

Training for CA_3

Single window of past history : (100, 4)

(72, 20)

Epoch 1/100

50/50 [=====] - 5s 100ms/step - loss: 0.7093 - val_loss: 0.6452

Epoch 2/100

50/50 [=====] - 5s 91ms/step - loss: 0.6388 - val_loss: 0.6403

Epoch 3/100

50/50 [=====] - 4s 88ms/step - loss: 0.6167 - val_loss: 0.6396

Epoch 4/100

50/50 [=====] - 4s 87ms/step - loss: 0.6120 - val_loss: 0.6361

Epoch 5/100

50/50 [=====] - 4s 87ms/step - loss: 0.6068 - val_loss: 0.6302

Epoch 6/100

50/50 [=====] - 4s 85ms/step - loss: 0.5991 - val_loss: 0.6205

Epoch 7/100

50/50 [=====] - 4s 86ms/step - loss: 0.5813 - val_loss: 0.5809

Epoch 8/100

50/50 [=====] - 4s 86ms/step - loss: 0.5084 - val_loss: 0.4192

Epoch 9/100

50/50 [=====] - 4s 87ms/step - loss: 0.4334 - val_loss: 0.4055

Epoch 10/100

50/50 [=====] - 4s 86ms/step - loss: 0.4039 - val_loss: 0.4123

Epoch 11/100

50/50 [=====] - 4s 86ms/step - loss: 0.3845 - val_loss: 0.4049

Epoch 12/100

50/50 [=====] - 4s 87ms/step - loss: 0.3736 - val_loss: 0.3490

Epoch 13/100

50/50 [=====] - 4s 86ms/step - loss: 0.3616 - val_loss: 0.3317

Epoch 14/100

50/50 [=====] - 4s 89ms/step - loss: 0.3496 - val_loss: 0.3317

Epoch 15/100

50/50 [=====] - 4s 87ms/step - loss: 0.3384 - val_loss: 0.3074

Epoch 16/100

50/50 [=====] - 4s 87ms/step - loss: 0.3324 - val_loss: 0.2956

Epoch 17/100

50/50 [=====] - 4s 89ms/step - loss: 0.3226 - val_loss: 0.3044

Epoch 18/100

50/50 [=====] - 4s 88ms/step - loss: 0.3240 - val_loss: 0.3186

Epoch 19/100

50/50 [=====] - 4s 87ms/step - loss: 0.3189 - val_loss: 0.3104

Epoch 20/100

50/50 [=====] - 4s 85ms/step - loss: 0.3094 - val_loss: 0.3110

Epoch 21/100

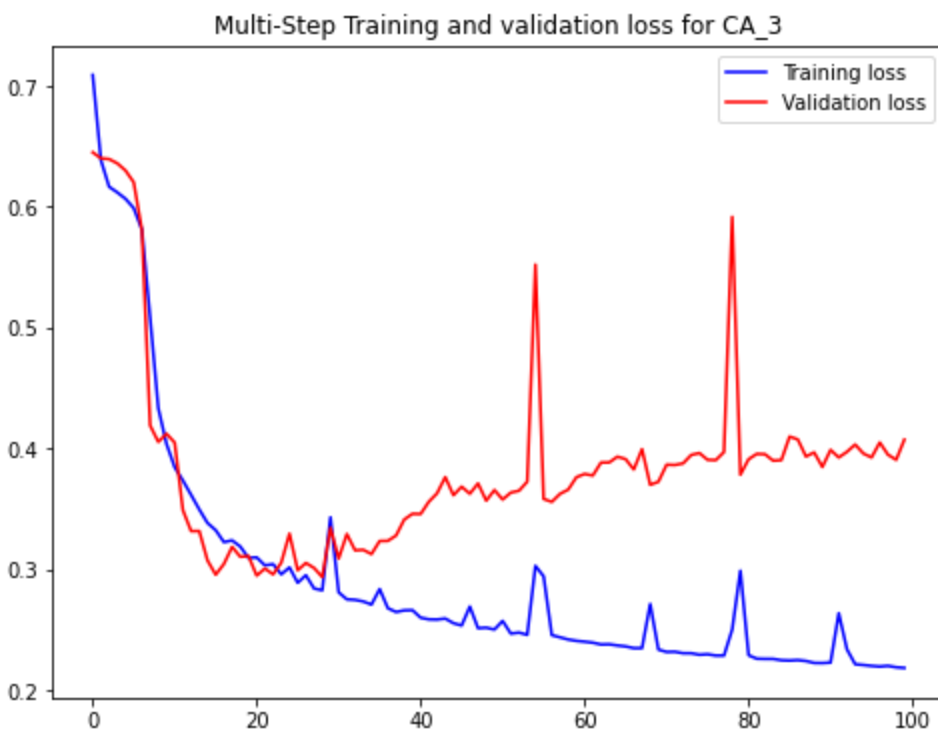
50/50 [=====] - 4s 86ms/step - loss: 0.3099 - val_loss: 0.2948

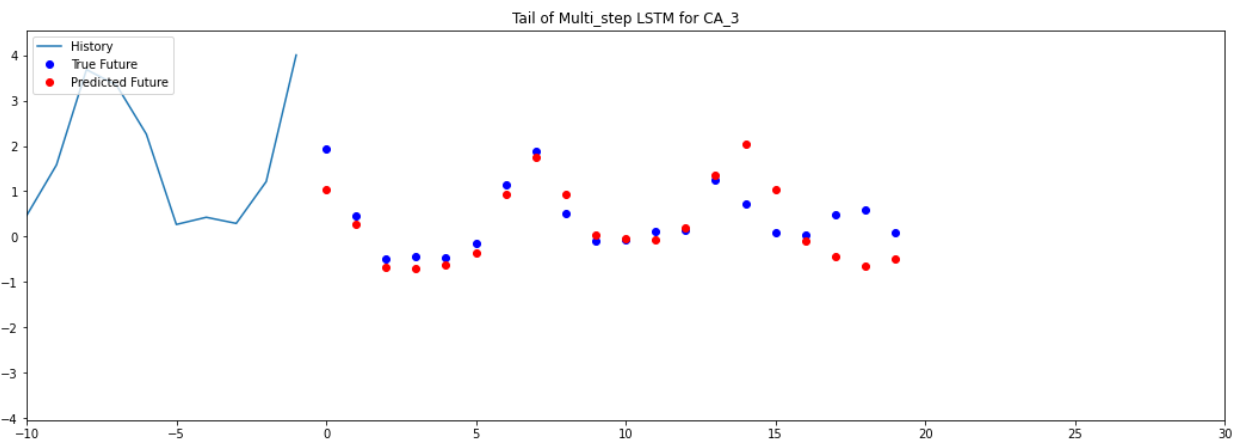
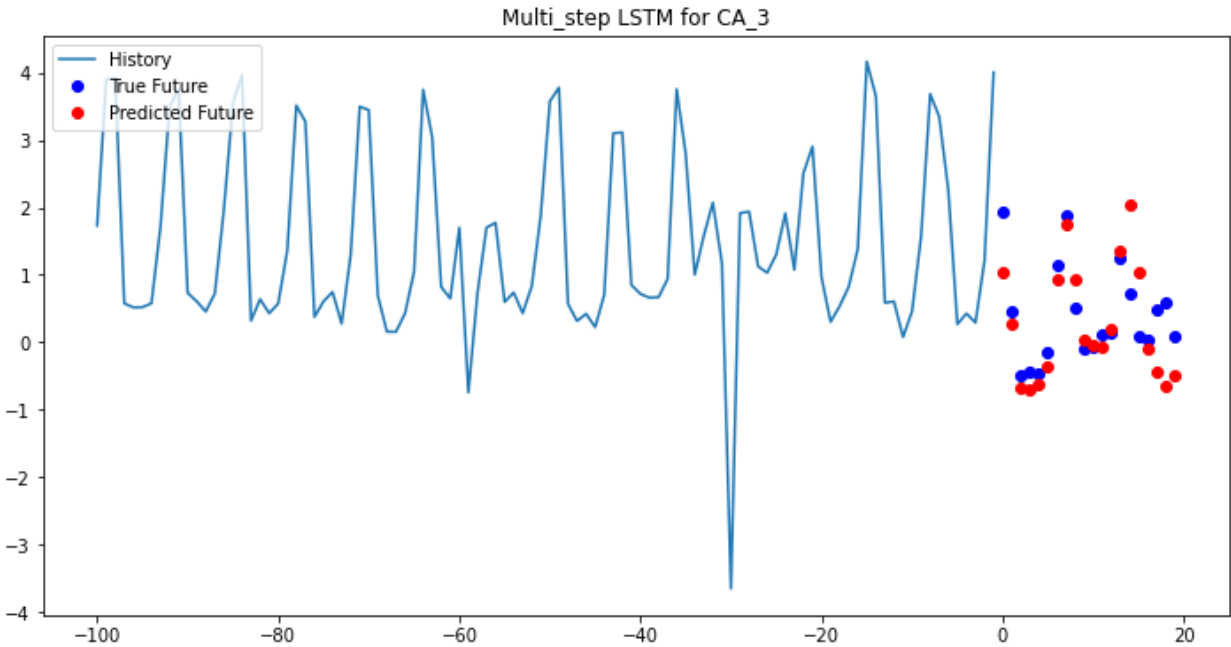
Epoch 22/100
50/50 [=====] - 4s 87ms/step - loss: 0.3033 - val_loss: 0.3007
Epoch 23/100
50/50 [=====] - 4s 85ms/step - loss: 0.3043 - val_loss: 0.2958
Epoch 24/100
50/50 [=====] - 4s 86ms/step - loss: 0.2959 - val_loss: 0.3056
Epoch 25/100
50/50 [=====] - 4s 86ms/step - loss: 0.3016 - val_loss: 0.3296
Epoch 26/100
50/50 [=====] - 4s 85ms/step - loss: 0.2889 - val_loss: 0.2992
Epoch 27/100
50/50 [=====] - 4s 88ms/step - loss: 0.2951 - val_loss: 0.3053
Epoch 28/100
50/50 [=====] - 4s 89ms/step - loss: 0.2842 - val_loss: 0.3012
Epoch 29/100
50/50 [=====] - 4s 88ms/step - loss: 0.2827 - val_loss: 0.2936
Epoch 30/100
50/50 [=====] - 4s 86ms/step - loss: 0.3431 - val_loss: 0.3344
Epoch 31/100
50/50 [=====] - 4s 86ms/step - loss: 0.2809 - val_loss: 0.3090
Epoch 32/100
50/50 [=====] - 4s 86ms/step - loss: 0.2752 - val_loss: 0.3293
Epoch 33/100
50/50 [=====] - 4s 87ms/step - loss: 0.2747 - val_loss: 0.3158
Epoch 34/100
50/50 [=====] - 4s 86ms/step - loss: 0.2734 - val_loss: 0.3161
Epoch 35/100
50/50 [=====] - 4s 86ms/step - loss: 0.2708 - val_loss: 0.3126
Epoch 36/100
50/50 [=====] - 4s 87ms/step - loss: 0.2837 - val_loss: 0.3235
Epoch 37/100
50/50 [=====] - 4s 87ms/step - loss: 0.2678 - val_loss: 0.3236
Epoch 38/100
50/50 [=====] - 4s 86ms/step - loss: 0.2647 - val_loss: 0.3280
Epoch 39/100
50/50 [=====] - 4s 86ms/step - loss: 0.2660 - val_loss: 0.3413
Epoch 40/100
50/50 [=====] - 4s 86ms/step - loss: 0.2662 - val_loss: 0.3460
Epoch 41/100
50/50 [=====] - 4s 86ms/step - loss: 0.2600 - val_loss: 0.3458
Epoch 42/100
50/50 [=====] - 4s 86ms/step - loss: 0.2586 - val_loss: 0.3560
Epoch 43/100
50/50 [=====] - 4s 86ms/step - loss: 0.2585 - val_loss: 0.3630
Epoch 44/100

50/50 [=====] - 4s 86ms/step - loss: 0.2593 - val_loss: 0.3764
Epoch 45/100
50/50 [=====] - 4s 86ms/step - loss: 0.2554 - val_loss: 0.3614
Epoch 46/100
50/50 [=====] - 4s 86ms/step - loss: 0.2535 - val_loss: 0.3685
Epoch 47/100
50/50 [=====] - 4s 86ms/step - loss: 0.2692 - val_loss: 0.3626
Epoch 48/100
50/50 [=====] - 4s 85ms/step - loss: 0.2513 - val_loss: 0.3711
Epoch 49/100
50/50 [=====] - 4s 86ms/step - loss: 0.2517 - val_loss: 0.3568
Epoch 50/100
50/50 [=====] - 4s 86ms/step - loss: 0.2502 - val_loss: 0.3657
Epoch 51/100
50/50 [=====] - 4s 87ms/step - loss: 0.2573 - val_loss: 0.3578
Epoch 52/100
50/50 [=====] - 4s 86ms/step - loss: 0.2468 - val_loss: 0.3636
Epoch 53/100
50/50 [=====] - 4s 84ms/step - loss: 0.2477 - val_loss: 0.3651
Epoch 54/100
50/50 [=====] - 4s 87ms/step - loss: 0.2458 - val_loss: 0.3725
Epoch 55/100
50/50 [=====] - 4s 87ms/step - loss: 0.3029 - val_loss: 0.5523
Epoch 56/100
50/50 [=====] - 4s 87ms/step - loss: 0.2942 - val_loss: 0.3583
Epoch 57/100
50/50 [=====] - 4s 86ms/step - loss: 0.2455 - val_loss: 0.3559
Epoch 58/100
50/50 [=====] - 4s 84ms/step - loss: 0.2437 - val_loss: 0.3625
Epoch 59/100
50/50 [=====] - 4s 88ms/step - loss: 0.2419 - val_loss: 0.3660
Epoch 60/100
50/50 [=====] - 4s 88ms/step - loss: 0.2408 - val_loss: 0.3763
Epoch 61/100
50/50 [=====] - 4s 85ms/step - loss: 0.2401 - val_loss: 0.3790
Epoch 62/100
50/50 [=====] - 4s 85ms/step - loss: 0.2393 - val_loss: 0.3777
Epoch 63/100
50/50 [=====] - 4s 87ms/step - loss: 0.2378 - val_loss: 0.3885
Epoch 64/100
50/50 [=====] - 4s 85ms/step - loss: 0.2380 - val_loss: 0.3885
Epoch 65/100
50/50 [=====] - 4s 87ms/step - loss: 0.2370 - val_loss: 0.3933
Epoch 66/100
50/50 [=====] - 4s 87ms/step - loss: 0.2362 - val_loss: 0.3913

Epoch 67/100
50/50 [=====] - 4s 86ms/step - loss: 0.2348 - val_loss: 0.3827
Epoch 68/100
50/50 [=====] - 4s 85ms/step - loss: 0.2348 - val_loss: 0.3995
Epoch 69/100
50/50 [=====] - 4s 83ms/step - loss: 0.2713 - val_loss: 0.3700
Epoch 70/100
50/50 [=====] - 4s 84ms/step - loss: 0.2336 - val_loss: 0.3725
Epoch 71/100
50/50 [=====] - 4s 85ms/step - loss: 0.2316 - val_loss: 0.3866
Epoch 72/100
50/50 [=====] - 4s 87ms/step - loss: 0.2318 - val_loss: 0.3864
Epoch 73/100
50/50 [=====] - 5s 90ms/step - loss: 0.2306 - val_loss: 0.3877
Epoch 74/100
50/50 [=====] - 4s 87ms/step - loss: 0.2305 - val_loss: 0.3947
Epoch 75/100
50/50 [=====] - 4s 87ms/step - loss: 0.2293 - val_loss: 0.3963
Epoch 76/100
50/50 [=====] - 4s 86ms/step - loss: 0.2297 - val_loss: 0.3907
Epoch 77/100
50/50 [=====] - 4s 85ms/step - loss: 0.2286 - val_loss: 0.3904
Epoch 78/100
50/50 [=====] - 4s 82ms/step - loss: 0.2286 - val_loss: 0.3971
Epoch 79/100
50/50 [=====] - 4s 83ms/step - loss: 0.2502 - val_loss: 0.5919
Epoch 80/100
50/50 [=====] - 4s 85ms/step - loss: 0.2989 - val_loss: 0.3784
Epoch 81/100
50/50 [=====] - 4s 87ms/step - loss: 0.2289 - val_loss: 0.3912
Epoch 82/100
50/50 [=====] - 4s 89ms/step - loss: 0.2260 - val_loss: 0.3956
Epoch 83/100
50/50 [=====] - 4s 89ms/step - loss: 0.2259 - val_loss: 0.3953
Epoch 84/100
50/50 [=====] - 4s 88ms/step - loss: 0.2258 - val_loss: 0.3900
Epoch 85/100
50/50 [=====] - 4s 86ms/step - loss: 0.2248 - val_loss: 0.3904
Epoch 86/100
50/50 [=====] - 4s 86ms/step - loss: 0.2245 - val_loss: 0.4099
Epoch 87/100
50/50 [=====] - 4s 86ms/step - loss: 0.2249 - val_loss: 0.4076
Epoch 88/100
50/50 [=====] - 4s 84ms/step - loss: 0.2241 - val_loss: 0.3934
Epoch 89/100

50/50 [=====] - 4s 86ms/step - loss: 0.2225 - val_loss: 0.3968
Epoch 90/100
50/50 [=====] - 4s 87ms/step - loss: 0.2224 - val_loss: 0.3848
Epoch 91/100
50/50 [=====] - 4s 86ms/step - loss: 0.2228 - val_loss: 0.3989
Epoch 92/100
50/50 [=====] - 4s 87ms/step - loss: 0.2637 - val_loss: 0.3926
Epoch 93/100
50/50 [=====] - 4s 86ms/step - loss: 0.2338 - val_loss: 0.3973
Epoch 94/100
50/50 [=====] - 4s 86ms/step - loss: 0.2215 - val_loss: 0.4033
Epoch 95/100
50/50 [=====] - 4s 86ms/step - loss: 0.2208 - val_loss: 0.3959
Epoch 96/100
50/50 [=====] - 4s 85ms/step - loss: 0.2201 - val_loss: 0.3926
Epoch 97/100
50/50 [=====] - 6s 112ms/step - loss: 0.2195 - val_loss: 0.4051
Epoch 98/100
50/50 [=====] - 5s 106ms/step - loss: 0.2201 - val_loss: 0.3949
Epoch 99/100
50/50 [=====] - 4s 86ms/step - loss: 0.2189 - val_loss: 0.3907
Epoch 100/100
50/50 [=====] - 4s 87ms/step - loss: 0.2184 - val_loss: 0.4074





CA_3 - True Future: [8164. 6371. 5244. 5309. 5261. 5637. 7217. 8094. 6446. 5722. 5740. 5951. 5986. 7347. 6696. 5930. 5882. 6421. 6547. 5928.]

