

## Training Model for CA\_1...

Epoch 1/100

50/50 [=====] - 5s 103ms/step - loss: 0.7684 - val\_loss: 0.7263

Epoch 2/100

50/50 [=====] - 5s 92ms/step - loss: 0.7191 - val\_loss: 0.7161

Epoch 3/100

50/50 [=====] - 5s 93ms/step - loss: 0.6995 - val\_loss: 0.7145

Epoch 4/100

50/50 [=====] - 5s 92ms/step - loss: 0.6958 - val\_loss: 0.7127

Epoch 5/100

50/50 [=====] - 5s 91ms/step - loss: 0.6935 - val\_loss: 0.7106

Epoch 6/100

50/50 [=====] - 5s 91ms/step - loss: 0.6901 - val\_loss: 0.7068

Epoch 7/100

50/50 [=====] - 5s 91ms/step - loss: 0.6854 - val\_loss: 0.7003

Epoch 8/100

50/50 [=====] - 5s 93ms/step - loss: 0.6714 - val\_loss: 0.6660

Epoch 9/100

50/50 [=====] - 5s 92ms/step - loss: 0.5934 - val\_loss: 0.5540

Epoch 10/100

50/50 [=====] - 5s 92ms/step - loss: 0.4369 - val\_loss: 0.4265

Epoch 11/100

50/50 [=====] - 5s 97ms/step - loss: 0.4126 - val\_loss: 0.4111

Epoch 12/100

50/50 [=====] - 5s 94ms/step - loss: 0.4036 - val\_loss: 0.4013

Epoch 13/100

50/50 [=====] - 5s 95ms/step - loss: 0.3892 - val\_loss: 0.3832

Epoch 14/100

50/50 [=====] - 5s 95ms/step - loss: 0.3935 - val\_loss: 0.3883

Epoch 15/100

50/50 [=====] - 5s 96ms/step - loss: 0.3702 - val\_loss: 0.3645

Epoch 16/100

50/50 [=====] - 5s 95ms/step - loss: 0.3649 - val\_loss: 0.3524

Epoch 17/100

50/50 [=====] - 5s 96ms/step - loss: 0.4225 - val\_loss: 0.3556

Epoch 18/100

50/50 [=====] - 5s 96ms/step - loss: 0.3643 - val\_loss: 0.4501

Epoch 19/100

50/50 [=====] - 5s 96ms/step - loss: 0.3460 - val\_loss: 0.3547

Epoch 20/100

50/50 [=====] - 5s 97ms/step - loss: 0.3246 - val\_loss: 0.3445

Epoch 21/100

50/50 [=====] - 5s 98ms/step - loss: 0.3545 - val\_loss: 0.3405

Epoch 22/100

50/50 [=====] - 5s 98ms/step - loss: 0.3158 - val\_loss: 0.3390

Epoch 23/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3122 - val\_loss: 0.3362  
Epoch 24/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3084 - val\_loss: 0.3310  
Epoch 25/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3051 - val\_loss: 0.3328  
Epoch 26/100  
50/50 [=====] - 5s 100ms/step - loss: 0.5925 - val\_loss: 0.6361  
Epoch 27/100  
50/50 [=====] - 5s 99ms/step - loss: 0.5006 - val\_loss: 0.4264  
Epoch 28/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3676 - val\_loss: 0.3869  
Epoch 29/100  
50/50 [=====] - 7s 147ms/step - loss: 0.3333 - val\_loss: 0.3520  
Epoch 30/100  
50/50 [=====] - 5s 106ms/step - loss: 0.3197 - val\_loss: 0.3409  
Epoch 31/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3119 - val\_loss: 0.3506  
Epoch 32/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3017 - val\_loss: 0.3352  
Epoch 33/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3016 - val\_loss: 0.3260  
Epoch 34/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3883 - val\_loss: 0.3815  
Epoch 35/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3196 - val\_loss: 0.3409  
Epoch 36/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2934 - val\_loss: 0.3336  
Epoch 37/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2870 - val\_loss: 0.3215  
Epoch 38/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2862 - val\_loss: 0.3271  
Epoch 39/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2823 - val\_loss: 0.3262  
Epoch 40/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2825 - val\_loss: 0.3171  
Epoch 41/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2790 - val\_loss: 0.3314  
Epoch 42/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3702 - val\_loss: 0.6605  
Epoch 43/100  
50/50 [=====] - 6s 111ms/step - loss: 0.4965 - val\_loss: 0.3712  
Epoch 44/100  
50/50 [=====] - 5s 108ms/step - loss: 0.3172 - val\_loss: 0.3432  
Epoch 45/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2948 - val\_loss: 0.3335  
Epoch 46/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2855 - val\_loss: 0.3271

Epoch 47/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2818 - val\_loss: 0.3278  
Epoch 48/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2783 - val\_loss: 0.3186  
Epoch 49/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2784 - val\_loss: 0.3185  
Epoch 50/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2729 - val\_loss: 0.3462  
Epoch 51/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3405 - val\_loss: 0.6339  
Epoch 52/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4807 - val\_loss: 0.4273  
Epoch 53/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3405 - val\_loss: 0.3828  
Epoch 54/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3059 - val\_loss: 0.3516  
Epoch 55/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2875 - val\_loss: 0.3362  
Epoch 56/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2769 - val\_loss: 0.3170  
Epoch 57/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2702 - val\_loss: 0.3227  
Epoch 58/100  
50/50 [=====] - 5s 101ms/step - loss: 0.2687 - val\_loss: 0.3237  
Epoch 59/100  
50/50 [=====] - 5s 101ms/step - loss: 0.2660 - val\_loss: 0.3205  
Epoch 60/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2645 - val\_loss: 0.3196  
Epoch 61/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2626 - val\_loss: 0.3167  
Epoch 62/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2619 - val\_loss: 0.3167  
Epoch 63/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2596 - val\_loss: 0.3105  
Epoch 64/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2585 - val\_loss: 0.3125  
Epoch 65/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2568 - val\_loss: 0.3158  
Epoch 66/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2553 - val\_loss: 0.3117  
Epoch 67/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2547 - val\_loss: 0.3122  
Epoch 68/100  
50/50 [=====] - 5s 97ms/step - loss: 0.5709 - val\_loss: 0.5010  
Epoch 69/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4355 - val\_loss: 0.3992  
Epoch 70/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3672 - val\_loss: 0.3676

Epoch 71/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3532 - val\_loss: 0.3596  
Epoch 72/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4125 - val\_loss: 0.4084  
Epoch 73/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3790 - val\_loss: 0.3698  
Epoch 74/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3482 - val\_loss: 0.3469  
Epoch 75/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3363 - val\_loss: 0.3381  
Epoch 76/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3295 - val\_loss: 0.3318  
Epoch 77/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3227 - val\_loss: 0.3308  
Epoch 78/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3579 - val\_loss: 0.3373  
Epoch 79/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3167 - val\_loss: 0.3202  
Epoch 80/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3056 - val\_loss: 0.3200  
Epoch 81/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2976 - val\_loss: 0.3225  
Epoch 82/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2918 - val\_loss: 0.3149  
Epoch 83/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2883 - val\_loss: 0.3190  
Epoch 84/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3071 - val\_loss: 0.3284  
Epoch 85/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2893 - val\_loss: 0.3269  
Epoch 86/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2813 - val\_loss: 0.3101  
Epoch 87/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2792 - val\_loss: 0.3215  
Epoch 88/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2750 - val\_loss: 0.3362  
Epoch 89/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2739 - val\_loss: 0.3214  
Epoch 90/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2724 - val\_loss: 0.3116  
Epoch 91/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2708 - val\_loss: 0.3238  
Epoch 92/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2682 - val\_loss: 0.3195  
Epoch 93/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3059 - val\_loss: 0.3261  
Epoch 94/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2691 - val\_loss: 0.3152

Epoch 95/100

50/50 [=====] - 5s 97ms/step - loss: 0.2651 - val\_loss: 0.3239

Epoch 96/100

50/50 [=====] - 5s 97ms/step - loss: 0.2625 - val\_loss: 0.3090

Epoch 97/100

50/50 [=====] - 5s 97ms/step - loss: 0.2615 - val\_loss: 0.3232

Epoch 98/100

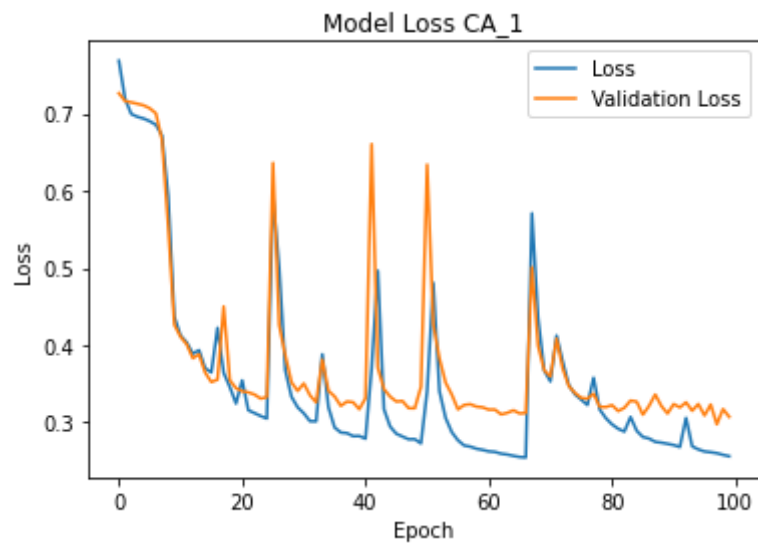
50/50 [=====] - 5s 98ms/step - loss: 0.2603 - val\_loss: 0.2977

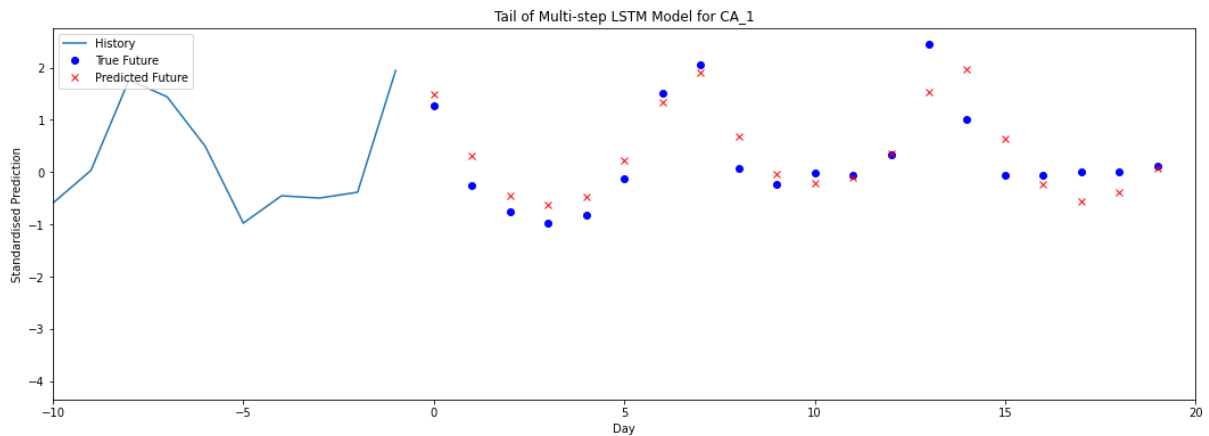
Epoch 99/100

50/50 [=====] - 5s 98ms/step - loss: 0.2581 - val\_loss: 0.3174

Epoch 100/100

50/50 [=====] - 5s 98ms/step - loss: 0.2563 - val\_loss: 0.3073





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: [5475.303 4308.7344 3546.0059 3371.8176 3529.2803 4209.6064 5309.169

5879.9897 4680.369 3965.0059 3773.4006 3900.7588 4352.8184 5511.6455

5939.14 4616.737 3752.947 3430.702 3617.0713 4072.2312]

CA\_1 - Model Percentage Error: [ 4.35111917 15.17600575 9.24232469 11.24439548

11.22849901 8.74726028

3.43454083 2.52006389 14.85568443 5.31224062 5.26234911 0.69351352

0.59668036 14.04171073 19.11632845 17.38461267 4.65073624 14.12510878

9.73118819 0.94305032]%

CA\_1 - Model Mean Percentage Error: 8.632870626428067%

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Training Model for CA\_2...

