MODEL BUILDING

TRAIN THE MODEL

Team ID	PNT2022TMID13501
Project Name	Crude Oil Price Prediction

Train The Model

```
model.fit(x_train,y_train,validation_data=(x_test,ytest),epochs=50,batch_size=64,verbose=1)
```

```
Epoch 1/50
84/84 [==============================] - 10s 40ms/step - loss: 0.0018 - val_loss: 7.8491e-04
Epoch 2/50
84/84 [==============================] - 2s 23ms/step - loss: 1.2458e-04 - val_loss: 8.2808e-04
Epoch 3/50
84/84 [==============================] - 2s 26ms/step - loss: 1.1971e-04 - val_loss: 7.3377e-04
Epoch 4/50
84/84 [==============================] - 2s 22ms/step - loss: 1.2129e-04 - val_loss: 8.7799e-04
Epoch 5/50
84/84 [==============================] - 2s 24ms/step - loss: 1.1870e-04 - val_loss: 8.8529e-04
Epoch 6/50
84/84 [==============================] - 2s 26ms/step - loss: 1.2588e-04 - val_loss: 0.0010
Epoch 7/50
84/84 [==============================] - 2s 24ms/step - loss: 1.2309e-04 - val_loss: 0.0011
Epoch 8/50
84/84 [==============================] - 2s 21ms/step - loss: 1.1149e-04 - val_loss: 8.1880e-04
Epoch 9/50
84/84 [==============================] - 2s 19ms/step - loss: 1.1051e-04 - val_loss: 7.3024e-04
Epoch 10/50
84/84 [==============================] - 2s 19ms/step - loss: 1.0838e-04 - val_loss: 6.5473e-04
Epoch 11/50
84/84 [==============================] - 2s 19ms/step - loss: 1.2032e-04 - val_loss: 0.0016
Epoch 12/50
84/84 [==============================] - 2s 19ms/step - loss: 1.1879e-04 - val_loss: 6.1331e-04
Epoch 13/50
84/84 [==============================] - 2s 19ms/step - loss: 1.0408e-04 - val_loss: 5.8768e-04
Epoch 14/50
84/84 [==============================] - 2s 20ms/step - loss: 9.5711e-05 - val_loss: 5.9183e-04
Epoch 15/50
84/84 [==============================] - 2s 20ms/step - loss: 9.1507e-05 - val_loss: 5.4513e-04
Epoch 16/50
84/84 [==============================] - 2s 20ms/step - loss: 8.8257e-05 - val_loss: 6.4066e-04
Epoch 17/50
84/84 [==============================] - 2s 20ms/step - loss: 9.1008e-05 - val_loss: 7.0263e-04
Epoch 18/50
```

```
84/84 [==============================] - 2s 21ms/step - loss: 8.8793e-05 - val_loss: 4.3665e-04
Epoch 19/50
84/84 [==============================] - 2s 23ms/step - loss: 9.0948e-05 - val_loss: 6.0063e-04
Epoch 20/50
84/84 [==============================] - 2s 22ms/step - loss: 8.7479e-05 - val_loss: 6.1548e-04
Epoch 21/50
84/84 [==============================] - 2s 21ms/step - loss: 9.1391e-05 - val_loss: 0.0010
Epoch 22/50
84/84 [==============================] - 2s 21ms/step - loss: 7.4975e-05 - val_loss: 4.2512e-04
Epoch 23/50
84/84 [==============================] - 2s 21ms/step - loss: 9.9814e-05 - val_loss: 7.6774e-04
Epoch 24/50
84/84 [==============================] - 2s 22ms/step - loss: 7.7256e-05 - val_loss: 9.2345e-04
Epoch 25/50
84/84 [==============================] - 2s 21ms/step - loss: 7.0041e-05 - val_loss: 3.3666e-04
Epoch 26/50
84/84 [==============================] - 2s 24ms/step - loss: 6.2571e-05 - val_loss: 3.3346e-04
Epoch 27/50
84/84 [==============================] - 2s 28ms/step - loss: 6.2461e-05 - val_loss: 2.9808e-04
Epoch 28/50
84/84 [==============================] - 2s 24ms/step - loss: 6.3408e-05 - val_loss: 3.0581e-04
Epoch 29/50
84/84 [==============================] - 2s 23ms/step - loss: 6.3040e-05 - val_loss: 2.6675e-04
Epoch 30/50
84/84 [==============================] - 2s 23ms/step - loss: 5.8238e-05 - val_loss: 2.6790e-04
Epoch 31/50
84/84 [==============================] - 2s 22ms/step - loss: 5.2839e-05 - val_loss: 3.2383e-04
Epoch 32/50
84/84 [==============================] - 2s 22ms/step - loss: 5.5354e-05 - val_loss: 2.4147e-04
Epoch 33/50
84/84 [==============================] - 2s 26ms/step - loss: 5.0568e-05 - val_loss: 2.5649e-04
Epoch 34/50
84/84 [==============================] - 2s 24ms/step - loss: 4.8728e-05 - val_loss: 2.1842e-04
Epoch 35/50
84/84 [==============================] - 2s 23ms/step - loss: 4.6476e-05 - val_loss: 5.8689e-04
Epoch 36/50
84/84 [==============================] - 2s 21ms/step - loss: 4.6695e-05 - val_loss: 4.8287e-04
Epoch 37/50
84/84 [==============================] - 2s 20ms/step - loss: 4.2308e-05 - val_loss: 3.8755e-04
Epoch 38/50
84/84 [==============================] - 2s 20ms/step - loss: 4.2573e-05 - val_loss: 2.0293e-04

84/84 [==============================] - 2s 20ms/step - loss: 4.2573e-05 - val_loss: 2.0293e-04
Epoch 39/50
84/84 [==============================] - 2s 19ms/step - loss: 4.4277e-05 - val_loss: 2.0208e-04
Epoch 40/50
84/84 [==============================] - 2s 19ms/step - loss: 4.1741e-05 - val_loss: 2.6171e-04
Epoch 41/50
84/84 [==============================] - 2s 21ms/step - loss: 4.2183e-05 - val_loss: 1.8483e-04
Epoch 42/50
84/84 [==============================] - 2s 21ms/step - loss: 3.6736e-05 - val_loss: 2.1604e-04
Epoch 43/50
84/84 [==============================] - 2s 26ms/step - loss: 3.5417e-05 - val_loss: 1.9743e-04
Epoch 44/50
84/84 [==============================] - 2s 28ms/step - loss: 3.7554e-05 - val_loss: 1.8170e-04
Epoch 45/50
84/84 [==============================] - 2s 22ms/step - loss: 3.7558e-05 - val_loss: 1.8212e-04
Epoch 46/50
84/84 [==============================] - 2s 21ms/step - loss: 3.6515e-05 - val_loss: 7.0041e-04
Epoch 47/50
84/84 [==============================] - 2s 21ms/step - loss: 3.5327e-05 - val_loss: 4.7348e-04
Epoch 48/50
84/84 [==============================] - 2s 20ms/step - loss: 3.4312e-05 - val_loss: 2.0132e-04
Epoch 49/50
84/84 [==============================] - 2s 20ms/step - loss: 3.4950e-05 - val_loss: 2.2466e-04
Epoch 50/50
84/84 [==============================] - 2s 21ms/step - loss: 3.2850e-05 - val_loss: 1.8159e-04
```