CA_3 - Model Prediction: [7087.573 6142.6094 5020.207 4967.9395 5056.548 5400.1113 6948.494

7929.902 6961.2837 5877.0005 5783.3228 5752.906 6047.0713 7470.073

8284.079 7076.125 5702.285 5291.16 5046.4517 5246.501]

CA_3 - Model Percentage Error: [13.18504113 3.58484736 4.26760047 6.42419565 3.88618416 4.20238907

3.72046362 2.0274048 7.99385187 2.7088516 0.75475181 3.32875547

1.02023537 1.67514961 23.71683246 19.32757167 3.05533566 17.59601065

22.9196325 11.49627233]%

CA_3 - Model Mean Percentage Error: 7.844568862317521%

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Training for CA_1

Single window of past history : (100, 4)

(72, 20)

Epoch 1/100

50/50 [=====] - 5s 94ms/step - loss: 0.7591 - val_loss: 0.7256

Epoch 2/100

50/50 [=====] - 4s 85ms/step - loss: 0.7055 - val_loss: 0.7291

Epoch 3/100

50/50 [=====] - 4s 89ms/step - loss: 0.6917 - val_loss: 0.7268

Epoch 4/100

50/50 [=====] - 4s 88ms/step - loss: 0.6840 - val_loss: 0.7230

Epoch 5/100

50/50 [=====] - 4s 88ms/step - loss: 0.6683 - val_loss: 0.7006

Epoch 6/100

50/50 [=====] - 4s 88ms/step - loss: 0.6165 - val_loss: 0.5499

Epoch 7/100

50/50 [=====] - 4s 90ms/step - loss: 0.4715 - val_loss: 0.4299

Epoch 8/100

50/50 [=====] - 5s 90ms/step - loss: 0.4044 - val_loss: 0.4375

Epoch 9/100

50/50 [=====] - 4s 89ms/step - loss: 0.3910 - val_loss: 0.4122

Epoch 10/100

50/50 [=====] - 4s 88ms/step - loss: 0.3817 - val_loss: 0.4492

Epoch 11/100

50/50 [=====] - 4s 88ms/step - loss: 0.4040 - val_loss: 0.4341

Epoch 12/100

50/50 [=====] - 4s 87ms/step - loss: 0.3617 - val_loss: 0.4251

Epoch 13/100

50/50 [=====] - 4s 87ms/step - loss: 0.3557 - val_loss: 0.3841

Epoch 14/100

50/50 [=====] - 4s 88ms/step - loss: 0.3428 - val_loss: 0.3809

Epoch 15/100

50/50 [=====] - 4s 87ms/step - loss: 0.3570 - val_loss: 0.6214

Epoch 16/100

50/50 [=====] - 4s 88ms/step - loss: 0.4238 - val_loss: 0.3904

Epoch 17/100

50/50 [=====] - 4s 88ms/step - loss: 0.3253 - val_loss: 0.3679

Epoch 18/100

50/50 [=====] - 4s 88ms/step - loss: 0.3185 - val_loss: 0.3459

Epoch 19/100

50/50 [=====] - 4s 88ms/step - loss: 0.3657 - val_loss: 0.5850

Epoch 20/100

50/50 [=====] - 4s 88ms/step - loss: 0.3718 - val_loss: 0.3523

Epoch 21/100

50/50 [=====] - 4s 88ms/step - loss: 0.3128 - val_loss: 0.3415

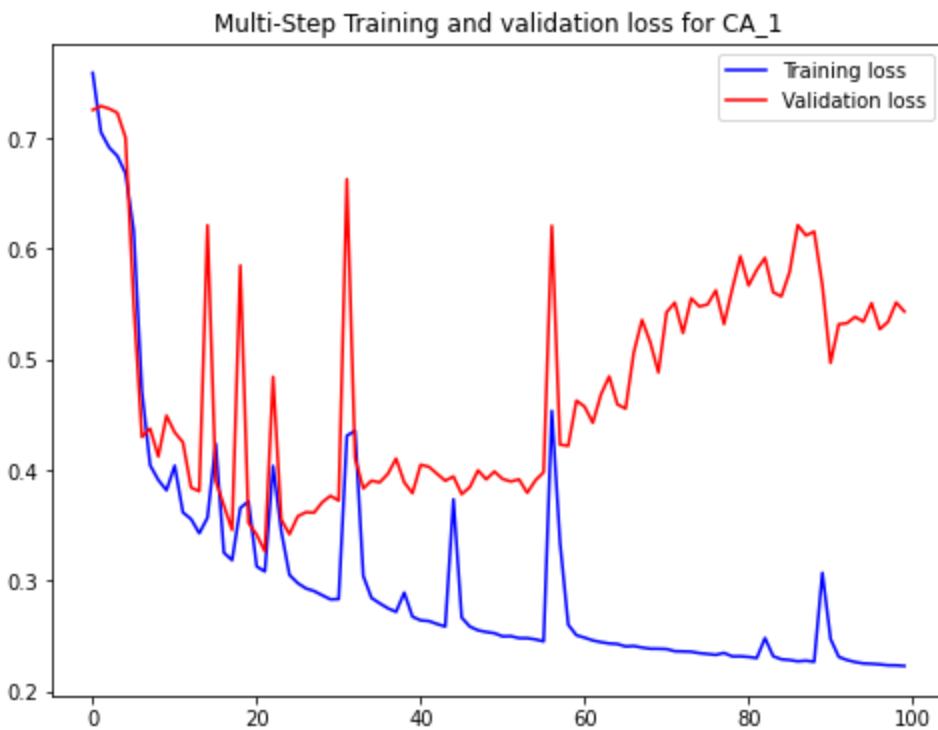
Epoch 22/100

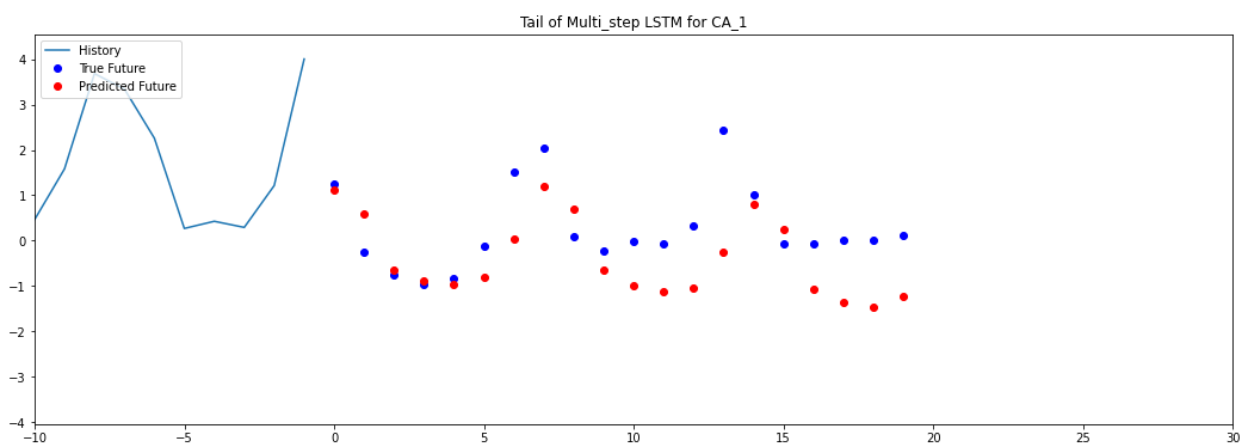
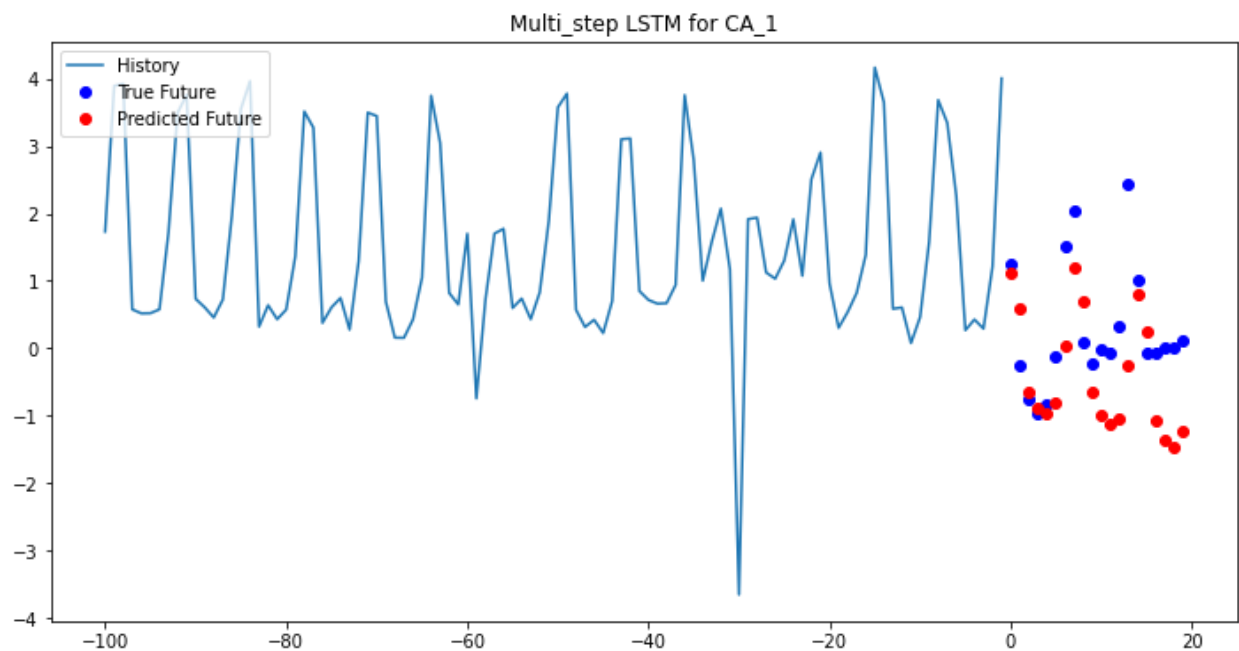
50/50 [=====] - 4s 88ms/step - loss: 0.3083 - val_loss: 0.3265
Epoch 23/100
50/50 [=====] - 4s 87ms/step - loss: 0.4037 - val_loss: 0.4843
Epoch 24/100
50/50 [=====] - 4s 87ms/step - loss: 0.3447 - val_loss: 0.3551
Epoch 25/100
50/50 [=====] - 4s 88ms/step - loss: 0.3051 - val_loss: 0.3420
Epoch 26/100
50/50 [=====] - 4s 88ms/step - loss: 0.2978 - val_loss: 0.3581
Epoch 27/100
50/50 [=====] - 4s 87ms/step - loss: 0.2930 - val_loss: 0.3619
Epoch 28/100
50/50 [=====] - 4s 87ms/step - loss: 0.2906 - val_loss: 0.3615
Epoch 29/100
50/50 [=====] - 4s 88ms/step - loss: 0.2868 - val_loss: 0.3709
Epoch 30/100
50/50 [=====] - 4s 87ms/step - loss: 0.2831 - val_loss: 0.3767
Epoch 31/100
50/50 [=====] - 4s 88ms/step - loss: 0.2834 - val_loss: 0.3724
Epoch 32/100
50/50 [=====] - 4s 88ms/step - loss: 0.4310 - val_loss: 0.6630
Epoch 33/100
50/50 [=====] - 4s 88ms/step - loss: 0.4355 - val_loss: 0.4110
Epoch 34/100
50/50 [=====] - 4s 90ms/step - loss: 0.3043 - val_loss: 0.3833
Epoch 35/100
50/50 [=====] - 4s 90ms/step - loss: 0.2844 - val_loss: 0.3904
Epoch 36/100
50/50 [=====] - 4s 86ms/step - loss: 0.2795 - val_loss: 0.3888
Epoch 37/100
50/50 [=====] - 4s 86ms/step - loss: 0.2750 - val_loss: 0.3965
Epoch 38/100
50/50 [=====] - 4s 88ms/step - loss: 0.2718 - val_loss: 0.4104
Epoch 39/100
50/50 [=====] - 4s 86ms/step - loss: 0.2892 - val_loss: 0.3889
Epoch 40/100
50/50 [=====] - 4s 89ms/step - loss: 0.2674 - val_loss: 0.3791
Epoch 41/100
50/50 [=====] - 4s 89ms/step - loss: 0.2641 - val_loss: 0.4048
Epoch 42/100
50/50 [=====] - 4s 88ms/step - loss: 0.2635 - val_loss: 0.4030
Epoch 43/100
50/50 [=====] - 4s 87ms/step - loss: 0.2608 - val_loss: 0.3966
Epoch 44/100
50/50 [=====] - 4s 86ms/step - loss: 0.2585 - val_loss: 0.3903

Epoch 45/100
50/50 [=====] - 4s 87ms/step - loss: 0.3736 - val_loss: 0.3942
Epoch 46/100
50/50 [=====] - 4s 85ms/step - loss: 0.2667 - val_loss: 0.3782
Epoch 47/100
50/50 [=====] - 4s 86ms/step - loss: 0.2585 - val_loss: 0.3845
Epoch 48/100
50/50 [=====] - 4s 86ms/step - loss: 0.2551 - val_loss: 0.3997
Epoch 49/100
50/50 [=====] - 4s 86ms/step - loss: 0.2536 - val_loss: 0.3916
Epoch 50/100
50/50 [=====] - 4s 85ms/step - loss: 0.2525 - val_loss: 0.3986
Epoch 51/100
50/50 [=====] - 4s 87ms/step - loss: 0.2496 - val_loss: 0.3919
Epoch 52/100
50/50 [=====] - 4s 87ms/step - loss: 0.2498 - val_loss: 0.3897
Epoch 53/100
50/50 [=====] - 4s 86ms/step - loss: 0.2480 - val_loss: 0.3916
Epoch 54/100
50/50 [=====] - 4s 86ms/step - loss: 0.2480 - val_loss: 0.3794
Epoch 55/100
50/50 [=====] - 4s 87ms/step - loss: 0.2469 - val_loss: 0.3907
Epoch 56/100
50/50 [=====] - 4s 87ms/step - loss: 0.2451 - val_loss: 0.3981
Epoch 57/100
50/50 [=====] - 4s 86ms/step - loss: 0.4536 - val_loss: 0.6209
Epoch 58/100
50/50 [=====] - 4s 84ms/step - loss: 0.3346 - val_loss: 0.4230
Epoch 59/100
50/50 [=====] - 4s 86ms/step - loss: 0.2602 - val_loss: 0.4219
Epoch 60/100
50/50 [=====] - 4s 88ms/step - loss: 0.2507 - val_loss: 0.4628
Epoch 61/100
50/50 [=====] - 4s 86ms/step - loss: 0.2484 - val_loss: 0.4573
Epoch 62/100
50/50 [=====] - 4s 88ms/step - loss: 0.2460 - val_loss: 0.4427
Epoch 63/100
50/50 [=====] - 4s 87ms/step - loss: 0.2444 - val_loss: 0.4684
Epoch 64/100
50/50 [=====] - 4s 86ms/step - loss: 0.2432 - val_loss: 0.4847
Epoch 65/100
50/50 [=====] - 4s 85ms/step - loss: 0.2427 - val_loss: 0.4593
Epoch 66/100
50/50 [=====] - 4s 86ms/step - loss: 0.2405 - val_loss: 0.4556
Epoch 67/100

50/50 [=====] - 4s 85ms/step - loss: 0.2409 - val_loss: 0.5065
Epoch 68/100
50/50 [=====] - 4s 85ms/step - loss: 0.2395 - val_loss: 0.5357
Epoch 69/100
50/50 [=====] - 4s 85ms/step - loss: 0.2385 - val_loss: 0.5157
Epoch 70/100
50/50 [=====] - 4s 87ms/step - loss: 0.2384 - val_loss: 0.4883
Epoch 71/100
50/50 [=====] - 4s 86ms/step - loss: 0.2382 - val_loss: 0.5428
Epoch 72/100
50/50 [=====] - 4s 86ms/step - loss: 0.2362 - val_loss: 0.5514
Epoch 73/100
50/50 [=====] - 4s 86ms/step - loss: 0.2360 - val_loss: 0.5239
Epoch 74/100
50/50 [=====] - 4s 86ms/step - loss: 0.2357 - val_loss: 0.5553
Epoch 75/100
50/50 [=====] - 5s 92ms/step - loss: 0.2344 - val_loss: 0.5479
Epoch 76/100
50/50 [=====] - 4s 87ms/step - loss: 0.2337 - val_loss: 0.5498
Epoch 77/100
50/50 [=====] - 4s 87ms/step - loss: 0.2329 - val_loss: 0.5624
Epoch 78/100
50/50 [=====] - 4s 86ms/step - loss: 0.2347 - val_loss: 0.5320
Epoch 79/100
50/50 [=====] - 4s 87ms/step - loss: 0.2315 - val_loss: 0.5634
Epoch 80/100
50/50 [=====] - 4s 86ms/step - loss: 0.2316 - val_loss: 0.5933
Epoch 81/100
50/50 [=====] - 4s 85ms/step - loss: 0.2310 - val_loss: 0.5669
Epoch 82/100
50/50 [=====] - 4s 85ms/step - loss: 0.2300 - val_loss: 0.5810
Epoch 83/100
50/50 [=====] - 4s 85ms/step - loss: 0.2481 - val_loss: 0.5919
Epoch 84/100
50/50 [=====] - 4s 87ms/step - loss: 0.2317 - val_loss: 0.5607
Epoch 85/100
50/50 [=====] - 4s 85ms/step - loss: 0.2289 - val_loss: 0.5570
Epoch 86/100
50/50 [=====] - 4s 86ms/step - loss: 0.2283 - val_loss: 0.5789
Epoch 87/100
50/50 [=====] - 4s 87ms/step - loss: 0.2271 - val_loss: 0.6215
Epoch 88/100
50/50 [=====] - 4s 87ms/step - loss: 0.2276 - val_loss: 0.6121
Epoch 89/100
50/50 [=====] - 4s 88ms/step - loss: 0.2266 - val_loss: 0.6156

Epoch 90/100
 50/50 [=====] - 4s 87ms/step - loss: 0.3071 - val_loss: 0.5669
 Epoch 91/100
 50/50 [=====] - 4s 87ms/step - loss: 0.2473 - val_loss: 0.4969
 Epoch 92/100
 50/50 [=====] - 4s 86ms/step - loss: 0.2310 - val_loss: 0.5318
 Epoch 93/100
 50/50 [=====] - 4s 89ms/step - loss: 0.2282 - val_loss: 0.5328
 Epoch 94/100
 50/50 [=====] - 4s 86ms/step - loss: 0.2264 - val_loss: 0.5385
 Epoch 95/100
 50/50 [=====] - 4s 85ms/step - loss: 0.2252 - val_loss: 0.5341
 Epoch 96/100
 50/50 [=====] - 4s 86ms/step - loss: 0.2248 - val_loss: 0.5509
 Epoch 97/100
 50/50 [=====] - 4s 88ms/step - loss: 0.2243 - val_loss: 0.5273
 Epoch 98/100
 50/50 [=====] - 4s 86ms/step - loss: 0.2235 - val_loss: 0.5339
 Epoch 99/100
 50/50 [=====] - 4s 88ms/step - loss: 0.2234 - val_loss: 0.5515
 Epoch 100/100
 50/50 [=====] - 4s 85ms/step - loss: 0.2229 - val_loss: 0.5433





CA_1 - True Future: [5247. 3741. 3246. 3031. 3173. 3871. 5498. 6032. 4075. 3765. 3983. 3928. 4327. 6412. 4986. 3933. 3936. 3995. 4007. 4111.]

CA_1 - Model Prediction: [5092.447 4590.7173 3359.8135 3110.2654 3040.8809 3191.6877 4028.5652

5188.2715 4675.2974 3355.1396 3001.8667 2873.1113 2945.0942 3737.7087

4795.9727 4249.328 2922.5552 2645.8167 2541.655 2765.3252]

CA_1 - Model Percentage Error: [2.94555408 22.71364034 3.50626853 2.61515608 4.16385568 17.5487537

26.72671543 13.9875417 14.73122364 10.88606511 24.63302287 26.85561792

31.93680984 41.70759919 3.81121829 8.04292207 25.74809005 33.77179849

36.56962742 32.73351507]%

CA_1 - Model Mean Percentage Error: 19.281749775084712%

=====

=====

Training for CA_2

Single window of past history : (100, 4)

(72, 20)

