7974
Epoch 52/100
50/50 [=====] - 3s 54ms/step - loss: 0.2072 - val_loss: 0.8934
Epoch 53/100
50/50 [=====] - 3s 53ms/step - loss: 0.2071 - val_loss: 0.7944
Epoch 54/100
50/50 [=====] - 3s 54ms/step - loss: 0.2040 - val_loss: 0.7665
Epoch 55/100
50/50 [=====] - 3s 53ms/step - loss: 0.2012 - val_loss: 0.7929
Epoch 56/100
50/50 [=====] - 3s 54ms/step - loss: 0.2061 - val_loss: 0.7639
Epoch 57/100
50/50 [=====] - 3s 54ms/step - loss: 0.2108 - val_loss: 0.7783
Epoch 58/100
50/50 [=====] - 3s 53ms/step - loss: 0.1983 - val_loss: 0.8153
Epoch 59/100
50/50 [=====] - 3s 54ms/step - loss: 0.1950 - val_loss: 0.8480
Epoch 60/100
50/50 [=====] - 3s 54ms/step - loss: 0.1931 - val_loss: 0.7998
Epoch 61/100
50/50 [=====] - 3s 53ms/step - loss: 0.1920 - val_loss: 0.8518
Epoch 62/100
50/50 [=====] - 3s 54ms/step - loss: 0.1895 - val_loss: 0.9069
Epoch 63/100
50/50 [=====] - 3s 54ms/step - loss: 0.1851 - val_loss: 0.8251
Epoch 64/100
50/50 [=====] - 3s 53ms/step - loss: 0.1849 - val_loss: 0.8555
Epoch 65/100
50/50 [=====] - 3s 54ms/step - loss: 0.1828 - val_loss: 0.8702
Epoch 66/100
50/50 [=====] - 3s 55ms/step - loss: 0.1799 - val_loss: 0.8550
Epoch 67/100
50/50 [=====] - 3s 55ms/step - loss: 0.1804 - val_loss: 0.8499
Epoch 68/100
50/50 [=====] - 3s 55ms/step - loss: 0.1789 - val_loss: 0.8837
Epoch 69/100
50/50 [=====] - 3s 54ms/step - loss: 0.1766 - val_loss: 0.8834
Epoch 70/100
50/50 [=====] - 3s 54ms/step - loss: 0.1728 - val_loss: 0.9112
Epoch 71/100
50/50 [=====] - 3s 54ms/step - loss: 0.1721 - val_loss: 0.8927
Epoch 72/100

50/50 [=====] - 3s 53ms/step - loss: 0.1682 - val_loss: 0.8437
Epoch 73/100
50/50 [=====] - 3s 54ms/step - loss: 0.1679 - val_loss: 0.8221
Epoch 74/100
50/50 [=====] - 3s 53ms/step - loss: 0.1655 - val_loss: 0.8221
Epoch 75/100
50/50 [=====] - 3s 54ms/step - loss: 0.1647 - val_loss: 0.8654
Epoch 76/100
50/50 [=====] - 3s 53ms/step - loss: 0.1658 - val_loss: 0.8720
Epoch 77/100
50/50 [=====] - 3s 53ms/step - loss: 0.1619 - val_loss: 0.8796
Epoch 78/100
50/50 [=====] - 3s 53ms/step - loss: 0.1599 - val_loss: 0.8466
Epoch 79/100
50/50 [=====] - 3s 54ms/step - loss: 0.1588 - val_loss: 0.8835
Epoch 80/100
50/50 [=====] - 3s 53ms/step - loss: 0.1551 - val_loss: 0.8925
Epoch 81/100
50/50 [=====] - 3s 54ms/step - loss: 0.1577 - val_loss: 0.8539
Epoch 82/100
50/50 [=====] - 3s 52ms/step - loss: 0.1564 - val_loss: 0.8846
Epoch 83/100
50/50 [=====] - 3s 53ms/step - loss: 0.1553 - val_loss: 0.8978
Epoch 84/100
50/50 [=====] - 3s 54ms/step - loss: 0.1507 - val_loss: 0.8768
Epoch 85/100
50/50 [=====] - 3s 54ms/step - loss: 0.1502 - val_loss: 0.8952
Epoch 86/100
50/50 [=====] - 3s 53ms/step - loss: 0.1467 - val_loss: 0.8953
Epoch 87/100
50/50 [=====] - 3s 54ms/step - loss: 0.1476 - val_loss: 0.8740
Epoch 88/100
50/50 [=====] - 3s 54ms/step - loss: 0.1427 - val_loss: 0.8408
Epoch 89/100
50/50 [=====] - 3s 54ms/step - loss: 0.1450 - val_loss: 0.8287
Epoch 90/100
50/50 [=====] - 3s 53ms/step - loss: 0.1432 - val_loss: 0.8179
Epoch 91/100
50/50 [=====] - 3s 53ms/step - loss: 0.1416 - val_loss: 0.8403
Epoch 92/100
50/50 [=====] - 3s 54ms/step - loss: 0.1432 - val_loss: 0.8156
Epoch 93/100
50/50 [=====] - 3s 57ms/step - loss: 0.1375 - val_loss: 0.8523
Epoch 94/100
50/50 [=====] - 3s 56ms/step - loss: 0.1372 - val_loss: 0.8185