Epoch 1/100

50/50 [=====] - 5s 106ms/step - loss: 0.7618 - val\_loss: 1.6111

Epoch 2/100

50/50 [=====] - 5s 100ms/step - loss: 0.6898 - val\_loss: 1.1121

Epoch 3/100

50/50 [=====] - 5s 102ms/step - loss: 0.6754 - val\_loss: 1.0947

Epoch 4/100

50/50 [=====] - 5s 102ms/step - loss: 0.6683 - val\_loss: 1.1063

Epoch 5/100

50/50 [=====] - 5s 99ms/step - loss: 0.6532 - val\_loss: 1.1158

Epoch 6/100

50/50 [=====] - 5s 102ms/step - loss: 0.6262 - val\_loss: 1.1375

Epoch 7/100

50/50 [=====] - 5s 101ms/step - loss: 0.4847 - val\_loss: 0.8766

Epoch 8/100

50/50 [=====] - 5s 106ms/step - loss: 0.4052 - val\_loss: 0.7714

Epoch 9/100

50/50 [=====] - 5s 104ms/step - loss: 0.3939 - val\_loss: 0.7996

Epoch 10/100

50/50 [=====] - 5s 103ms/step - loss: 0.3850 - val\_loss: 0.7623  
Epoch 11/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3762 - val\_loss: 0.7922  
Epoch 12/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3658 - val\_loss: 0.7142  
Epoch 13/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3435 - val\_loss: 0.7011  
Epoch 14/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3233 - val\_loss: 0.6576  
Epoch 15/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3113 - val\_loss: 0.6137  
Epoch 16/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3056 - val\_loss: 0.6506  
Epoch 17/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2984 - val\_loss: 0.5889  
Epoch 18/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2933 - val\_loss: 0.5830  
Epoch 19/100  
50/50 [=====] - 6s 115ms/step - loss: 0.2894 - val\_loss: 0.5822  
Epoch 20/100  
50/50 [=====] - 6s 113ms/step - loss: 0.3449 - val\_loss: 0.6015  
Epoch 21/100  
50/50 [=====] - 5s 105ms/step - loss: 0.2853 - val\_loss: 0.5705  
Epoch 22/100  
50/50 [=====] - 5s 104ms/step - loss: 0.2843 - val\_loss: 0.5688  
Epoch 23/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3382 - val\_loss: 0.6119  
Epoch 24/100  
50/50 [=====] - 5s 103ms/step - loss: 0.2844 - val\_loss: 0.5561  
Epoch 25/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2774 - val\_loss: 0.5492  
Epoch 26/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2770 - val\_loss: 0.5652  
Epoch 27/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3705 - val\_loss: 0.6027  
Epoch 28/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2801 - val\_loss: 0.5573  
Epoch 29/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2753 - val\_loss: 0.5330  
Epoch 30/100  
50/50 [=====] - 5s 101ms/step - loss: 0.2733 - val\_loss: 0.5388  
Epoch 31/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2700 - val\_loss: 0.5203  
Epoch 32/100  
50/50 [=====] - 5s 103ms/step - loss: 0.2702 - val\_loss: 0.5110  
Epoch 33/100  
50/50 [=====] - 5s 105ms/step - loss: 0.2680 - val\_loss: 0.5174  
Epoch 34/100

50/50 [=====] - 5s 105ms/step - loss: 0.2683 - val\_loss: 0.5097  
Epoch 35/100  
50/50 [=====] - 5s 107ms/step - loss: 0.2658 - val\_loss: 0.5014  
Epoch 36/100  
50/50 [=====] - 5s 105ms/step - loss: 0.2649 - val\_loss: 0.5146  
Epoch 37/100  
50/50 [=====] - 5s 105ms/step - loss: 0.2635 - val\_loss: 0.5068  
Epoch 38/100  
50/50 [=====] - 5s 110ms/step - loss: nan - val\_loss: nan  
Epoch 39/100  
50/50 [=====] - 5s 105ms/step - loss: nan - val\_loss: nan  
Epoch 40/100  
50/50 [=====] - 5s 104ms/step - loss: nan - val\_loss: nan  
Epoch 41/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 42/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 43/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 44/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 45/100  
50/50 [=====] - 5s 103ms/step - loss: nan - val\_loss: nan  
Epoch 46/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 47/100  
50/50 [=====] - 7s 135ms/step - loss: nan - val\_loss: nan  
Epoch 48/100  
50/50 [=====] - 6s 118ms/step - loss: nan - val\_loss: nan  
Epoch 49/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 50/100  
50/50 [=====] - 5s 103ms/step - loss: nan - val\_loss: nan  
Epoch 51/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 52/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 53/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 54/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 55/100  
50/50 [=====] - 5s 103ms/step - loss: nan - val\_loss: nan  
Epoch 56/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 57/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 58/100



50/50 [=====] - 5s 103ms/step - loss: nan - val\_loss: nan  
Epoch 59/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 60/100  
50/50 [=====] - 5s 103ms/step - loss: nan - val\_loss: nan  
Epoch 61/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 62/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 63/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 64/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 65/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 66/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 67/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 68/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 69/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 70/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 71/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 72/100  
50/50 [=====] - 5s 102ms/step - loss: nan - val\_loss: nan  
Epoch 73/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 74/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 75/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 76/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 77/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 78/100  
50/50 [=====] - 5s 104ms/step - loss: nan - val\_loss: nan  
Epoch 79/100  
50/50 [=====] - 5s 104ms/step - loss: nan - val\_loss: nan  
Epoch 80/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 81/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 82/100

50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 83/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 84/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 85/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 86/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 87/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 88/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 89/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 90/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 91/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 92/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 93/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 94/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 95/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 96/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 97/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 98/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 99/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 100/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan



## Training Model for CA\_3...

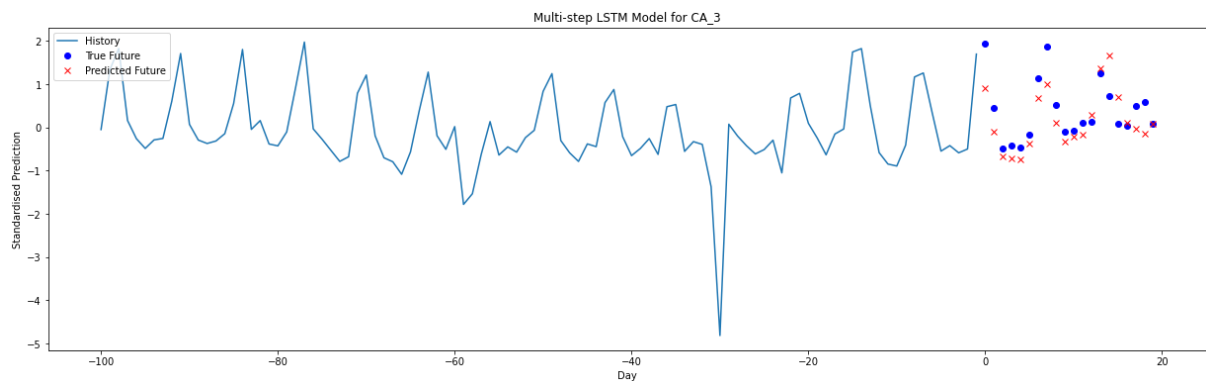
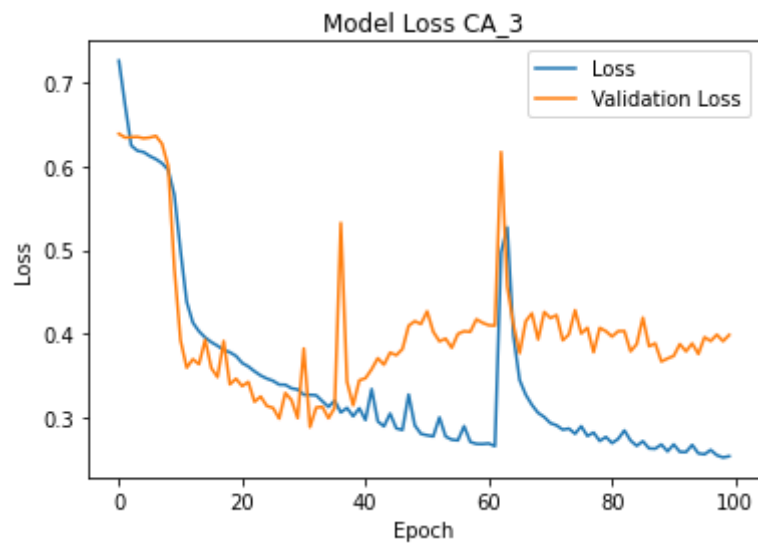
Epoch 1/100  
50/50 [=====] - 5s 104ms/step - loss: 0.7260 - val\_loss: 0.6388  
Epoch 2/100  
50/50 [=====] - 5s 97ms/step - loss: 0.6735 - val\_loss: 0.6344  
Epoch 3/100  
50/50 [=====] - 5s 97ms/step - loss: 0.6248 - val\_loss: 0.6348  
Epoch 4/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6186 - val\_loss: 0.6352  
Epoch 5/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6171 - val\_loss: 0.6335  
Epoch 6/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6123 - val\_loss: 0.6344  
Epoch 7/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6086 - val\_loss: 0.6363  
Epoch 8/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6037 - val\_loss: 0.6269  
Epoch 9/100  
50/50 [=====] - 5s 98ms/step - loss: 0.5957 - val\_loss: 0.6002  
Epoch 10/100  
50/50 [=====] - 5s 98ms/step - loss: 0.5661 - val\_loss: 0.4782  
Epoch 11/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4993 - val\_loss: 0.3926  
Epoch 12/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4385 - val\_loss: 0.3599  
Epoch 13/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4136 - val\_loss: 0.3700  
Epoch 14/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4032 - val\_loss: 0.3640  
Epoch 15/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3958 - val\_loss: 0.3933  
Epoch 16/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3903 - val\_loss: 0.3593  
Epoch 17/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3860 - val\_loss: 0.3487  
Epoch 18/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3810 - val\_loss: 0.3916  
Epoch 19/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3783 - val\_loss: 0.3400  
Epoch 20/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3739 - val\_loss: 0.3467  
Epoch 21/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3655 - val\_loss: 0.3379  
Epoch 22/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3613 - val\_loss: 0.3429  
Epoch 23/100

50/50 [=====] - 5s 97ms/step - loss: 0.3556 - val\_loss: 0.3192  
Epoch 24/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3505 - val\_loss: 0.3255  
Epoch 25/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3469 - val\_loss: 0.3142  
Epoch 26/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3443 - val\_loss: 0.3120  
Epoch 27/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3397 - val\_loss: 0.2992  
Epoch 28/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3395 - val\_loss: 0.3297  
Epoch 29/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3353 - val\_loss: 0.3213  
Epoch 30/100  
50/50 [=====] - 5s 94ms/step - loss: 0.3339 - val\_loss: 0.2997  
Epoch 31/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3277 - val\_loss: 0.3827  
Epoch 32/100  
50/50 [=====] - 5s 94ms/step - loss: 0.3274 - val\_loss: 0.2890  
Epoch 33/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3270 - val\_loss: 0.3123  
Epoch 34/100  
50/50 [=====] - 5s 94ms/step - loss: 0.3200 - val\_loss: 0.3133  
Epoch 35/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3131 - val\_loss: 0.2996  
Epoch 36/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3207 - val\_loss: 0.3120  
Epoch 37/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3065 - val\_loss: 0.5326  
Epoch 38/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3119 - val\_loss: 0.3433  
Epoch 39/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3019 - val\_loss: 0.3150  
Epoch 40/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3116 - val\_loss: 0.3448  
Epoch 41/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2974 - val\_loss: 0.3474  
Epoch 42/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3343 - val\_loss: 0.3580  
Epoch 43/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2959 - val\_loss: 0.3712  
Epoch 44/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2900 - val\_loss: 0.3635  
Epoch 45/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3052 - val\_loss: 0.3779  
Epoch 46/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2875 - val\_loss: 0.3748  
Epoch 47/100

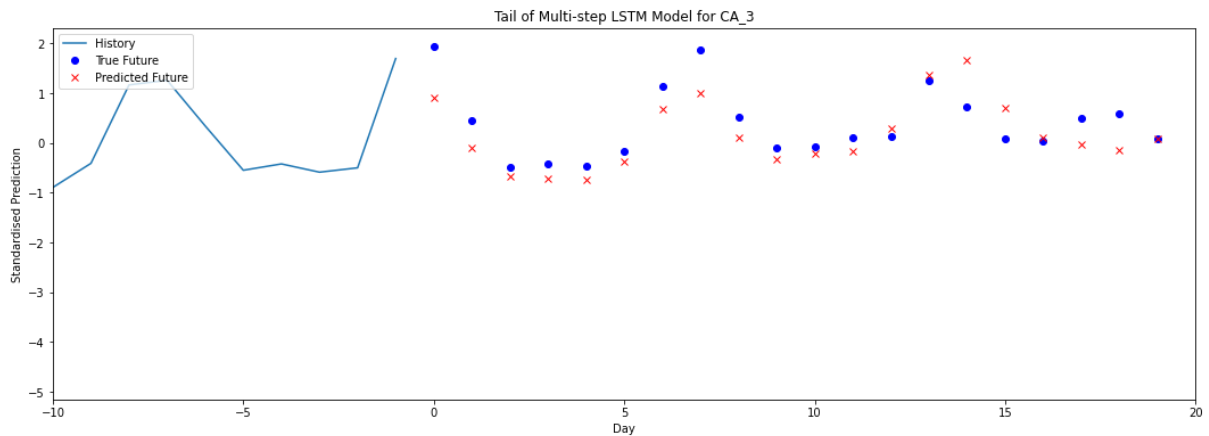
50/50 [=====] - 5s 95ms/step - loss: 0.2856 - val\_loss: 0.3822  
Epoch 48/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3278 - val\_loss: 0.4099  
Epoch 49/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2911 - val\_loss: 0.4153  
Epoch 50/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2810 - val\_loss: 0.4119  
Epoch 51/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2793 - val\_loss: 0.4271  
Epoch 52/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2780 - val\_loss: 0.4026  
Epoch 53/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3006 - val\_loss: 0.3913  
Epoch 54/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2778 - val\_loss: 0.3945  
Epoch 55/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2740 - val\_loss: 0.3836  
Epoch 56/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2732 - val\_loss: 0.4003  
Epoch 57/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2901 - val\_loss: 0.4034  
Epoch 58/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2713 - val\_loss: 0.4027  
Epoch 59/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2690 - val\_loss: 0.4176  
Epoch 60/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2689 - val\_loss: 0.4134  
Epoch 61/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2695 - val\_loss: 0.4105  
Epoch 62/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2663 - val\_loss: 0.4101  
Epoch 63/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4978 - val\_loss: 0.6172  
Epoch 64/100  
50/50 [=====] - 5s 96ms/step - loss: 0.5272 - val\_loss: 0.4569  
Epoch 65/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3981 - val\_loss: 0.4114  
Epoch 66/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3452 - val\_loss: 0.3772  
Epoch 67/100  
50/50 [=====] - 7s 134ms/step - loss: 0.3276 - val\_loss: 0.4153  
Epoch 68/100  
50/50 [=====] - 5s 110ms/step - loss: 0.3155 - val\_loss: 0.4247  
Epoch 69/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3060 - val\_loss: 0.3936  
Epoch 70/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3010 - val\_loss: 0.4263  
Epoch 71/100

