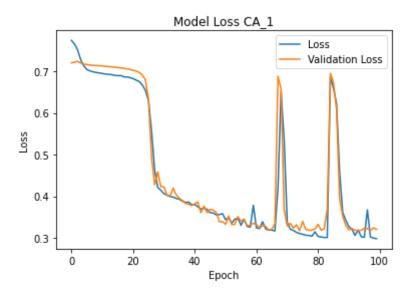
Training Model for CA_1...

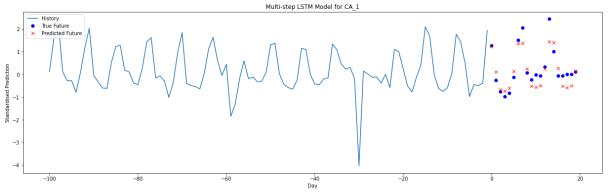
Epoch 1/100
50/50 [====================================
Epoch 2/100
50/50 [====================================
Epoch 3/100
50/50 [====================================
Epoch 4/100
50/50 [====================================
Epoch 5/100
50/50 [====================================
Epoch 6/100
50/50 [====================================
Epoch 7/100
50/50 [====================================
Epoch 8/100
50/50 [====================================
Epoch 9/100
50/50 [====================================
Epoch 10/100
50/50 [====================================
Epoch 11/100 50/50 [====================================
Epoch 12/100 50/50 [====================================
Epoch 13/100 50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
Epoch 17/100
50/50 [====================================
·
Epoch 18/100
50/50 [====================================
Epoch 19/100 50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================

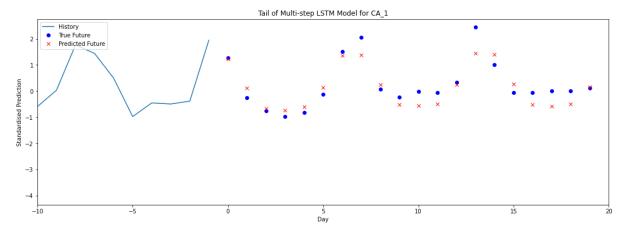
Epoch 23/100
. 50/50 [====================================
Epoch 24/100
$50/50 \ [===================================$
Epoch 25/100
50/50 [====================================
Epoch 26/100
50/50 [====================================
Epoch 27/100
50/50 [====================================
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
$50/50 \ [===================================$
Epoch 33/100
50/50 [====================================
Epoch 34/100
50/50 [====================================
Epoch 35/100 50/50 [============] - 5s 92ms/step - loss: 0.3947 - val_loss: 0.4030
Epoch 36/100
50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
. 50/50 [====================================
Epoch 39/100
$50/50 \ [===================================$
Epoch 40/100
$50/50 \ [===================================$
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
50/50 [====================================
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================
Epoch 46/100
50/50 [====================================

Epoch 47/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3597 - val_loss: 0.3668
Epoch 48/100	
50/50 [======] - 5s 91ms	/step - loss: 0.3551 - val_loss: 0.3611
Epoch 49/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3561 - val_loss: 0.3383
Epoch 50/100	
50/50 [======] - 5s 91ms	/step - loss: 0.3581 - val_loss: 0.3392
Epoch 51/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3437 - val_loss: 0.3326
Epoch 52/100	
50/50 [======] - 5s 90ms	/step - loss: 0.3483 - val_loss: 0.3527
Epoch 53/100	
50/50 [======] - 5s 93ms	/step - loss: 0.3354 - val_loss: 0.3322
Epoch 54/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3448 - val_loss: 0.3323
Epoch 55/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3476 - val_loss: 0.3510
Epoch 56/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3302 - val_loss: 0.3406
Epoch 57/100	
50/50 [======] - 5s 92ms	/step - loss: 0.3450 - val_loss: 0.3444
Epoch 58/100	
50/50 [=======] - 5s 92ms	/step - loss: 0.3276 - val_loss: 0.3292
Epoch 59/100	
50/50 [=======] - 5s 92ms	/step - loss: 0.3255 - val_loss: 0.3300
Epoch 60/100	/ ·
50/50 [=======] - 5s 92ms	/step - loss: 0.3/83 - val_loss: 0.3352
Epoch 61/100	/
50/50 [======] - 5s 91ms	/step - loss: 0.3243 - Val_loss: 0.3321
Epoch 62/100	/
50/50 [======] - 5s 92ms	/step - loss: 0.3222 - Val_loss: 0.3244
Epoch 63/100	/stan
50/50 [======] - 5s 91ms	/step - 10ss. 0.3389 - Val_10ss. 0.3294
Epoch 64/100 50/50 [======] - 5s 92ms	/stan loss: 0.2217 val loss: 0.2277
Epoch 65/100	/step - 1055. 0.3217 - Val_1055. 0.3277
50/50 [====================================	/stan - loss: 0.2194 - val. loss: 0.2199
Epoch 66/100	7 step - 10ss. 0.3 104 - Val_10ss. 0.3 100
50/50 [====================================	/stan - loss: 0.2180 - val. loss: 0.2208
Epoch 67/100	7 Step - 1055. 0.3 109 - Val_1055. 0.3200
50/50 [====================================	/stan - loss: 0.3165 - val. loss: 0.3338
Epoch 68/100	7 Step - 1088. 0.3 103 - Val_1088. 0.3330
50/50 [====================================	/stan - loss: 0.4206 - val. loss: 0.6882
Epoch 69/100	7 510p 1033. 0.4200 - Vai_1033. 0.0002
50/50 [====================================	/sten - loss: 0 6508 - val loss: 0 6560
Epoch 70/100	, otep 1000. 0.0000 Vai_1000. 0.0009
50/50 [====================================	/sten - loss: 0 5360 - val loss: 0 3674
35, 55 [, 0.0p 1000. 0.0000 vai_1000. 0.0074

Epoch 71/100	
50/50 [=======] -	5s 91ms/step - loss: 0.3370 - val_loss: 0.3289
Epoch 72/100	
50/50 [=======] -	5s 91ms/step - loss: 0.3210 - val_loss: 0.3349
Epoch 73/100	
50/50 [===========]-	5s 92ms/step - loss: 0.3177 - val_loss: 0.3234
Epoch 74/100	5 00 /·· 00100 00011
50/50 [====================================	5s 92ms/step - loss: 0.3132 - val_loss: 0.3314
Epoch 75/100 50/50 [=======] -	Ea 01ma/atan lass: 0 2107 val lass: 0 2175
Epoch 76/100	58 911118/8tep - 1088. 0.5107 - Val_1088. 0.5175
50/50 [====================================	5e 92me/etan - lose: 0.3086 - val. lose: 0.3395
Epoch 77/100	33 921113/3tep 1033. 0.3000 Val_1033. 0.3390
50/50 [====================================	5s 92ms/step - loss: 0.3063 - val loss: 0.3204
Epoch 78/100	
50/50 [=========] -	5s 92ms/step - loss: 0.3058 - val_loss: 0.3182
Epoch 79/100	
50/50 [==========] -	5s 91ms/step - loss: 0.3039 - val_loss: 0.3185
Epoch 80/100	
50/50 [=========] -	5s 91ms/step - loss: 0.3146 - val_loss: 0.3216
Epoch 81/100	
50/50 [=======] -	5s 92ms/step - loss: 0.3034 - val_loss: 0.3324
Epoch 82/100	
50/50 [=========]-	5s 91ms/step - loss: 0.3022 - val_loss: 0.3184
Epoch 83/100	5 od / /
50/50 [====================================	5s 91ms/step - loss: 0.3009 - val_loss: 0.3218
Epoch 84/100	Fo 0.2 mg/ston loos: 0.2000 val loos: 0.2702
50/50 [=========] - Epoch 85/100	5s 92ms/step - ioss: 0.3008 - vai_ioss: 0.3703
50/50 [====================================	5e 02me/sten - lose: 0.6850 - val lose: 0.6050
Epoch 86/100	35 921115/5tep - 1055. 0.0039 - Val_1055. 0.0930
50/50 [====================================	5s 92ms/sten - loss: 0 6593 - val loss: 0 6738
Epoch 87/100	00 721110/010p 1000: 0.0070
50/50 [====================================	5s 92ms/step - loss: 0.6235 - val loss: 0.6081
Epoch 88/100	,
50/50 [==========] -	5s 91ms/step - loss: 0.4588 - val_loss: 0.3939
Epoch 89/100	·
50/50 [===========] -	5s 92ms/step - loss: 0.3614 - val_loss: 0.3524
Epoch 90/100	
50/50 [==========] -	5s 91ms/step - loss: 0.3423 - val_loss: 0.3301
Epoch 91/100	
50/50 [======] -	5s 91ms/step - loss: 0.3273 - val_loss: 0.3195
Epoch 92/100	
50/50 [====================================	5s 92ms/step - loss: 0.3208 - val_loss: 0.3220
Epoch 93/100	F 00 / 1 0 00000 11 00000
50/50 [====================================	5s 92ms/step - loss: 0.3059 - val_loss: 0.3183
Epoch 94/100	50 02mg/stop locar 0 2100 red locar 0 2170
50/50 [=========] -	58 92HIS/Step - 1088. U.3190 - Val_1088: U.3172