Epoch 95/100

50/50 [=====] - 3s 57ms/step - loss: 0.1374 - val_loss: 0.8811

Epoch 96/100

50/50 [=====] - 3s 57ms/step - loss: 0.1376 - val_loss: 0.8797

Epoch 97/100

50/50 [=====] - 3s 56ms/step - loss: 0.1334 - val_loss: 0.8565

Epoch 98/100

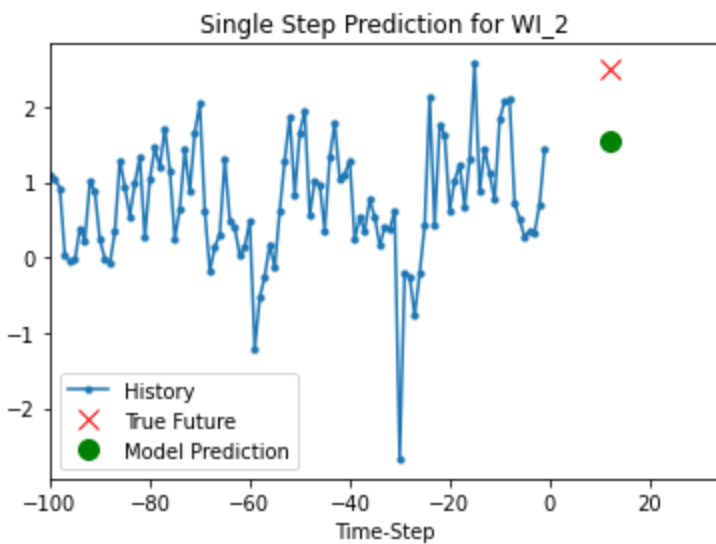
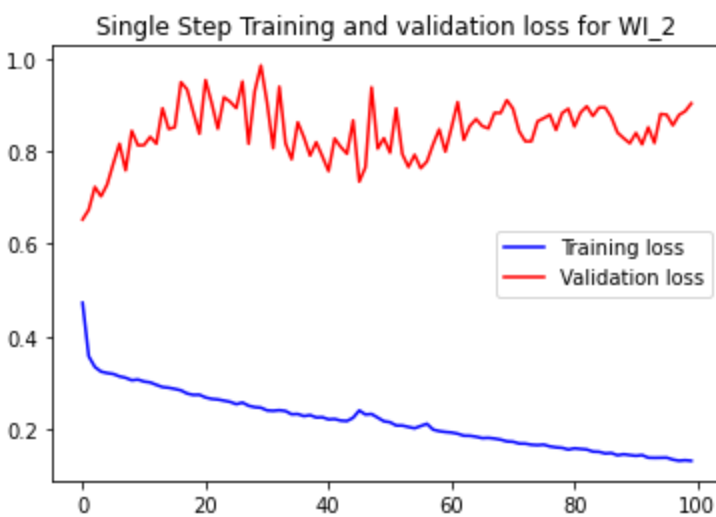
50/50 [=====] - 3s 53ms/step - loss: 0.1309 - val_loss: 0.8790