50/50 [=====] - 5s 95ms/step - loss: 0.2938 - val\_loss: 0.4191  
Epoch 72/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2911 - val\_loss: 0.4226  
Epoch 73/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2859 - val\_loss: 0.3925  
Epoch 74/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2873 - val\_loss: 0.3996  
Epoch 75/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2811 - val\_loss: 0.4284  
Epoch 76/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2900 - val\_loss: 0.4007  
Epoch 77/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2784 - val\_loss: 0.4076  
Epoch 78/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2825 - val\_loss: 0.3783  
Epoch 79/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2725 - val\_loss: 0.4073  
Epoch 80/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2773 - val\_loss: 0.4034  
Epoch 81/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2700 - val\_loss: 0.3971  
Epoch 82/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2749 - val\_loss: 0.4035  
Epoch 83/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2850 - val\_loss: 0.4035  
Epoch 84/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2730 - val\_loss: 0.3794  
Epoch 85/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2667 - val\_loss: 0.3880  
Epoch 86/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2721 - val\_loss: 0.4195  
Epoch 87/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2636 - val\_loss: 0.3854  
Epoch 88/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2632 - val\_loss: 0.3889  
Epoch 89/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2683 - val\_loss: 0.3673  
Epoch 90/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2601 - val\_loss: 0.3708  
Epoch 91/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2684 - val\_loss: 0.3739  
Epoch 92/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2594 - val\_loss: 0.3880  
Epoch 93/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2593 - val\_loss: 0.3793  
Epoch 94/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2677 - val\_loss: 0.3888  
Epoch 95/100

50/50 [=====] - 5s 98ms/step - loss: 0.2576 - val\_loss: 0.3762  
Epoch 96/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2566 - val\_loss: 0.3962  
Epoch 97/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2617 - val\_loss: 0.3917  
Epoch 98/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2555 - val\_loss: 0.3992  
Epoch 99/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2528 - val\_loss: 0.3915  
Epoch 100/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2543 - val\_loss: 0.3989







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: [6921.798 5722.7637 5021.3 4974.632 4929.9023 5371.7974 6662.506

7029.334 5945.6665 5439.525 5567.2495 5620.645 6187.579 7474.0884

7835.3506 6667.91 5959.6567 5802.539 5640.066 5944.4243]

CA\_3 - Model Percentage Error: [15.21560691 10.17479718 4.24676192 6.29813833

6.29343578 4.7046769

7.6831667 13.15376842 7.76192206 4.93664973 3.00959039 5.55125156

3.36750921 1.72979963 17.01539107 12.44367886 1.32024377 9.63184765

13.8526666 0.27706337]%

CA\_3 - Model Mean Percentage Error: 7.433398301446305%

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Training Model for CA\_4...

Epoch 1/100

50/50 [=====] - 5s 109ms/step - loss: 0.6907 - val\_loss: 0.6133

Epoch 2/100

50/50 [=====] - 5s 99ms/step - loss: 0.6215 - val\_loss: 0.5977

Epoch 3/100

50/50 [=====] - 5s 97ms/step - loss: 0.5861 - val\_loss: 0.6150

Epoch 4/100

50/50 [=====] - 5s 98ms/step - loss: 0.5690 - val\_loss: 0.5776

Epoch 5/100

50/50 [=====] - 5s 97ms/step - loss: 0.5537 - val\_loss: 0.5844

Epoch 6/100

50/50 [=====] - 5s 97ms/step - loss: 0.5321 - val\_loss: 0.5508

Epoch 7/100

50/50 [=====] - 5s 97ms/step - loss: 0.4878 - val\_loss: 0.4972

Epoch 8/100

50/50 [=====] - 5s 96ms/step - loss: 0.4330 - val\_loss: 0.4805

Epoch 9/100

50/50 [=====] - 5s 97ms/step - loss: 0.4942 - val\_loss: 0.6025

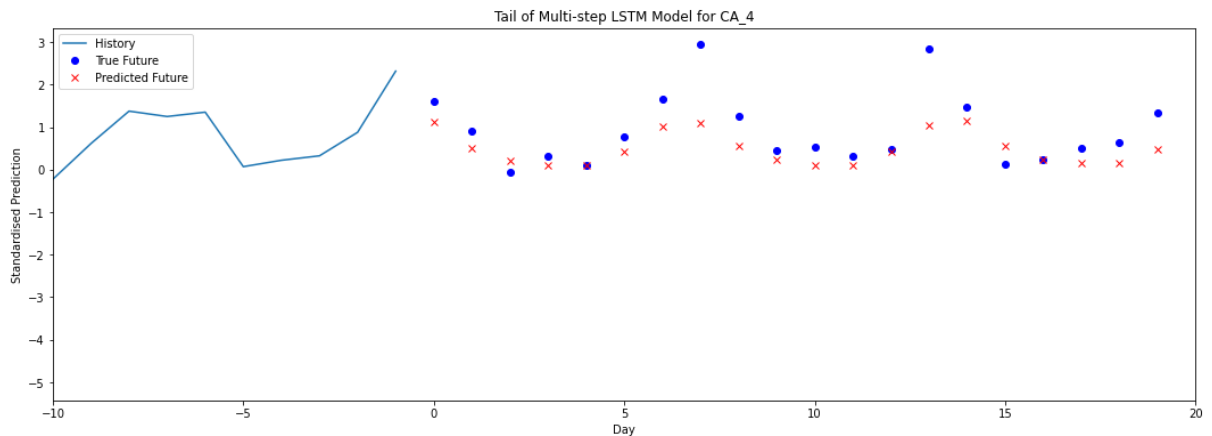
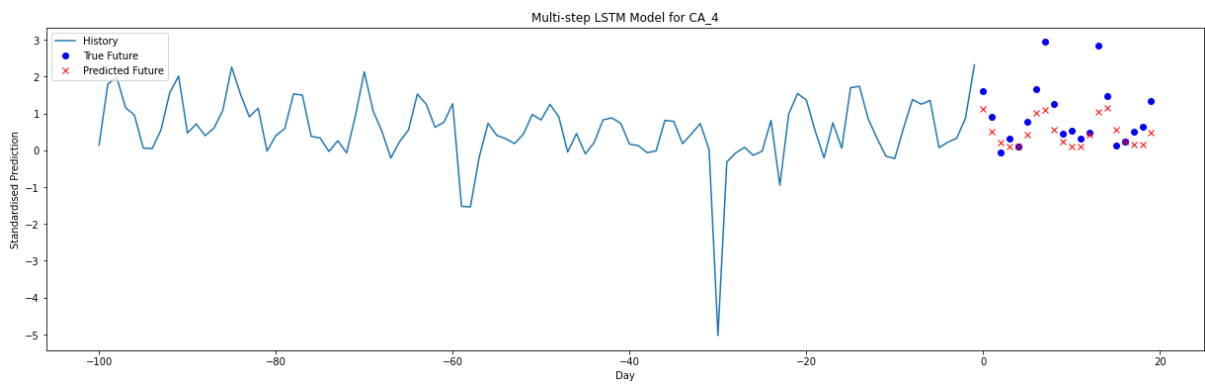
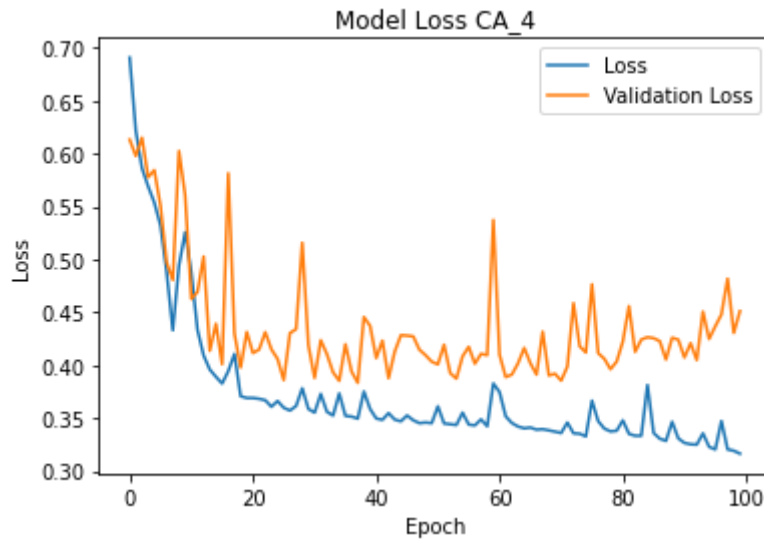
Epoch 10/100

50/50 [=====] - 5s 97ms/step - loss: 0.5257 - val\_loss: 0.5608  
Epoch 11/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4880 - val\_loss: 0.4626  
Epoch 12/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4335 - val\_loss: 0.4692  
Epoch 13/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4092 - val\_loss: 0.5027  
Epoch 14/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3959 - val\_loss: 0.4136  
Epoch 15/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3890 - val\_loss: 0.4392  
Epoch 16/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3827 - val\_loss: 0.4009  
Epoch 17/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3944 - val\_loss: 0.5815  
Epoch 18/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4106 - val\_loss: 0.4300  
Epoch 19/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3707 - val\_loss: 0.3978  
Epoch 20/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3690 - val\_loss: 0.4314  
Epoch 21/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3690 - val\_loss: 0.4115  
Epoch 22/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3682 - val\_loss: 0.4148  
Epoch 23/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3669 - val\_loss: 0.4312  
Epoch 24/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3608 - val\_loss: 0.4150  
Epoch 25/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3661 - val\_loss: 0.4059  
Epoch 26/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3598 - val\_loss: 0.3859  
Epoch 27/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3571 - val\_loss: 0.4303  
Epoch 28/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3615 - val\_loss: 0.4341  
Epoch 29/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3781 - val\_loss: 0.5157  
Epoch 30/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3586 - val\_loss: 0.4188  
Epoch 31/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3552 - val\_loss: 0.3879  
Epoch 32/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3728 - val\_loss: 0.4236  
Epoch 33/100  
50/50 [=====] - 5s 94ms/step - loss: 0.3560 - val\_loss: 0.4104  
Epoch 34/100

50/50 [=====] - 5s 95ms/step - loss: 0.3524 - val\_loss: 0.3933  
Epoch 35/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3733 - val\_loss: 0.3852  
Epoch 36/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3522 - val\_loss: 0.4198  
Epoch 37/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3514 - val\_loss: 0.3940  
Epoch 38/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3495 - val\_loss: 0.3834  
Epoch 39/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3751 - val\_loss: 0.4455  
Epoch 40/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3587 - val\_loss: 0.4372  
Epoch 41/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3497 - val\_loss: 0.4067  
Epoch 42/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3483 - val\_loss: 0.4232  
Epoch 43/100  
50/50 [=====] - 5s 94ms/step - loss: 0.3547 - val\_loss: 0.3877  
Epoch 44/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3486 - val\_loss: 0.4129  
Epoch 45/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3469 - val\_loss: 0.4284  
Epoch 46/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3525 - val\_loss: 0.4279  
Epoch 47/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3480 - val\_loss: 0.4273  
Epoch 48/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3452 - val\_loss: 0.4147  
Epoch 49/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3459 - val\_loss: 0.4094  
Epoch 50/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3452 - val\_loss: 0.4033  
Epoch 51/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3611 - val\_loss: 0.4008  
Epoch 52/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3449 - val\_loss: 0.4194  
Epoch 53/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3442 - val\_loss: 0.3925  
Epoch 54/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3435 - val\_loss: 0.3873  
Epoch 55/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3551 - val\_loss: 0.4083  
Epoch 56/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3439 - val\_loss: 0.4174  
Epoch 57/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3431 - val\_loss: 0.4014  
Epoch 58/100

50/50 [=====] - 5s 95ms/step - loss: 0.3488 - val\_loss: 0.4107  
Epoch 59/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3423 - val\_loss: 0.4094  
Epoch 60/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3827 - val\_loss: 0.5374  
Epoch 61/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3746 - val\_loss: 0.4099  
Epoch 62/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3517 - val\_loss: 0.3888  
Epoch 63/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3454 - val\_loss: 0.3911  
Epoch 64/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3420 - val\_loss: 0.4018  
Epoch 65/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3403 - val\_loss: 0.4163  
Epoch 66/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3411 - val\_loss: 0.4019  
Epoch 67/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3391 - val\_loss: 0.3911  
Epoch 68/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3395 - val\_loss: 0.4317  
Epoch 69/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3384 - val\_loss: 0.3903  
Epoch 70/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3372 - val\_loss: 0.3919  
Epoch 71/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3359 - val\_loss: 0.3854  
Epoch 72/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3458 - val\_loss: 0.3987  
Epoch 73/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3356 - val\_loss: 0.4587  
Epoch 74/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3352 - val\_loss: 0.4179  
Epoch 75/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3327 - val\_loss: 0.4120  
Epoch 76/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3665 - val\_loss: 0.4765  
Epoch 77/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3471 - val\_loss: 0.4114  
Epoch 78/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3401 - val\_loss: 0.4061  
Epoch 79/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3374 - val\_loss: 0.3962  
Epoch 80/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3380 - val\_loss: 0.4034  
Epoch 81/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3478 - val\_loss: 0.4223  
Epoch 82/100

50/50 [=====] - 5s 98ms/step - loss: 0.3351 - val\_loss: 0.4558  
Epoch 83/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3333 - val\_loss: 0.4126  
Epoch 84/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3333 - val\_loss: 0.4242  
Epoch 85/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3813 - val\_loss: 0.4264  
Epoch 86/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3359 - val\_loss: 0.4255  
Epoch 87/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3305 - val\_loss: 0.4227  
Epoch 88/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3285 - val\_loss: 0.4054  
Epoch 89/100  
50/50 [=====] - 7s 144ms/step - loss: 0.3465 - val\_loss: 0.4259  
Epoch 90/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3308 - val\_loss: 0.4241  
Epoch 91/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3265 - val\_loss: 0.4073  
Epoch 92/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3253 - val\_loss: 0.4209  
Epoch 93/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3249 - val\_loss: 0.4049  
Epoch 94/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3356 - val\_loss: 0.4506  
Epoch 95/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3228 - val\_loss: 0.4248  
Epoch 96/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3204 - val\_loss: 0.4368  
Epoch 97/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3472 - val\_loss: 0.4480  
Epoch 98/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3204 - val\_loss: 0.4818  
Epoch 99/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3191 - val\_loss: 0.4305  
Epoch 100/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3164 - val\_loss: 0.4511



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: [2582.9338 2326.698 2203.4429 2147.6863 2154.0452 2292.6848 2537.1753

2570.003 2345.6743 2204.6338 2155.8452 2149.6797 2288.1318 2543.567

2590.2715 2346.6697 2213.8447 2180.463 2173.726 2312.6042]

CA\_4 - Model Percentage Error: [ 7.32207256 6.44559718 5.52887314 4.07832607 0.04854464 5.72842046

9.58035307 23.12285583 11.24955292 4.10466337 7.67258181 4.20322248

1.2032886 22.94556515 5.01388029 8.34116702 0.31013713 6.13590656

8.7819524 13.61209383]%

CA\_4 - Model Mean Percentage Error: 7.771452725514392%

=====  
=====

Training Model for TX\_1...