Epoch 1/100

50/50 [=====] - 5s 93ms/step - loss: 0.7526 - val_loss: 1.7941

Epoch 2/100

50/50 [=====] - 4s 87ms/step - loss: 0.7007 - val_loss: 1.2817

Epoch 3/100

50/50 [=====] - 4s 86ms/step - loss: 0.6699 - val_loss: 1.1212

Epoch 4/100

50/50 [=====] - 4s 85ms/step - loss: 0.6514 - val_loss: 1.1109

Epoch 5/100

50/50 [=====] - 4s 87ms/step - loss: 0.5534 - val_loss: 0.8362

Epoch 6/100

50/50 [=====] - 4s 85ms/step - loss: 0.4022 - val_loss: 0.7357

Epoch 7/100

50/50 [=====] - 4s 85ms/step - loss: 0.3705 - val_loss: 0.7117

Epoch 8/100

50/50 [=====] - 4s 86ms/step - loss: 0.3389 - val_loss: 0.6731

Epoch 9/100

50/50 [=====] - 4s 87ms/step - loss: 0.3131 - val_loss: 0.6567

Epoch 10/100

50/50 [=====] - 5s 90ms/step - loss: 0.3012 - val_loss: 0.5975

Epoch 11/100

50/50 [=====] - 4s 87ms/step - loss: 0.2896 - val_loss: 0.5639

Epoch 12/100

50/50 [=====] - 4s 87ms/step - loss: 0.2819 - val_loss: 0.7921

Epoch 13/100

50/50 [=====] - 4s 86ms/step - loss: 0.3173 - val_loss: 0.6049

Epoch 14/100

50/50 [=====] - 4s 86ms/step - loss: 0.2700 - val_loss: 0.5005

Epoch 15/100

50/50 [=====] - 4s 88ms/step - loss: 0.2884 - val_loss: 0.8654

Epoch 16/100

50/50 [=====] - 4s 87ms/step - loss: 0.2824 - val_loss: 0.5025

Epoch 17/100

50/50 [=====] - 4s 86ms/step - loss: 0.2577 - val_loss: 0.5371

Epoch 18/100

50/50 [=====] - 4s 86ms/step - loss: 0.2532 - val_loss: 0.5490

Epoch 19/100

50/50 [=====] - 4s 88ms/step - loss: 0.2517 - val_loss: 0.6033

Epoch 20/100

50/50 [=====] - 4s 86ms/step - loss: 0.2505 - val_loss: 0.5343

Epoch 21/100

50/50 [=====] - 4s 86ms/step - loss: 0.2495 - val_loss: 0.4963

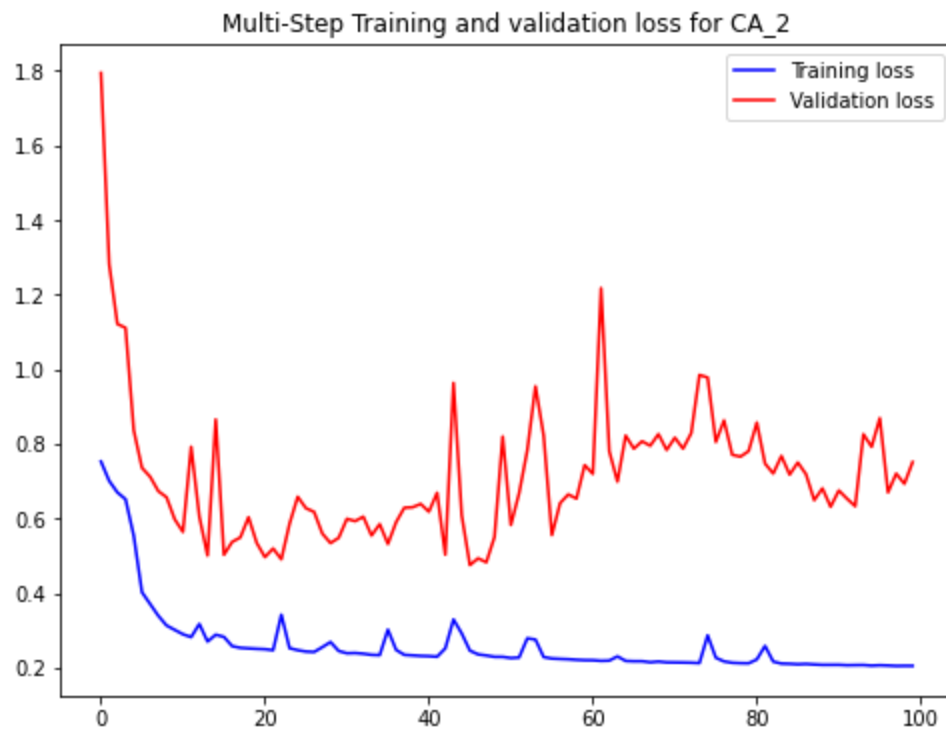
Epoch 22/100

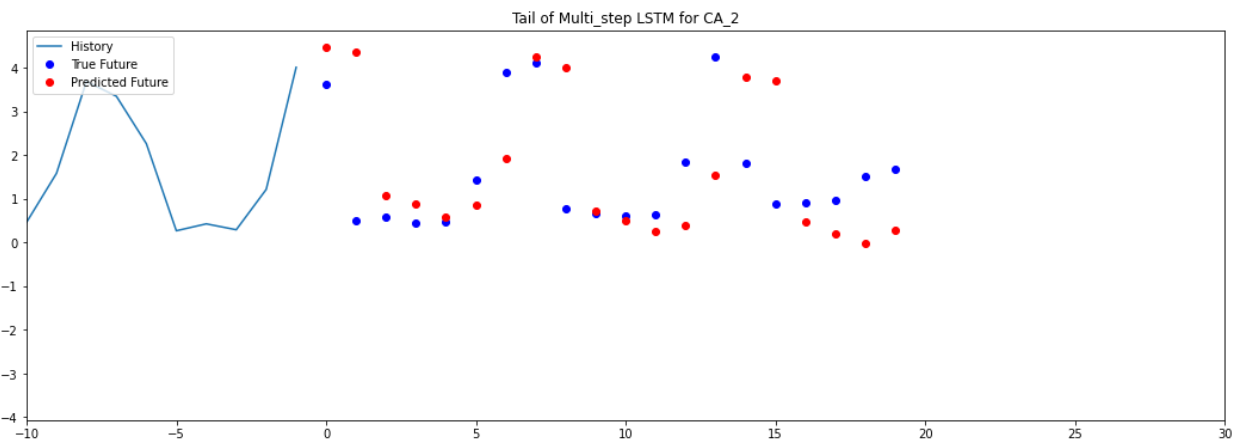
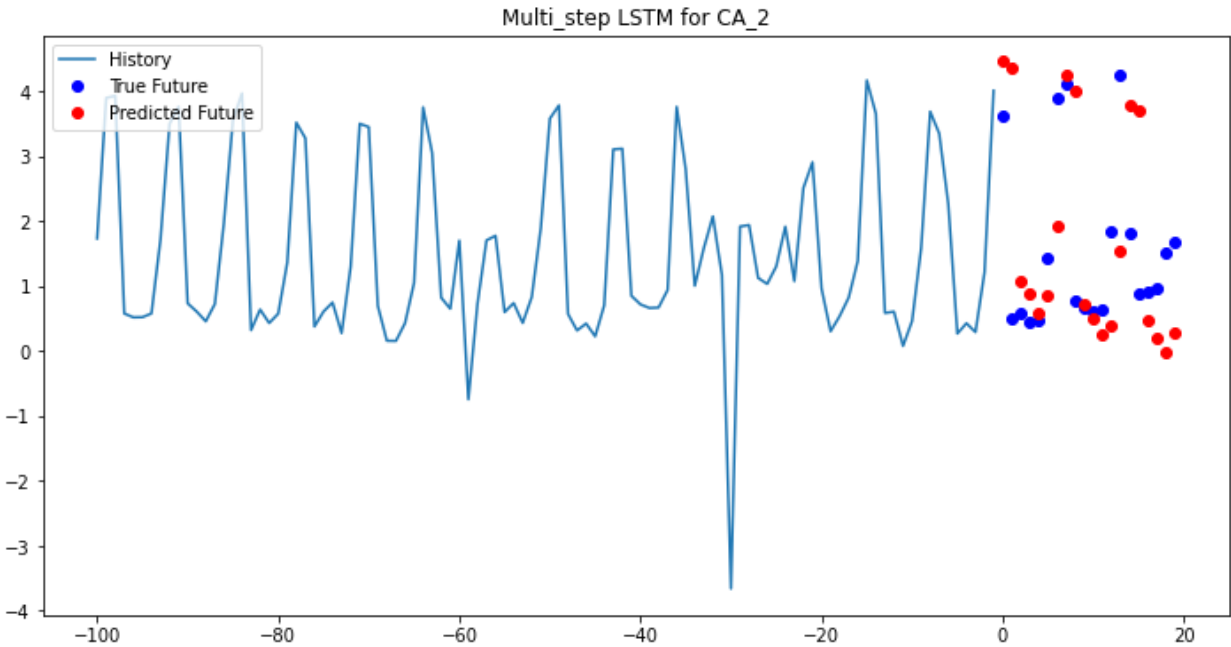
50/50 [=====] - 4s 84ms/step - loss: 0.2469 - val_loss: 0.5194
Epoch 23/100
50/50 [=====] - 4s 86ms/step - loss: 0.3420 - val_loss: 0.4905
Epoch 24/100
50/50 [=====] - 4s 86ms/step - loss: 0.2523 - val_loss: 0.5856
Epoch 25/100
50/50 [=====] - 4s 85ms/step - loss: 0.2469 - val_loss: 0.6581
Epoch 26/100
50/50 [=====] - 4s 84ms/step - loss: 0.2432 - val_loss: 0.6274
Epoch 27/100
50/50 [=====] - 4s 83ms/step - loss: 0.2421 - val_loss: 0.6175
Epoch 28/100
50/50 [=====] - 4s 85ms/step - loss: 0.2550 - val_loss: 0.5594
Epoch 29/100
50/50 [=====] - 4s 84ms/step - loss: 0.2687 - val_loss: 0.5339
Epoch 30/100
50/50 [=====] - 4s 86ms/step - loss: 0.2447 - val_loss: 0.5481
Epoch 31/100
50/50 [=====] - 4s 84ms/step - loss: 0.2386 - val_loss: 0.5990
Epoch 32/100
50/50 [=====] - 4s 84ms/step - loss: 0.2393 - val_loss: 0.5928
Epoch 33/100
50/50 [=====] - 6s 129ms/step - loss: 0.2374 - val_loss: 0.6047
Epoch 34/100
50/50 [=====] - 4s 83ms/step - loss: 0.2344 - val_loss: 0.5541
Epoch 35/100
50/50 [=====] - 4s 85ms/step - loss: 0.2336 - val_loss: 0.5849
Epoch 36/100
50/50 [=====] - 4s 82ms/step - loss: 0.3019 - val_loss: 0.5316
Epoch 37/100
50/50 [=====] - 4s 85ms/step - loss: 0.2476 - val_loss: 0.5900
Epoch 38/100
50/50 [=====] - 4s 83ms/step - loss: 0.2343 - val_loss: 0.6287
Epoch 39/100
50/50 [=====] - 4s 83ms/step - loss: 0.2329 - val_loss: 0.6299
Epoch 40/100
50/50 [=====] - 4s 84ms/step - loss: 0.2315 - val_loss: 0.6389
Epoch 41/100
50/50 [=====] - 4s 84ms/step - loss: 0.2309 - val_loss: 0.6180
Epoch 42/100
50/50 [=====] - 4s 86ms/step - loss: 0.2293 - val_loss: 0.6687
Epoch 43/100
50/50 [=====] - 4s 85ms/step - loss: 0.2517 - val_loss: 0.5028
Epoch 44/100
50/50 [=====] - 4s 84ms/step - loss: 0.3292 - val_loss: 0.9633

Epoch 45/100
50/50 [=====] - 4s 83ms/step - loss: 0.2919 - val_loss: 0.6088
Epoch 46/100
50/50 [=====] - 4s 83ms/step - loss: 0.2457 - val_loss: 0.4748
Epoch 47/100
50/50 [=====] - 4s 83ms/step - loss: 0.2356 - val_loss: 0.4931
Epoch 48/100
50/50 [=====] - 4s 82ms/step - loss: 0.2327 - val_loss: 0.4824
Epoch 49/100
50/50 [=====] - 4s 84ms/step - loss: 0.2290 - val_loss: 0.5502
Epoch 50/100
50/50 [=====] - 4s 83ms/step - loss: 0.2289 - val_loss: 0.8196
Epoch 51/100
50/50 [=====] - 4s 86ms/step - loss: 0.2258 - val_loss: 0.5824
Epoch 52/100
50/50 [=====] - 4s 83ms/step - loss: 0.2271 - val_loss: 0.6673
Epoch 53/100
50/50 [=====] - 4s 84ms/step - loss: 0.2787 - val_loss: 0.7824
Epoch 54/100
50/50 [=====] - 4s 85ms/step - loss: 0.2753 - val_loss: 0.9541
Epoch 55/100
50/50 [=====] - 4s 83ms/step - loss: 0.2283 - val_loss: 0.8218
Epoch 56/100
50/50 [=====] - 4s 84ms/step - loss: 0.2245 - val_loss: 0.5552
Epoch 57/100
50/50 [=====] - 4s 84ms/step - loss: 0.2235 - val_loss: 0.6410
Epoch 58/100
50/50 [=====] - 4s 85ms/step - loss: 0.2226 - val_loss: 0.6643
Epoch 59/100
50/50 [=====] - 4s 85ms/step - loss: 0.2211 - val_loss: 0.6532
Epoch 60/100
50/50 [=====] - 4s 86ms/step - loss: 0.2201 - val_loss: 0.7431
Epoch 61/100
50/50 [=====] - 4s 87ms/step - loss: 0.2199 - val_loss: 0.7194
Epoch 62/100
50/50 [=====] - 4s 85ms/step - loss: 0.2183 - val_loss: 1.2175
Epoch 63/100
50/50 [=====] - 4s 85ms/step - loss: 0.2189 - val_loss: 0.7803
Epoch 64/100
50/50 [=====] - 4s 84ms/step - loss: 0.2302 - val_loss: 0.6986
Epoch 65/100
50/50 [=====] - 4s 87ms/step - loss: 0.2180 - val_loss: 0.8220
Epoch 66/100
50/50 [=====] - 4s 86ms/step - loss: 0.2172 - val_loss: 0.7871
Epoch 67/100

50/50 [=====] - 4s 85ms/step - loss: 0.2172 - val_loss: 0.8068
Epoch 68/100
50/50 [=====] - 4s 84ms/step - loss: 0.2145 - val_loss: 0.7949
Epoch 69/100
50/50 [=====] - 4s 85ms/step - loss: 0.2163 - val_loss: 0.8260
Epoch 70/100
50/50 [=====] - 4s 87ms/step - loss: 0.2143 - val_loss: 0.7835
Epoch 71/100
50/50 [=====] - 4s 88ms/step - loss: 0.2141 - val_loss: 0.8164
Epoch 72/100
50/50 [=====] - 4s 85ms/step - loss: 0.2138 - val_loss: 0.7871
Epoch 73/100
50/50 [=====] - 4s 85ms/step - loss: 0.2133 - val_loss: 0.8288
Epoch 74/100
50/50 [=====] - 4s 86ms/step - loss: 0.2123 - val_loss: 0.9847
Epoch 75/100
50/50 [=====] - 4s 86ms/step - loss: 0.2867 - val_loss: 0.9777
Epoch 76/100
50/50 [=====] - 4s 85ms/step - loss: 0.2266 - val_loss: 0.8049
Epoch 77/100
50/50 [=====] - 4s 85ms/step - loss: 0.2167 - val_loss: 0.8627
Epoch 78/100
50/50 [=====] - 4s 85ms/step - loss: 0.2131 - val_loss: 0.7706
Epoch 79/100
50/50 [=====] - 4s 86ms/step - loss: 0.2121 - val_loss: 0.7656
Epoch 80/100
50/50 [=====] - 4s 86ms/step - loss: 0.2117 - val_loss: 0.7805
Epoch 81/100
50/50 [=====] - 4s 88ms/step - loss: 0.2221 - val_loss: 0.8570
Epoch 82/100
50/50 [=====] - 4s 88ms/step - loss: 0.2583 - val_loss: 0.7471
Epoch 83/100
50/50 [=====] - 4s 86ms/step - loss: 0.2162 - val_loss: 0.7204
Epoch 84/100
50/50 [=====] - 4s 85ms/step - loss: 0.2110 - val_loss: 0.7674
Epoch 85/100
50/50 [=====] - 4s 85ms/step - loss: 0.2103 - val_loss: 0.7174
Epoch 86/100
50/50 [=====] - 4s 85ms/step - loss: 0.2091 - val_loss: 0.7500
Epoch 87/100
50/50 [=====] - 4s 86ms/step - loss: 0.2099 - val_loss: 0.7184
Epoch 88/100
50/50 [=====] - 4s 86ms/step - loss: 0.2086 - val_loss: 0.6489
Epoch 89/100
50/50 [=====] - 4s 86ms/step - loss: 0.2076 - val_loss: 0.6807

Epoch 90/100
50/50 [=====] - 4s 86ms/step - loss: 0.2076 - val_loss: 0.6313
Epoch 91/100
50/50 [=====] - 4s 84ms/step - loss: 0.2077 - val_loss: 0.6749
Epoch 92/100
50/50 [=====] - 4s 86ms/step - loss: 0.2066 - val_loss: 0.6529
Epoch 93/100
50/50 [=====] - 4s 84ms/step - loss: 0.2069 - val_loss: 0.6327
Epoch 94/100
50/50 [=====] - 4s 85ms/step - loss: 0.2071 - val_loss: 0.8257
Epoch 95/100
50/50 [=====] - 4s 85ms/step - loss: 0.2054 - val_loss: 0.7920
Epoch 96/100
50/50 [=====] - 4s 86ms/step - loss: 0.2064 - val_loss: 0.8689
Epoch 97/100
50/50 [=====] - 4s 86ms/step - loss: 0.2057 - val_loss: 0.6697
Epoch 98/100
50/50 [=====] - 4s 87ms/step - loss: 0.2046 - val_loss: 0.7202
Epoch 99/100
50/50 [=====] - 4s 85ms/step - loss: 0.2049 - val_loss: 0.6928
Epoch 100/100
50/50 [=====] - 4s 85ms/step - loss: 0.2048 - val_loss: 0.7510





CA_2 - True Future: [5647. 3240. 3294. 3189. 3211. 3964. 5873. 6037. 3454. 3360. 3314. 3333. 4276. 6150. 4251. 3537. 3549. 3586. 4026. 4140.]

CA_2 - Model Prediction: [6304.6455 6236.5034 3688.329 3530.7961 3289.4517 3514.6204 4342.9624

6141.742 5963.677 3406.1328 3242.7944 3038.433 3139.6338 4039.8882

5786.42 5713.849 3217.1555 2995.8906 2831.2104 3069.823]

CA_2 - Model Percentage Error: [11.64592718 92.48467339 11.97113241 10.71797249 2.44321583 11.33651964

26.05206194 1.73500393 72.66001036 1.37300037 2.14862904 8.83789062

26.57544927 34.31076124 36.11902898 61.54506986 9.35036581 16.45592234

29.67683931 25.84968604]%

CA_2 - Model Mean Percentage Error: 24.664458002970495%

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Training for CA_4

Single window of past history : (100, 4)

(72, 20)