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: [5210.231 4112.674 3321.4233 3272.0298 3385.6846 4122.4414 5345.666

5366.098 4246.1514 3470.773 3432.13 3513.09 4248.4126 5427.258 5391.844 4255.8066 3476.2778 3406.4324 3508.7397 4152.5977]

CA_1 - Model Percentage Error: [0.70076316 9.93514643 2.32357794 7.95215391 6.70294895 6.49551553

2.77071634 11.03948699 4.20003355 7.81479551 13.83053269 10.56287964 1.8162099 15.3578008 8.13967586 8.20764405 11.67993313 14.73260643 12.43474554 1.01186223]%

CA_1 - Model Mean Percentage Error: 7.8854514299837986%

Training Model for CA_2...

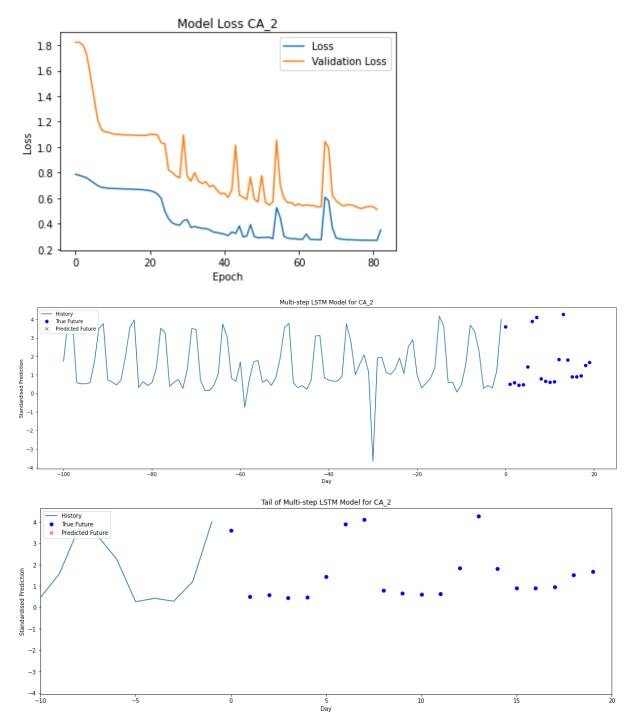
```
Epoch 1/100
Epoch 2/100
50/50 [=======
              ========] - 4s 90ms/step - loss: 0.7793 - val_loss: 1.8223
Epoch 3/100
50/50 [======
          Epoch 4/100
Epoch 5/100
Epoch 6/100
             ========] - 5s 91ms/step - loss: 0.7191 - val_loss: 1.3826
50/50 [========
Epoch 7/100
50/50 [============== - - 5s 91ms/step - loss: 0.6980 - val_loss: 1.2097
Epoch 8/100
50/50 [============== - - 5s 92ms/step - loss: 0.6857 - val_loss: 1.1361
Epoch 9/100
50/50 [============= - - 5s 91ms/step - loss: 0.6819 - val_loss: 1.1200
Epoch 10/100
```

50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100 50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================
Epoch 23/100
50/50 [====================================
Epoch 24/100
50/50 [====================================
Epoch 25/100 50/50 [
50/50 [====================================
50/50 [====================================
Epoch 27/100
50/50 [====================================
Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100

50/50 [====================================
Epoch 35/100
50/50 [====================================
Epoch 36/100
50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
50/50 [====================================
50/50 [====================================
Epoch 40/100
50/50 [====================================
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
Epoch 43/100
50/50 [====================================
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================
Epoch 46/100
50/50 [====================================
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
Epoch 50/100
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100
50/50 [====================================
Epoch 54/100 50/50 [====================================
Epoch 55/100
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100

50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100
50/50 [====================================
Epoch 64/100
50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================
Epoch 70/100
50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100 50/50 [====================================
Epoch 74/100
50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100
50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100
Lpodii 02/ 100

50/50 [====================================
Epoch 83/100
50/50 [====================================
Epoch 84/100
50/50 [====================================
Epoch 85/100
50/50 [====================================
Epoch 86/100
50/50 [====================================
Epoch 87/100
50/50 [====================================
Epoch 88/100
50/50 [====================================
Epoch 89/100
50/50 [====================================
Epoch 90/100
50/50 [====================================
Epoch 91/100
50/50 [====================================
Epoch 92/100
50/50 [====================================
Epoch 93/100
50/50 [====================================
Epoch 94/100
50/50 [====================================
Epoch 95/100
50/50 [====================================
Epoch 96/100
50/50 [====================================
Epoch 97/100
50/50 [====================================
Epoch 98/100
50/50 [====================================
Epoch 99/100
50/50 [====================================
Epoch 100/100
50/50 [====================================



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

Training Model for CA_3...

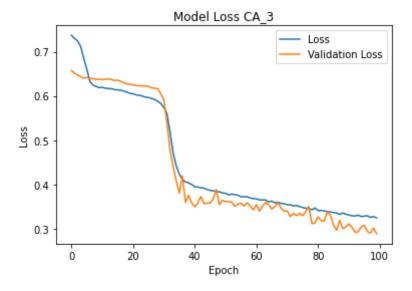
Epoch 1/100
50/50 [====================================
Epoch 2/100
50/50 [====================================
Epoch 3/100
50/50 [====================================
Epoch 4/100
50/50 [====================================
Epoch 5/100
50/50 [====================================
Epoch 6/100
50/50 [====================================
Epoch 7/100
50/50 [====================================
Epoch 8/100
50/50 [====================================
Epoch 9/100
50/50 [====================================
Epoch 10/100
50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================
Epoch 23/100

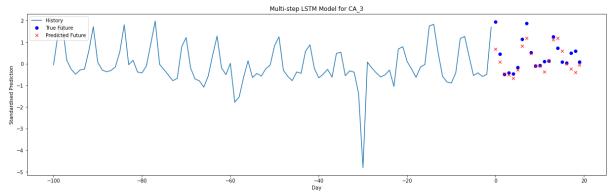
50/50 [====================================
Epoch 24/100
50/50 [====================================
Epoch 25/100
50/50 [====================================
Epoch 26/100
50/50 [====================================
Epoch 27/100
50/50 [=========================] - 5s 97ms/step - loss: 0.5942 - val_loss: 0.6185 Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100
50/50 [====================================
Epoch 35/100
50/50 [====================================
Epoch 36/100 50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
50/50 [====================================
Epoch 39/100
50/50 [====================================
Epoch 40/100
50/50 [====================================
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
Epoch 43/100
50/50 [====================================
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================
50/50 [====================================
Epoch 47/100
-poon =1/1 100

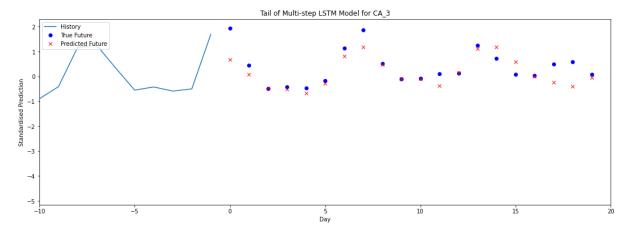
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
Epoch 50/100
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100 50/50 [====================================
Epoch 54/100
50/50 [====================================
Epoch 55/100
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100
50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100 50/50 [====================================
Epoch 64/100
50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================
Epoch 70/100
50/50 [====================================
Epoch 71/100