Epoch 1/100

50/50 [=====] - 6s 112ms/step - loss: 0.7558 - val\_loss: 0.7778

Epoch 2/100

50/50 [=====] - 5s 98ms/step - loss: 0.7506 - val\_loss: 0.7743

Epoch 3/100

50/50 [=====] - 5s 99ms/step - loss: 0.7425 - val\_loss: 0.7436

Epoch 4/100

50/50 [=====] - 5s 99ms/step - loss: 0.7249 - val\_loss: 0.7072

Epoch 5/100

50/50 [=====] - 5s 99ms/step - loss: 0.7084 - val\_loss: 0.7083

Epoch 6/100

50/50 [=====] - 5s 101ms/step - loss: 0.7019 - val\_loss: 0.7052

Epoch 7/100

50/50 [=====] - 5s 96ms/step - loss: 0.6970 - val\_loss: 0.6989

Epoch 8/100

50/50 [=====] - 5s 100ms/step - loss: 0.6927 - val\_loss: 0.6910

Epoch 9/100

50/50 [=====] - 5s 98ms/step - loss: 0.6854 - val\_loss: 0.6892

Epoch 10/100

50/50 [=====] - 5s 97ms/step - loss: 0.6708 - val\_loss: 0.6494

Epoch 11/100

50/50 [=====] - 5s 97ms/step - loss: 0.6165 - val\_loss: 0.5624

Epoch 12/100

50/50 [=====] - 5s 97ms/step - loss: 0.5372 - val\_loss: 0.5268

Epoch 13/100

50/50 [=====] - 5s 96ms/step - loss: 0.5082 - val\_loss: 0.5253

Epoch 14/100

50/50 [=====] - 5s 96ms/step - loss: 0.5035 - val\_loss: 0.4589

Epoch 15/100

50/50 [=====] - 5s 95ms/step - loss: 0.5658 - val\_loss: 0.4814

Epoch 16/100

50/50 [=====] - 5s 96ms/step - loss: 0.4870 - val\_loss: 0.5095

Epoch 17/100

50/50 [=====] - 5s 96ms/step - loss: 0.4714 - val\_loss: 0.4389

Epoch 18/100

50/50 [=====] - 5s 97ms/step - loss: 0.4411 - val\_loss: 0.7352

Epoch 19/100

50/50 [=====] - 5s 96ms/step - loss: 0.6579 - val\_loss: 0.6272

Epoch 20/100

50/50 [=====] - 5s 96ms/step - loss: 0.5742 - val\_loss: 0.5075

Epoch 21/100

50/50 [=====] - 5s 95ms/step - loss: 0.4720 - val\_loss: 0.4622

Epoch 22/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4319 - val\_loss: 0.4170  
Epoch 23/100  
50/50 [=====] - 5s 95ms/step - loss: 0.4141 - val\_loss: 0.4092  
Epoch 24/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4065 - val\_loss: 0.3981  
Epoch 25/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4217 - val\_loss: 0.7559  
Epoch 26/100  
50/50 [=====] - 5s 97ms/step - loss: 0.6746 - val\_loss: 0.6522  
Epoch 27/100  
50/50 [=====] - 5s 96ms/step - loss: 0.6103 - val\_loss: 0.5681  
Epoch 28/100  
50/50 [=====] - 5s 97ms/step - loss: 0.5289 - val\_loss: 0.5050  
Epoch 29/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4637 - val\_loss: 0.4527  
Epoch 30/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4230 - val\_loss: 0.4206  
Epoch 31/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4184 - val\_loss: 0.4030  
Epoch 32/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3911 - val\_loss: 0.4015  
Epoch 33/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4634 - val\_loss: 0.3954  
Epoch 34/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3833 - val\_loss: 0.3697  
Epoch 35/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3749 - val\_loss: 0.3702  
Epoch 36/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4125 - val\_loss: 0.3797  
Epoch 37/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3724 - val\_loss: 0.3694  
Epoch 38/100  
50/50 [=====] - 5s 95ms/step - loss: 0.3657 - val\_loss: 0.3533  
Epoch 39/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3650 - val\_loss: 0.3401  
Epoch 40/100  
50/50 [=====] - 5s 96ms/step - loss: 0.6003 - val\_loss: 0.6507  
Epoch 41/100  
50/50 [=====] - 5s 96ms/step - loss: 0.6016 - val\_loss: 0.5890  
Epoch 42/100  
50/50 [=====] - 5s 96ms/step - loss: 0.4974 - val\_loss: 0.5078  
Epoch 43/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4186 - val\_loss: 0.4196  
Epoch 44/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3853 - val\_loss: 0.3958  
Epoch 45/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3728 - val\_loss: 0.3720



Epoch 46/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3649 - val\_loss: 0.3650  
Epoch 47/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3620 - val\_loss: 0.3514  
Epoch 48/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3581 - val\_loss: 0.3561  
Epoch 49/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 50/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 51/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 52/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 53/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 54/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 55/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 56/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 57/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 58/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 59/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 60/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 61/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 62/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 63/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 64/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 65/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 66/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 67/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 68/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 69/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan

Epoch 70/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 71/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 72/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 73/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 74/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 75/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 76/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 77/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 78/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 79/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 80/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 81/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 82/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 83/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 84/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 85/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 86/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 87/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 88/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 89/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 90/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 91/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 92/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 93/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan

Epoch 94/100

50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan

Epoch 95/100

50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan

Epoch 96/100

50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan

Epoch 97/100

50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan

Epoch 98/100

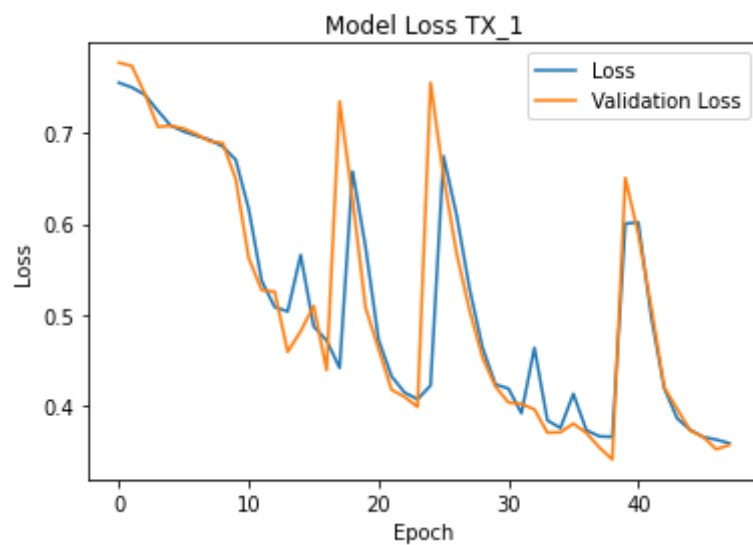
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan

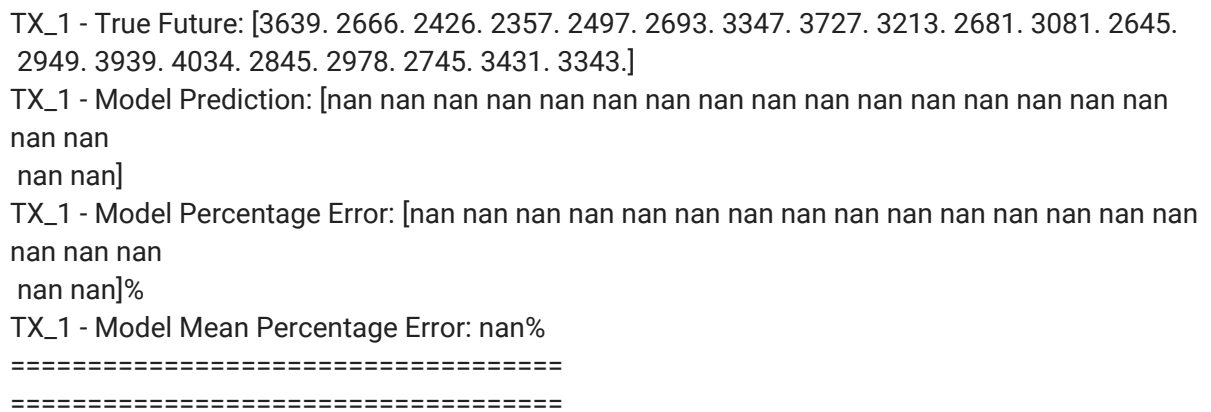
Epoch 99/100

50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan

Epoch 100/100

50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan





```
Epoch 1/100
50/50 [=====] - 5s 104ms/step - loss: 0.7633 - val_loss: 0.7002
Epoch 2/100
50/50 [=====] - 5s 96ms/step - loss: 0.7435 - val_loss: 0.6950
Epoch 3/100
50/50 [=====] - 5s 96ms/step - loss: 0.7139 - val_loss: 0.6748
Epoch 4/100
50/50 [=====] - 5s 97ms/step - loss: 0.7065 - val_loss: 0.6851
Epoch 5/100
50/50 [=====] - 5s 95ms/step - loss: 0.6994 - val_loss: 0.6807
Epoch 6/100
50/50 [=====] - 5s 95ms/step - loss: 0.6965 - val_loss: 0.6824
Epoch 7/100
50/50 [=====] - 5s 95ms/step - loss: 0.6957 - val_loss: 0.6780
Epoch 8/100
50/50 [=====] - 5s 96ms/step - loss: 0.6937 - val_loss: 0.6745
Epoch 9/100
50/50 [=====] - 6s 125ms/step - loss: 0.6925 - val_loss: 0.6867
Epoch 10/100
50/50 [=====] - 6s 116ms/step - loss: 0.6894 - val_loss: 0.6837
Epoch 11/100
50/50 [=====] - 5s 95ms/step - loss: nan - val_loss: nan
```

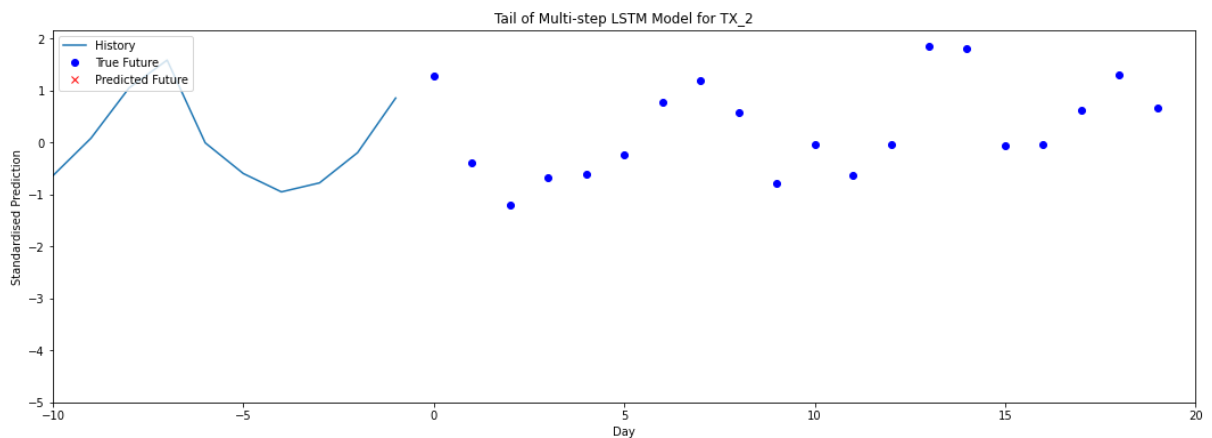
Epoch 12/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 13/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 14/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 15/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 16/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 17/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 18/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 19/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 20/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 21/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 22/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 23/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 24/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 25/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 26/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 27/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 28/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 29/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 30/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 31/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan  
Epoch 32/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 33/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 34/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 35/100  
50/50 [=====] - 5s 95ms/step - loss: nan - val\_loss: nan

Epoch 36/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 37/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 38/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 39/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 40/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 41/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 42/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 43/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 44/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 45/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 46/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 47/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 48/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 49/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 50/100  
50/50 [=====] - 5s 101ms/step - loss: nan - val\_loss: nan  
Epoch 51/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 52/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 53/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 54/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 55/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 56/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 57/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 58/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 59/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan

Epoch 60/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 61/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 62/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 63/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 64/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 65/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 66/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 67/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 68/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 69/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 70/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 71/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 72/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 73/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 74/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 75/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 76/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 77/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 78/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 79/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 80/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 81/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 82/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 83/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan

Epoch 84/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 85/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan  
Epoch 86/100  
50/50 [=====] - 5s 98ms/step - loss: nan - val\_loss: nan  
Epoch 87/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 88/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 89/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 90/100  
50/50 [=====] - 5s 100ms/step - loss: nan - val\_loss: nan  
Epoch 91/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 92/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 93/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 94/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 95/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 96/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 97/100  
50/50 [=====] - 5s 97ms/step - loss: nan - val\_loss: nan  
Epoch 98/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 99/100  
50/50 [=====] - 5s 96ms/step - loss: nan - val\_loss: nan  
Epoch 100/100  
50/50 [=====] - 5s 99ms/step - loss: nan - val\_loss: nan





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## Training Model for TX\_3...