Epoch 1/100

50/50 [=====] - 5s 93ms/step - loss: 0.6749 - val_loss: 0.7017

Epoch 2/100

50/50 [=====] - 4s 85ms/step - loss: 0.5246 - val_loss: 0.5785

Epoch 3/100

50/50 [=====] - 4s 84ms/step - loss: 0.5165 - val_loss: 0.5721

Epoch 4/100

50/50 [=====] - 4s 84ms/step - loss: 0.5074 - val_loss: 0.5665

Epoch 5/100

50/50 [=====] - 4s 86ms/step - loss: 0.5042 - val_loss: 0.5610

Epoch 6/100

50/50 [=====] - 4s 84ms/step - loss: 0.4963 - val_loss: 0.5462

Epoch 7/100

50/50 [=====] - 4s 84ms/step - loss: 0.4805 - val_loss: 0.4909

Epoch 8/100

50/50 [=====] - 4s 86ms/step - loss: 0.4356 - val_loss: 0.4385

Epoch 9/100

50/50 [=====] - 4s 85ms/step - loss: 0.3859 - val_loss: 0.4018

Epoch 10/100

50/50 [=====] - 4s 86ms/step - loss: 0.3659 - val_loss: 0.3796

Epoch 11/100

50/50 [=====] - 4s 85ms/step - loss: 0.3553 - val_loss: 0.3928

Epoch 12/100

50/50 [=====] - 4s 86ms/step - loss: 0.3552 - val_loss: 0.3819

Epoch 13/100

50/50 [=====] - 4s 85ms/step - loss: 0.3517 - val_loss: 0.3739

Epoch 14/100

50/50 [=====] - 4s 84ms/step - loss: 0.3478 - val_loss: 0.3763

Epoch 15/100

50/50 [=====] - 4s 86ms/step - loss: 0.3448 - val_loss: 0.3747

Epoch 16/100

50/50 [=====] - 4s 86ms/step - loss: 0.3445 - val_loss: 0.3741

Epoch 17/100

50/50 [=====] - 4s 85ms/step - loss: 0.3409 - val_loss: 0.3711

Epoch 18/100

50/50 [=====] - 4s 85ms/step - loss: 0.3396 - val_loss: 0.3711

Epoch 19/100

50/50 [=====] - 4s 87ms/step - loss: 0.3408 - val_loss: 0.3721

Epoch 20/100

50/50 [=====] - 4s 86ms/step - loss: 0.3367 - val_loss: 0.3742

Epoch 21/100

50/50 [=====] - 4s 84ms/step - loss: 0.3334 - val_loss: 0.3677

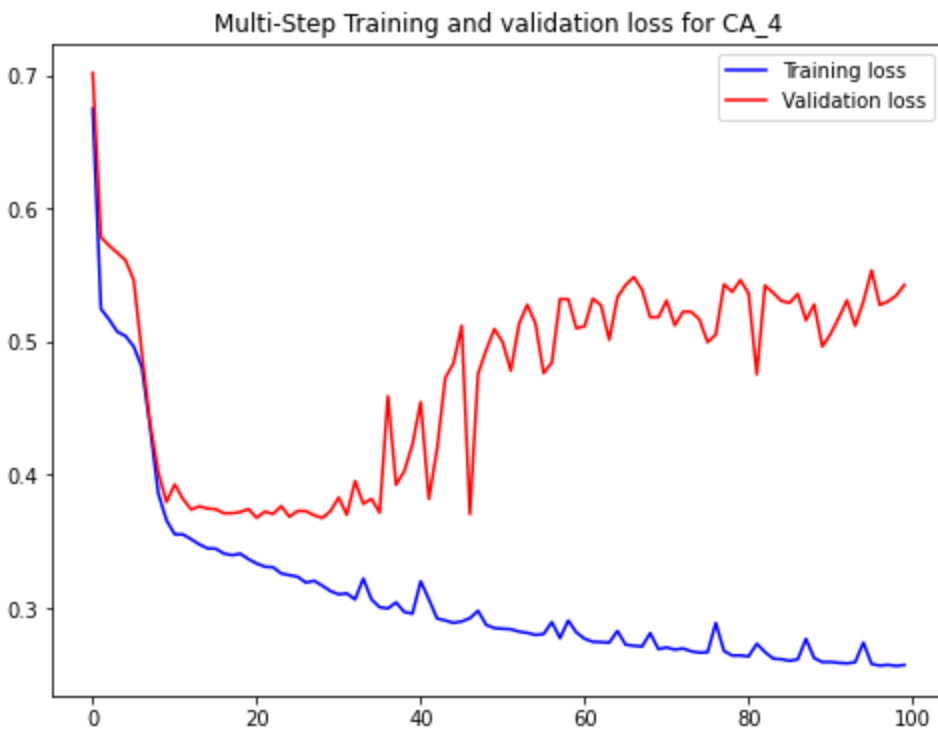
Epoch 22/100

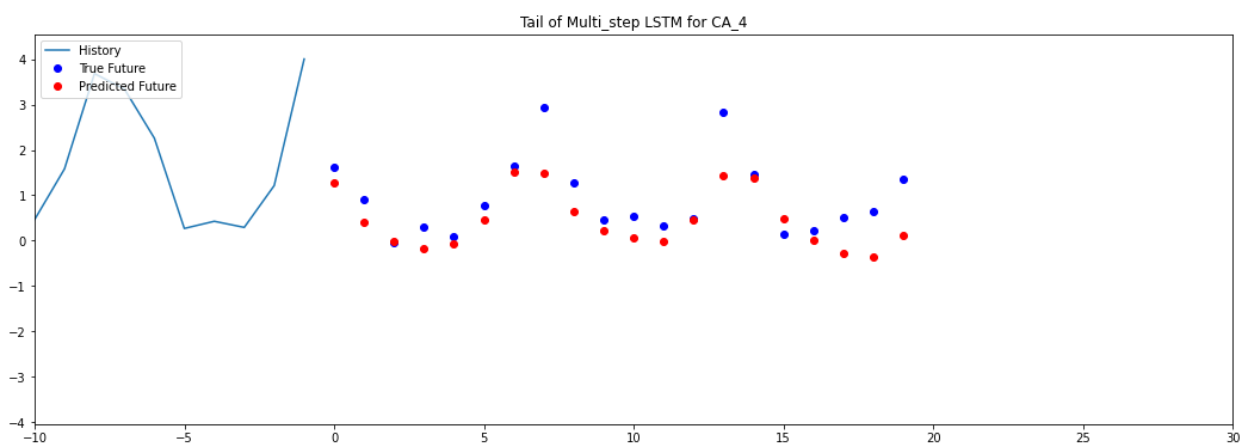
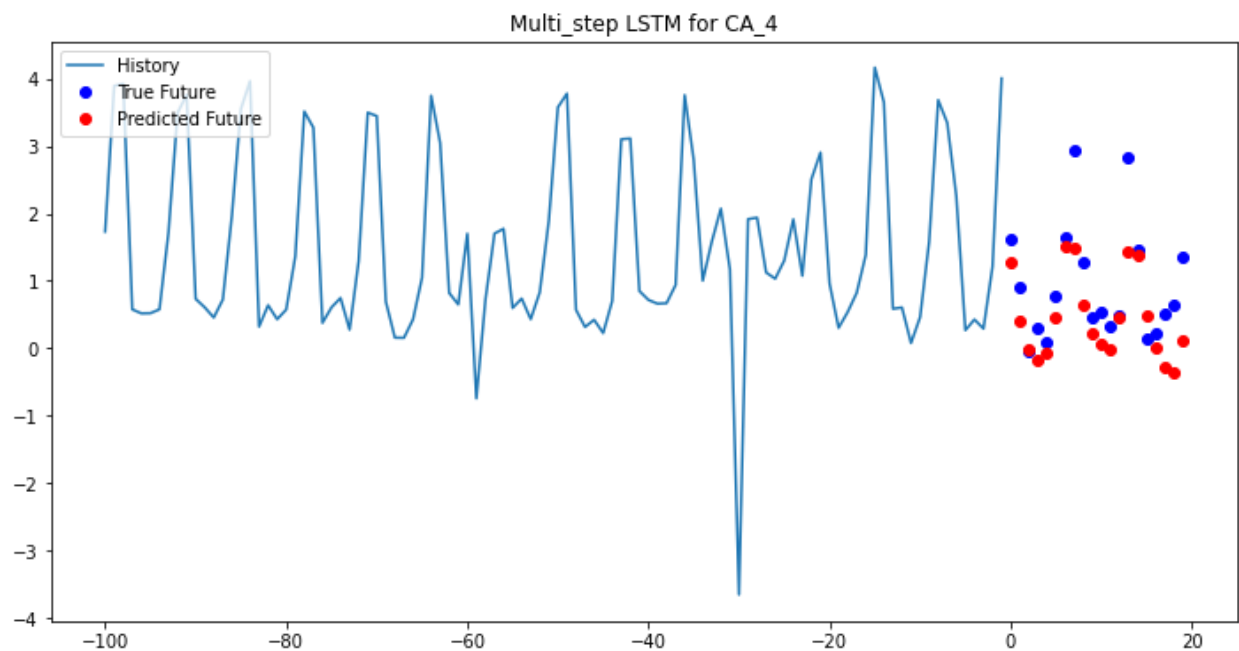
50/50 [=====] - 4s 85ms/step - loss: 0.3310 - val_loss: 0.3724
Epoch 23/100
50/50 [=====] - 4s 85ms/step - loss: 0.3306 - val_loss: 0.3706
Epoch 24/100
50/50 [=====] - 4s 88ms/step - loss: 0.3259 - val_loss: 0.3764
Epoch 25/100
50/50 [=====] - 4s 87ms/step - loss: 0.3247 - val_loss: 0.3685
Epoch 26/100
50/50 [=====] - 4s 85ms/step - loss: 0.3235 - val_loss: 0.3729
Epoch 27/100
50/50 [=====] - 4s 84ms/step - loss: 0.3190 - val_loss: 0.3727
Epoch 28/100
50/50 [=====] - 4s 85ms/step - loss: 0.3205 - val_loss: 0.3696
Epoch 29/100
50/50 [=====] - 4s 87ms/step - loss: 0.3168 - val_loss: 0.3676
Epoch 30/100
50/50 [=====] - 4s 86ms/step - loss: 0.3127 - val_loss: 0.3727
Epoch 31/100
50/50 [=====] - 4s 85ms/step - loss: 0.3103 - val_loss: 0.3830
Epoch 32/100
50/50 [=====] - 4s 85ms/step - loss: 0.3109 - val_loss: 0.3700
Epoch 33/100
50/50 [=====] - 4s 86ms/step - loss: 0.3064 - val_loss: 0.3953
Epoch 34/100
50/50 [=====] - 4s 84ms/step - loss: 0.3221 - val_loss: 0.3782
Epoch 35/100
50/50 [=====] - 4s 85ms/step - loss: 0.3065 - val_loss: 0.3820
Epoch 36/100
50/50 [=====] - 4s 85ms/step - loss: 0.3006 - val_loss: 0.3716
Epoch 37/100
50/50 [=====] - 4s 86ms/step - loss: 0.2997 - val_loss: 0.4591
Epoch 38/100
50/50 [=====] - 4s 86ms/step - loss: 0.3042 - val_loss: 0.3925
Epoch 39/100
50/50 [=====] - 4s 86ms/step - loss: 0.2970 - val_loss: 0.4027
Epoch 40/100
50/50 [=====] - 4s 86ms/step - loss: 0.2958 - val_loss: 0.4228
Epoch 41/100
50/50 [=====] - 4s 85ms/step - loss: 0.3200 - val_loss: 0.4546
Epoch 42/100
50/50 [=====] - 4s 86ms/step - loss: 0.3066 - val_loss: 0.3819
Epoch 43/100
50/50 [=====] - 4s 87ms/step - loss: 0.2922 - val_loss: 0.4193
Epoch 44/100
50/50 [=====] - 4s 85ms/step - loss: 0.2906 - val_loss: 0.4726

Epoch 45/100
50/50 [=====] - 4s 86ms/step - loss: 0.2888 - val_loss: 0.4837
Epoch 46/100
50/50 [=====] - 4s 84ms/step - loss: 0.2899 - val_loss: 0.5119
Epoch 47/100
50/50 [=====] - 4s 83ms/step - loss: 0.2923 - val_loss: 0.3704
Epoch 48/100
50/50 [=====] - 4s 82ms/step - loss: 0.2979 - val_loss: 0.4758
Epoch 49/100
50/50 [=====] - 4s 81ms/step - loss: 0.2873 - val_loss: 0.4938
Epoch 50/100
50/50 [=====] - 4s 82ms/step - loss: 0.2849 - val_loss: 0.5095
Epoch 51/100
50/50 [=====] - 4s 85ms/step - loss: 0.2844 - val_loss: 0.4995
Epoch 52/100
50/50 [=====] - 4s 87ms/step - loss: 0.2841 - val_loss: 0.4782
Epoch 53/100
50/50 [=====] - 4s 86ms/step - loss: 0.2823 - val_loss: 0.5133
Epoch 54/100
50/50 [=====] - 4s 84ms/step - loss: 0.2814 - val_loss: 0.5276
Epoch 55/100
50/50 [=====] - 4s 83ms/step - loss: 0.2798 - val_loss: 0.5138
Epoch 56/100
50/50 [=====] - 4s 82ms/step - loss: 0.2804 - val_loss: 0.4763
Epoch 57/100
50/50 [=====] - 4s 83ms/step - loss: 0.2895 - val_loss: 0.4843
Epoch 58/100
50/50 [=====] - 4s 84ms/step - loss: 0.2774 - val_loss: 0.5319
Epoch 59/100
50/50 [=====] - 4s 83ms/step - loss: 0.2906 - val_loss: 0.5318
Epoch 60/100
50/50 [=====] - 4s 83ms/step - loss: 0.2816 - val_loss: 0.5099
Epoch 61/100
50/50 [=====] - 4s 83ms/step - loss: 0.2769 - val_loss: 0.5115
Epoch 62/100
50/50 [=====] - 4s 83ms/step - loss: 0.2746 - val_loss: 0.5323
Epoch 63/100
50/50 [=====] - 4s 83ms/step - loss: 0.2744 - val_loss: 0.5272
Epoch 64/100
50/50 [=====] - 4s 84ms/step - loss: 0.2739 - val_loss: 0.5014
Epoch 65/100
50/50 [=====] - 4s 82ms/step - loss: 0.2828 - val_loss: 0.5333
Epoch 66/100
50/50 [=====] - 4s 82ms/step - loss: 0.2725 - val_loss: 0.5424
Epoch 67/100

50/50 [=====] - 4s 84ms/step - loss: 0.2717 - val_loss: 0.5484
Epoch 68/100
50/50 [=====] - 4s 84ms/step - loss: 0.2711 - val_loss: 0.5390
Epoch 69/100
50/50 [=====] - 4s 84ms/step - loss: 0.2811 - val_loss: 0.5183
Epoch 70/100
50/50 [=====] - 4s 84ms/step - loss: 0.2691 - val_loss: 0.5183
Epoch 71/100
50/50 [=====] - 4s 83ms/step - loss: 0.2704 - val_loss: 0.5308
Epoch 72/100
50/50 [=====] - 5s 109ms/step - loss: 0.2688 - val_loss: 0.5121
Epoch 73/100
50/50 [=====] - 5s 98ms/step - loss: 0.2696 - val_loss: 0.5224
Epoch 74/100
50/50 [=====] - 4s 85ms/step - loss: 0.2675 - val_loss: 0.5224
Epoch 75/100
50/50 [=====] - 4s 82ms/step - loss: 0.2665 - val_loss: 0.5167
Epoch 76/100
50/50 [=====] - 4s 81ms/step - loss: 0.2668 - val_loss: 0.4995
Epoch 77/100
50/50 [=====] - 4s 82ms/step - loss: 0.2888 - val_loss: 0.5053
Epoch 78/100
50/50 [=====] - 4s 82ms/step - loss: 0.2677 - val_loss: 0.5430
Epoch 79/100
50/50 [=====] - 4s 84ms/step - loss: 0.2643 - val_loss: 0.5372
Epoch 80/100
50/50 [=====] - 4s 84ms/step - loss: 0.2644 - val_loss: 0.5462
Epoch 81/100
50/50 [=====] - 4s 85ms/step - loss: 0.2637 - val_loss: 0.5360
Epoch 82/100
50/50 [=====] - 4s 86ms/step - loss: 0.2732 - val_loss: 0.4755
Epoch 83/100
50/50 [=====] - 4s 84ms/step - loss: 0.2669 - val_loss: 0.5421
Epoch 84/100
50/50 [=====] - 4s 83ms/step - loss: 0.2621 - val_loss: 0.5366
Epoch 85/100
50/50 [=====] - 4s 82ms/step - loss: 0.2615 - val_loss: 0.5305
Epoch 86/100
50/50 [=====] - 4s 82ms/step - loss: 0.2604 - val_loss: 0.5290
Epoch 87/100
50/50 [=====] - 4s 82ms/step - loss: 0.2614 - val_loss: 0.5358
Epoch 88/100
50/50 [=====] - 4s 83ms/step - loss: 0.2769 - val_loss: 0.5160
Epoch 89/100
50/50 [=====] - 4s 80ms/step - loss: 0.2625 - val_loss: 0.5279

Epoch 90/100
 50/50 [=====] - 4s 82ms/step - loss: 0.2594 - val_loss: 0.4962
 Epoch 91/100
 50/50 [=====] - 4s 83ms/step - loss: 0.2595 - val_loss: 0.5058
 Epoch 92/100
 50/50 [=====] - 4s 83ms/step - loss: 0.2589 - val_loss: 0.5178
 Epoch 93/100
 50/50 [=====] - 4s 82ms/step - loss: 0.2585 - val_loss: 0.5310
 Epoch 94/100
 50/50 [=====] - 4s 82ms/step - loss: 0.2593 - val_loss: 0.5118
 Epoch 95/100
 50/50 [=====] - 4s 82ms/step - loss: 0.2741 - val_loss: 0.5301
 Epoch 96/100
 50/50 [=====] - 4s 83ms/step - loss: 0.2580 - val_loss: 0.5534
 Epoch 97/100
 50/50 [=====] - 4s 82ms/step - loss: 0.2568 - val_loss: 0.5275
 Epoch 98/100
 50/50 [=====] - 4s 86ms/step - loss: 0.2574 - val_loss: 0.5301
 Epoch 99/100
 50/50 [=====] - 4s 84ms/step - loss: 0.2565 - val_loss: 0.5345
 Epoch 100/100
 50/50 [=====] - 4s 83ms/step - loss: 0.2572 - val_loss: 0.5426





CA_4 - True Future: [2787. 2487. 2088. 2239. 2153. 2432. 2806. 3343. 2643. 2299. 2335. 2244. 2316. 3301. 2727. 2166. 2207. 2323. 2383. 2677.]

CA_4 - Model Prediction: [2647.6494 2286.0676 2102.956 2041.497 2083.5317 2303.9011 2745.3696

2740.4104 2378.5562 2202.6309 2133.2295 2106.695 2299.6428 2715.9458

2686.7146 2310.5208 2112.4604 1994.9177 1957.0785 2156.0312]

CA_4 - Model Percentage Error: [5.00002102 8.07930732 0.71628614 8.82103849 3.22657974 5.26722356

2.16074024 18.02541429 10.00544259 4.19178515 8.64113524 6.11875809

0.70626847 17.72354436 1.47727908 6.67224155 4.2836226 14.12321461

17.8733323 19.46091707]%

CA_4 - Model Mean Percentage Error: 8.128707595284672%

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Training for TX_3

Single window of past history : (100, 3)

(72, 20)