Epoch 99/100

50/50 [=====] - 3s 54ms/step - loss: 0.1320 - val_loss: 0.8872

Epoch 100/100

50/50 [=====] - 3s 53ms/step - loss: 0.1307 - val_loss: 0.9041



WI_2 - True Future: 6348

WI_2 - Model Prediction: 5174

WI_2 - Model Percentage Error: 18.49%

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Training for WI_3

Single window of past history : (100, 3)

(72, 1)

Epoch 1/100

50/50 [=====] - 3s 61ms/step - loss: 0.6154 - val_loss: 0.5183

Epoch 2/100

50/50 [=====] - 3s 53ms/step - loss: 0.4695 - val_loss: 0.5538

Epoch 3/100

50/50 [=====] - 3s 55ms/step - loss: 0.4414 - val_loss: 0.7133

Epoch 4/100

50/50 [=====] - 3s 53ms/step - loss: 0.4301 - val_loss: 0.5792

Epoch 5/100

50/50 [=====] - 3s 54ms/step - loss: 0.4250 - val_loss: 0.6621

Epoch 6/100

50/50 [=====] - 3s 54ms/step - loss: 0.4208 - val_loss: 0.7385

Epoch 7/100

50/50 [=====] - 3s 54ms/step - loss: 0.4181 - val_loss: 0.6346

Epoch 8/100

50/50 [=====] - 3s 55ms/step - loss: 0.4116 - val_loss: 0.6163

Epoch 9/100

50/50 [=====] - 3s 55ms/step - loss: 0.4102 - val_loss: 0.5829

Epoch 10/100

50/50 [=====] - 3s 54ms/step - loss: 0.4063 - val_loss: 0.5018

Epoch 11/100

50/50 [=====] - 3s 54ms/step - loss: 0.4017 - val_loss: 0.5422

Epoch 12/100

50/50 [=====] - 3s 54ms/step - loss: 0.3996 - val_loss: 0.5100

Epoch 13/100

50/50 [=====] - 3s 55ms/step - loss: 0.3970 - val_loss: 0.4880

Epoch 14/100

50/50 [=====] - 3s 54ms/step - loss: 0.3951 - val_loss: 0.4784

Epoch 15/100

50/50 [=====] - 3s 55ms/step - loss: 0.3890 - val_loss: 0.5415

Epoch 16/100

50/50 [=====] - 3s 56ms/step - loss: 0.3876 - val_loss: 0.5229

Epoch 17/100

50/50 [=====] - 3s 56ms/step - loss: 0.3853 - val_loss: 0.5194

Epoch 18/100

50/50 [=====] - 3s 55ms/step - loss: 0.3786 - val_loss: 0.4722

Epoch 19/100

50/50 [=====] - 3s 55ms/step - loss: 0.3761 - val_loss: 0.4361

Epoch 20/100

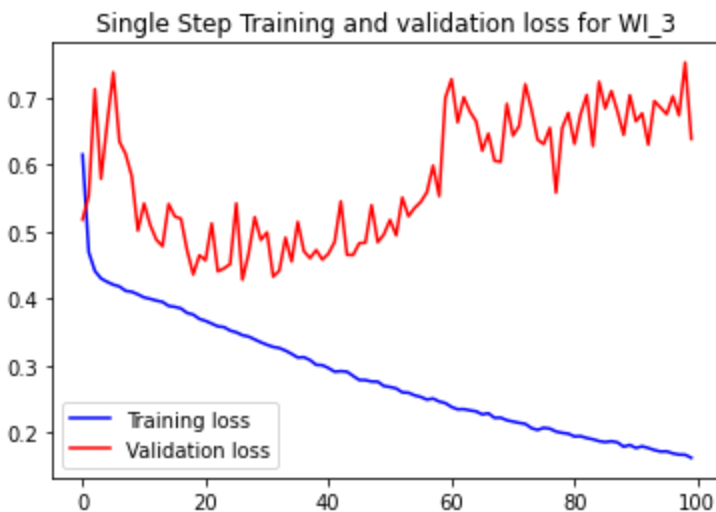
50/50 [=====] - 3s 56ms/step - loss: 0.3696 - val_loss: 0.4648