Epoch 1/100

50/50 [=====] - 5s 106ms/step - loss: 0.7524 - val\_loss: 0.9642

Epoch 2/100

50/50 [=====] - 5s 97ms/step - loss: 0.6868 - val\_loss: 0.6423

Epoch 3/100

50/50 [=====] - 5s 96ms/step - loss: 0.6432 - val\_loss: 0.6575

Epoch 4/100

50/50 [=====] - 5s 97ms/step - loss: 0.6385 - val\_loss: 0.6416

Epoch 5/100

50/50 [=====] - 5s 97ms/step - loss: 0.6374 - val\_loss: 0.6481

Epoch 6/100

50/50 [=====] - 5s 98ms/step - loss: 0.6360 - val\_loss: 0.6450

Epoch 7/100

50/50 [=====] - 5s 97ms/step - loss: 0.6362 - val\_loss: 0.6540

Epoch 8/100

50/50 [=====] - 5s 96ms/step - loss: 0.6354 - val\_loss: 0.6579

Epoch 9/100

50/50 [=====] - 5s 98ms/step - loss: 0.6354 - val\_loss: 0.6496

Epoch 10/100

50/50 [=====] - 5s 99ms/step - loss: 0.6343 - val\_loss: 0.6493

Epoch 11/100

50/50 [=====] - 5s 99ms/step - loss: 0.6331 - val\_loss: 0.6485

Epoch 12/100

50/50 [=====] - 5s 97ms/step - loss: 0.6346 - val\_loss: 0.6439

Epoch 13/100

50/50 [=====] - 5s 98ms/step - loss: 0.6326 - val\_loss: 0.6513

Epoch 14/100

50/50 [=====] - 5s 98ms/step - loss: 0.6324 - val\_loss: 0.6455

Epoch 15/100

50/50 [=====] - 5s 99ms/step - loss: 0.6322 - val\_loss: 0.6579

Epoch 16/100

50/50 [=====] - 5s 99ms/step - loss: 0.6312 - val\_loss: 0.6466

Epoch 17/100

50/50 [=====] - 5s 99ms/step - loss: 0.6298 - val\_loss: 0.6401

Epoch 18/100

50/50 [=====] - 5s 99ms/step - loss: 0.6292 - val\_loss: 0.6416

Epoch 19/100

50/50 [=====] - 5s 98ms/step - loss: 0.6260 - val\_loss: 0.6430

Epoch 20/100

50/50 [=====] - 5s 98ms/step - loss: 0.6228 - val\_loss: 0.6217

Epoch 21/100

50/50 [=====] - 5s 100ms/step - loss: 0.6174 - val\_loss: 0.6421

Epoch 22/100

50/50 [=====] - 5s 99ms/step - loss: 0.5677 - val\_loss: 0.6508

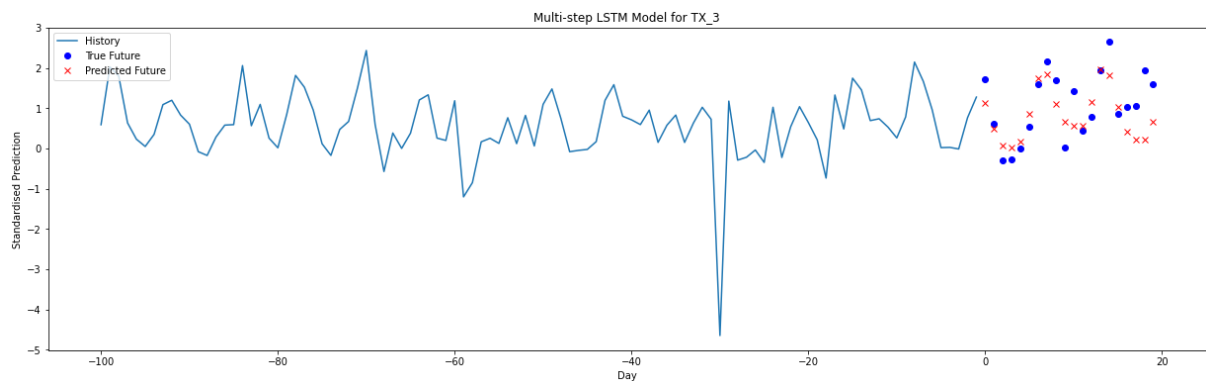
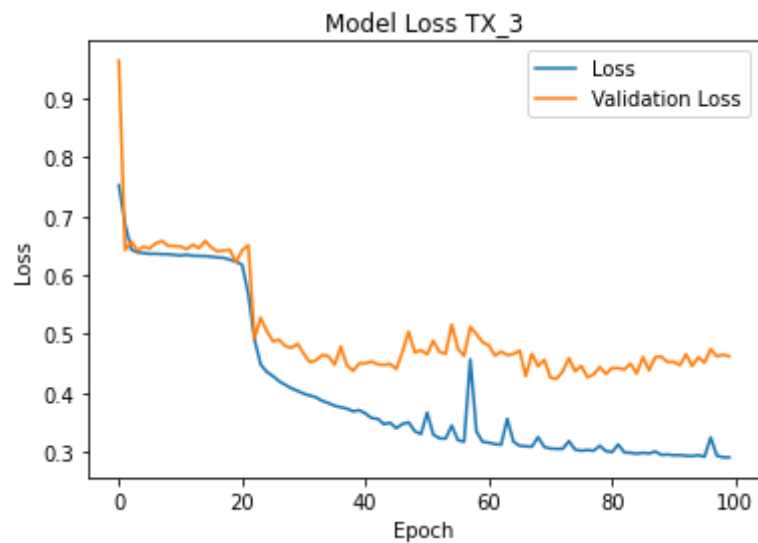
Epoch 23/100

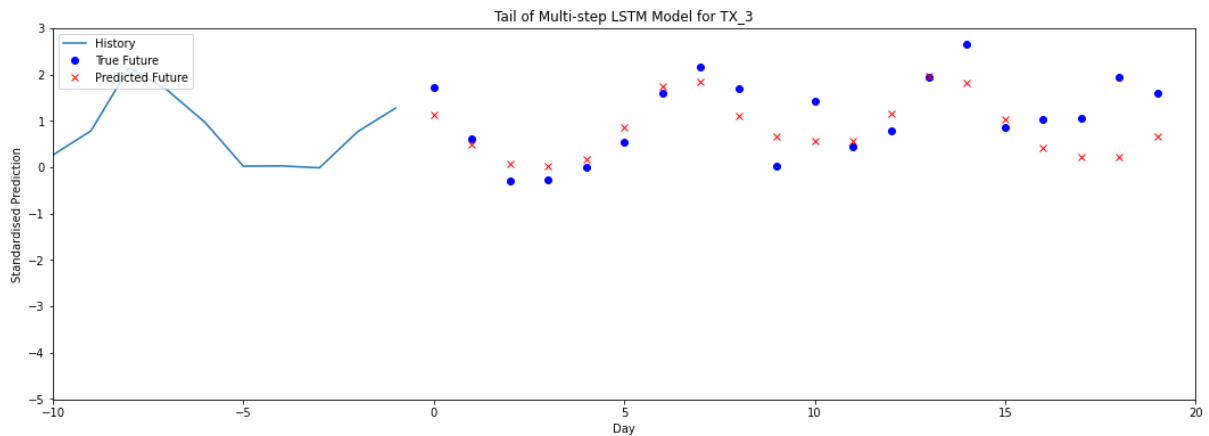
50/50 [=====] - 5s 100ms/step - loss: 0.4907 - val\_loss: 0.4917  
Epoch 24/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4481 - val\_loss: 0.5274  
Epoch 25/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4354 - val\_loss: 0.5049  
Epoch 26/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4285 - val\_loss: 0.4875  
Epoch 27/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4196 - val\_loss: 0.4901  
Epoch 28/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4135 - val\_loss: 0.4792  
Epoch 29/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4075 - val\_loss: 0.4764  
Epoch 30/100  
50/50 [=====] - 6s 120ms/step - loss: 0.4032 - val\_loss: 0.4831  
Epoch 31/100  
50/50 [=====] - 7s 136ms/step - loss: 0.3984 - val\_loss: 0.4662  
Epoch 32/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3953 - val\_loss: 0.4517  
Epoch 33/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3921 - val\_loss: 0.4555  
Epoch 34/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3861 - val\_loss: 0.4640  
Epoch 35/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3825 - val\_loss: 0.4623  
Epoch 36/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3779 - val\_loss: 0.4476  
Epoch 37/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3754 - val\_loss: 0.4784  
Epoch 38/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3729 - val\_loss: 0.4463  
Epoch 39/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3685 - val\_loss: 0.4371  
Epoch 40/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3703 - val\_loss: 0.4501  
Epoch 41/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3647 - val\_loss: 0.4499  
Epoch 42/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3571 - val\_loss: 0.4531  
Epoch 43/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3557 - val\_loss: 0.4484  
Epoch 44/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3467 - val\_loss: 0.4471  
Epoch 45/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3491 - val\_loss: 0.4493  
Epoch 46/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3398 - val\_loss: 0.4403  
Epoch 47/100

50/50 [=====] - 5s 101ms/step - loss: 0.3471 - val\_loss: 0.4696  
Epoch 48/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3498 - val\_loss: 0.5037  
Epoch 49/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3346 - val\_loss: 0.4685  
Epoch 50/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3297 - val\_loss: 0.4722  
Epoch 51/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3662 - val\_loss: 0.4653  
Epoch 52/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3289 - val\_loss: 0.4882  
Epoch 53/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3226 - val\_loss: 0.4694  
Epoch 54/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3222 - val\_loss: 0.4664  
Epoch 55/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3443 - val\_loss: 0.5155  
Epoch 56/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3193 - val\_loss: 0.4749  
Epoch 57/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3170 - val\_loss: 0.4628  
Epoch 58/100  
50/50 [=====] - 5s 101ms/step - loss: 0.4566 - val\_loss: 0.5118  
Epoch 59/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3341 - val\_loss: 0.4995  
Epoch 60/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3167 - val\_loss: 0.4860  
Epoch 61/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3152 - val\_loss: 0.4805  
Epoch 62/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3127 - val\_loss: 0.4632  
Epoch 63/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3117 - val\_loss: 0.4700  
Epoch 64/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3557 - val\_loss: 0.4640  
Epoch 65/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3169 - val\_loss: 0.4658  
Epoch 66/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3100 - val\_loss: 0.4715  
Epoch 67/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3091 - val\_loss: 0.4284  
Epoch 68/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3085 - val\_loss: 0.4662  
Epoch 69/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3247 - val\_loss: 0.4448  
Epoch 70/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3079 - val\_loss: 0.4562  
Epoch 71/100

50/50 [=====] - 5s 101ms/step - loss: 0.3053 - val\_loss: 0.4257  
Epoch 72/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3046 - val\_loss: 0.4237  
Epoch 73/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3048 - val\_loss: 0.4364  
Epoch 74/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3178 - val\_loss: 0.4589  
Epoch 75/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3035 - val\_loss: 0.4366  
Epoch 76/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3016 - val\_loss: 0.4457  
Epoch 77/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3027 - val\_loss: 0.4263  
Epoch 78/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3015 - val\_loss: 0.4311  
Epoch 79/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3099 - val\_loss: 0.4436  
Epoch 80/100  
50/50 [=====] - 5s 94ms/step - loss: 0.3009 - val\_loss: 0.4323  
Epoch 81/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2991 - val\_loss: 0.4420  
Epoch 82/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3123 - val\_loss: 0.4418  
Epoch 83/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2985 - val\_loss: 0.4398  
Epoch 84/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2980 - val\_loss: 0.4494  
Epoch 85/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2965 - val\_loss: 0.4326  
Epoch 86/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2981 - val\_loss: 0.4608  
Epoch 87/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2968 - val\_loss: 0.4382  
Epoch 88/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3002 - val\_loss: 0.4605  
Epoch 89/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2944 - val\_loss: 0.4613  
Epoch 90/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2951 - val\_loss: 0.4522  
Epoch 91/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2938 - val\_loss: 0.4525  
Epoch 92/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2941 - val\_loss: 0.4466  
Epoch 93/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2929 - val\_loss: 0.4653  
Epoch 94/100  
50/50 [=====] - 5s 105ms/step - loss: 0.2925 - val\_loss: 0.4455  
Epoch 95/100

50/50 [=====] - 5s 97ms/step - loss: 0.2938 - val\_loss: 0.4602  
 Epoch 96/100  
 50/50 [=====] - 5s 97ms/step - loss: 0.2913 - val\_loss: 0.4512  
 Epoch 97/100  
 50/50 [=====] - 5s 98ms/step - loss: 0.3239 - val\_loss: 0.4742  
 Epoch 98/100  
 50/50 [=====] - 5s 99ms/step - loss: 0.2931 - val\_loss: 0.4619  
 Epoch 99/100  
 50/50 [=====] - 5s 98ms/step - loss: 0.2904 - val\_loss: 0.4646  
 Epoch 100/100  
 50/50 [=====] - 5s 98ms/step - loss: 0.2900 - val\_loss: 0.4620





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: [3892.2585 3458.467 3175.926 3137.1846 3238.0356 3702.0564 4308.8726

4373.294 3867.2478 3569.8894 3515.2163 3505.808 3909.5737 4454.9717

4352.3447 3823.4692 3416.4443 3276.5154 3271.179 3578.334 ]

TX\_3 - Model Percentage Error: [ 9.18668817 2.24796379 8.24560414 6.74326541

3.28662343 6.19783122

2.5433736 4.40887551 9.26213508 13.65454964 14.07439969 2.4790443

6.70233981 0.51831407 11.26718193 3.14187317 10.68119383 14.47362618

26.29159633 14.76098179]%

TX\_3 - Model Mean Percentage Error: 8.50837305480701%

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Training Model for WL\_1...