Epoch 1/100

50/50 [=====] - 4s 89ms/step - loss: 0.7300 - val_loss: 1.0228

Epoch 2/100

50/50 [=====] - 4s 82ms/step - loss: 0.6686 - val_loss: 0.8379

Epoch 3/100

50/50 [=====] - 4s 80ms/step - loss: 0.6434 - val_loss: 0.7237

Epoch 4/100

50/50 [=====] - 4s 81ms/step - loss: 0.6325 - val_loss: 0.6888

Epoch 5/100

50/50 [=====] - 4s 80ms/step - loss: 0.6250 - val_loss: 0.6481

Epoch 6/100

50/50 [=====] - 4s 81ms/step - loss: 0.6139 - val_loss: 0.6684

Epoch 7/100

50/50 [=====] - 4s 85ms/step - loss: 0.5977 - val_loss: 0.6681

Epoch 8/100

50/50 [=====] - 4s 84ms/step - loss: 0.5598 - val_loss: 0.5921

Epoch 9/100

50/50 [=====] - 4s 82ms/step - loss: 0.5608 - val_loss: 0.5746

Epoch 10/100

50/50 [=====] - 4s 82ms/step - loss: 0.4502 - val_loss: 0.5230

Epoch 11/100

50/50 [=====] - 4s 81ms/step - loss: 0.4284 - val_loss: 0.5225

Epoch 12/100

50/50 [=====] - 4s 82ms/step - loss: 0.4155 - val_loss: 0.5499

Epoch 13/100

50/50 [=====] - 4s 83ms/step - loss: 0.4049 - val_loss: 0.4785

Epoch 14/100

50/50 [=====] - 4s 83ms/step - loss: 0.3958 - val_loss: 0.4611

Epoch 15/100

50/50 [=====] - 4s 81ms/step - loss: 0.3890 - val_loss: 0.5030

Epoch 16/100

50/50 [=====] - 4s 83ms/step - loss: 0.3895 - val_loss: 0.4259

Epoch 17/100

50/50 [=====] - 4s 82ms/step - loss: 0.3792 - val_loss: 0.4489

Epoch 18/100

50/50 [=====] - 4s 81ms/step - loss: 0.3737 - val_loss: 0.4592

Epoch 19/100

50/50 [=====] - 4s 84ms/step - loss: 0.3671 - val_loss: 0.6056

Epoch 20/100

50/50 [=====] - 4s 81ms/step - loss: 0.3672 - val_loss: 0.4672

Epoch 21/100

50/50 [=====] - 4s 80ms/step - loss: 0.3560 - val_loss: 0.4717

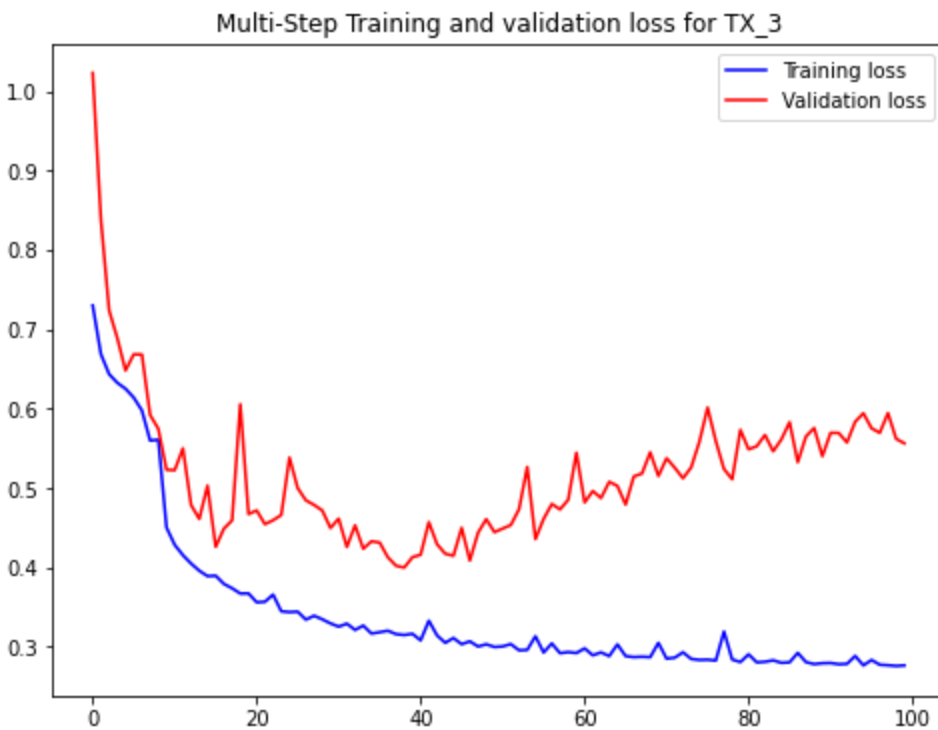
Epoch 22/100

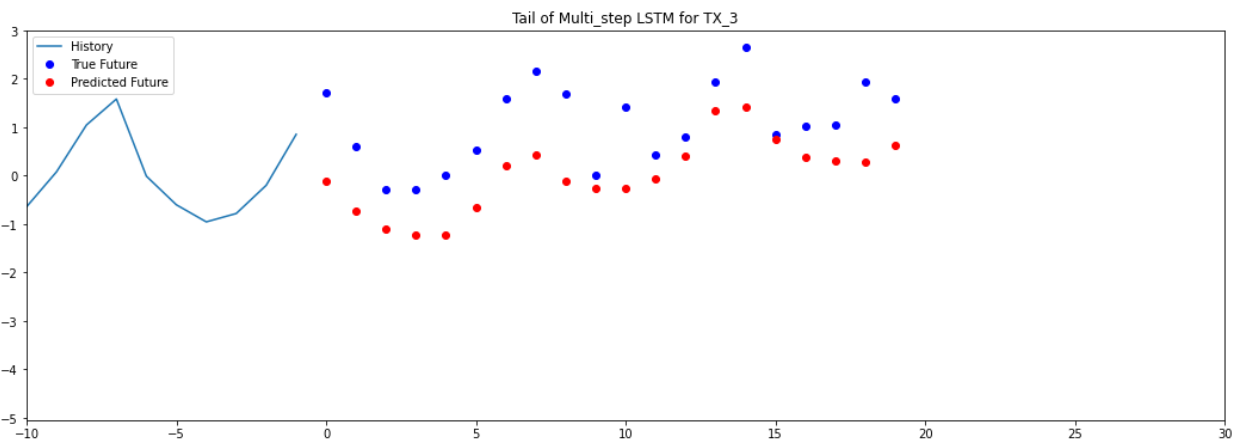
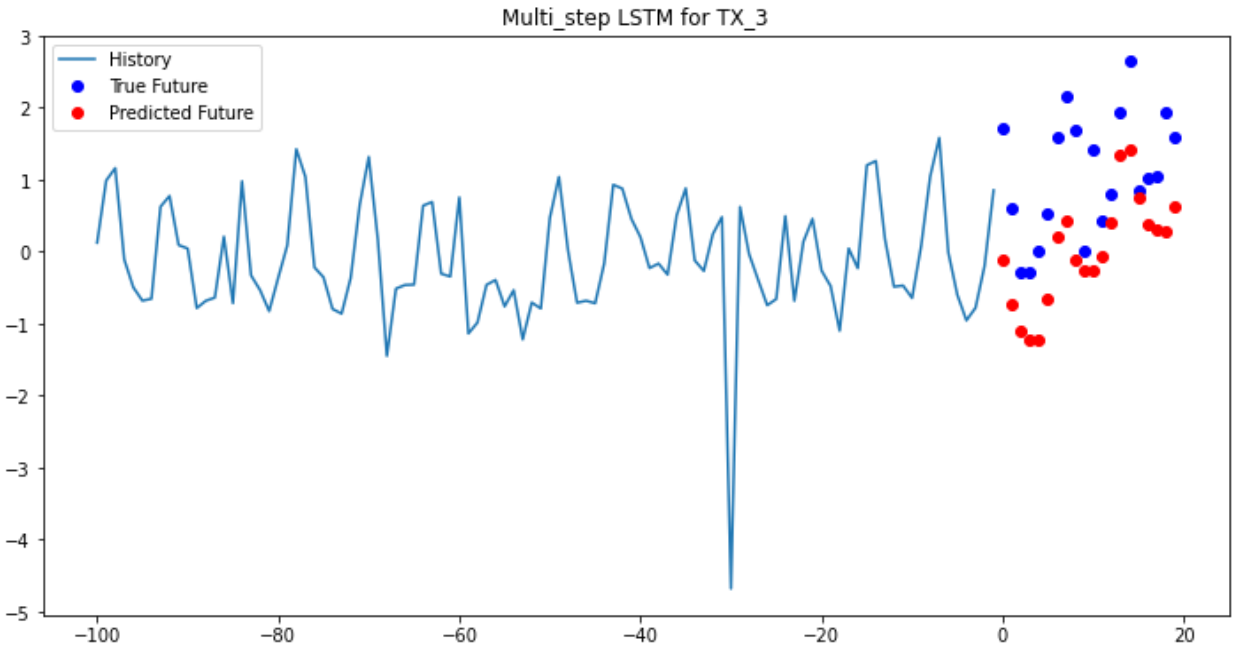
50/50 [=====] - 4s 81ms/step - loss: 0.3567 - val_loss: 0.4545
Epoch 23/100
50/50 [=====] - 4s 83ms/step - loss: 0.3657 - val_loss: 0.4594
Epoch 24/100
50/50 [=====] - 4s 84ms/step - loss: 0.3447 - val_loss: 0.4660
Epoch 25/100
50/50 [=====] - 4s 84ms/step - loss: 0.3437 - val_loss: 0.5383
Epoch 26/100
50/50 [=====] - 4s 82ms/step - loss: 0.3442 - val_loss: 0.4999
Epoch 27/100
50/50 [=====] - 4s 81ms/step - loss: 0.3342 - val_loss: 0.4845
Epoch 28/100
50/50 [=====] - 4s 81ms/step - loss: 0.3391 - val_loss: 0.4787
Epoch 29/100
50/50 [=====] - 4s 84ms/step - loss: 0.3346 - val_loss: 0.4717
Epoch 30/100
50/50 [=====] - 4s 84ms/step - loss: 0.3295 - val_loss: 0.4496
Epoch 31/100
50/50 [=====] - 4s 81ms/step - loss: 0.3254 - val_loss: 0.4614
Epoch 32/100
50/50 [=====] - 4s 81ms/step - loss: 0.3291 - val_loss: 0.4258
Epoch 33/100
50/50 [=====] - 4s 81ms/step - loss: 0.3213 - val_loss: 0.4529
Epoch 34/100
50/50 [=====] - 4s 82ms/step - loss: 0.3267 - val_loss: 0.4235
Epoch 35/100
50/50 [=====] - 4s 82ms/step - loss: 0.3167 - val_loss: 0.4329
Epoch 36/100
50/50 [=====] - 4s 83ms/step - loss: 0.3184 - val_loss: 0.4313
Epoch 37/100
50/50 [=====] - 4s 82ms/step - loss: 0.3202 - val_loss: 0.4127
Epoch 38/100
50/50 [=====] - 4s 80ms/step - loss: 0.3160 - val_loss: 0.4021
Epoch 39/100
50/50 [=====] - 4s 79ms/step - loss: 0.3149 - val_loss: 0.3998
Epoch 40/100
50/50 [=====] - 4s 82ms/step - loss: 0.3164 - val_loss: 0.4129
Epoch 41/100
50/50 [=====] - 4s 82ms/step - loss: 0.3081 - val_loss: 0.4159
Epoch 42/100
50/50 [=====] - 4s 81ms/step - loss: 0.3328 - val_loss: 0.4570
Epoch 43/100
50/50 [=====] - 4s 80ms/step - loss: 0.3143 - val_loss: 0.4292
Epoch 44/100
50/50 [=====] - 4s 81ms/step - loss: 0.3050 - val_loss: 0.4172

Epoch 45/100
50/50 [=====] - 4s 83ms/step - loss: 0.3111 - val_loss: 0.4147
Epoch 46/100
50/50 [=====] - 4s 80ms/step - loss: 0.3032 - val_loss: 0.4498
Epoch 47/100
50/50 [=====] - 4s 81ms/step - loss: 0.3069 - val_loss: 0.4086
Epoch 48/100
50/50 [=====] - 4s 81ms/step - loss: 0.3004 - val_loss: 0.4437
Epoch 49/100
50/50 [=====] - 4s 81ms/step - loss: 0.3032 - val_loss: 0.4608
Epoch 50/100
50/50 [=====] - 4s 80ms/step - loss: 0.2998 - val_loss: 0.4444
Epoch 51/100
50/50 [=====] - 4s 80ms/step - loss: 0.3005 - val_loss: 0.4489
Epoch 52/100
50/50 [=====] - 4s 80ms/step - loss: 0.3034 - val_loss: 0.4533
Epoch 53/100
50/50 [=====] - 4s 81ms/step - loss: 0.2956 - val_loss: 0.4732
Epoch 54/100
50/50 [=====] - 4s 81ms/step - loss: 0.2961 - val_loss: 0.5265
Epoch 55/100
50/50 [=====] - 4s 80ms/step - loss: 0.3133 - val_loss: 0.4357
Epoch 56/100
50/50 [=====] - 4s 81ms/step - loss: 0.2928 - val_loss: 0.4611
Epoch 57/100
50/50 [=====] - 4s 80ms/step - loss: 0.3042 - val_loss: 0.4799
Epoch 58/100
50/50 [=====] - 4s 79ms/step - loss: 0.2920 - val_loss: 0.4730
Epoch 59/100
50/50 [=====] - 4s 83ms/step - loss: 0.2933 - val_loss: 0.4852
Epoch 60/100
50/50 [=====] - 4s 81ms/step - loss: 0.2922 - val_loss: 0.5444
Epoch 61/100
50/50 [=====] - 4s 80ms/step - loss: 0.2980 - val_loss: 0.4819
Epoch 62/100
50/50 [=====] - 4s 80ms/step - loss: 0.2893 - val_loss: 0.4962
Epoch 63/100
50/50 [=====] - 4s 81ms/step - loss: 0.2930 - val_loss: 0.4874
Epoch 64/100
50/50 [=====] - 4s 82ms/step - loss: 0.2883 - val_loss: 0.5078
Epoch 65/100
50/50 [=====] - 4s 85ms/step - loss: 0.3031 - val_loss: 0.5026
Epoch 66/100
50/50 [=====] - 4s 83ms/step - loss: 0.2883 - val_loss: 0.4792
Epoch 67/100

50/50 [=====] - 4s 81ms/step - loss: 0.2870 - val_loss: 0.5146
Epoch 68/100
50/50 [=====] - 4s 81ms/step - loss: 0.2875 - val_loss: 0.5182
Epoch 69/100
50/50 [=====] - 4s 85ms/step - loss: 0.2869 - val_loss: 0.5450
Epoch 70/100
50/50 [=====] - 4s 81ms/step - loss: 0.3050 - val_loss: 0.5151
Epoch 71/100
50/50 [=====] - 4s 82ms/step - loss: 0.2850 - val_loss: 0.5375
Epoch 72/100
50/50 [=====] - 4s 81ms/step - loss: 0.2863 - val_loss: 0.5255
Epoch 73/100
50/50 [=====] - 4s 79ms/step - loss: 0.2931 - val_loss: 0.5123
Epoch 74/100
50/50 [=====] - 4s 82ms/step - loss: 0.2847 - val_loss: 0.5260
Epoch 75/100
50/50 [=====] - 4s 80ms/step - loss: 0.2834 - val_loss: 0.5583
Epoch 76/100
50/50 [=====] - 4s 83ms/step - loss: 0.2837 - val_loss: 0.6014
Epoch 77/100
50/50 [=====] - 4s 82ms/step - loss: 0.2827 - val_loss: 0.5592
Epoch 78/100
50/50 [=====] - 4s 82ms/step - loss: 0.3192 - val_loss: 0.5239
Epoch 79/100
50/50 [=====] - 4s 79ms/step - loss: 0.2839 - val_loss: 0.5110
Epoch 80/100
50/50 [=====] - 4s 78ms/step - loss: 0.2808 - val_loss: 0.5732
Epoch 81/100
50/50 [=====] - 4s 79ms/step - loss: 0.2905 - val_loss: 0.5487
Epoch 82/100
50/50 [=====] - 4s 80ms/step - loss: 0.2804 - val_loss: 0.5526
Epoch 83/100
50/50 [=====] - 4s 80ms/step - loss: 0.2811 - val_loss: 0.5668
Epoch 84/100
50/50 [=====] - 4s 80ms/step - loss: 0.2830 - val_loss: 0.5462
Epoch 85/100
50/50 [=====] - 4s 79ms/step - loss: 0.2798 - val_loss: 0.5613
Epoch 86/100
50/50 [=====] - 4s 81ms/step - loss: 0.2804 - val_loss: 0.5829
Epoch 87/100
50/50 [=====] - 4s 80ms/step - loss: 0.2923 - val_loss: 0.5325
Epoch 88/100
50/50 [=====] - 4s 81ms/step - loss: 0.2807 - val_loss: 0.5650
Epoch 89/100
50/50 [=====] - 4s 79ms/step - loss: 0.2782 - val_loss: 0.5756

Epoch 90/100
50/50 [=====] - 4s 79ms/step - loss: 0.2793 - val_loss: 0.5401
Epoch 91/100
50/50 [=====] - 4s 80ms/step - loss: 0.2796 - val_loss: 0.5695
Epoch 92/100
50/50 [=====] - 4s 80ms/step - loss: 0.2781 - val_loss: 0.5694
Epoch 93/100
50/50 [=====] - 4s 79ms/step - loss: 0.2785 - val_loss: 0.5573
Epoch 94/100
50/50 [=====] - 4s 83ms/step - loss: 0.2885 - val_loss: 0.5835
Epoch 95/100
50/50 [=====] - 4s 82ms/step - loss: 0.2766 - val_loss: 0.5942
Epoch 96/100
50/50 [=====] - 4s 81ms/step - loss: 0.2834 - val_loss: 0.5752
Epoch 97/100
50/50 [=====] - 4s 80ms/step - loss: 0.2774 - val_loss: 0.5695
Epoch 98/100
50/50 [=====] - 4s 81ms/step - loss: 0.2768 - val_loss: 0.5944
Epoch 99/100
50/50 [=====] - 4s 83ms/step - loss: 0.2759 - val_loss: 0.5620
Epoch 100/100
50/50 [=====] - 4s 84ms/step - loss: 0.2765 - val_loss: 0.5562





TX_3 - True Future: [4286. 3538. 2934. 2939. 3135. 3486. 4202. 4575. 4262. 3141. 4091. 3421. 3664. 4432. 4905. 3707. 3825. 3831. 4438. 4198.]

TX_3 - Model Prediction: [3056.7905 2633.4373 2390.121 2300.1736 2310.3184 2681.668 3275.502

3418.8042 3054.8533 2959.0615 2957.7942 3090.6643 3396.9893 4036.4202

4087.901 3641.6604 3393.8723 3330.442 3326.04 3553.0942]

TX_3 - Model Percentage Error: [28.67964239 25.56706456 18.53711337 21.73618292

26.30563447 23.07320801

22.04897779 25.27203936 28.32348026 5.79237429 27.69997093 9.65611498

7.28741109 8.92553777 16.6584938 1.76260048 11.27131204 13.06599075

25.05542949 15.36221443]%

TX_3 - Model Mean Percentage Error: 18.10403965830141%

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Training for TX_1

Single window of past history : (100, 3)

(72, 20)

Epoch 1/100

50/50 [=====] - 4s 87ms/step - loss: 0.7371 - val_loss: 0.7534

Epoch 2/100

50/50 [=====] - 4s 82ms/step - loss: 0.7109 - val_loss: 0.7293

Epoch 3/100

50/50 [=====] - 4s 81ms/step - loss: 0.7065 - val_loss: 0.7230

Epoch 4/100

50/50 [=====] - 4s 79ms/step - loss: 0.7029 - val_loss: 0.7198

Epoch 5/100

50/50 [=====] - 4s 80ms/step - loss: 0.7006 - val_loss: 0.7221

Epoch 6/100

50/50 [=====] - 4s 80ms/step - loss: 0.6981 - val_loss: 0.7200

Epoch 7/100

50/50 [=====] - 4s 79ms/step - loss: 0.6946 - val_loss: 0.7225

Epoch 8/100

50/50 [=====] - 4s 79ms/step - loss: 0.6905 - val_loss: 0.7114

Epoch 9/100

50/50 [=====] - 4s 78ms/step - loss: 0.6848 - val_loss: 0.7165

Epoch 10/100

50/50 [=====] - 4s 79ms/step - loss: 0.6742 - val_loss: 0.6981

Epoch 11/100

50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan

Epoch 12/100

50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan

Epoch 13/100

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

Epoch 14/100

50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan

Epoch 15/100

50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan

Epoch 16/100

50/50 [=====] - 4s 86ms/step - loss: nan - val_loss: nan

Epoch 17/100

50/50 [=====] - 6s 114ms/step - loss: nan - val_loss: nan

Epoch 18/100

50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan

Epoch 19/100

50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan

Epoch 20/100

50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan

Epoch 21/100

50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan

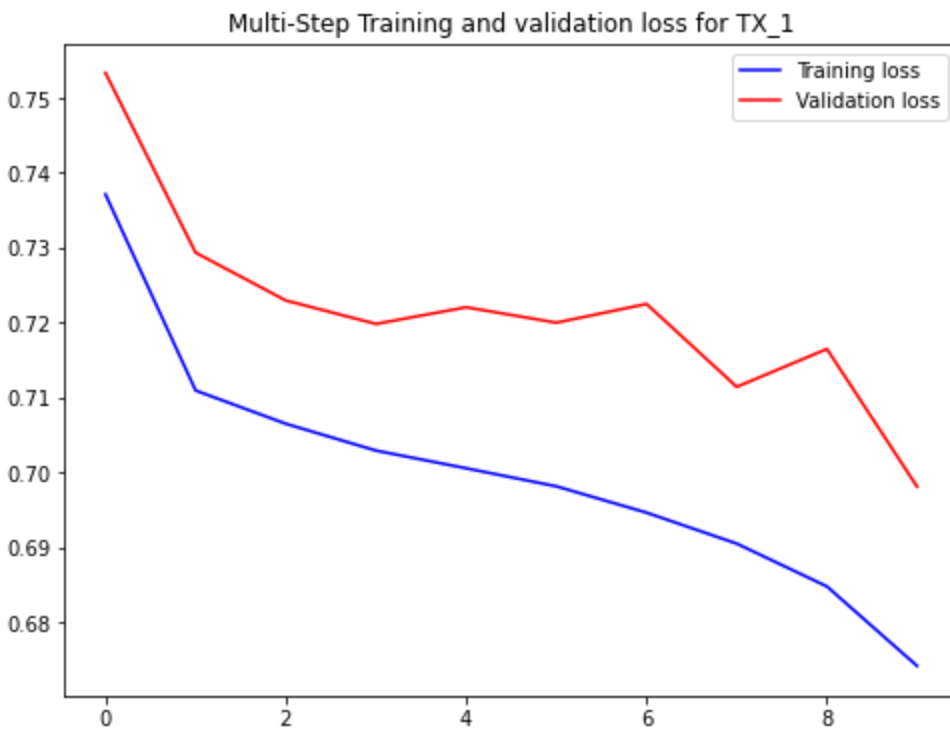
Epoch 22/100

50/50 [=====] - 4s 84ms/step - loss: nan - val_loss: nan
Epoch 23/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 24/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 25/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 26/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 27/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 28/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 29/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 30/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 31/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 32/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 33/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 34/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 35/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 36/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 37/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 38/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 39/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 40/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 41/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 42/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 43/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 44/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan

Epoch 45/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 46/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 47/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 48/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 49/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 50/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 51/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 52/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 53/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 54/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 55/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 56/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 57/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 58/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 59/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 60/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 61/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 62/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 63/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 64/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 65/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 66/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 67/100

50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 68/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 69/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 70/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 71/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 72/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 73/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 74/100
50/50 [=====] - 4s 85ms/step - loss: nan - val_loss: nan
Epoch 75/100
50/50 [=====] - 4s 83ms/step - loss: nan - val_loss: nan
Epoch 76/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 77/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 78/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 79/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 80/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 81/100
50/50 [=====] - 4s 83ms/step - loss: nan - val_loss: nan
Epoch 82/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 83/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 84/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 85/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 86/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 87/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 88/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 89/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan

Epoch 90/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 91/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 92/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 93/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 94/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 95/100
 50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
 Epoch 96/100
 50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
 Epoch 97/100
 50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
 Epoch 98/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 99/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 100/100
 50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan