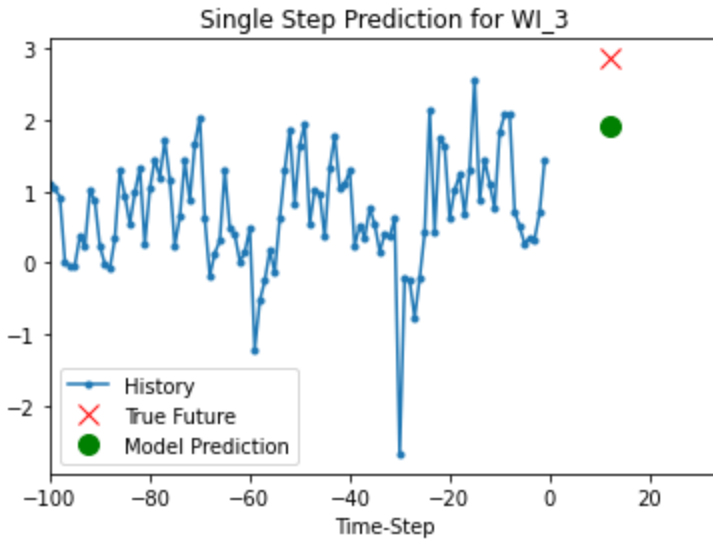
Epoch 21/100
50/50 [=====] - 3s 55ms/step - loss: 0.3667 - val_loss: 0.4572
Epoch 22/100
50/50 [=====] - 3s 56ms/step - loss: 0.3626 - val_loss: 0.5124
Epoch 23/100
50/50 [=====] - 3s 56ms/step - loss: 0.3585 - val_loss: 0.4406
Epoch 24/100
50/50 [=====] - 3s 55ms/step - loss: 0.3574 - val_loss: 0.4452
Epoch 25/100
50/50 [=====] - 3s 55ms/step - loss: 0.3522 - val_loss: 0.4515
Epoch 26/100
50/50 [=====] - 3s 56ms/step - loss: 0.3496 - val_loss: 0.5423
Epoch 27/100
50/50 [=====] - 3s 55ms/step - loss: 0.3453 - val_loss: 0.4282
Epoch 28/100
50/50 [=====] - 3s 55ms/step - loss: 0.3433 - val_loss: 0.4670
Epoch 29/100
50/50 [=====] - 3s 55ms/step - loss: 0.3389 - val_loss: 0.5218
Epoch 30/100
50/50 [=====] - 3s 54ms/step - loss: 0.3346 - val_loss: 0.4877
Epoch 31/100
50/50 [=====] - 3s 55ms/step - loss: 0.3309 - val_loss: 0.4989
Epoch 32/100
50/50 [=====] - 3s 55ms/step - loss: 0.3277 - val_loss: 0.4329
Epoch 33/100
50/50 [=====] - 3s 56ms/step - loss: 0.3260 - val_loss: 0.4417
Epoch 34/100
50/50 [=====] - 3s 58ms/step - loss: 0.3222 - val_loss: 0.4911
Epoch 35/100
50/50 [=====] - 3s 56ms/step - loss: 0.3174 - val_loss: 0.4555
Epoch 36/100
50/50 [=====] - 3s 55ms/step - loss: 0.3118 - val_loss: 0.5147
Epoch 37/100
50/50 [=====] - 3s 55ms/step - loss: 0.3123 - val_loss: 0.4708
Epoch 38/100
50/50 [=====] - 3s 55ms/step - loss: 0.3080 - val_loss: 0.4604
Epoch 39/100
50/50 [=====] - 3s 55ms/step - loss: 0.3009 - val_loss: 0.4726
Epoch 40/100
50/50 [=====] - 3s 55ms/step - loss: 0.3004 - val_loss: 0.4583
Epoch 41/100
50/50 [=====] - 3s 56ms/step - loss: 0.2961 - val_loss: 0.4673
Epoch 42/100
50/50 [=====] - 3s 56ms/step - loss: 0.2906 - val_loss: 0.4848
Epoch 43/100