Epoch 1/100

50/50 [=====] - 6s 111ms/step - loss: 0.7271 - val\_loss: 0.9600

Epoch 2/100

50/50 [=====] - 5s 98ms/step - loss: 0.5123 - val\_loss: 0.8199

Epoch 3/100

50/50 [=====] - 5s 97ms/step - loss: 0.4990 - val\_loss: 0.8142

Epoch 4/100

50/50 [=====] - 5s 97ms/step - loss: 0.4991 - val\_loss: 0.8166

Epoch 5/100

50/50 [=====] - 5s 99ms/step - loss: 0.4957 - val\_loss: 0.8159

Epoch 6/100

50/50 [=====] - 5s 97ms/step - loss: 0.4935 - val\_loss: 0.8089

Epoch 7/100

50/50 [=====] - 5s 98ms/step - loss: 0.4921 - val\_loss: 0.8022

Epoch 8/100

50/50 [=====] - 5s 98ms/step - loss: 0.4876 - val\_loss: 0.7906

Epoch 9/100

50/50 [=====] - 5s 98ms/step - loss: 0.4764 - val\_loss: 0.7021

Epoch 10/100

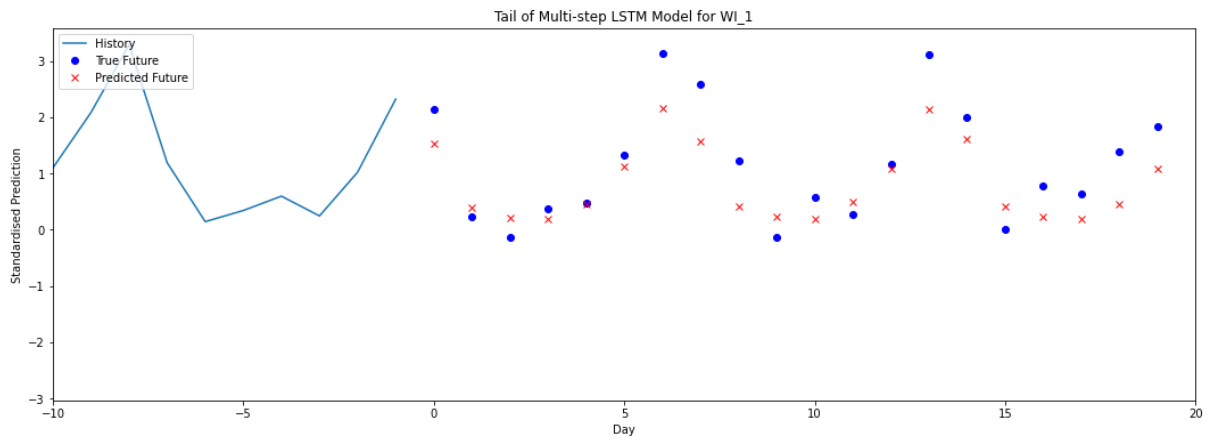
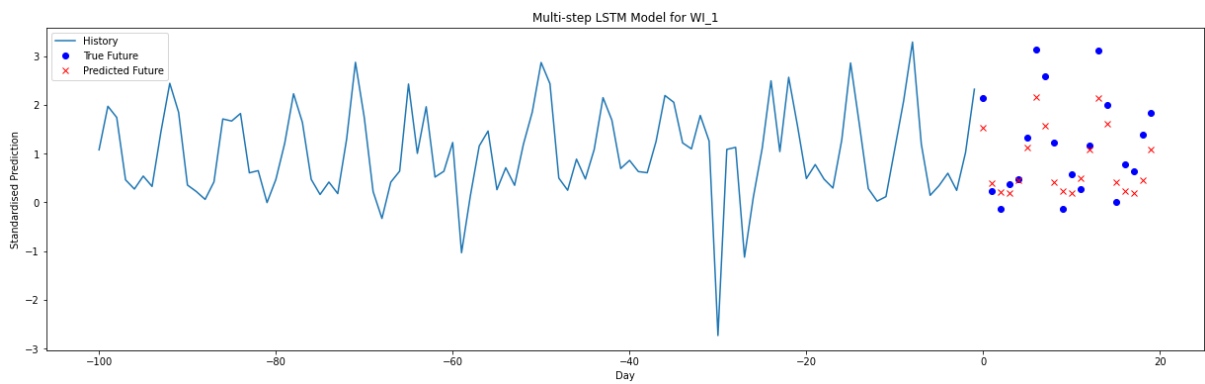
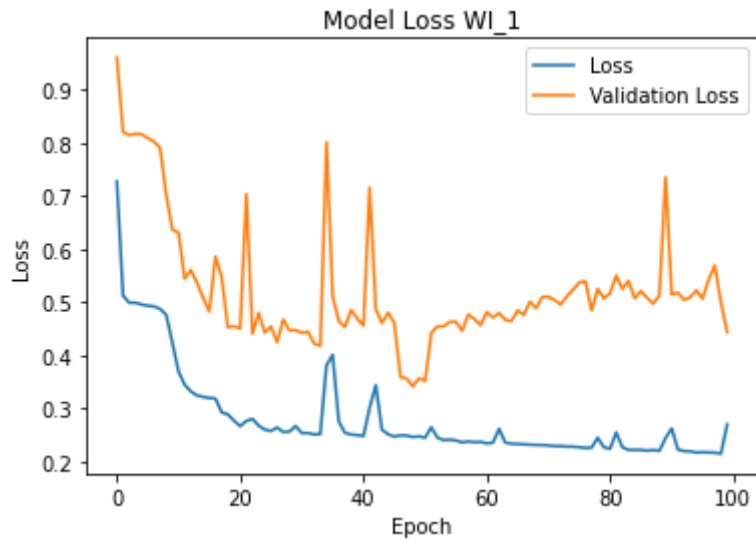
50/50 [=====] - 5s 97ms/step - loss: 0.4242 - val\_loss: 0.6364  
Epoch 11/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3699 - val\_loss: 0.6310  
Epoch 12/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3449 - val\_loss: 0.5446  
Epoch 13/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3322 - val\_loss: 0.5603  
Epoch 14/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3247 - val\_loss: 0.5370  
Epoch 15/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3220 - val\_loss: 0.5083  
Epoch 16/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3200 - val\_loss: 0.4827  
Epoch 17/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3189 - val\_loss: 0.5859  
Epoch 18/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2929 - val\_loss: 0.5474  
Epoch 19/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2889 - val\_loss: 0.4527  
Epoch 20/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2773 - val\_loss: 0.4551  
Epoch 21/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2672 - val\_loss: 0.4507  
Epoch 22/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2767 - val\_loss: 0.7031  
Epoch 23/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2805 - val\_loss: 0.4408  
Epoch 24/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2680 - val\_loss: 0.4797  
Epoch 25/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2604 - val\_loss: 0.4430  
Epoch 26/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2579 - val\_loss: 0.4546  
Epoch 27/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2645 - val\_loss: 0.4248  
Epoch 28/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2560 - val\_loss: 0.4675  
Epoch 29/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2570 - val\_loss: 0.4467  
Epoch 30/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2673 - val\_loss: 0.4479  
Epoch 31/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2539 - val\_loss: 0.4421  
Epoch 32/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2541 - val\_loss: 0.4448  
Epoch 33/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2513 - val\_loss: 0.4224  
Epoch 34/100



50/50 [=====] - 5s 100ms/step - loss: 0.2523 - val\_loss: 0.4180  
Epoch 35/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3812 - val\_loss: 0.8009  
Epoch 36/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4010 - val\_loss: 0.5124  
Epoch 37/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2759 - val\_loss: 0.4642  
Epoch 38/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2543 - val\_loss: 0.4537  
Epoch 39/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2513 - val\_loss: 0.4854  
Epoch 40/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2501 - val\_loss: 0.4693  
Epoch 41/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2485 - val\_loss: 0.4557  
Epoch 42/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3015 - val\_loss: 0.7159  
Epoch 43/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3438 - val\_loss: 0.4872  
Epoch 44/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2606 - val\_loss: 0.4609  
Epoch 45/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2515 - val\_loss: 0.4805  
Epoch 46/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2474 - val\_loss: 0.4613  
Epoch 47/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2498 - val\_loss: 0.3600  
Epoch 48/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2492 - val\_loss: 0.3563  
Epoch 49/100  
50/50 [=====] - 5s 106ms/step - loss: 0.2466 - val\_loss: 0.3419  
Epoch 50/100  
50/50 [=====] - 7s 148ms/step - loss: 0.2478 - val\_loss: 0.3571  
Epoch 51/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2453 - val\_loss: 0.3518  
Epoch 52/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2650 - val\_loss: 0.4421  
Epoch 53/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2454 - val\_loss: 0.4546  
Epoch 54/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2407 - val\_loss: 0.4546  
Epoch 55/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2415 - val\_loss: 0.4631  
Epoch 56/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2401 - val\_loss: 0.4632  
Epoch 57/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2365 - val\_loss: 0.4462  
Epoch 58/100

50/50 [=====] - 5s 96ms/step - loss: 0.2381 - val\_loss: 0.4772  
Epoch 59/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2369 - val\_loss: 0.4685  
Epoch 60/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2374 - val\_loss: 0.4566  
Epoch 61/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2346 - val\_loss: 0.4814  
Epoch 62/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2359 - val\_loss: 0.4715  
Epoch 63/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2619 - val\_loss: 0.4797  
Epoch 64/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2361 - val\_loss: 0.4670  
Epoch 65/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2340 - val\_loss: 0.4648  
Epoch 66/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2335 - val\_loss: 0.4844  
Epoch 67/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2328 - val\_loss: 0.4764  
Epoch 68/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2321 - val\_loss: 0.5011  
Epoch 69/100  
50/50 [=====] - 5s 101ms/step - loss: 0.2316 - val\_loss: 0.4888  
Epoch 70/100  
50/50 [=====] - 5s 106ms/step - loss: 0.2314 - val\_loss: 0.5098  
Epoch 71/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2306 - val\_loss: 0.5105  
Epoch 72/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2296 - val\_loss: 0.5040  
Epoch 73/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2295 - val\_loss: 0.4958  
Epoch 74/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2285 - val\_loss: 0.5115  
Epoch 75/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2286 - val\_loss: 0.5236  
Epoch 76/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2274 - val\_loss: 0.5369  
Epoch 77/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2260 - val\_loss: 0.5394  
Epoch 78/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2266 - val\_loss: 0.4848  
Epoch 79/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2453 - val\_loss: 0.5250  
Epoch 80/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2274 - val\_loss: 0.5073  
Epoch 81/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2244 - val\_loss: 0.5167  
Epoch 82/100

50/50 [=====] - 5s 96ms/step - loss: 0.2552 - val\_loss: 0.5501  
Epoch 83/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2275 - val\_loss: 0.5251  
Epoch 84/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2223 - val\_loss: 0.5402  
Epoch 85/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2223 - val\_loss: 0.5072  
Epoch 86/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2223 - val\_loss: 0.5212  
Epoch 87/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2209 - val\_loss: 0.5084  
Epoch 88/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2221 - val\_loss: 0.4974  
Epoch 89/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2205 - val\_loss: 0.5127  
Epoch 90/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2446 - val\_loss: 0.7351  
Epoch 91/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2627 - val\_loss: 0.5144  
Epoch 92/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2231 - val\_loss: 0.5178  
Epoch 93/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2201 - val\_loss: 0.5044  
Epoch 94/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2196 - val\_loss: 0.5091  
Epoch 95/100  
50/50 [=====] - 5s 102ms/step - loss: 0.2173 - val\_loss: 0.5224  
Epoch 96/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2179 - val\_loss: 0.5067  
Epoch 97/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2175 - val\_loss: 0.5427  
Epoch 98/100  
50/50 [=====] - 5s 100ms/step - loss: 0.2170 - val\_loss: 0.5693  
Epoch 99/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2153 - val\_loss: 0.4986  
Epoch 100/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2703 - val\_loss: 0.4439



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: [4031.7334 2957.0613 2781.8198 2764.2727 3021.3218 3651.9094 4624.576

4073.5278 2982.5552 2794.3206 2761.8481 3046.4333 3610.423 4596.8887

4100.04 2967.7314 2792.2607 2772.4307 3017.6611 3601.4854]

WI\_1 - Model Percentage Error: [12.35362177 5.68482056 12.80696773 5.88107916 0.48347242 5.02186154

16.49374915 19.07970139 20.25253541 13.59026653 11.90277051 7.60979688

1.78392014 16.66264192 8.09145844 14.27537333 15.71805789 12.81664578

22.60422845 16.40006148]%

WI\_1 - Model Mean Percentage Error: 11.975651523392845%

=====  
=====

Training Model for WI\_2...