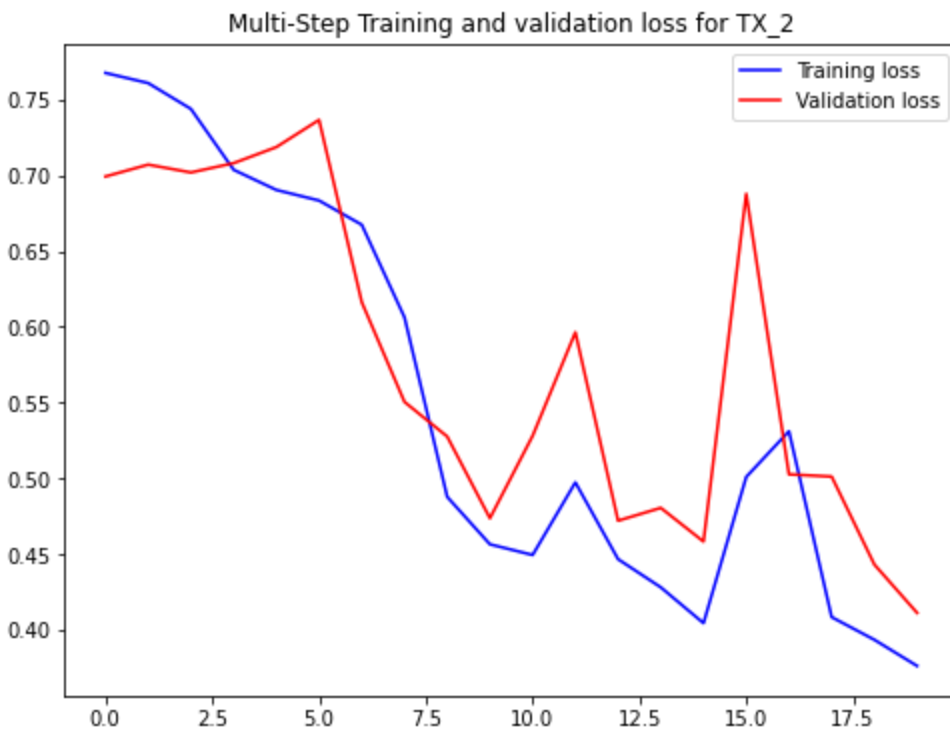
50/50 [=====] - 5s 95ms/step - loss: 0.7676 - val_loss: 0.6992
Epoch 2/100
50/50 [=====] - 4s 79ms/step - loss: 0.7609 - val_loss: 0.7071
Epoch 3/100
50/50 [=====] - 4s 77ms/step - loss: 0.7439 - val_loss: 0.7019
Epoch 4/100
50/50 [=====] - 4s 80ms/step - loss: 0.7037 - val_loss: 0.7080
Epoch 5/100
50/50 [=====] - 4s 77ms/step - loss: 0.6904 - val_loss: 0.7186
Epoch 6/100
50/50 [=====] - 4s 77ms/step - loss: 0.6834 - val_loss: 0.7366
Epoch 7/100
50/50 [=====] - 4s 78ms/step - loss: 0.6674 - val_loss: 0.6163
Epoch 8/100
50/50 [=====] - 4s 80ms/step - loss: 0.6063 - val_loss: 0.5505
Epoch 9/100
50/50 [=====] - 4s 80ms/step - loss: 0.4878 - val_loss: 0.5276
Epoch 10/100
50/50 [=====] - 4s 80ms/step - loss: 0.4565 - val_loss: 0.4737
Epoch 11/100
50/50 [=====] - 4s 79ms/step - loss: 0.4494 - val_loss: 0.5281
Epoch 12/100
50/50 [=====] - 4s 78ms/step - loss: 0.4973 - val_loss: 0.5964
Epoch 13/100
50/50 [=====] - 4s 78ms/step - loss: 0.4467 - val_loss: 0.4720
Epoch 14/100
50/50 [=====] - 4s 82ms/step - loss: 0.4281 - val_loss: 0.4805
Epoch 15/100
50/50 [=====] - 4s 81ms/step - loss: 0.4044 - val_loss: 0.4583
Epoch 16/100
50/50 [=====] - 4s 78ms/step - loss: 0.5009 - val_loss: 0.6878
Epoch 17/100
50/50 [=====] - 4s 78ms/step - loss: 0.5311 - val_loss: 0.5027
Epoch 18/100
50/50 [=====] - 4s 77ms/step - loss: 0.4084 - val_loss: 0.5012
Epoch 19/100
50/50 [=====] - 4s 81ms/step - loss: 0.3935 - val_loss: 0.4431
Epoch 20/100
50/50 [=====] - 4s 78ms/step - loss: 0.3762 - val_loss: 0.4112
Epoch 21/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 22/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 23/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan

Epoch 24/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 25/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 26/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 27/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 28/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 29/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 30/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 31/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 32/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 33/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 34/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 35/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 36/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 37/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 38/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 39/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 40/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 41/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 42/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 43/100
50/50 [=====] - 4s 76ms/step - loss: nan - val_loss: nan
Epoch 44/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 45/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 46/100

50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 47/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 48/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 49/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 50/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 51/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 52/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 53/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 54/100
50/50 [=====] - 4s 76ms/step - loss: nan - val_loss: nan
Epoch 55/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 56/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 57/100
50/50 [=====] - 4s 77ms/step - loss: nan - val_loss: nan
Epoch 58/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 59/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 60/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 61/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 62/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 63/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 64/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 65/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 66/100
50/50 [=====] - 6s 120ms/step - loss: nan - val_loss: nan
Epoch 67/100
50/50 [=====] - 5s 90ms/step - loss: nan - val_loss: nan
Epoch 68/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan

Epoch 69/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 70/100
50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
Epoch 71/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 72/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 73/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 74/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 75/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 76/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 77/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 78/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 79/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 80/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 81/100
50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
Epoch 82/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 83/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 84/100
50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
Epoch 85/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 86/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 87/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 88/100
50/50 [=====] - 4s 85ms/step - loss: nan - val_loss: nan
Epoch 89/100
50/50 [=====] - 4s 80ms/step - loss: nan - val_loss: nan
Epoch 90/100
50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
Epoch 91/100

50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 92/100
 50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
 Epoch 93/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 94/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 95/100
 50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan
 Epoch 96/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 97/100
 50/50 [=====] - 4s 79ms/step - loss: nan - val_loss: nan
 Epoch 98/100
 50/50 [=====] - 4s 82ms/step - loss: nan - val_loss: nan
 Epoch 99/100
 50/50 [=====] - 4s 81ms/step - loss: nan - val_loss: nan
 Epoch 100/100
 50/50 [=====] - 4s 78ms/step - loss: nan - val_loss: nan



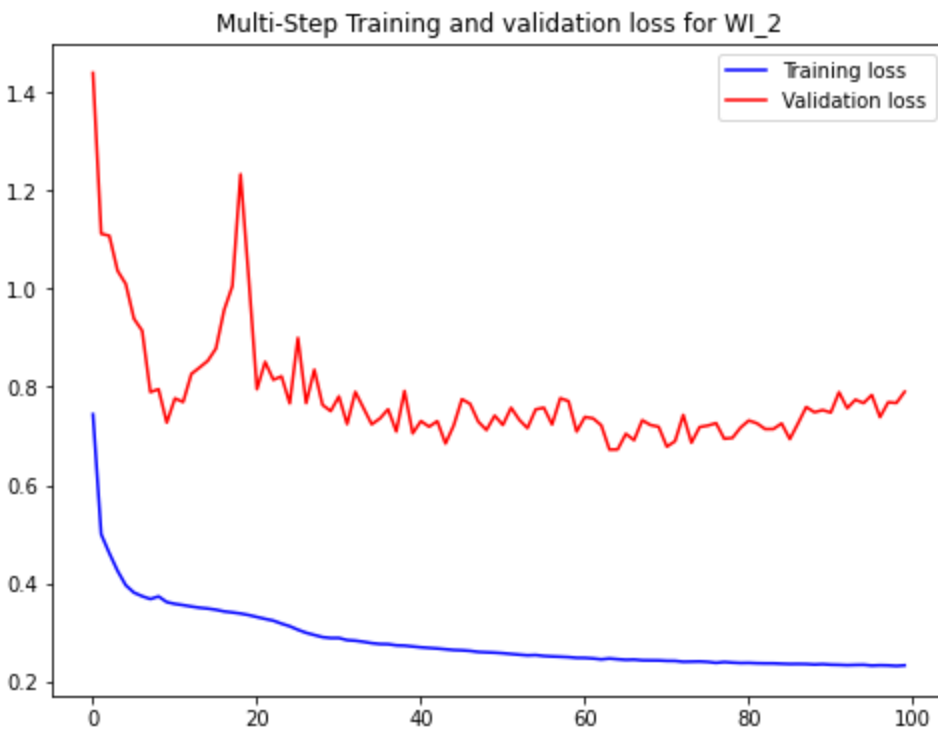
50/50 [=====] - 4s 85ms/step - loss: 0.7441 - val_loss: 1.4391
Epoch 2/100
50/50 [=====] - 4s 77ms/step - loss: 0.4997 - val_loss: 1.1117
Epoch 3/100
50/50 [=====] - 4s 78ms/step - loss: 0.4610 - val_loss: 1.1074
Epoch 4/100
50/50 [=====] - 4s 77ms/step - loss: 0.4252 - val_loss: 1.0363
Epoch 5/100
50/50 [=====] - 4s 78ms/step - loss: 0.3958 - val_loss: 1.0094
Epoch 6/100
50/50 [=====] - 4s 80ms/step - loss: 0.3809 - val_loss: 0.9386
Epoch 7/100
50/50 [=====] - 4s 77ms/step - loss: 0.3735 - val_loss: 0.9142
Epoch 8/100
50/50 [=====] - 4s 78ms/step - loss: 0.3678 - val_loss: 0.7892
Epoch 9/100
50/50 [=====] - 4s 79ms/step - loss: 0.3731 - val_loss: 0.7951
Epoch 10/100
50/50 [=====] - 4s 78ms/step - loss: 0.3615 - val_loss: 0.7270
Epoch 11/100
50/50 [=====] - 4s 77ms/step - loss: 0.3579 - val_loss: 0.7764
Epoch 12/100
50/50 [=====] - 4s 76ms/step - loss: 0.3554 - val_loss: 0.7690
Epoch 13/100
50/50 [=====] - 4s 77ms/step - loss: 0.3525 - val_loss: 0.8261
Epoch 14/100
50/50 [=====] - 4s 76ms/step - loss: 0.3501 - val_loss: 0.8392
Epoch 15/100
50/50 [=====] - 4s 77ms/step - loss: 0.3484 - val_loss: 0.8528
Epoch 16/100
50/50 [=====] - 4s 78ms/step - loss: 0.3460 - val_loss: 0.8779
Epoch 17/100
50/50 [=====] - 4s 77ms/step - loss: 0.3425 - val_loss: 0.9564
Epoch 18/100
50/50 [=====] - 4s 77ms/step - loss: 0.3405 - val_loss: 1.0050
Epoch 19/100
50/50 [=====] - 4s 78ms/step - loss: 0.3383 - val_loss: 1.2329
Epoch 20/100
50/50 [=====] - 4s 78ms/step - loss: 0.3351 - val_loss: 1.0206
Epoch 21/100
50/50 [=====] - 4s 79ms/step - loss: 0.3311 - val_loss: 0.7951
Epoch 22/100
50/50 [=====] - 4s 79ms/step - loss: 0.3273 - val_loss: 0.8507
Epoch 23/100
50/50 [=====] - 4s 77ms/step - loss: 0.3238 - val_loss: 0.8142

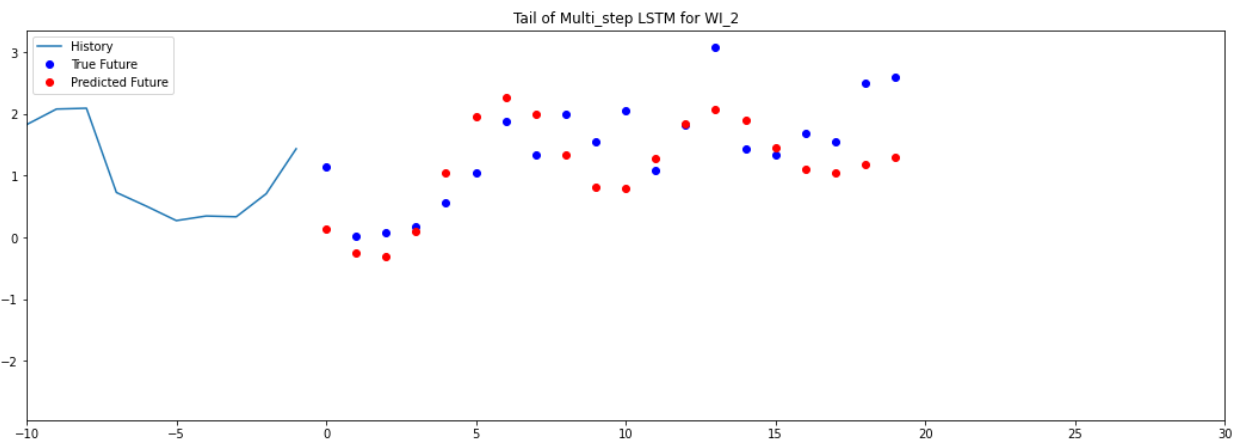
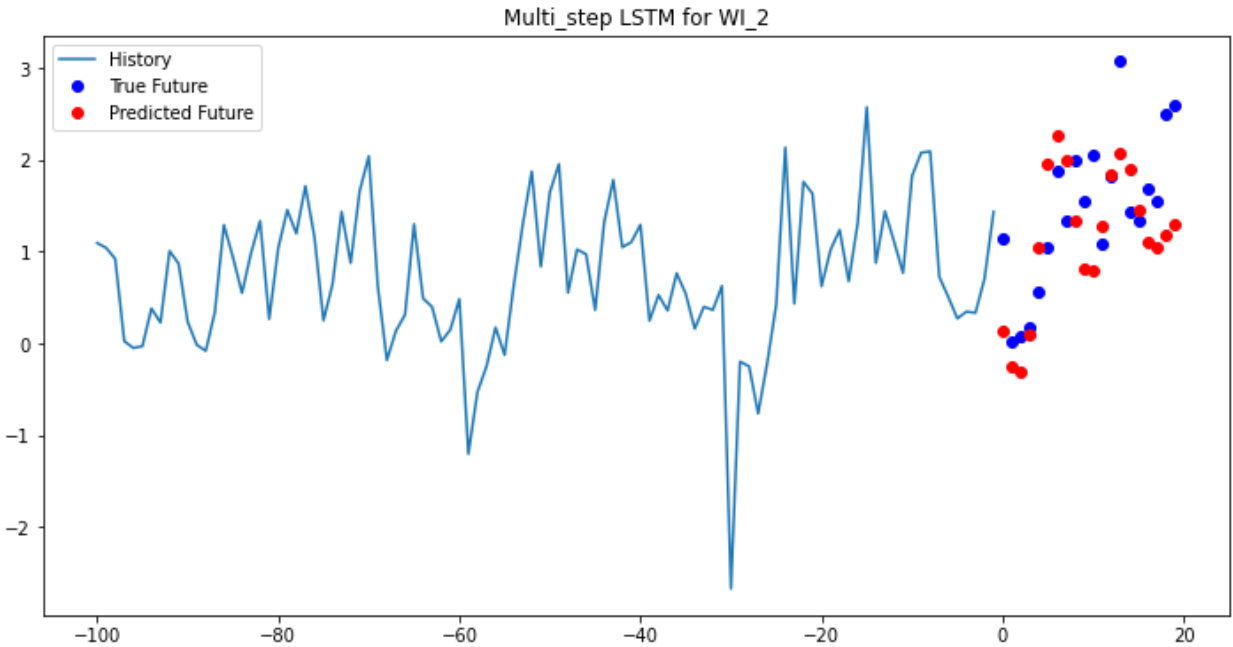
Epoch 24/100
50/50 [=====] - 4s 77ms/step - loss: 0.3177 - val_loss: 0.8213
Epoch 25/100
50/50 [=====] - 4s 79ms/step - loss: 0.3124 - val_loss: 0.7662
Epoch 26/100
50/50 [=====] - 4s 81ms/step - loss: 0.3052 - val_loss: 0.8996
Epoch 27/100
50/50 [=====] - 4s 82ms/step - loss: 0.2990 - val_loss: 0.7667
Epoch 28/100
50/50 [=====] - 4s 80ms/step - loss: 0.2945 - val_loss: 0.8348
Epoch 29/100
50/50 [=====] - 4s 76ms/step - loss: 0.2902 - val_loss: 0.7631
Epoch 30/100
50/50 [=====] - 4s 77ms/step - loss: 0.2884 - val_loss: 0.7505
Epoch 31/100
50/50 [=====] - 4s 77ms/step - loss: 0.2884 - val_loss: 0.7804
Epoch 32/100
50/50 [=====] - 4s 78ms/step - loss: 0.2841 - val_loss: 0.7240
Epoch 33/100
50/50 [=====] - 4s 78ms/step - loss: 0.2829 - val_loss: 0.7896
Epoch 34/100
50/50 [=====] - 4s 77ms/step - loss: 0.2807 - val_loss: 0.7566
Epoch 35/100
50/50 [=====] - 4s 78ms/step - loss: 0.2779 - val_loss: 0.7236
Epoch 36/100
50/50 [=====] - 4s 78ms/step - loss: 0.2762 - val_loss: 0.7354
Epoch 37/100
50/50 [=====] - 4s 78ms/step - loss: 0.2759 - val_loss: 0.7542
Epoch 38/100
50/50 [=====] - 4s 77ms/step - loss: 0.2735 - val_loss: 0.7089
Epoch 39/100
50/50 [=====] - 4s 77ms/step - loss: 0.2729 - val_loss: 0.7914
Epoch 40/100
50/50 [=====] - 4s 78ms/step - loss: 0.2711 - val_loss: 0.7052
Epoch 41/100
50/50 [=====] - 4s 78ms/step - loss: 0.2694 - val_loss: 0.7301
Epoch 42/100
50/50 [=====] - 4s 77ms/step - loss: 0.2682 - val_loss: 0.7187
Epoch 43/100
50/50 [=====] - 4s 78ms/step - loss: 0.2670 - val_loss: 0.7300
Epoch 44/100
50/50 [=====] - 4s 78ms/step - loss: 0.2655 - val_loss: 0.6845
Epoch 45/100
50/50 [=====] - 4s 79ms/step - loss: 0.2640 - val_loss: 0.7212
Epoch 46/100

50/50 [=====] - 4s 82ms/step - loss: 0.2634 - val_loss: 0.7747
Epoch 47/100
50/50 [=====] - 4s 84ms/step - loss: 0.2622 - val_loss: 0.7653
Epoch 48/100
50/50 [=====] - 4s 88ms/step - loss: 0.2600 - val_loss: 0.7289
Epoch 49/100
50/50 [=====] - 4s 82ms/step - loss: 0.2593 - val_loss: 0.7119
Epoch 50/100
50/50 [=====] - 4s 84ms/step - loss: 0.2586 - val_loss: 0.7413
Epoch 51/100
50/50 [=====] - 4s 88ms/step - loss: 0.2574 - val_loss: 0.7222
Epoch 52/100
50/50 [=====] - 4s 84ms/step - loss: 0.2559 - val_loss: 0.7574
Epoch 53/100
50/50 [=====] - 4s 85ms/step - loss: 0.2545 - val_loss: 0.7328
Epoch 54/100
50/50 [=====] - 4s 85ms/step - loss: 0.2531 - val_loss: 0.7158
Epoch 55/100
50/50 [=====] - 4s 85ms/step - loss: 0.2537 - val_loss: 0.7540
Epoch 56/100
50/50 [=====] - 4s 85ms/step - loss: 0.2518 - val_loss: 0.7574
Epoch 57/100
50/50 [=====] - 4s 86ms/step - loss: 0.2509 - val_loss: 0.7232
Epoch 58/100
50/50 [=====] - 4s 83ms/step - loss: 0.2502 - val_loss: 0.7767
Epoch 59/100
50/50 [=====] - 4s 81ms/step - loss: 0.2494 - val_loss: 0.7709
Epoch 60/100
50/50 [=====] - 4s 82ms/step - loss: 0.2480 - val_loss: 0.7088
Epoch 61/100
50/50 [=====] - 4s 86ms/step - loss: 0.2478 - val_loss: 0.7385
Epoch 62/100
50/50 [=====] - 4s 81ms/step - loss: 0.2468 - val_loss: 0.7357
Epoch 63/100
50/50 [=====] - 4s 80ms/step - loss: 0.2449 - val_loss: 0.7217
Epoch 64/100
50/50 [=====] - 4s 80ms/step - loss: 0.2467 - val_loss: 0.6721
Epoch 65/100
50/50 [=====] - 4s 82ms/step - loss: 0.2452 - val_loss: 0.6724
Epoch 66/100
50/50 [=====] - 4s 80ms/step - loss: 0.2440 - val_loss: 0.7042
Epoch 67/100
50/50 [=====] - 4s 80ms/step - loss: 0.2444 - val_loss: 0.6913
Epoch 68/100
50/50 [=====] - 4s 81ms/step - loss: 0.2431 - val_loss: 0.7318

Epoch 69/100
50/50 [=====] - 4s 81ms/step - loss: 0.2429 - val_loss: 0.7222
Epoch 70/100
50/50 [=====] - 4s 81ms/step - loss: 0.2427 - val_loss: 0.7186
Epoch 71/100
50/50 [=====] - 4s 80ms/step - loss: 0.2419 - val_loss: 0.6781
Epoch 72/100
50/50 [=====] - 4s 82ms/step - loss: 0.2417 - val_loss: 0.6892
Epoch 73/100
50/50 [=====] - 4s 82ms/step - loss: 0.2400 - val_loss: 0.7427
Epoch 74/100
50/50 [=====] - 4s 81ms/step - loss: 0.2403 - val_loss: 0.6861
Epoch 75/100
50/50 [=====] - 4s 82ms/step - loss: 0.2406 - val_loss: 0.7181
Epoch 76/100
50/50 [=====] - 4s 82ms/step - loss: 0.2397 - val_loss: 0.7210
Epoch 77/100
50/50 [=====] - 4s 81ms/step - loss: 0.2379 - val_loss: 0.7260
Epoch 78/100
50/50 [=====] - 4s 82ms/step - loss: 0.2395 - val_loss: 0.6942
Epoch 79/100
50/50 [=====] - 4s 81ms/step - loss: 0.2383 - val_loss: 0.6959
Epoch 80/100
50/50 [=====] - 4s 82ms/step - loss: 0.2375 - val_loss: 0.7171
Epoch 81/100
50/50 [=====] - 4s 81ms/step - loss: 0.2377 - val_loss: 0.7313
Epoch 82/100
50/50 [=====] - 4s 80ms/step - loss: 0.2371 - val_loss: 0.7255
Epoch 83/100
50/50 [=====] - 4s 81ms/step - loss: 0.2368 - val_loss: 0.7139
Epoch 84/100
50/50 [=====] - 4s 81ms/step - loss: 0.2367 - val_loss: 0.7140
Epoch 85/100
50/50 [=====] - 4s 84ms/step - loss: 0.2360 - val_loss: 0.7253
Epoch 86/100
50/50 [=====] - 4s 83ms/step - loss: 0.2355 - val_loss: 0.6935
Epoch 87/100
50/50 [=====] - 4s 80ms/step - loss: 0.2356 - val_loss: 0.7255
Epoch 88/100
50/50 [=====] - 4s 81ms/step - loss: 0.2354 - val_loss: 0.7588
Epoch 89/100
50/50 [=====] - 4s 80ms/step - loss: 0.2345 - val_loss: 0.7482
Epoch 90/100
50/50 [=====] - 4s 82ms/step - loss: 0.2351 - val_loss: 0.7525
Epoch 91/100

50/50 [=====] - 4s 82ms/step - loss: 0.2341 - val_loss: 0.7476
Epoch 92/100
50/50 [=====] - 4s 81ms/step - loss: 0.2338 - val_loss: 0.7890
Epoch 93/100
50/50 [=====] - 4s 82ms/step - loss: 0.2331 - val_loss: 0.7563
Epoch 94/100
50/50 [=====] - 4s 82ms/step - loss: 0.2336 - val_loss: 0.7737
Epoch 95/100
50/50 [=====] - 4s 82ms/step - loss: 0.2339 - val_loss: 0.7669
Epoch 96/100
50/50 [=====] - 4s 80ms/step - loss: 0.2323 - val_loss: 0.7833
Epoch 97/100
50/50 [=====] - 4s 81ms/step - loss: 0.2329 - val_loss: 0.7382
Epoch 98/100
50/50 [=====] - 4s 83ms/step - loss: 0.2326 - val_loss: 0.7685
Epoch 99/100
50/50 [=====] - 4s 80ms/step - loss: 0.2315 - val_loss: 0.7670
Epoch 100/100
50/50 [=====] - 4s 84ms/step - loss: 0.2327 - val_loss: 0.7898





WI_2 - True Future: [4670. 3301. 3386. 3500. 3961. 4569. 5586. 4915. 5718. 5169. 5786. 4607. 5506. 7046. 5046. 4907. 5358. 5180. 6333. 6463.]