50/50 [=====] - 3s 56ms/step - loss: 0.2915 - val_loss: 0.5453
Epoch 44/100
50/50 [=====] - 3s 55ms/step - loss: 0.2907 - val_loss: 0.4655
Epoch 45/100
50/50 [=====] - 3s 55ms/step - loss: 0.2844 - val_loss: 0.4652
Epoch 46/100
50/50 [=====] - 3s 55ms/step - loss: 0.2783 - val_loss: 0.4828
Epoch 47/100
50/50 [=====] - 3s 56ms/step - loss: 0.2781 - val_loss: 0.4836
Epoch 48/100
50/50 [=====] - 3s 55ms/step - loss: 0.2760 - val_loss: 0.5396
Epoch 49/100
50/50 [=====] - 3s 57ms/step - loss: 0.2758 - val_loss: 0.4842
Epoch 50/100
50/50 [=====] - 3s 55ms/step - loss: 0.2693 - val_loss: 0.4959
Epoch 51/100
50/50 [=====] - 3s 55ms/step - loss: 0.2678 - val_loss: 0.5176
Epoch 52/100
50/50 [=====] - 3s 56ms/step - loss: 0.2657 - val_loss: 0.4945
Epoch 53/100
50/50 [=====] - 3s 57ms/step - loss: 0.2598 - val_loss: 0.5510
Epoch 54/100
50/50 [=====] - 3s 55ms/step - loss: 0.2592 - val_loss: 0.5231
Epoch 55/100
50/50 [=====] - 3s 57ms/step - loss: 0.2553 - val_loss: 0.5355
Epoch 56/100
50/50 [=====] - 3s 57ms/step - loss: 0.2530 - val_loss: 0.5445
Epoch 57/100
50/50 [=====] - 3s 56ms/step - loss: 0.2490 - val_loss: 0.5590
Epoch 58/100
50/50 [=====] - 3s 56ms/step - loss: 0.2506 - val_loss: 0.5988
Epoch 59/100
50/50 [=====] - 3s 56ms/step - loss: 0.2461 - val_loss: 0.5533
Epoch 60/100
50/50 [=====] - 3s 55ms/step - loss: 0.2437 - val_loss: 0.7000
Epoch 61/100
50/50 [=====] - 3s 54ms/step - loss: 0.2380 - val_loss: 0.7280
Epoch 62/100
50/50 [=====] - 3s 55ms/step - loss: 0.2344 - val_loss: 0.6636
Epoch 63/100
50/50 [=====] - 3s 56ms/step - loss: 0.2347 - val_loss: 0.7010
Epoch 64/100
50/50 [=====] - 3s 56ms/step - loss: 0.2329 - val_loss: 0.6796
Epoch 65/100
50/50 [=====] - 3s 55ms/step - loss: 0.2314 - val_loss: 0.6652