Epoch 1/100

50/50 [=====] - 5s 109ms/step - loss: 0.7089 - val\_loss: 1.4112

Epoch 2/100

50/50 [=====] - 5s 97ms/step - loss: 0.4970 - val\_loss: 1.1432

Epoch 3/100

50/50 [=====] - 5s 99ms/step - loss: 0.4828 - val\_loss: 1.1000

Epoch 4/100

50/50 [=====] - 5s 98ms/step - loss: 0.4696 - val\_loss: 1.0760

Epoch 5/100

50/50 [=====] - 5s 99ms/step - loss: 0.4423 - val\_loss: 1.0714

Epoch 6/100

50/50 [=====] - 5s 99ms/step - loss: 0.4087 - val\_loss: 1.0776

Epoch 7/100

50/50 [=====] - 5s 98ms/step - loss: 0.3931 - val\_loss: 0.9610

Epoch 8/100

50/50 [=====] - 5s 97ms/step - loss: 0.3859 - val\_loss: 0.8949

Epoch 9/100

50/50 [=====] - 5s 99ms/step - loss: 0.3830 - val\_loss: 0.8249

Epoch 10/100

50/50 [=====] - 5s 99ms/step - loss: 0.3791 - val\_loss: 0.7602

Epoch 11/100

50/50 [=====] - 5s 98ms/step - loss: 0.3768 - val\_loss: 0.7822

Epoch 12/100

50/50 [=====] - 5s 99ms/step - loss: 0.3732 - val\_loss: 0.7408

Epoch 13/100

50/50 [=====] - 5s 98ms/step - loss: 0.3708 - val\_loss: 0.7286

Epoch 14/100

50/50 [=====] - 5s 98ms/step - loss: 0.3691 - val\_loss: 0.6691

Epoch 15/100

50/50 [=====] - 5s 98ms/step - loss: 0.3662 - val\_loss: 0.7003

Epoch 16/100

50/50 [=====] - 5s 98ms/step - loss: 0.3657 - val\_loss: 0.6656

Epoch 17/100

50/50 [=====] - 5s 99ms/step - loss: 0.3640 - val\_loss: 0.6932

Epoch 18/100

50/50 [=====] - 5s 99ms/step - loss: 0.3630 - val\_loss: 0.6868

Epoch 19/100

50/50 [=====] - 5s 98ms/step - loss: 0.3625 - val\_loss: 0.6981

Epoch 20/100

50/50 [=====] - 5s 98ms/step - loss: 0.3606 - val\_loss: 0.7055

Epoch 21/100

50/50 [=====] - 5s 100ms/step - loss: 0.3602 - val\_loss: 0.7213

Epoch 22/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3587 - val\_loss: 0.7092  
Epoch 23/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3568 - val\_loss: 0.6940  
Epoch 24/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3555 - val\_loss: 0.7354  
Epoch 25/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3545 - val\_loss: 0.7242  
Epoch 26/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3523 - val\_loss: 0.7082  
Epoch 27/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3514 - val\_loss: 0.7212  
Epoch 28/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3492 - val\_loss: 0.7211  
Epoch 29/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3472 - val\_loss: 0.7259  
Epoch 30/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3461 - val\_loss: 0.7274  
Epoch 31/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3433 - val\_loss: 0.7231  
Epoch 32/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3435 - val\_loss: 0.7599  
Epoch 33/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3410 - val\_loss: 0.7270  
Epoch 34/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3390 - val\_loss: 0.6864  
Epoch 35/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3394 - val\_loss: 0.7272  
Epoch 36/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3375 - val\_loss: 0.6920  
Epoch 37/100  
50/50 [=====] - 5s 98ms/step - loss: 0.3363 - val\_loss: 0.6959  
Epoch 38/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3340 - val\_loss: 0.7450  
Epoch 39/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3320 - val\_loss: 0.6659  
Epoch 40/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3307 - val\_loss: 0.6977  
Epoch 41/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3280 - val\_loss: 0.7682  
Epoch 42/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3277 - val\_loss: 0.7105  
Epoch 43/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3238 - val\_loss: 0.7789  
Epoch 44/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3194 - val\_loss: 0.7572  
Epoch 45/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3157 - val\_loss: 0.6950

Epoch 46/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3138 - val\_loss: 0.6728  
Epoch 47/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3051 - val\_loss: 0.6911  
Epoch 48/100  
50/50 [=====] - 5s 96ms/step - loss: 0.3038 - val\_loss: 0.7036  
Epoch 49/100  
50/50 [=====] - 5s 97ms/step - loss: 0.3001 - val\_loss: 0.6623  
Epoch 50/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2973 - val\_loss: 0.7000  
Epoch 51/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2934 - val\_loss: 0.6405  
Epoch 52/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2933 - val\_loss: 0.6506  
Epoch 53/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2890 - val\_loss: 0.6771  
Epoch 54/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2882 - val\_loss: 0.6551  
Epoch 55/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2856 - val\_loss: 0.6729  
Epoch 56/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2849 - val\_loss: 0.6878  
Epoch 57/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2808 - val\_loss: 0.7148  
Epoch 58/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2810 - val\_loss: 0.6363  
Epoch 59/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2782 - val\_loss: 0.6949  
Epoch 60/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2773 - val\_loss: 0.6792  
Epoch 61/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2742 - val\_loss: 0.6429  
Epoch 62/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2734 - val\_loss: 0.6869  
Epoch 63/100  
50/50 [=====] - 5s 95ms/step - loss: 0.2726 - val\_loss: 0.7029  
Epoch 64/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2707 - val\_loss: 0.7048  
Epoch 65/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2694 - val\_loss: 0.7030  
Epoch 66/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2682 - val\_loss: 0.7184  
Epoch 67/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2679 - val\_loss: 0.6693  
Epoch 68/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2676 - val\_loss: 0.6721  
Epoch 69/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2665 - val\_loss: 0.6589

Epoch 70/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2647 - val\_loss: 0.6885  
Epoch 71/100  
50/50 [=====] - 7s 139ms/step - loss: 0.2645 - val\_loss: 0.6776  
Epoch 72/100  
50/50 [=====] - 6s 119ms/step - loss: 0.2636 - val\_loss: 0.7211  
Epoch 73/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2646 - val\_loss: 0.7126  
Epoch 74/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2609 - val\_loss: 0.7029  
Epoch 75/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2604 - val\_loss: 0.6949  
Epoch 76/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2620 - val\_loss: 0.7311  
Epoch 77/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2599 - val\_loss: 0.7409  
Epoch 78/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2591 - val\_loss: 0.7400  
Epoch 79/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2596 - val\_loss: 0.7165  
Epoch 80/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2581 - val\_loss: 0.7292  
Epoch 81/100  
50/50 [=====] - 5s 96ms/step - loss: 0.2575 - val\_loss: 0.7117  
Epoch 82/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2575 - val\_loss: 0.7488  
Epoch 83/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2572 - val\_loss: 0.7320  
Epoch 84/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2558 - val\_loss: 0.7784  
Epoch 85/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2551 - val\_loss: 0.7509  
Epoch 86/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2555 - val\_loss: 0.7768  
Epoch 87/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2541 - val\_loss: 0.7400  
Epoch 88/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2538 - val\_loss: 0.7647  
Epoch 89/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2531 - val\_loss: 0.7849  
Epoch 90/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2532 - val\_loss: 0.7454  
Epoch 91/100  
50/50 [=====] - 5s 97ms/step - loss: 0.2523 - val\_loss: 0.7650  
Epoch 92/100  
50/50 [=====] - 5s 98ms/step - loss: 0.2514 - val\_loss: 0.7672  
Epoch 93/100  
50/50 [=====] - 5s 99ms/step - loss: 0.2511 - val\_loss: 0.8035



Epoch 94/100

50/50 [=====] - 5s 98ms/step - loss: 0.2516 - val\_loss: 0.7908

Epoch 95/100

50/50 [=====] - 5s 99ms/step - loss: 0.2507 - val\_loss: 0.7968

Epoch 96/100

50/50 [=====] - 5s 99ms/step - loss: 0.2510 - val\_loss: 0.8138

Epoch 97/100

50/50 [=====] - 5s 99ms/step - loss: 0.2502 - val\_loss: 0.8226

Epoch 98/100

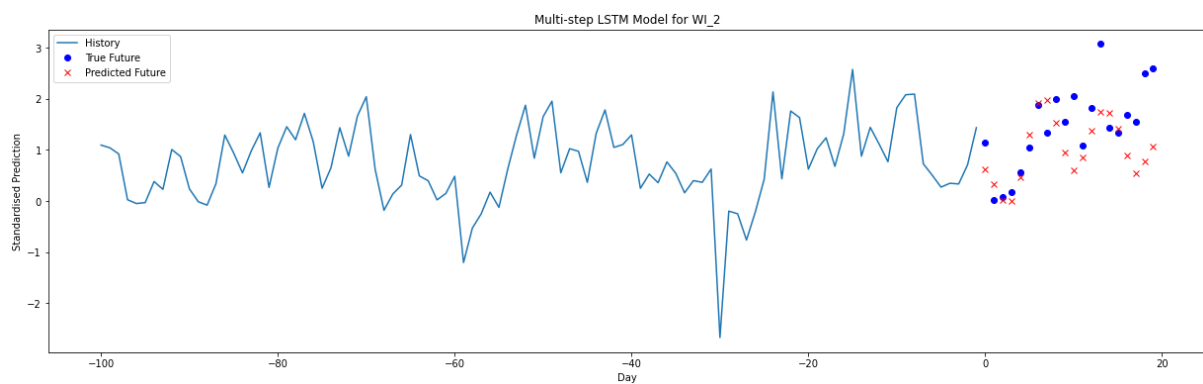
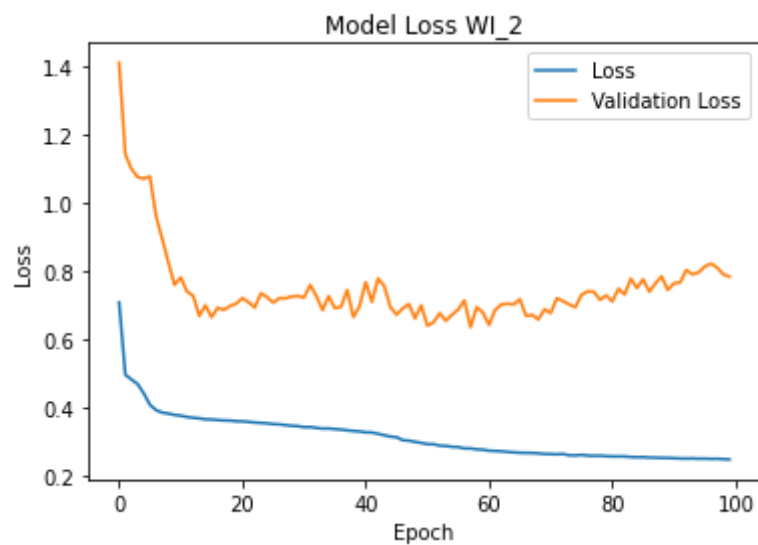
50/50 [=====] - 5s 99ms/step - loss: 0.2504 - val\_loss: 0.8105

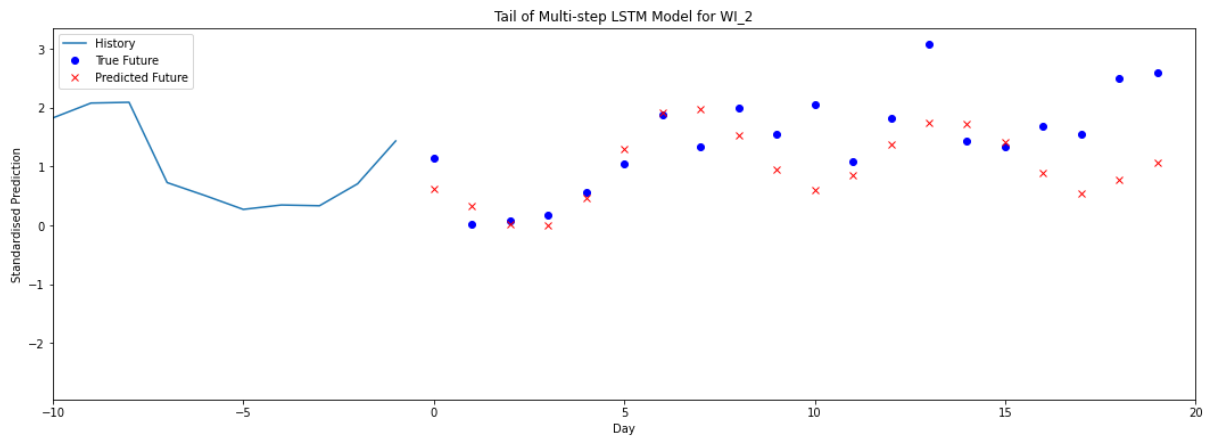
Epoch 99/100

50/50 [=====] - 5s 99ms/step - loss: 0.2495 - val\_loss: 0.7913

Epoch 100/100

50/50 [=====] - 5s 98ms/step - loss: 0.2485 - val\_loss: 0.7841





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: [4046.912 3680.4578 3291.7305 3279.1099 3838.5225 4877.37 5622.6865

5696.754 5154.909 4445.951 4023.7578 4334.882 4958.5195 5427.341

5385.4316 5012.6465 4368.566 3953.1465 4235.0205 4596.745 ]

WI\_2 - Model Percentage Error: [13.34235312 11.49523671 2.7840972 6.31114676 3.09208632 6.74918182

0.65675839 15.90547113 9.84768836 13.98817621 30.45700289 5.90662392

9.94334306 22.97273885 6.72674674 2.15297502 18.46648156 23.6844308

33.12773555 28.87598457]%

WI\_2 - Model Mean Percentage Error: 13.324312949255662%

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Training Model for WI\_3...