WI_2 - Model Prediction: [3445.84 2966.185 2895.2686 3405.3486 4559.29 5683.4746 6061.3027 5731.002 4916.35 4279.024 4256.5137 4837.264 5534.173 5827.7017 5619.206 5066.529 4622.778 4565.0537 4721.842 4879.755]

WI_2 - Model Percentage Error: [26.21327435 10.14283373 14.49295468 2.70432478 15.10452005 24.39209038 8.50882088 16.60227778 14.01976045 17.2175677 26.43426077 4.99813675 0.51167547 17.29063781 11.35961266 3.25104562 13.72195162 11.87154998 25.44067903 24.497062]%

WI_2 - Model Mean Percentage Error: 14.438751824124811%

=====
=====

Training for WI_3

Single window of past history : (100, 3)

(72, 20)

Epoch 1/100

50/50 [=====] - 5s 91ms/step - loss: 0.7785 - val_loss: 1.1124

Epoch 2/100

50/50 [=====] - 4s 83ms/step - loss: 0.7499 - val_loss: 1.0351

Epoch 3/100

50/50 [=====] - 4s 82ms/step - loss: 0.7184 - val_loss: 1.0453

Epoch 4/100

50/50 [=====] - 4s 83ms/step - loss: 0.6918 - val_loss: 1.0416

Epoch 5/100

50/50 [=====] - 4s 82ms/step - loss: 0.6607 - val_loss: 0.9751

Epoch 6/100

50/50 [=====] - 4s 81ms/step - loss: 0.6216 - val_loss: 0.9359

Epoch 7/100

50/50 [=====] - 4s 83ms/step - loss: 0.6049 - val_loss: 0.9366

Epoch 8/100

50/50 [=====] - 4s 82ms/step - loss: 0.5986 - val_loss: 0.8883

Epoch 9/100

50/50 [=====] - 4s 81ms/step - loss: 0.5897 - val_loss: 0.9339

Epoch 10/100

50/50 [=====] - 4s 79ms/step - loss: 0.5760 - val_loss: 0.8515

Epoch 11/100

50/50 [=====] - 4s 80ms/step - loss: 0.5435 - val_loss: 0.8503

Epoch 12/100

50/50 [=====] - 5s 102ms/step - loss: 0.5028 - val_loss: 0.7215

Epoch 13/100

50/50 [=====] - 6s 114ms/step - loss: 0.4345 - val_loss: 0.6345

Epoch 14/100

50/50 [=====] - 4s 81ms/step - loss: 0.4201 - val_loss: 0.6758

Epoch 15/100

50/50 [=====] - 4s 79ms/step - loss: 0.4112 - val_loss: 0.5948

Epoch 16/100

50/50 [=====] - 4s 81ms/step - loss: 0.4043 - val_loss: 0.5644

Epoch 17/100

50/50 [=====] - 4s 81ms/step - loss: 0.3999 - val_loss: 0.6235

Epoch 18/100

50/50 [=====] - 4s 81ms/step - loss: 0.3939 - val_loss: 0.5549

Epoch 19/100

50/50 [=====] - 4s 82ms/step - loss: 0.3903 - val_loss: 0.5431

Epoch 20/100

50/50 [=====] - 4s 82ms/step - loss: 0.3852 - val_loss: 0.5774

Epoch 21/100

50/50 [=====] - 5s 90ms/step - loss: 0.3813 - val_loss: 0.5260

Epoch 22/100

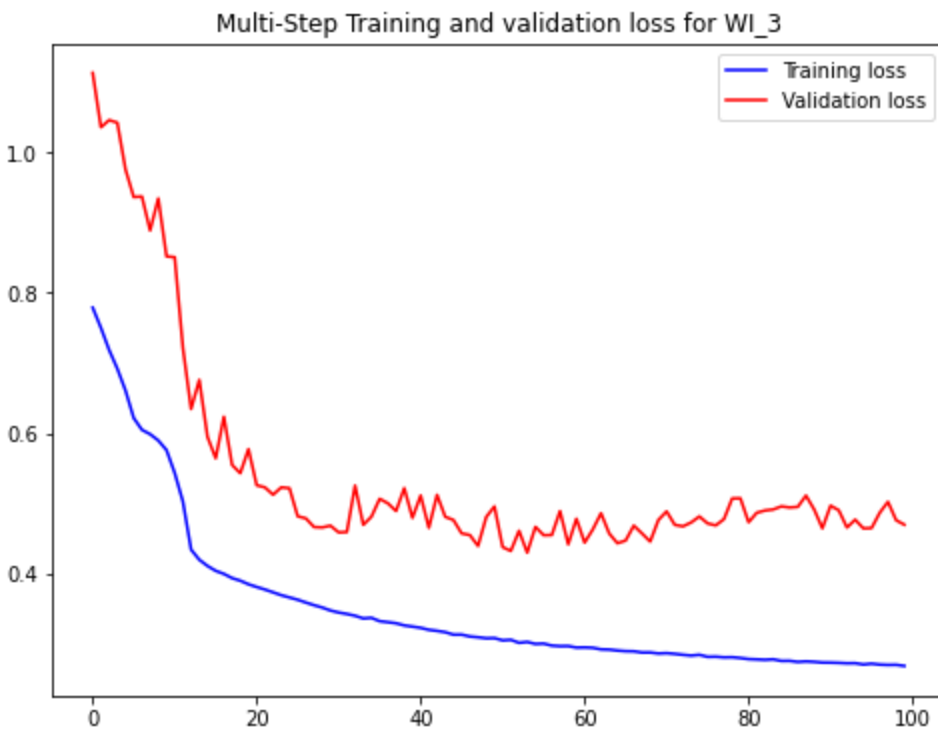
50/50 [=====] - 4s 80ms/step - loss: 0.3777 - val_loss: 0.5230

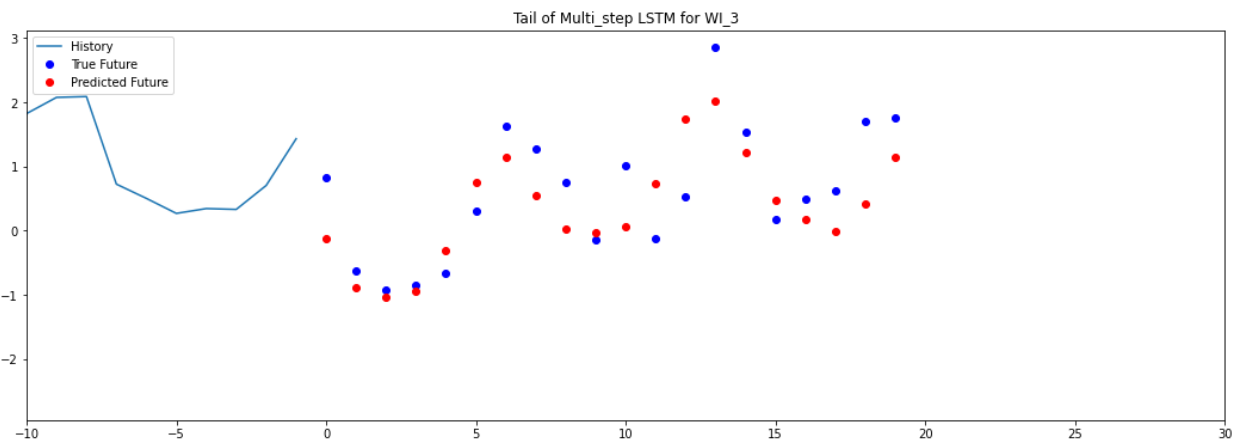
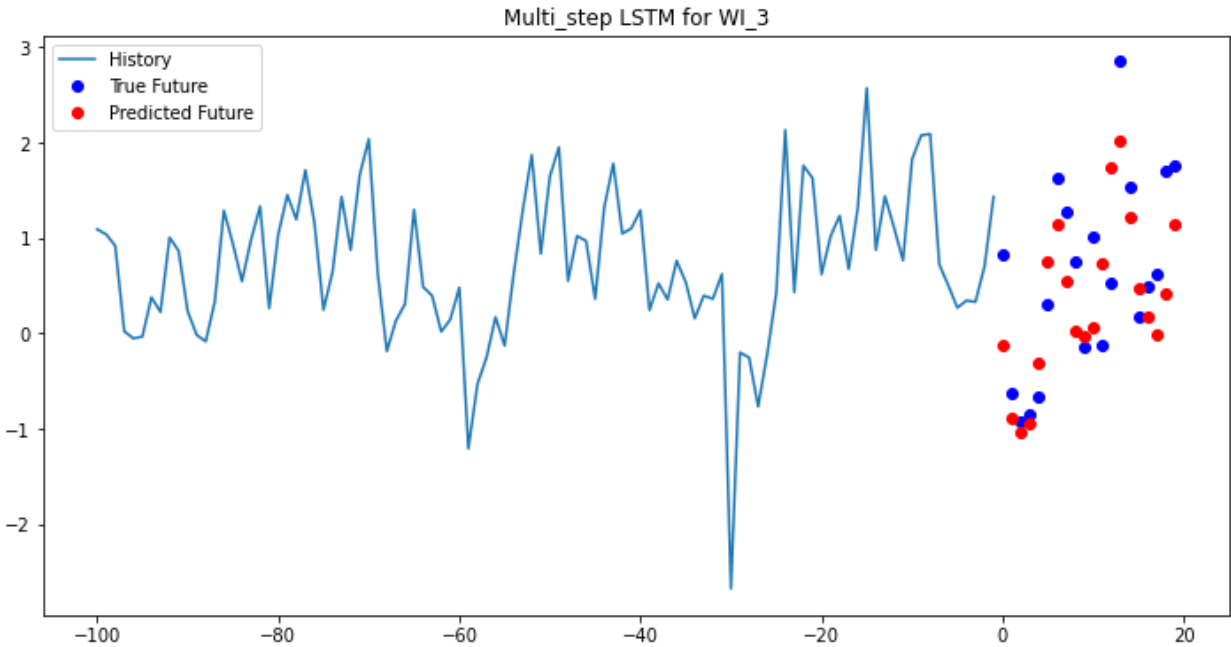
Epoch 23/100
50/50 [=====] - 4s 80ms/step - loss: 0.3737 - val_loss: 0.5125
Epoch 24/100
50/50 [=====] - 4s 81ms/step - loss: 0.3697 - val_loss: 0.5230
Epoch 25/100
50/50 [=====] - 4s 80ms/step - loss: 0.3664 - val_loss: 0.5218
Epoch 26/100
50/50 [=====] - 4s 81ms/step - loss: 0.3632 - val_loss: 0.4819
Epoch 27/100
50/50 [=====] - 4s 81ms/step - loss: 0.3592 - val_loss: 0.4789
Epoch 28/100
50/50 [=====] - 4s 81ms/step - loss: 0.3554 - val_loss: 0.4665
Epoch 29/100
50/50 [=====] - 4s 80ms/step - loss: 0.3521 - val_loss: 0.4660
Epoch 30/100
50/50 [=====] - 4s 80ms/step - loss: 0.3479 - val_loss: 0.4685
Epoch 31/100
50/50 [=====] - 4s 83ms/step - loss: 0.3450 - val_loss: 0.4590
Epoch 32/100
50/50 [=====] - 4s 83ms/step - loss: 0.3430 - val_loss: 0.4595
Epoch 33/100
50/50 [=====] - 4s 81ms/step - loss: 0.3404 - val_loss: 0.5255
Epoch 34/100
50/50 [=====] - 4s 80ms/step - loss: 0.3366 - val_loss: 0.4697
Epoch 35/100
50/50 [=====] - 4s 80ms/step - loss: 0.3375 - val_loss: 0.4813
Epoch 36/100
50/50 [=====] - 4s 83ms/step - loss: 0.3327 - val_loss: 0.5067
Epoch 37/100
50/50 [=====] - 4s 79ms/step - loss: 0.3313 - val_loss: 0.5003
Epoch 38/100
50/50 [=====] - 4s 78ms/step - loss: 0.3298 - val_loss: 0.4893
Epoch 39/100
50/50 [=====] - 4s 79ms/step - loss: 0.3266 - val_loss: 0.5219
Epoch 40/100
50/50 [=====] - 4s 79ms/step - loss: 0.3250 - val_loss: 0.4796
Epoch 41/100
50/50 [=====] - 4s 81ms/step - loss: 0.3232 - val_loss: 0.5114
Epoch 42/100
50/50 [=====] - 4s 81ms/step - loss: 0.3204 - val_loss: 0.4654
Epoch 43/100
50/50 [=====] - 4s 82ms/step - loss: 0.3189 - val_loss: 0.5123
Epoch 44/100
50/50 [=====] - 4s 81ms/step - loss: 0.3171 - val_loss: 0.4811
Epoch 45/100

50/50 [=====] - 4s 79ms/step - loss: 0.3135 - val_loss: 0.4765
Epoch 46/100
50/50 [=====] - 4s 79ms/step - loss: 0.3136 - val_loss: 0.4575
Epoch 47/100
50/50 [=====] - 4s 79ms/step - loss: 0.3109 - val_loss: 0.4552
Epoch 48/100
50/50 [=====] - 4s 80ms/step - loss: 0.3098 - val_loss: 0.4397
Epoch 49/100
50/50 [=====] - 4s 81ms/step - loss: 0.3084 - val_loss: 0.4809
Epoch 50/100
50/50 [=====] - 4s 80ms/step - loss: 0.3087 - val_loss: 0.4958
Epoch 51/100
50/50 [=====] - 4s 82ms/step - loss: 0.3054 - val_loss: 0.4381
Epoch 52/100
50/50 [=====] - 4s 80ms/step - loss: 0.3062 - val_loss: 0.4326
Epoch 53/100
50/50 [=====] - 4s 79ms/step - loss: 0.3019 - val_loss: 0.4612
Epoch 54/100
50/50 [=====] - 4s 79ms/step - loss: 0.3032 - val_loss: 0.4301
Epoch 55/100
50/50 [=====] - 4s 79ms/step - loss: 0.3003 - val_loss: 0.4668
Epoch 56/100
50/50 [=====] - 4s 81ms/step - loss: 0.3008 - val_loss: 0.4550
Epoch 57/100
50/50 [=====] - 4s 79ms/step - loss: 0.2979 - val_loss: 0.4552
Epoch 58/100
50/50 [=====] - 4s 79ms/step - loss: 0.2972 - val_loss: 0.4892
Epoch 59/100
50/50 [=====] - 4s 80ms/step - loss: 0.2973 - val_loss: 0.4420
Epoch 60/100
50/50 [=====] - 4s 80ms/step - loss: 0.2951 - val_loss: 0.4783
Epoch 61/100
50/50 [=====] - 4s 79ms/step - loss: 0.2953 - val_loss: 0.4444
Epoch 62/100
50/50 [=====] - 4s 80ms/step - loss: 0.2948 - val_loss: 0.4632
Epoch 63/100
50/50 [=====] - 4s 79ms/step - loss: 0.2926 - val_loss: 0.4862
Epoch 64/100
50/50 [=====] - 4s 78ms/step - loss: 0.2923 - val_loss: 0.4574
Epoch 65/100
50/50 [=====] - 4s 81ms/step - loss: 0.2909 - val_loss: 0.4435
Epoch 66/100
50/50 [=====] - 4s 80ms/step - loss: 0.2900 - val_loss: 0.4473
Epoch 67/100
50/50 [=====] - 4s 80ms/step - loss: 0.2898 - val_loss: 0.4686

Epoch 68/100
50/50 [=====] - 4s 78ms/step - loss: 0.2881 - val_loss: 0.4574
Epoch 69/100
50/50 [=====] - 4s 80ms/step - loss: 0.2882 - val_loss: 0.4459
Epoch 70/100
50/50 [=====] - 4s 80ms/step - loss: 0.2867 - val_loss: 0.4767
Epoch 71/100
50/50 [=====] - 4s 82ms/step - loss: 0.2872 - val_loss: 0.4888
Epoch 72/100
50/50 [=====] - 4s 81ms/step - loss: 0.2862 - val_loss: 0.4696
Epoch 73/100
50/50 [=====] - 4s 80ms/step - loss: 0.2849 - val_loss: 0.4676
Epoch 74/100
50/50 [=====] - 4s 80ms/step - loss: 0.2838 - val_loss: 0.4731
Epoch 75/100
50/50 [=====] - 4s 82ms/step - loss: 0.2849 - val_loss: 0.4816
Epoch 76/100
50/50 [=====] - 4s 82ms/step - loss: 0.2820 - val_loss: 0.4717
Epoch 77/100
50/50 [=====] - 4s 82ms/step - loss: 0.2822 - val_loss: 0.4689
Epoch 78/100
50/50 [=====] - 4s 80ms/step - loss: 0.2812 - val_loss: 0.4779
Epoch 79/100
50/50 [=====] - 4s 79ms/step - loss: 0.2814 - val_loss: 0.5072
Epoch 80/100
50/50 [=====] - 4s 82ms/step - loss: 0.2803 - val_loss: 0.5074
Epoch 81/100
50/50 [=====] - 4s 80ms/step - loss: 0.2788 - val_loss: 0.4734
Epoch 82/100
50/50 [=====] - 4s 79ms/step - loss: 0.2783 - val_loss: 0.4869
Epoch 83/100
50/50 [=====] - 4s 80ms/step - loss: 0.2778 - val_loss: 0.4901
Epoch 84/100
50/50 [=====] - 4s 79ms/step - loss: 0.2784 - val_loss: 0.4915
Epoch 85/100
50/50 [=====] - 4s 78ms/step - loss: 0.2762 - val_loss: 0.4960
Epoch 86/100
50/50 [=====] - 4s 79ms/step - loss: 0.2763 - val_loss: 0.4944
Epoch 87/100
50/50 [=====] - 4s 77ms/step - loss: 0.2747 - val_loss: 0.4952
Epoch 88/100
50/50 [=====] - 4s 78ms/step - loss: 0.2755 - val_loss: 0.5113
Epoch 89/100
50/50 [=====] - 4s 79ms/step - loss: 0.2749 - val_loss: 0.4915
Epoch 90/100

50/50 [=====] - 4s 79ms/step - loss: 0.2739 - val_loss: 0.4648
Epoch 91/100
50/50 [=====] - 4s 78ms/step - loss: 0.2738 - val_loss: 0.4970
Epoch 92/100
50/50 [=====] - 4s 81ms/step - loss: 0.2734 - val_loss: 0.4904
Epoch 93/100
50/50 [=====] - 4s 81ms/step - loss: 0.2728 - val_loss: 0.4659
Epoch 94/100
50/50 [=====] - 4s 81ms/step - loss: 0.2730 - val_loss: 0.4771
Epoch 95/100
50/50 [=====] - 4s 79ms/step - loss: 0.2711 - val_loss: 0.4647
Epoch 96/100
50/50 [=====] - 4s 78ms/step - loss: 0.2722 - val_loss: 0.4651
Epoch 97/100
50/50 [=====] - 4s 78ms/step - loss: 0.2710 - val_loss: 0.4870
Epoch 98/100
50/50 [=====] - 4s 79ms/step - loss: 0.2705 - val_loss: 0.5025
Epoch 99/100
50/50 [=====] - 4s 80ms/step - loss: 0.2706 - val_loss: 0.4762
Epoch 100/100
50/50 [=====] - 4s 80ms/step - loss: 0.2690 - val_loss: 0.4699





WI_3 - True Future: [3998. 2806. 2564. 2632. 2775. 3580. 4653. 4362. 3938. 3210. 4153. 3219. 3756. 5657. 4577. 3468. 3728. 3833. 4721. 4759.]