50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100
50/50 [====================================
Epoch 74/100
50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100 50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100
50/50 [====================================
Epoch 83/100
50/50 [====================================
Epoch 84/100
50/50 [====================================
Epoch 85/100
50/50 [====================================
Epoch 86/100
50/50 [====================================
Epoch 87/100
50/50 [====================================
Epoch 88/100 50/50 [====================================
Epoch 89/100
50/50 [====================================
Epoch 90/100
50/50 [====================================
Epoch 91/100
50/50 [====================================
Epoch 92/100
50/50 [====================================
Epoch 93/100
50/50 [====================================
Epoch 94/100
50/50 [====================================
Epoch 95/100

50/50 [=======] - 5	s 92ms/step -	loss: 0.3273 - val_loss: 0.3041
Epoch 96/100		
50/50 [========] - 5	s 93ms/step -	loss: 0.3282 - val_loss: 0.3073
Epoch 97/100		
50/50 [========] - 5	s 91ms/step -	loss: 0.3289 - val_loss: 0.2935
Epoch 98/100		
50/50 [========] - 5	s 93ms/step -	loss: 0.3253 - val_loss: 0.2899
Epoch 99/100		
50/50 [========] - 5	s 92ms/step -	loss: 0.3272 - val_loss: 0.3012
Epoch 100/100		
50/50 [========] - 5	s 93ms/sten -	loss: 0.3242 - val loss: 0.2883







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: [6641.84 5929.3257 5278.663 5197.144 5011.884 5494.77 6828.901

 $7273.9385\ 6390.0054\ 5714.662\ 5706.143\ 5371.0503\ 6009.546\ 7183.7812$

7270.505 6530.497 5813.8223 5556.507 5346.001 5755.4]

CA_3 - Model Percentage Error: [18.64478388 6.93257442 0.66100469 2.10691198 4.73514942 2.52315027

5.37756853 10.13172132 0.86867249 0.12823996 0.58984205 9.74541601 0.39334946 2.22157003 8.57982203 10.12642614 1.15909103 13.46352849

18.34426491 2.91160759]%

CA_3 - Model Mean Percentage Error: 5.982234734531251%

Training Model for CA_4...

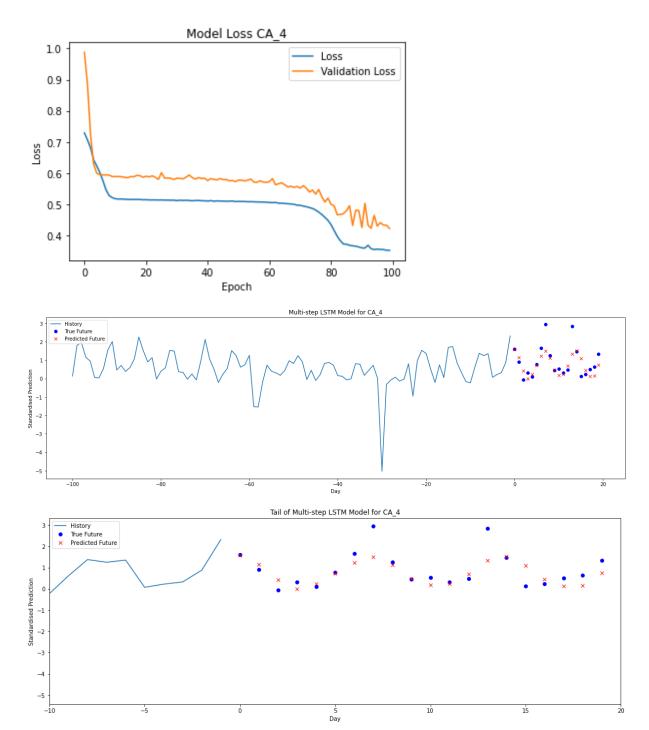
```
Epoch 1/100
Epoch 2/100
50/50 [======
                ========] - 5s 92ms/step - loss: 0.7063 - val_loss: 0.8839
Epoch 3/100
50/50 [======
             =========] - 5s 91ms/step - loss: 0.6807 - val_loss: 0.7213
Epoch 4/100
Epoch 5/100
50/50 [========
             ==========] - 5s 92ms/step - loss: 0.6231 - val_loss: 0.5994
Epoch 6/100
              ========] - 5s 92ms/step - loss: 0.6019 - val_loss: 0.5947
50/50 [========
Epoch 7/100
Epoch 8/100
50/50 [============== - 5s 93ms/step - loss: 0.5464 - val_loss: 0.5940
Epoch 9/100
Epoch 10/100
```

50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================
Epoch 23/100
50/50 [====================================
Epoch 24/100
50/50 [====================================
Epoch 25/100
50/50 [====================================
Epoch 26/100 50/50 [====================================
Epoch 27/100
50/50 [====================================
Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100

50/50 [====================================
Epoch 35/100
50/50 [====================================
Epoch 36/100
50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
50/50 [====================================
Epoch 39/100
50/50 [====================================
Epoch 40/100
50/50 [====================================
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
Epoch 43/100
50/50 [========================] - 5s 96ms/step - loss: 0.5097 - val_loss: 0.5798
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================
Epoch 46/100
50/50 [====================================
Epoch 47/100
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
Epoch 50/100
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100
50/50 [====================================
Epoch 54/100
50/50 [====================================
Epoch 55/100
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100
·

50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100
50/50 [====================================
Epoch 64/100 50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================
Epoch 70/100
50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100
50/50 [====================================
Epoch 74/100 50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100
50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100

3U/3U [=	======================================
Epoch 8	33/100
50/50 [=	======================================
Epoch 8	
50/50 [=	======================================
Epoch 8	
50/50 [=	======================================
Epoch 8	
50/50 [=	======================================
Epoch 8	37/100
50/50 [=	======================================
Epoch 8	38/100
50/50 [=	======================================
Epoch 8	
50/50 [=	======================================
Epoch 9	
50/50 [=	======================================
Epoch 9	
	======================================
Epoch 9	
	======================================
Epoch 9	
	======================================
Epoch 9	
	======================================
Epoch 9	
	======================================
Epoch 9	
_	======================================
Epoch 9	
	======================================
Epoch 9	
	======================================
Epoch 9	
	======================================
	100/100
50/50 [=	======================================



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: [2776.3396 2595.3416 2285.6963 2110.8235 2204.5032 2409.6284 2624.5366

2744.2756 2585.8867 2307.919 2191.2073 2207.6086 2402.7026 2669.2236 2752.8933 2572.0632 2304.797 2164.7979 2175.6118 2423.7385]

6.46697715 17.90979256 2.16092627 0.3879489 6.15814666 1.62171825

3.74363716 19.13893872 0.94951634 18.74714831 4.43122425 6.81025176

8.70281929 9.4606453]%

CA_4 - Model Mean Percentage Error: 6.49667438020027%

Training Model for TX_1...

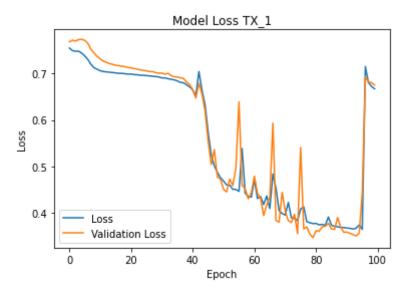
Epoch 1/100
50/50 [====================================
Epoch 2/100
50/50 [====================================
Epoch 3/100
50/50 [====================================
Epoch 4/100
50/50 [====================================
Epoch 5/100
50/50 [====================================
Epoch 6/100
50/50 [====================================
Epoch 7/100
50/50 [====================================
Epoch 8/100
50/50 [====================================
Epoch 9/100
50/50 [====================================
Epoch 10/100
50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================

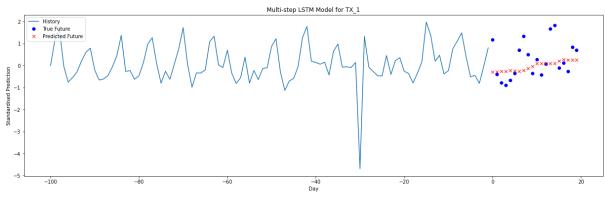
Epoch 22/100
50/50 [====================================
Epoch 23/100
50/50 [====================================
Epoch 24/100
50/50 [====================================
Epoch 25/100
50/50 [====================================
Epoch 26/100
50/50 [====================================
Epoch 27/100
50/50 [====================================
Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100
50/50 [====================================
Epoch 35/100
50/50 [====================================
Epoch 36/100
50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
50/50 [====================================
Epoch 39/100
50/50 [====================================
Epoch 40/100
50/50 [====================================
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
Epoch 43/100
50/50 [====================================
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================