Epoch 1/100

50/50 [=====] - 5s 108ms/step - loss: 0.7846 - val\_loss: 1.0108

Epoch 2/100

50/50 [=====] - 5s 99ms/step - loss: 0.7526 - val\_loss: 0.9017

Epoch 3/100

50/50 [=====] - 5s 98ms/step - loss: 0.7131 - val\_loss: 0.8380

Epoch 4/100

50/50 [=====] - 5s 98ms/step - loss: 0.7103 - val\_loss: 1.0669

Epoch 5/100

50/50 [=====] - 5s 99ms/step - loss: 0.7852 - val\_loss: 1.0349

Epoch 6/100

50/50 [=====] - 5s 98ms/step - loss: 0.7701 - val\_loss: 1.0061

Epoch 7/100

50/50 [=====] - 5s 98ms/step - loss: 0.7437 - val\_loss: 0.9506

Epoch 8/100

50/50 [=====] - 5s 99ms/step - loss: 0.7265 - val\_loss: 0.9080

Epoch 9/100

50/50 [=====] - 5s 98ms/step - loss: 0.7155 - val\_loss: 0.8859

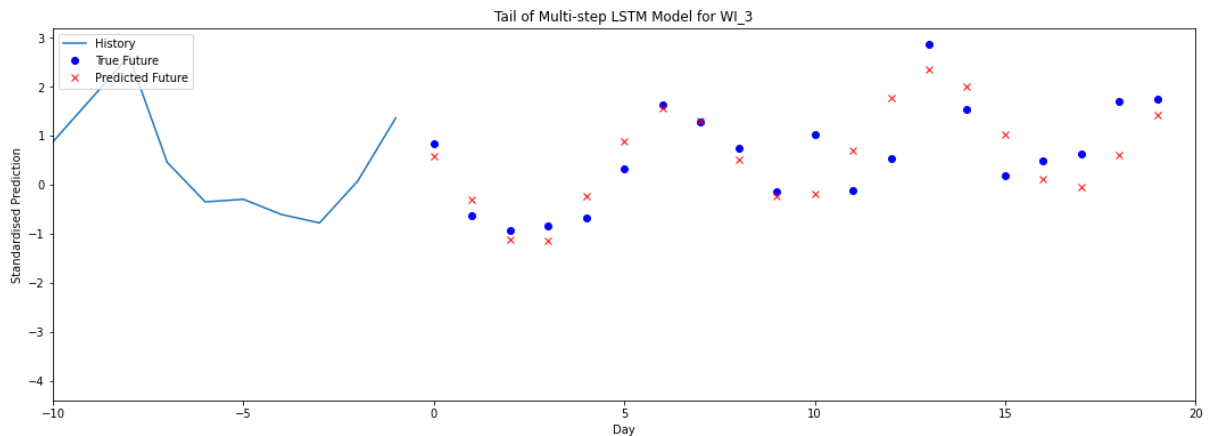
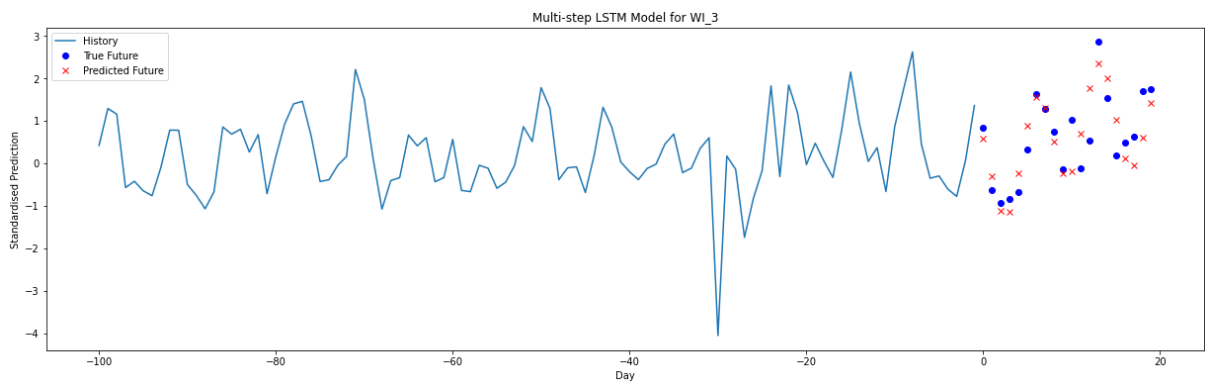
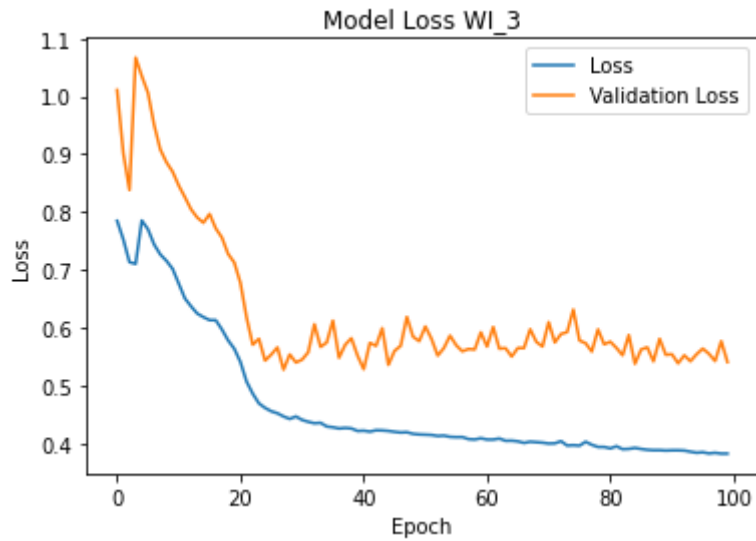
Epoch 10/100

50/50 [=====] - 5s 98ms/step - loss: 0.7016 - val\_loss: 0.8696  
Epoch 11/100  
50/50 [=====] - 5s 97ms/step - loss: 0.6759 - val\_loss: 0.8455  
Epoch 12/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6504 - val\_loss: 0.8254  
Epoch 13/100  
50/50 [=====] - 5s 99ms/step - loss: 0.6367 - val\_loss: 0.8044  
Epoch 14/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6243 - val\_loss: 0.7903  
Epoch 15/100  
50/50 [=====] - 5s 98ms/step - loss: 0.6181 - val\_loss: 0.7814  
Epoch 16/100  
50/50 [=====] - 5s 101ms/step - loss: 0.6129 - val\_loss: 0.7966  
Epoch 17/100  
50/50 [=====] - 5s 101ms/step - loss: 0.6128 - val\_loss: 0.7715  
Epoch 18/100  
50/50 [=====] - 5s 101ms/step - loss: 0.5968 - val\_loss: 0.7557  
Epoch 19/100  
50/50 [=====] - 5s 98ms/step - loss: 0.5780 - val\_loss: 0.7274  
Epoch 20/100  
50/50 [=====] - 5s 98ms/step - loss: 0.5635 - val\_loss: 0.7126  
Epoch 21/100  
50/50 [=====] - 5s 99ms/step - loss: 0.5406 - val\_loss: 0.6774  
Epoch 22/100  
50/50 [=====] - 5s 98ms/step - loss: 0.5066 - val\_loss: 0.6175  
Epoch 23/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4857 - val\_loss: 0.5703  
Epoch 24/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4690 - val\_loss: 0.5806  
Epoch 25/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4611 - val\_loss: 0.5430  
Epoch 26/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4553 - val\_loss: 0.5533  
Epoch 27/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4518 - val\_loss: 0.5657  
Epoch 28/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4463 - val\_loss: 0.5272  
Epoch 29/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4421 - val\_loss: 0.5536  
Epoch 30/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4463 - val\_loss: 0.5397  
Epoch 31/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4404 - val\_loss: 0.5446  
Epoch 32/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4371 - val\_loss: 0.5574  
Epoch 33/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4346 - val\_loss: 0.6058  
Epoch 34/100

50/50 [=====] - 5s 98ms/step - loss: 0.4353 - val\_loss: 0.5666  
Epoch 35/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4290 - val\_loss: 0.5743  
Epoch 36/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4276 - val\_loss: 0.6120  
Epoch 37/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4255 - val\_loss: 0.5478  
Epoch 38/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4265 - val\_loss: 0.5704  
Epoch 39/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4256 - val\_loss: 0.5816  
Epoch 40/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4213 - val\_loss: 0.5515  
Epoch 41/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4217 - val\_loss: 0.5281  
Epoch 42/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4201 - val\_loss: 0.5735  
Epoch 43/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4225 - val\_loss: 0.5684  
Epoch 44/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4222 - val\_loss: 0.5989  
Epoch 45/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4213 - val\_loss: 0.5356  
Epoch 46/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4198 - val\_loss: 0.5597  
Epoch 47/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4186 - val\_loss: 0.5686  
Epoch 48/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4191 - val\_loss: 0.6185  
Epoch 49/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4162 - val\_loss: 0.5843  
Epoch 50/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4153 - val\_loss: 0.5766  
Epoch 51/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4148 - val\_loss: 0.6019  
Epoch 52/100  
50/50 [=====] - 5s 102ms/step - loss: 0.4143 - val\_loss: 0.5803  
Epoch 53/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4126 - val\_loss: 0.5516  
Epoch 54/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4132 - val\_loss: 0.5645  
Epoch 55/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4111 - val\_loss: 0.5862  
Epoch 56/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4106 - val\_loss: 0.5695  
Epoch 57/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4107 - val\_loss: 0.5590  
Epoch 58/100

50/50 [=====] - 5s 98ms/step - loss: 0.4072 - val\_loss: 0.5630  
Epoch 59/100  
50/50 [=====] - 5s 97ms/step - loss: 0.4065 - val\_loss: 0.5621  
Epoch 60/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4087 - val\_loss: 0.5918  
Epoch 61/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4064 - val\_loss: 0.5672  
Epoch 62/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4064 - val\_loss: 0.6010  
Epoch 63/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4082 - val\_loss: 0.5635  
Epoch 64/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4043 - val\_loss: 0.5645  
Epoch 65/100  
50/50 [=====] - 5s 98ms/step - loss: 0.4045 - val\_loss: 0.5500  
Epoch 66/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4033 - val\_loss: 0.5647  
Epoch 67/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4006 - val\_loss: 0.5647  
Epoch 68/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4026 - val\_loss: 0.5971  
Epoch 69/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4019 - val\_loss: 0.5754  
Epoch 70/100  
50/50 [=====] - 5s 99ms/step - loss: 0.4010 - val\_loss: 0.5674  
Epoch 71/100  
50/50 [=====] - 5s 99ms/step - loss: 0.3995 - val\_loss: 0.6094  
Epoch 72/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3998 - val\_loss: 0.5744  
Epoch 73/100  
50/50 [=====] - 5s 100ms/step - loss: 0.4036 - val\_loss: 0.5889  
Epoch 74/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3961 - val\_loss: 0.5922  
Epoch 75/100  
50/50 [=====] - 5s 100ms/step - loss: 0.3967 - val\_loss: 0.6312  
Epoch 76/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3959 - val\_loss: 0.5777  
Epoch 77/100  
50/50 [=====] - 5s 101ms/step - loss: 0.4025 - val\_loss: 0.5729  
Epoch 78/100  
50/50 [=====] - 5s 104ms/step - loss: 0.3974 - val\_loss: 0.5586  
Epoch 79/100  
50/50 [=====] - 5s 104ms/step - loss: 0.3936 - val\_loss: 0.5969  
Epoch 80/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3936 - val\_loss: 0.5712  
Epoch 81/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3911 - val\_loss: 0.5755  
Epoch 82/100

50/50 [=====] - 5s 101ms/step - loss: 0.3948 - val\_loss: 0.5648  
Epoch 83/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3898 - val\_loss: 0.5521  
Epoch 84/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3903 - val\_loss: 0.5871  
Epoch 85/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3919 - val\_loss: 0.5374  
Epoch 86/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3901 - val\_loss: 0.5622  
Epoch 87/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3887 - val\_loss: 0.5659  
Epoch 88/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3880 - val\_loss: 0.5416  
Epoch 89/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3881 - val\_loss: 0.5806  
Epoch 90/100  
50/50 [=====] - 6s 125ms/step - loss: 0.3874 - val\_loss: 0.5530  
Epoch 91/100  
50/50 [=====] - 6s 127ms/step - loss: 0.3878 - val\_loss: 0.5539  
Epoch 92/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3878 - val\_loss: 0.5382  
Epoch 93/100  
50/50 [=====] - 5s 104ms/step - loss: 0.3874 - val\_loss: 0.5520  
Epoch 94/100  
50/50 [=====] - 5s 101ms/step - loss: 0.3854 - val\_loss: 0.5418  
Epoch 95/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3836 - val\_loss: 0.5539  
Epoch 96/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3845 - val\_loss: 0.5636  
Epoch 97/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3824 - val\_loss: 0.5547  
Epoch 98/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3835 - val\_loss: 0.5421  
Epoch 99/100  
50/50 [=====] - 5s 103ms/step - loss: 0.3820 - val\_loss: 0.5765  
Epoch 100/100  
50/50 [=====] - 5s 102ms/step - loss: 0.3821 - val\_loss: 0.5405



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: [3787.7896 3072.947 2396.2854 2391.834 3132.9167 4045.9365 4595.7163

4393.6 3738.8408 3136.0532 3161.64 3889.938 4769.2065 5254.2515 4968.0835 4163.8223 3410.2104 3275.5308 3816.0166 4491.654 ]

WI\_3 - Model Percentage Error: [ 5.25789018 9.51343626 6.54113103 9.12484862 12.89790083 13.01498669

1.23111308 0.72444057 5.05736871 2.30363792 23.87093926 20.84305649 26.97568006 7.11947207 8.54453782 20.06407917 8.52439782 14.54394047 19.16931579 5.61769681]%

WI\_3 - Model Mean Percentage Error: 11.046993482199387%

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