WI_3 - Model Prediction: [3226.1172 2591.908 2478.9941 2551.584 3068.5796 3941.3704 4259.7563

3771.186 3345.494 3296.5417 3376.0159 3921.414 4741.263 4971.3154 4327.605 3710.4963 3461.1382 3319.504 3671.5422 4265.852]

WI_3 - Model Percentage Error: [19.30672367 7.62979476 3.31536113 3.05531974 10.57944468 10.09414417

8.45140022 13.54456591 15.04586347 2.69600461 18.70898461 21.82087799 26.23171415 12.12099293 5.44887524 6.99239729 7.15831053 13.3967152 22.229565 10.36242801]%

WI_3 - Model Mean Percentage Error: 11.909474166305786%

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Training for WI_1

Single window of past history : (100, 3)

(72, 20)

Epoch 1/100

50/50 [=====] - 4s 88ms/step - loss: 0.6488 - val_loss: 0.9032

Epoch 2/100

50/50 [=====] - 4s 79ms/step - loss: 0.5049 - val_loss: 0.8655

Epoch 3/100

50/50 [=====] - 4s 78ms/step - loss: 0.4977 - val_loss: 0.8511

Epoch 4/100

50/50 [=====] - 4s 82ms/step - loss: 0.4940 - val_loss: 0.8513

Epoch 5/100

50/50 [=====] - 4s 80ms/step - loss: 0.4911 - val_loss: 0.8520

Epoch 6/100

50/50 [=====] - 4s 79ms/step - loss: 0.4939 - val_loss: 0.8520

Epoch 7/100

50/50 [=====] - 4s 79ms/step - loss: 0.4909 - val_loss: 0.8428

Epoch 8/100

50/50 [=====] - 4s 79ms/step - loss: 0.4887 - val_loss: 0.8444

Epoch 9/100

50/50 [=====] - 4s 78ms/step - loss: 0.4862 - val_loss: 0.8183

Epoch 10/100

50/50 [=====] - 4s 79ms/step - loss: 0.4788 - val_loss: 0.8050

Epoch 11/100

50/50 [=====] - 4s 79ms/step - loss: 0.4557 - val_loss: 0.7380

Epoch 12/100

50/50 [=====] - 4s 78ms/step - loss: 0.4036 - val_loss: 0.6778

Epoch 13/100

50/50 [=====] - 4s 80ms/step - loss: 0.3659 - val_loss: 0.5656

Epoch 14/100

50/50 [=====] - 4s 80ms/step - loss: 0.3385 - val_loss: 0.5611

Epoch 15/100

50/50 [=====] - 4s 80ms/step - loss: 0.3296 - val_loss: 0.5840

Epoch 16/100

50/50 [=====] - 4s 79ms/step - loss: 0.3228 - val_loss: 0.5220

Epoch 17/100

50/50 [=====] - 4s 84ms/step - loss: 0.3172 - val_loss: 0.5580

Epoch 18/100

50/50 [=====] - 4s 80ms/step - loss: 0.3161 - val_loss: 0.5379

Epoch 19/100

50/50 [=====] - 4s 79ms/step - loss: 0.3127 - val_loss: 0.5208

Epoch 20/100

50/50 [=====] - 4s 80ms/step - loss: 0.3057 - val_loss: 0.5696

Epoch 21/100

50/50 [=====] - 4s 80ms/step - loss: 0.3022 - val_loss: 0.5227

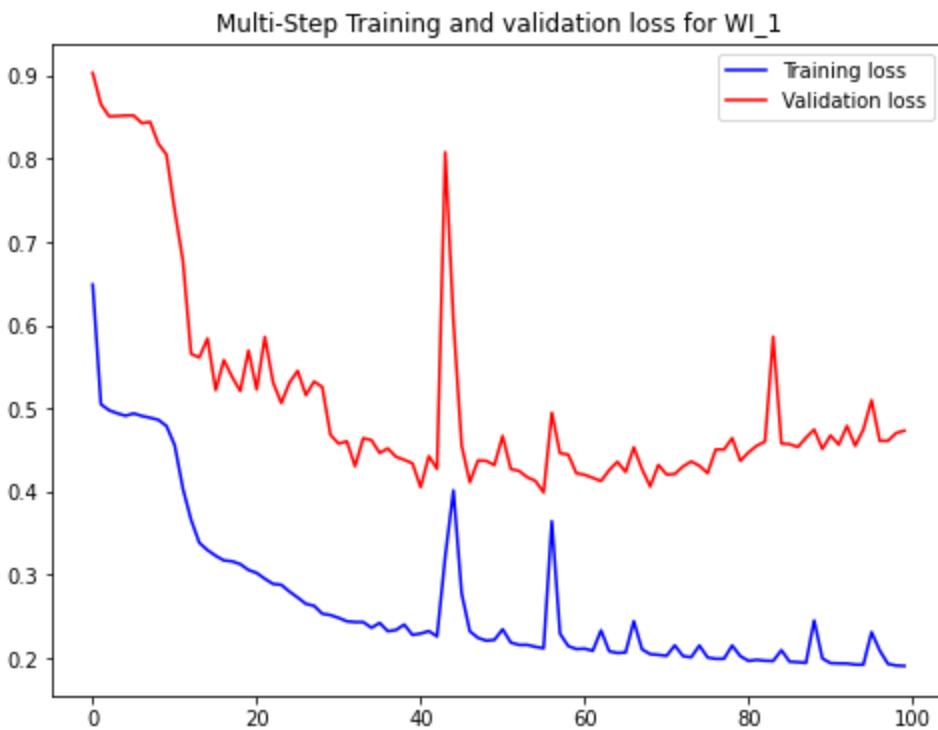
Epoch 22/100

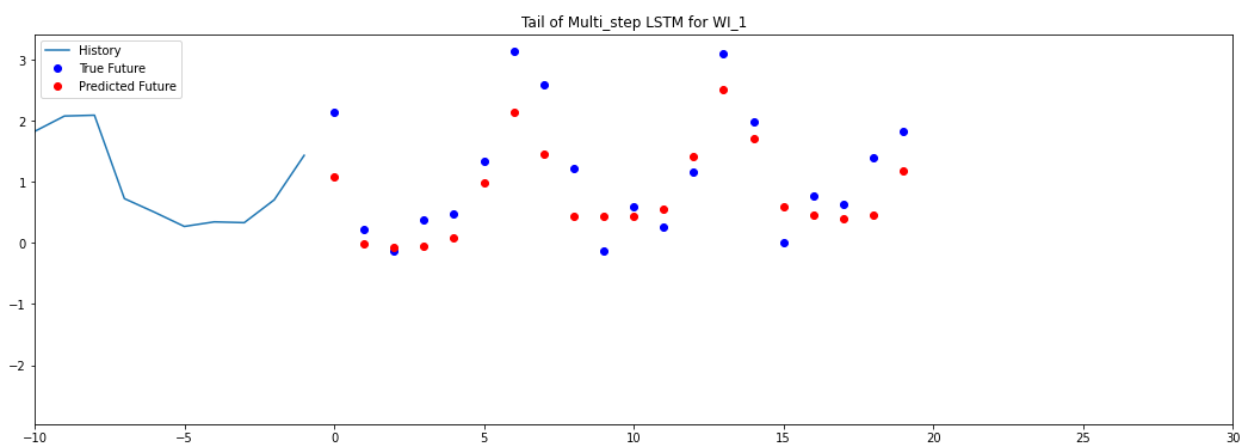
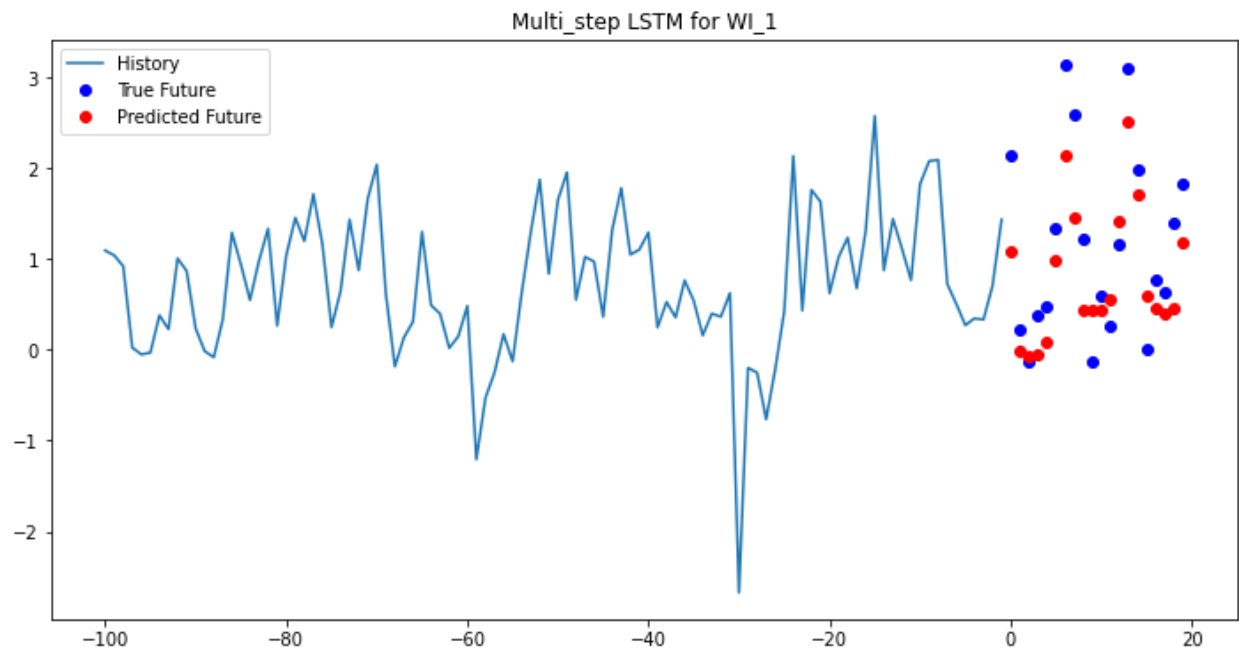
50/50 [=====] - 4s 81ms/step - loss: 0.2951 - val_loss: 0.5858
Epoch 23/100
50/50 [=====] - 4s 82ms/step - loss: 0.2889 - val_loss: 0.5312
Epoch 24/100
50/50 [=====] - 4s 81ms/step - loss: 0.2879 - val_loss: 0.5064
Epoch 25/100
50/50 [=====] - 4s 79ms/step - loss: 0.2798 - val_loss: 0.5308
Epoch 26/100
50/50 [=====] - 4s 78ms/step - loss: 0.2726 - val_loss: 0.5451
Epoch 27/100
50/50 [=====] - 4s 78ms/step - loss: 0.2651 - val_loss: 0.5160
Epoch 28/100
50/50 [=====] - 4s 80ms/step - loss: 0.2626 - val_loss: 0.5322
Epoch 29/100
50/50 [=====] - 4s 82ms/step - loss: 0.2531 - val_loss: 0.5257
Epoch 30/100
50/50 [=====] - 4s 83ms/step - loss: 0.2515 - val_loss: 0.4681
Epoch 31/100
50/50 [=====] - 4s 79ms/step - loss: 0.2481 - val_loss: 0.4576
Epoch 32/100
50/50 [=====] - 4s 78ms/step - loss: 0.2440 - val_loss: 0.4603
Epoch 33/100
50/50 [=====] - 4s 78ms/step - loss: 0.2431 - val_loss: 0.4303
Epoch 34/100
50/50 [=====] - 4s 78ms/step - loss: 0.2431 - val_loss: 0.4641
Epoch 35/100
50/50 [=====] - 4s 79ms/step - loss: 0.2362 - val_loss: 0.4618
Epoch 36/100
50/50 [=====] - 4s 81ms/step - loss: 0.2421 - val_loss: 0.4464
Epoch 37/100
50/50 [=====] - 4s 79ms/step - loss: 0.2321 - val_loss: 0.4519
Epoch 38/100
50/50 [=====] - 4s 82ms/step - loss: 0.2336 - val_loss: 0.4417
Epoch 39/100
50/50 [=====] - 4s 80ms/step - loss: 0.2401 - val_loss: 0.4381
Epoch 40/100
50/50 [=====] - 4s 79ms/step - loss: 0.2276 - val_loss: 0.4339
Epoch 41/100
50/50 [=====] - 4s 81ms/step - loss: 0.2293 - val_loss: 0.4052
Epoch 42/100
50/50 [=====] - 4s 81ms/step - loss: 0.2323 - val_loss: 0.4426
Epoch 43/100
50/50 [=====] - 4s 81ms/step - loss: 0.2259 - val_loss: 0.4273
Epoch 44/100
50/50 [=====] - 4s 79ms/step - loss: 0.3221 - val_loss: 0.8080

Epoch 45/100
50/50 [=====] - 4s 78ms/step - loss: 0.4014 - val_loss: 0.6053
Epoch 46/100
50/50 [=====] - 4s 80ms/step - loss: 0.2776 - val_loss: 0.4553
Epoch 47/100
50/50 [=====] - 4s 80ms/step - loss: 0.2320 - val_loss: 0.4113
Epoch 48/100
50/50 [=====] - 4s 79ms/step - loss: 0.2241 - val_loss: 0.4374
Epoch 49/100
50/50 [=====] - 4s 78ms/step - loss: 0.2207 - val_loss: 0.4368
Epoch 50/100
50/50 [=====] - 4s 80ms/step - loss: 0.2217 - val_loss: 0.4318
Epoch 51/100
50/50 [=====] - 4s 80ms/step - loss: 0.2345 - val_loss: 0.4669
Epoch 52/100
50/50 [=====] - 4s 81ms/step - loss: 0.2185 - val_loss: 0.4271
Epoch 53/100
50/50 [=====] - 4s 80ms/step - loss: 0.2157 - val_loss: 0.4248
Epoch 54/100
50/50 [=====] - 4s 78ms/step - loss: 0.2157 - val_loss: 0.4172
Epoch 55/100
50/50 [=====] - 4s 78ms/step - loss: 0.2133 - val_loss: 0.4128
Epoch 56/100
50/50 [=====] - 4s 78ms/step - loss: 0.2116 - val_loss: 0.3989
Epoch 57/100
50/50 [=====] - 4s 78ms/step - loss: 0.3644 - val_loss: 0.4948
Epoch 58/100
50/50 [=====] - 4s 79ms/step - loss: 0.2291 - val_loss: 0.4461
Epoch 59/100
50/50 [=====] - 4s 82ms/step - loss: 0.2143 - val_loss: 0.4445
Epoch 60/100
50/50 [=====] - 5s 106ms/step - loss: 0.2106 - val_loss: 0.4219
Epoch 61/100
50/50 [=====] - 5s 100ms/step - loss: 0.2112 - val_loss: 0.4201
Epoch 62/100
50/50 [=====] - 4s 79ms/step - loss: 0.2086 - val_loss: 0.4164
Epoch 63/100
50/50 [=====] - 4s 80ms/step - loss: 0.2331 - val_loss: 0.4126
Epoch 64/100
50/50 [=====] - 4s 78ms/step - loss: 0.2080 - val_loss: 0.4258
Epoch 65/100
50/50 [=====] - 4s 78ms/step - loss: 0.2060 - val_loss: 0.4357
Epoch 66/100
50/50 [=====] - 4s 80ms/step - loss: 0.2066 - val_loss: 0.4235
Epoch 67/100

50/50 [=====] - 4s 82ms/step - loss: 0.2442 - val_loss: 0.4531
Epoch 68/100
50/50 [=====] - 4s 78ms/step - loss: 0.2104 - val_loss: 0.4270
Epoch 69/100
50/50 [=====] - 4s 79ms/step - loss: 0.2045 - val_loss: 0.4061
Epoch 70/100
50/50 [=====] - 4s 79ms/step - loss: 0.2037 - val_loss: 0.4321
Epoch 71/100
50/50 [=====] - 4s 79ms/step - loss: 0.2025 - val_loss: 0.4204
Epoch 72/100
50/50 [=====] - 4s 79ms/step - loss: 0.2150 - val_loss: 0.4210
Epoch 73/100
50/50 [=====] - 4s 78ms/step - loss: 0.2023 - val_loss: 0.4301
Epoch 74/100
50/50 [=====] - 4s 78ms/step - loss: 0.2008 - val_loss: 0.4362
Epoch 75/100
50/50 [=====] - 4s 79ms/step - loss: 0.2150 - val_loss: 0.4311
Epoch 76/100
50/50 [=====] - 4s 80ms/step - loss: 0.2005 - val_loss: 0.4221
Epoch 77/100
50/50 [=====] - 4s 80ms/step - loss: 0.1989 - val_loss: 0.4506
Epoch 78/100
50/50 [=====] - 4s 83ms/step - loss: 0.1990 - val_loss: 0.4505
Epoch 79/100
50/50 [=====] - 4s 81ms/step - loss: 0.2149 - val_loss: 0.4642
Epoch 80/100
50/50 [=====] - 4s 79ms/step - loss: 0.2020 - val_loss: 0.4370
Epoch 81/100
50/50 [=====] - 4s 79ms/step - loss: 0.1965 - val_loss: 0.4471
Epoch 82/100
50/50 [=====] - 4s 81ms/step - loss: 0.1977 - val_loss: 0.4551
Epoch 83/100
50/50 [=====] - 4s 78ms/step - loss: 0.1966 - val_loss: 0.4601
Epoch 84/100
50/50 [=====] - 4s 78ms/step - loss: 0.1963 - val_loss: 0.5862
Epoch 85/100
50/50 [=====] - 4s 78ms/step - loss: 0.2093 - val_loss: 0.4577
Epoch 86/100
50/50 [=====] - 4s 79ms/step - loss: 0.1955 - val_loss: 0.4570
Epoch 87/100
50/50 [=====] - 4s 80ms/step - loss: 0.1950 - val_loss: 0.4534
Epoch 88/100
50/50 [=====] - 4s 82ms/step - loss: 0.1941 - val_loss: 0.4646
Epoch 89/100
50/50 [=====] - 4s 79ms/step - loss: 0.2451 - val_loss: 0.4745

Epoch 90/100
50/50 [=====] - 4s 80ms/step - loss: 0.1993 - val_loss: 0.4513
Epoch 91/100
50/50 [=====] - 4s 80ms/step - loss: 0.1937 - val_loss: 0.4674
Epoch 92/100
50/50 [=====] - 4s 80ms/step - loss: 0.1934 - val_loss: 0.4563
Epoch 93/100
50/50 [=====] - 4s 80ms/step - loss: 0.1932 - val_loss: 0.4789
Epoch 94/100
50/50 [=====] - 4s 81ms/step - loss: 0.1920 - val_loss: 0.4550
Epoch 95/100
50/50 [=====] - 4s 80ms/step - loss: 0.1918 - val_loss: 0.4746
Epoch 96/100
50/50 [=====] - 4s 80ms/step - loss: 0.2310 - val_loss: 0.5099
Epoch 97/100
50/50 [=====] - 4s 82ms/step - loss: 0.2088 - val_loss: 0.4610
Epoch 98/100
50/50 [=====] - 4s 82ms/step - loss: 0.1928 - val_loss: 0.4610
Epoch 99/100
50/50 [=====] - 4s 80ms/step - loss: 0.1909 - val_loss: 0.4703
Epoch 100/100
50/50 [=====] - 4s 82ms/step - loss: 0.1904 - val_loss: 0.4731





WI_1 - True Future: [4600. 2798. 2466. 2937. 3036. 3845. 5538. 5034. 3740. 2460. 3135. 2831. 3676. 5516. 4461. 2597. 3313. 3180. 3899. 4308.]

WI_1 - Model Prediction: [3600.2405 2567.7883 2519.068 2535.0703 2665.9294 3519.6733 4606.1714

3949.0742 2996.4421 2989.37 3000.7363 3112.3499 3913.5225 4949.092

4198.9585 3151.9246 3013.3748 2956.8809 3010.1223 3695.5103]

WI_1 - Model Percentage Error: [21.73390264 8.2277223 2.1519917 13.68504213 12.18941227 8.46103147

16.82608547 21.55196228 19.88122624 21.51911045 4.28273276 9.93817921

6.461438 10.27752362 5.87405299 21.36790761 9.04392527 7.01632518

22.79758106 14.21749643]%

WI_1 - Model Mean Percentage Error: 12.875232454359846%

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