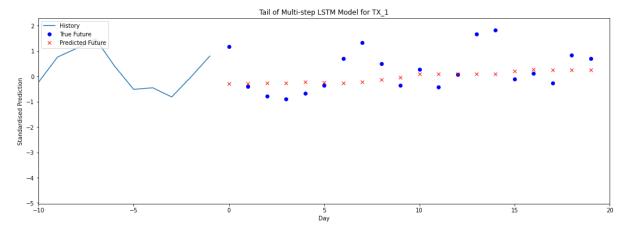
Epoch 46/100	
50/50 [=======] - 5	ss 93ms/step - loss: 0.5736 - val_loss: 0.5540
Epoch 47/100	
50/50 [=======] - 5	ss 93ms/step - loss: 0.5242 - val_loss: 0.5041
Epoch 48/100	
50/50 [=========] - 5	is 94ms/step - loss: 0.5014 - val_loss: 0.5363
Epoch 49/100	
50/50 [========] - 5	os 94ms/step - loss: 0.48/2 - val_loss: 0.4//4
Epoch 50/100	5- 02/-tan 1 0 4750 val 1 0 4700
50/50 [=======] - 5	os 93ms/step - 10ss: 0.4/59 - Vai_loss: 0.4/28
Epoch 51/100 50/50 [======] - 5	Sc 04mc/cton - locc: 0 4686 - val locc: 0 4507
Epoch 52/100	35 941115/51ep - 1055. 0.4000 - Val_1055. 0.430/
50/50 [=======] - 5	s 93ms/sten - loss: 0.4604 - val. loss: 0.4454
Epoch 53/100	70 70 ms/ step 1000. 0.4004 val_1000. 0.4404
50/50 [=======] - 5	ss 94ms/step - loss: 0.4600 - val loss: 0.4730
Epoch 54/100	
50/50 [=======] - 5	is 93ms/step - loss: 0.4510 - val_loss: 0.4591
Epoch 55/100	·
50/50 [==========] - 5	s 93ms/step - loss: 0.4507 - val_loss: 0.4972
Epoch 56/100	
50/50 [=========] - 5	ss 94ms/step - loss: 0.4465 - val_loss: 0.6392
Epoch 57/100	
50/50 [=======] - 5	ss 95ms/step - loss: 0.5389 - val_loss: 0.4596
Epoch 58/100	
50/50 [========] - 5	is 95ms/step - loss: 0.4428 - val_loss: 0.4521
Epoch 59/100	
50/50 [=======] - 5	os 93ms/step - Ioss: 0.4356 - Val_Ioss: 0.4305
Epoch 60/100 50/50 [======] - 5	50 04mg/gton loog: 0.4242 vol. loog: 0.4426
Epoch 61/100	35 941115/5tep - 1055. 0.4545 - Val_1055. 0.4450
50/50 [====================================	Se 03me/eten - lose: 0.4710 - val. lose: 0.4703
Epoch 62/100	73 731113/31cp 1033. 0.47 17 Val_1033. 0.47 70
50/50 [====================================	is 94ms/step - loss: 0.4310 - val loss: 0.4423
Epoch 63/100	
50/50 [=======] - 5	is 92ms/step - loss: 0.4354 - val_loss: 0.4316
Epoch 64/100	
50/50 [===========] - 5	is 93ms/step - loss: 0.4181 - val_loss: 0.3946
Epoch 65/100	
50/50 [=========] - 5	ss 92ms/step - loss: 0.4367 - val_loss: 0.4170
Epoch 66/100	
50/50 [========] - 5	is 93ms/step - loss: 0.4096 - val_loss: 0.4343
Epoch 67/100	
50/50 [====================================	ss 93ms/step - loss: 0.4840 - val_loss: 0.5933
Epoch 68/100	
50/50 [=======] - 5	os 93ms/step - Ioss: 0.4533 - val_loss: 0.3838
Epoch 69/100	7- 00/-to land 0.4050
50/50 [======] - 5	os 92ms/step - ioss: 0.4050 - val_loss: 0.3804

Epoch 70/100
50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [========================] - 5s 93ms/step - loss: 0.4226 - val_loss: 0.3834
Epoch 73/100
50/50 [====================================
Epoch 74/100
50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
·
Epoch 79/100 50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100
50/50 [====================================
Epoch 83/100
50/50 [====================================
Epoch 84/100
50/50 [====================================
Epoch 85/100
50/50 [====================================
Epoch 86/100
50/50 [====================================
Epoch 87/100
50/50 [====================================
Epoch 88/100
50/50 [====================================
Epoch 89/100
50/50 [====================================
Epoch 90/100
50/50 [====================================
Epoch 91/100
50/50 [====================================
Epoch 92/100
50/50 [====================================
Epoch 93/100
50/50 [====================================
•

Epoch 94/100 Epoch 95/100 Epoch 96/100 Epoch 97/100 ========] - 5s 93ms/step - loss: 0.7152 - val_loss: 0.6930 50/50 [======== Epoch 98/100 Epoch 99/100 50/50 [===== =====] - 5s 93ms/step - loss: 0.6724 - val_loss: 0.6806 Epoch 100/100 50/50 [====== =======] - 5s 93ms/step - loss: 0.6671 - val_loss: 0.6753







TX_1 - True Future: [3639. 2666. 2426. 2357. 2497. 2693. 3347. 3727. 3213. 2681. 3081. 2645. 2949. 3939. 4034. 2845. 2978. 2745. 3431. 3343.]

TX_1 - Model Prediction: [2734.466 2728.318 2745.9353 2740.114 2773.6235 2760.732 2744.9226

 $2772.0103\ 2828.7656\ 2886.7014\ 2962.1736\ 2960.7156\ 2959.1667\ 2969.4385$

2971.1885 3035.7615 3071.4893 3061.6228 3060.3662 3058.6587

TX_1 - Model Percentage Error: [24.85666215 2.3375137 13.1877701 16.2543069 11.07823529 2.51511079

17.98856865 25.62355101 11.95874183 7.67256307 3.85674833 11.93631668 0.34475239 24.6144078 26.34634416 6.70514849 3.13933035 11.53452833 10.80250041 8.5055731]%

TX_1 - Model Mean Percentage Error: 12.062933676903194%

Training Model for TX_2...

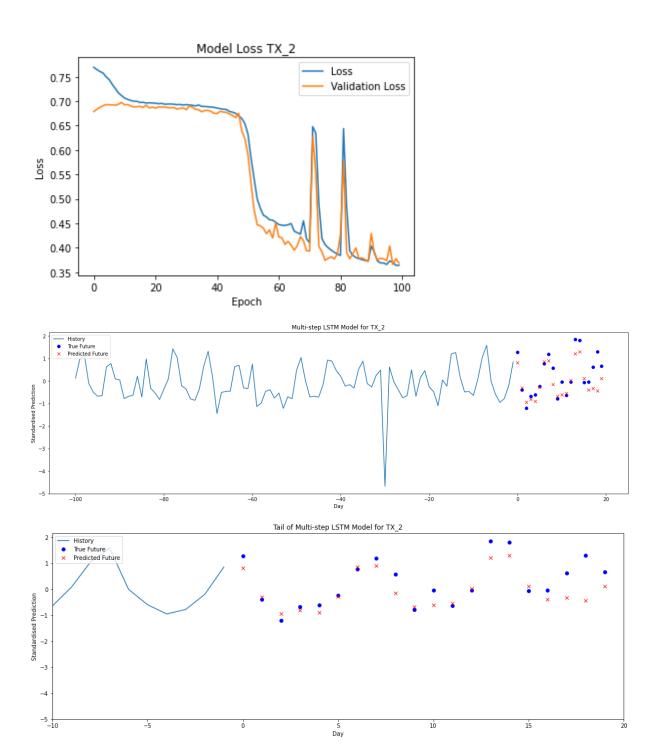
```
Epoch 1/100
50/50 [========
                   ========== - 5s 102ms/step - loss: 0.7694 - val_loss: 0.6787
Epoch 2/100
50/50 [======
                       ========] - 5s 93ms/step - loss: 0.7646 - val_loss: 0.6836
Epoch 3/100
50/50 [======
                   =========] - 5s 94ms/step - loss: 0.7607 - val_loss: 0.6874
Epoch 4/100
Epoch 5/100
                    ========] - 5s 94ms/step - loss: 0.7497 - val_loss: 0.6930
50/50 [=======
Epoch 6/100
                     ========] - 5s 93ms/step - loss: 0.7440 - val_loss: 0.6927
50/50 [=======
Epoch 7/100
50/50 [============== - 5s 94ms/step - loss: 0.7343 - val_loss: 0.6925
Epoch 8/100
50/50 [============= - - 5s 94ms/step - loss: 0.7256 - val_loss: 0.6917
Epoch 9/100
50/50 [============= - - 5s 94ms/step - loss: 0.7169 - val_loss: 0.6937
Epoch 10/100
```