Epoch 66/100
50/50 [=====] - 3s 55ms/step - loss: 0.2268 - val_loss: 0.6212
Epoch 67/100
50/50 [=====] - 3s 54ms/step - loss: 0.2285 - val_loss: 0.6466
Epoch 68/100
50/50 [=====] - 3s 55ms/step - loss: 0.2216 - val_loss: 0.6061
Epoch 69/100
50/50 [=====] - 3s 56ms/step - loss: 0.2219 - val_loss: 0.6045
Epoch 70/100
50/50 [=====] - 3s 56ms/step - loss: 0.2181 - val_loss: 0.6912
Epoch 71/100
50/50 [=====] - 3s 56ms/step - loss: 0.2161 - val_loss: 0.6437
Epoch 72/100
50/50 [=====] - 3s 56ms/step - loss: 0.2142 - val_loss: 0.6581
Epoch 73/100
50/50 [=====] - 3s 55ms/step - loss: 0.2127 - val_loss: 0.7205
Epoch 74/100
50/50 [=====] - 3s 55ms/step - loss: 0.2063 - val_loss: 0.6831
Epoch 75/100
50/50 [=====] - 3s 55ms/step - loss: 0.2036 - val_loss: 0.6376
Epoch 76/100
50/50 [=====] - 3s 55ms/step - loss: 0.2068 - val_loss: 0.6310
Epoch 77/100
50/50 [=====] - 3s 57ms/step - loss: 0.2056 - val_loss: 0.6553
Epoch 78/100
50/50 [=====] - 3s 55ms/step - loss: 0.2012 - val_loss: 0.5584
Epoch 79/100
50/50 [=====] - 3s 56ms/step - loss: 0.1992 - val_loss: 0.6549
Epoch 80/100
50/50 [=====] - 3s 55ms/step - loss: 0.1980 - val_loss: 0.6776
Epoch 81/100
50/50 [=====] - 3s 56ms/step - loss: 0.1938 - val_loss: 0.6314
Epoch 82/100
50/50 [=====] - 3s 57ms/step - loss: 0.1943 - val_loss: 0.6758
Epoch 83/100
50/50 [=====] - 3s 56ms/step - loss: 0.1915 - val_loss: 0.7045
Epoch 84/100
50/50 [=====] - 3s 56ms/step - loss: 0.1896 - val_loss: 0.6282
Epoch 85/100
50/50 [=====] - 3s 56ms/step - loss: 0.1869 - val_loss: 0.7242
Epoch 86/100
50/50 [=====] - 3s 57ms/step - loss: 0.1854 - val_loss: 0.6843
Epoch 87/100
50/50 [=====] - 3s 56ms/step - loss: 0.1867 - val_loss: 0.7103
Epoch 88/100

50/50 [=====] - 3s 55ms/step - loss: 0.1850 - val_loss: 0.6795
Epoch 89/100
50/50 [=====] - 3s 55ms/step - loss: 0.1785 - val_loss: 0.6448
Epoch 90/100
50/50 [=====] - 3s 55ms/step - loss: 0.1812 - val_loss: 0.7041
Epoch 91/100
50/50 [=====] - 3s 55ms/step - loss: 0.1766 - val_loss: 0.6651
Epoch 92/100
50/50 [=====] - 3s 55ms/step - loss: 0.1791 - val_loss: 0.6769
Epoch 93/100
50/50 [=====] - 3s 55ms/step - loss: 0.1766 - val_loss: 0.6302
Epoch 94/100
50/50 [=====] - 3s 54ms/step - loss: 0.1735 - val_loss: 0.6954
Epoch 95/100
50/50 [=====] - 3s 55ms/step - loss: 0.1713 - val_loss: 0.6856
Epoch 96/100
50/50 [=====] - 3s 54ms/step - loss: 0.1715 - val_loss: 0.6757
Epoch 97/100
50/50 [=====] - 3s 55ms/step - loss: 0.1685 - val_loss: 0.7025
Epoch 98/100
50/50 [=====] - 3s 54ms/step - loss: 0.1667 - val_loss: 0.6740
Epoch 99/100
50/50 [=====] - 3s 54ms/step - loss: 0.1665 - val_loss: 0.7531
Epoch 100/100
50/50 [=====] - 3s 59ms/step - loss: 0.1619 - val_loss: 0.6387





WI_3 - True Future: 5666

WI_3 - Model Prediction: 4901

WI_3 - Model Percentage Error: 13.50%

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