50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100 50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================
Epoch 23/100
50/50 [====================================
Epoch 24/100
50/50 [====================================
Epoch 25/100 50/50 [
50/50 [====================================
50/50 [====================================
Epoch 27/100
50/50 [====================================
Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100

50/50 [=====	
Epoch 35/100	
50/50 [=====	
Epoch 36/100	
50/50 [=====	
Epoch 37/100	
	======================================
Epoch 38/100	
Epoch 39/100	
Epoch 40/100	
Epoch 41/100	
	======================================
Epoch 42/100	
50/50 [===== Epoch 43/100	
•	======================================
Epoch 44/100	·
•	======================================
Epoch 45/100	·
•	
Epoch 46/100	· · · · · · · · · · · · · · · · · · ·
•	======================================
Epoch 47/100	
50/50 [=====	======================================
Epoch 48/100	
50/50 [=====	
Epoch 49/100	
50/50 [=====	======================================
Epoch 50/100	
Epoch 51/100	
_	======================================
Epoch 52/100	
_	-=====================================
Epoch 53/100	
-	
Epoch 54/100	
Epoch 55/100	
•	======================================
Epoch 56/100	· ·
•	
Epoch 57/100	·
•	
Epoch 58/100	·
p = = = = = = = = = = = = = = = = = = =	

50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100
50/50 [====================================
Epoch 64/100
50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================
Epoch 70/100 50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100
50/50 [====================================
Epoch 74/100
50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100
50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100

50/50 [====================================
Epoch 83/100
50/50 [====================================
Epoch 84/100
50/50 [====================================
Epoch 85/100
50/50 [====================================
Epoch 86/100
$50/50 \ [===================================$
Epoch 87/100
50/50 [====================================
Epoch 88/100
$50/50 \ [===================================$
Epoch 89/100
$50/50 \ [===================================$
Epoch 90/100
$50/50 \ [===================================$
Epoch 91/100
$50/50 \ [===================================$
Epoch 92/100
$50/50 \ [===================================$
Epoch 93/100
$50/50 \ [===================================$
Epoch 94/100
$50/50 \ [===================================$
Epoch 95/100
50/50 [====================================
Epoch 96/100
50/50 [====================================
Epoch 97/100
50/50 [====================================
Epoch 98/100
50/50 [====================================
Epoch 99/100
50/50 [====================================
Epoch 100/100
50/50 [====================================



TX_2 - True Future: [4794. 3441. 2798. 3216. 3264. 3562. 4384. 4712. 4225. 3121. 3722. 3245. 3737. 5240. 5210. 3714. 3737. 4259. 4799. 4295.]

TX_2 - Model Prediction: [4416.4785 3520.851 3000.1475 3103.0544 3040.4478 3538.4893 4458.7793

 $4490.6587\ 3644.9397\ 3221.7637\ 3265.595\ 3322.7922\ 3781.229\ 4729.461$

4812.1426 3847.5657 3443.0012 3499.242 3415.7466 3859.7114]

TX_2 - Model Percentage Error: [7.87487452 2.32057757 7.22471269 3.5119887 6.84902715 0.6600433

1.70573214 4.69739619 13.72923793 3.22857007 12.26235973 2.39729542

1.18354305 9.74311188 7.63641885 3.59627555 7.86724055 17.8388837 28.8237845 10.13477472]%

TX_2 - Model Mean Percentage Error: 7.664292409606475%

Training Model for TX_3...

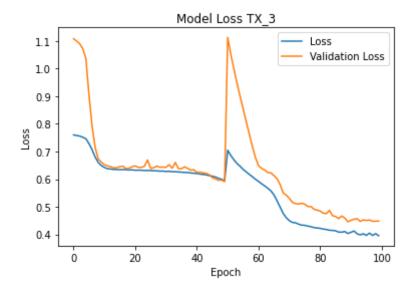
Epoch 1/100
50/50 [====================================
Epoch 2/100
50/50 [====================================
Epoch 3/100
50/50 [====================================
Epoch 4/100
50/50 [====================================
Epoch 5/100
50/50 [====================================
Epoch 6/100
50/50 [====================================
Epoch 7/100
50/50 [====================================
Epoch 8/100
50/50 [====================================
Epoch 9/100
50/50 [====================================
Epoch 10/100
50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
Epoch 17/100 50/50 [
50/50 [====================================
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
1 00 701110/3tcp 1000. 0.0020 Val_1000. 0.0470

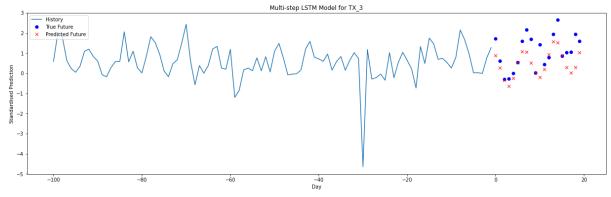
E 1.00/400				
Epoch 22/100	1	F. 00m. /atam	I 0 (225	- Llana 0 6 400
	:=======] -	- 58 93ms/step -	· 1088: 0.0325 - v	al_loss: 0.6429
Epoch 23/100	:========] -	Fo Odmodaton	Jane 0 6222 v	al laga: 0.6424
Epoch 24/100		- 58 94ms/step -	· 1088. 0.0323 - v	al_1088. 0.0424
•	:========] -	Fo 0/mo/oton	looo: 0 6212 . v	val Japa: 0.6469
Epoch 25/100		- 35 941115/Step -	· 1088. 0.0312 - v	al_1055. 0.0400
•	:========] -	5c 0/mc/cton -	- locc: 0 6217 - v	al loss: 0.6606
Epoch 26/100		03 941113/3tep	1033. 0.0317 V	ai_1033. 0.0070
•	:========] -	- 5s 94ms/sten -	· loss· 0 6311 - v	al loss: 0.6387
Epoch 27/100	J	00 741110/ Step	1000. 0.0011 V	ai_1000. 0.0007
•	:========] -	- 5s 94ms/sten -	· loss: 0 6303 - v	al loss: 0.6413
Epoch 28/100		00 7 mio, 0top		a. <u>_</u>
•	:========] -	- 5s 94ms/step -	· loss: 0.6303 - v	al loss: 0.6473
Epoch 29/100		., ,		
•	:========] -	- 5s 94ms/step -	· loss: 0.6289 - v	al_loss: 0.6431
Epoch 30/100	•	r		
50/50 [=======	:=======] -	- 5s 94ms/step -	· loss: 0.6293 - v	al_loss: 0.6436
Epoch 31/100				
50/50 [======	:=======] -	- 5s 93ms/step -	· loss: 0.6279 - v	al_loss: 0.6430
Epoch 32/100				
50/50 [======	:========] -	- 5s 94ms/step -	· loss: 0.6284 - v	al_loss: 0.6524
Epoch 33/100				
50/50 [======	:=======] -	- 5s 94ms/step -	· loss: 0.6271 - v	al_loss: 0.6395
Epoch 34/100				
	:=======] -	- 5s 94ms/step -	· loss: 0.6269 - v	al_loss: 0.6603
Epoch 35/100	_			
	:======]	- 5s 93ms/step -	· loss: 0.6262 - v	al_loss: 0.6383
Epoch 36/100	1	5 04 / ·		
	:========]	- 5s 94ms/step -	· loss: 0.6252 - v	al_loss: 0.63//
Epoch 37/100	1	F = 0.4 / - t	I0 6040 ···	
50/50 [====== Epoch 38/100	:=======] -	- əs yams/step -	· 1088: 0.6243 - V	ai_i0ss: U.644/
•	1	50 0/ma/atan	- loss: 0 6220 - :-	al loss 0.6200
Epoch 39/100	:========] -	- 25 241118/Steb -	- 1∪55. U.U∠39 - V	ai_iUSS. U.0308
•	:=======] -	- 5e 9/me/etan	lose: 0.6225 . v	al loss: 0.6226
Epoch 40/100		09 341119/216b.	1033. U.UZZJ - V	ai_1055. 0.0520
•	:========] -	- 5s 94ms/sten -	· loss: 0 6216 - v	al loss 0.63/1
Epoch 41/100	J	ου σ τ ιτιο/οισμ	1000. U.UZ 1U ~ V	ai_1000. 0.0041
•	:========] -	- 5s 94ms/sten -	· loss: 0 6204 - v	al loss: 0.6244
Epoch 42/100	 j	30 Σ ππο/ στορ	.555. 5.5254 V	u1000. 0.0244
•	:========] -	- 5s 93ms/sten -	· loss: 0.6184 - v	al loss: 0.6255
Epoch 43/100	1	12 2 3 3 o, otop		
•	:========] -	- 5s 94ms/sten -	· loss: 0.6172 - v	al_loss: 0.6227
Epoch 44/100	1			
•	:========] -	- 5s 94ms/step -	· loss: 0.6157 - v	al_loss: 0.6212
Epoch 45/100	,	, .		
•	:========] -	- 5s 93ms/step -	· loss: 0.6127 - v	al_loss: 0.6159
•	•		· - ·	

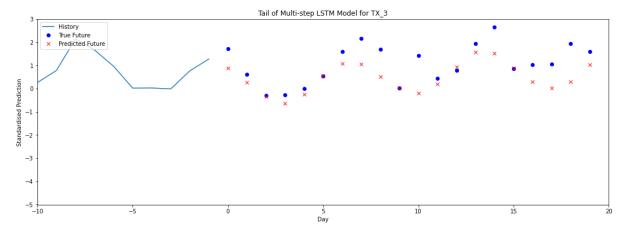
Epoch 46/100
50/50 [====================================
Epoch 47/100
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
Epoch 50/100
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100
50/50 [====================================
Epoch 54/100
50/50 [====================================
Epoch 55/100
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100
50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100
50/50 [====================================
Epoch 64/100
50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================

Epoch 70/100
50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100
50/50 [====================================
Epoch 74/100
50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100
50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100
50/50 [====================================
Epoch 83/100
50/50 [====================================
Epoch 84/100
50/50 [====================================
Epoch 85/100
50/50 [====================================
Epoch 86/100
50/50 [====================================
Epoch 87/100
50/50 [====================================
Epoch 88/100
50/50 [====================================
Epoch 89/100
50/50 [====================================
Epoch 90/100
50/50 [====================================
Epoch 91/100
50/50 [====================================
Epoch 92/100
50/50 [====================================
Epoch 93/100
50/50 [====================================
1 00 5 miles of the control of the c

Epoch 94/100 Epoch 95/100 Epoch 96/100 Epoch 97/100 Epoch 98/100 Epoch 99/100 50/50 [====== =======] - 5s 93ms/step - loss: 0.4029 - val_loss: 0.4477 Epoch 100/100 50/50 [======== ========] - 5s 94ms/step - loss: 0.3952 - val_loss: 0.4485







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: [3722.4783 3309.6758 2890.9678 2698.388 2958.0457 3495.439 3853.0828

3839.0854 3475.7454 3142.865 2994.0264 3257.3252 3757.6707 4179.68

4157.217 3726.7888 3322.1423 3139.1218 3324.969 3819.9802]

TX_3 - Model Percentage Error: [13.1479638 6.45348272 1.46667439 8.18686834 5.64447674 0.27076778

8.30359915 16.08556395 18.44802062 0.05937568 26.81431515 4.78441405 2.55651349 5.69313683 15.24532524 0.53382299 13.14660565 18.05998888 25.079563 9.00475882]%

TX_3 - Model Mean Percentage Error: 9.949261863759661%

Training Model for WI_1...

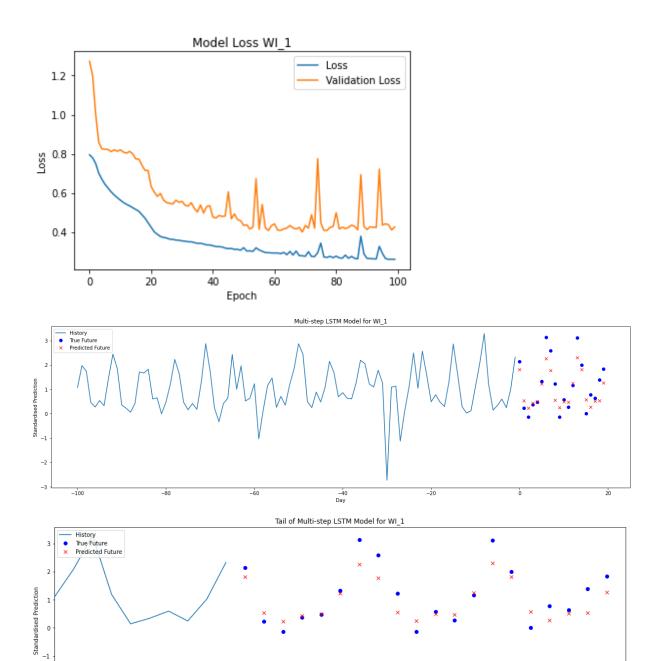
```
Epoch 1/100
Epoch 2/100
50/50 [=======
                ========] - 5s 92ms/step - loss: 0.7793 - val_loss: 1.1993
Epoch 3/100
50/50 [======
            ============] - 5s 92ms/step - loss: 0.7499 - val_loss: 1.0014
Epoch 4/100
Epoch 5/100
50/50 [============== - - 5s 92ms/step - loss: 0.6698 - val_loss: 0.8248
Epoch 6/100
               =========] - 5s 92ms/step - loss: 0.6438 - val_loss: 0.8231
50/50 [=========
Epoch 7/100
Epoch 8/100
50/50 [============== - - 5s 93ms/step - loss: 0.6053 - val_loss: 0.8112
Epoch 9/100
50/50 [============== - - 5s 91ms/step - loss: 0.5890 - val_loss: 0.8202
Epoch 10/100
```

50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100 50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================
Epoch 23/100
50/50 [====================================
Epoch 24/100
50/50 [====================================
50/50 [====================================
Epoch 26/100 50/50 [====================================
Epoch 27/100 50/50 [====================================
Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100

50/50 [====================================
Epoch 35/100
50/50 [====================================
Epoch 36/100
50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
50/50 [====================================
Epoch 39/100
50/50 [====================================
Epoch 40/100 50/50 [====================================
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
Epoch 43/100
50/50 [====================================
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================
Epoch 46/100
50/50 [====================================
Epoch 47/100
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100
50/50 [====================================
Epoch 54/100
50/50 [====================================
Epoch 55/100
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100

50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100
50/50 [====================================
Epoch 64/100
50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================
Epoch 70/100 50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100
50/50 [====================================
Epoch 74/100
50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100
50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100

50/50 [====================================).4156
Epoch 83/100	
50/50 [====================================).4249
Epoch 84/100	
50/50 [====================================).4176
Epoch 85/100	
50/50 [====================================).4236
Epoch 86/100	
50/50 [====================================).4352
Epoch 87/100	
50/50 [====================================).4289
Epoch 88/100	
50/50 [====================================).4110
Epoch 89/100	
50/50 [====================================).6930
Epoch 90/100	
50/50 [====================================).4294
Epoch 91/100	
50/50 [====================================).4125
Epoch 92/100	
50/50 [====================================).4264
Epoch 93/100	
50/50 [====================================).4246
Epoch 94/100	
50/50 [====================================).4230
Epoch 95/100	
50/50 [====================================).7212
Epoch 96/100	
50/50 [====================================).4351
Epoch 97/100	
50/50 [====================================).4419
Epoch 98/100	
50/50 [====================================).4369
Epoch 99/100	1100
50/50 [====================================	J.4 I U3
Epoch 100/100	1050
50/50 [====================================	1.4258



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: [4297.331 3081.5476 2804.545 2999.7708 3059.9734 3734.579 4716.7715

4251.8647 3103.6218 2826.4668 3059.364 3041.352 3761.6191 4758.4707 4301.4473 3120.2263 2832.0679 3077.0168 3094.765 3775.524]

-3 | -10

WI_1 - Model Percentage Error: [6.57975968 10.13393879 13.72850454 2.13724045 0.78963731 2.8718049

14.82897284 15.53705312 17.01545919 14.89702426 2.41263114 7.43030911 2.32913875 13.7333085 3.57661364 20.14733609 14.51651461 3.23846397 20.62670191 12.36016885]%

WI_1 - Model Mean Percentage Error: 9.944529082559102%

Training Model for WI_2...

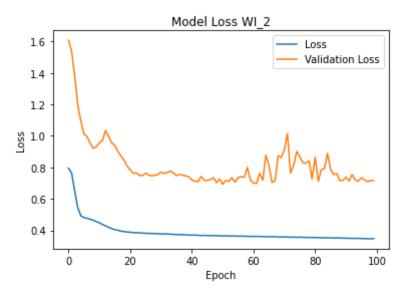
Epoch 1/100
50/50 [====================================
Epoch 2/100
50/50 [====================================
Epoch 3/100
50/50 [====================================
Epoch 4/100
50/50 [====================================
Epoch 5/100
50/50 [====================================
Epoch 6/100
50/50 [====================================
Epoch 7/100
50/50 [====================================
Epoch 8/100
50/50 [====================================
Epoch 9/100
50/50 [====================================
Epoch 10/100
50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100 50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100
50/50 [====================================
Epoch 21/100
50/50 [====================================
·

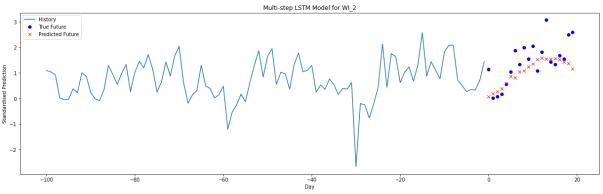
Epoch 22/100	1 5 00 / 1 1 00056 11 007600
	======================================
Epoch 23/100	
	-=====================================
Epoch 24/100	======================================
Epoch 25/100	:=====================================
•	======================================
Epoch 26/100	
•	======================================
Epoch 27/100	
	======================================
Epoch 28/100	1 00 301110/310p 1000. 0.0003 Val_1000. 0.7010
•	======================================
Epoch 29/100	1 00 semeratep 10001 010000 141_10001 017 101
•	======================================
Epoch 30/100	1 00 1 = 11.07 10.04 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00
•	======================================
Epoch 31/100	1
50/50 [======	======================================
Epoch 32/100	·
50/50 [======	======================================
Epoch 33/100	
50/50 [======	======================================
Epoch 34/100	
50/50 [======	
Epoch 35/100	
	======================================
Epoch 36/100	
Epoch 37/100	_
_	======================================
Epoch 38/100	
_	-=====================================
Epoch 39/100	1.5.00 /
Epoch 40/100	1 5-00/ 1 1 -00704 11 07404
	-=====================================
Epoch 41/100	
_	
Epoch 42/100	
Epoch 43/100	
_	
Epoch 44/100	======================================
Epoch 45/100	
•	======================================
30/30 [=	

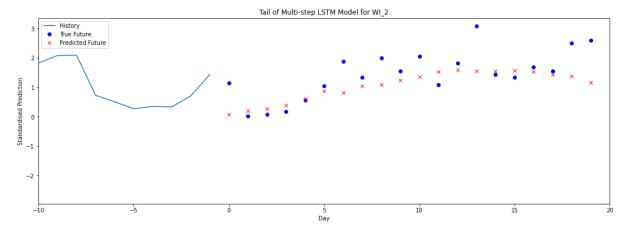
Epoch 46/100
50/50 [====================================
Epoch 47/100
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
Epoch 50/100
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100
50/50 [====================================
Epoch 54/100
50/50 [====================================
Epoch 55/100
·
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100
. 50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [====================================
50/50 [============] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [==========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [==========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [===========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [=============] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [==============] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [==============] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7193
50/50 [===========] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [=========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [==========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [===========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [==============] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [===============] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [================] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7619 Epoch 64/100 50/50 [====================] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7193 Epoch 65/100
50/50 [========] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [=========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [===========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [===========] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [=============] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [=============] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7193 Epoch 65/100 50/50 [==============] - 5s 93ms/step - loss: 0.3600 - val_loss: 0.8773
50/50 [========] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [=========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [==========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [==========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [=============] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [===============] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [==============] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7193 Epoch 65/100 50/50 [================] - 5s 93ms/step - loss: 0.3600 - val_loss: 0.8773 Epoch 66/100
50/50 [===========] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [==========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [==========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [===========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [============] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [==============] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [==============] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7193 Epoch 65/100 50/50 [===============] - 5s 93ms/step - loss: 0.3600 - val_loss: 0.8773 Epoch 66/100 50/50 [========================] - 5s 93ms/step - loss: 0.3599 - val_loss: 0.8142
50/50 [========] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [=========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [==========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [==========] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [===========] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [==========] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7619 Epoch 65/100 50/50 [=========] - 5s 93ms/step - loss: 0.3600 - val_loss: 0.8773 Epoch 66/100 50/50 [=============] - 5s 93ms/step - loss: 0.3599 - val_loss: 0.8142 Epoch 67/100
50/50 [====================================
50/50 [====================================
50/50 [=========] - 5s 109ms/step - loss: 0.3630 - val_loss: 0.7368 Epoch 59/100 50/50 [=========] - 6s 126ms/step - loss: 0.3620 - val_loss: 0.8002 Epoch 60/100 50/50 [========] - 5s 93ms/step - loss: 0.3614 - val_loss: 0.7202 Epoch 61/100 50/50 [========] - 5s 94ms/step - loss: 0.3612 - val_loss: 0.7005 Epoch 62/100 50/50 [=========] - 5s 92ms/step - loss: 0.3620 - val_loss: 0.6987 Epoch 63/100 50/50 [============] - 5s 94ms/step - loss: 0.3610 - val_loss: 0.7619 Epoch 64/100 50/50 [=============] - 5s 93ms/step - loss: 0.3612 - val_loss: 0.7193 Epoch 65/100 50/50 [===============] - 5s 93ms/step - loss: 0.3600 - val_loss: 0.8773 Epoch 66/100 50/50 [=======================] - 5s 93ms/step - loss: 0.3599 - val_loss: 0.8142 Epoch 67/100 50/50 [====================================

Epoch 70/100	
50/50 [====================================	: 0.8618
Epoch 71/100	
50/50 [====================================	: 0.9118
Epoch 72/100	
50/50 [====================================	: 1.0151
Epoch 73/100	0 7444
50/50 [====================================	: 0./641
Epoch 74/100	. 0 0100
50/50 [====================================	. 0.8122
Epoch 75/100 50/50 [====================================	. 0 0010
Epoch 76/100	. 0.9010
50/50 [====================================	· 0 8687
Epoch 77/100	. 0.0007
50/50 [====================================	: 0.8290
Epoch 78/100	
50/50 [====================================	: 0.8269
Epoch 79/100	
50/50 [====================================	: 0.8431
Epoch 80/100	
50/50 [====================================	: 0.7261
Epoch 81/100	
50/50 [====================================	: 0.8645
Epoch 82/100	
50/50 [====================================	: 0.7110
Epoch 83/100	0.7040
50/50 [====================================	: 0.7849
Epoch 84/100 50/50 [====================================	. 0 7020
Epoch 85/100	. 0.7920
50/50 [====================================	· n 8801
Epoch 86/100	. 0.0051
50/50 [====================================	: 0.7889
Epoch 87/100	
50/50 [====================================	: 0.7548
Epoch 88/100	
50/50 [====================================	: 0.7603
Epoch 89/100	
50/50 [====================================	: 0.7154
Epoch 90/100	
50/50 [====================================	: 0.7168
Epoch 91/100	
50/50 [====================================	: 0.7384
Epoch 92/100	0 = 1 = =
50/50 [====================================	: 0.7135
Epoch 93/100	. 0 7540
50/50 [====================================	. 0./543

Epoch 94/100 Epoch 95/100 Epoch 96/100 Epoch 97/100 Epoch 98/100 Epoch 99/100 50/50 [====== =======] - 5s 94ms/step - loss: 0.3468 - val_loss: 0.7161 Epoch 100/100 50/50 [======= =======] - 5s 93ms/step - loss: 0.3477 - val_loss: 0.7165







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: [3383.4995 3506.9377 3620.4094 3742.8447 4010.6055 4353.908 4286.078

4553.5913 4619.021 4790.1606 4952.8125 5155.988 5220.4883 5175.517

5171.2393 5200.518 5148.8975 5026.2275 4964.119 4711.461

WI_2 - Model Percentage Error: [27.54819033 6.2386472 6.92290088 6.93842076 1.2523471 4.70763399

23.2710683 7.35317785 19.2196398 7.32906472 14.40006049 11.91638361 5.18546529 26.54673446 2.48195121 5.98161945 3.90262298 2.96858033 21.61504594 27.10102216]%

WI_2 - Model Mean Percentage Error: 11.644028842255572%

Training Model for WI_3...

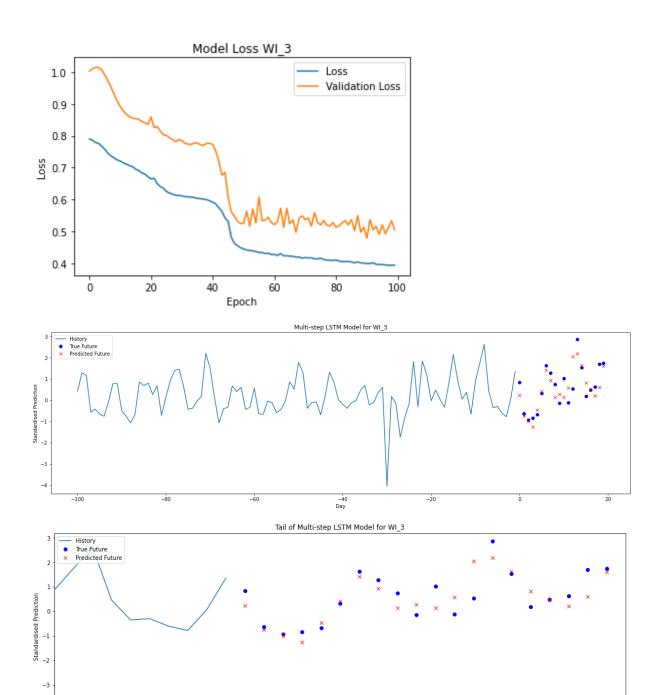
```
Epoch 1/100
Epoch 2/100
50/50 [======
             ==========] - 5s 93ms/step - loss: 0.7863 - val_loss: 1.0103
Epoch 3/100
50/50 [======
          Epoch 4/100
50/50 [============== - - 5s 92ms/step - loss: 0.7758 - val_loss: 1.0140
Epoch 5/100
50/50 [============== - - 5s 93ms/step - loss: 0.7673 - val_loss: 1.0066
Epoch 6/100
Epoch 7/100
Epoch 8/100
50/50 [============== - 5s 94ms/step - loss: 0.7366 - val_loss: 0.9526
Epoch 9/100
50/50 [============= - - 5s 93ms/step - loss: 0.7308 - val_loss: 0.9304
Epoch 10/100
```

50/50 [====================================
Epoch 11/100
50/50 [====================================
Epoch 12/100
50/50 [====================================
Epoch 13/100
50/50 [====================================
Epoch 14/100
50/50 [====================================
Epoch 15/100
50/50 [====================================
Epoch 16/100
50/50 [====================================
Epoch 17/100
50/50 [====================================
Epoch 18/100
50/50 [====================================
Epoch 19/100
50/50 [====================================
Epoch 20/100 50/50 [====================================
Epoch 21/100
50/50 [====================================
Epoch 22/100
50/50 [====================================
Epoch 23/100
50/50 [====================================
Epoch 24/100
50/50 [====================================
Epoch 25/100
50/50 [====================================
Epoch 26/100
50/50 [====================================
Epoch 27/100
50/50 [========================] - 5s 94ms/step - loss: 0.6202 - val_loss: 0.7931
Epoch 28/100
50/50 [====================================
Epoch 29/100
50/50 [====================================
Epoch 30/100
50/50 [====================================
Epoch 31/100
50/50 [====================================
Epoch 32/100
50/50 [====================================
Epoch 33/100
50/50 [====================================
Epoch 34/100

50/50 [====================================
Epoch 35/100
50/50 [====================================
Epoch 36/100
50/50 [====================================
Epoch 37/100
50/50 [====================================
Epoch 38/100
50/50 [====================================
Epoch 39/100
50/50 [====================================
Epoch 40/100
50/50 [====================================
Epoch 41/100
50/50 [====================================
Epoch 42/100
50/50 [====================================
Epoch 43/100
50/50 [====================================
Epoch 44/100
50/50 [====================================
Epoch 45/100
50/50 [====================================
Epoch 46/100
50/50 [====================================
Epoch 47/100
50/50 [====================================
Epoch 48/100
50/50 [====================================
Epoch 49/100
50/50 [====================================
Epoch 50/100
50/50 [====================================
Epoch 51/100
50/50 [====================================
Epoch 52/100
50/50 [====================================
Epoch 53/100
50/50 [====================================
Epoch 54/100
50/50 [====================================
Epoch 55/100
50/50 [====================================
Epoch 56/100
50/50 [====================================
Epoch 57/100
50/50 [====================================
Epoch 58/100

50/50 [====================================
Epoch 59/100
50/50 [====================================
Epoch 60/100
50/50 [====================================
Epoch 61/100
50/50 [====================================
Epoch 62/100
50/50 [====================================
Epoch 63/100
50/50 [====================================
Epoch 64/100
50/50 [====================================
Epoch 65/100
50/50 [====================================
Epoch 66/100
50/50 [====================================
Epoch 67/100
50/50 [====================================
Epoch 68/100
50/50 [====================================
Epoch 69/100
50/50 [====================================
Epoch 70/100
50/50 [====================================
Epoch 71/100
50/50 [====================================
Epoch 72/100
50/50 [====================================
Epoch 73/100
50/50 [====================================
Epoch 74/100 50/50 [====================================
Epoch 75/100
50/50 [====================================
Epoch 76/100
50/50 [====================================
Epoch 77/100
50/50 [====================================
Epoch 78/100
50/50 [====================================
Epoch 79/100
50/50 [====================================
Epoch 80/100
50/50 [====================================
Epoch 81/100
50/50 [====================================
Epoch 82/100

50/50 [====================================
Epoch 83/100
50/50 [====================================
Epoch 84/100
$50/50 \ [===================================$
Epoch 85/100
50/50 [====================================
Epoch 86/100
50/50 [====================================
Epoch 87/100
50/50 [====================================
Epoch 88/100
50/50 [====================================
Epoch 89/100
50/50 [====================================
Epoch 90/100
50/50 [====================================
Epoch 91/100
50/50 [====================================
Epoch 92/100
50/50 [====================================
Epoch 93/100
50/50 [====================================
Epoch 94/100
50/50 [====================================
Epoch 95/100
50/50 [====================================
Epoch 96/100 50/50 [====================================
Epoch 97/100
50/50 [====================================
Epoch 98/100
50/50 [====================================
Epoch 99/100
50/50 [====================================
Epoch 100/100
50/50 [====================================
1 00 300, 000 1000. 0.0000



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: [3501.7063 2706.2705 2499.3276 2282.5332 2940.985 3654.6814 4490.801

4078.9136 3432.8699 3549.3408 3440.6418 3793.2493 4992.5093 5113.3447 4653.0703 3991.9802 3702.2505 3491.342 3812.3618 4641.394]

WI_3 - Model Percentage Error: [12.4135493 3.55415154 2.52232306 13.27761386 5.98144531 2.08607253

3.48590627 6.48983094 12.8270728 10.57136512 17.15285707 17.83936836 32.92090728 9.61031065 1.66201251 15.10900302 0.69070579 8.91359142 19.24673128 2.47123255]%

WI_3 - Model Mean F	Percentage Error: 9.9413025329816779
=======================================	=======================================