

## Splitting Data into Train and Test

PNT2022TMID31476

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
ds = pd.read_csv(r"/content/ Crude-Oil-Prices-Daily.csv")
ds.head()

      Date  Closing Value
0  2/1/1986      25.56
1 11/3/1986      26.00
2 21/6/1986      26.53
3 31/7/1986      25.85
4 41/8/1986      25.87

import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.model_selection import train_test_split

X = ds.iloc[:, :-1]
y = ds.iloc[:, -1]

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.05, random_state=0)
print(X_train)

      Date
1940  8/11/1993
2270 12/1/1994
2500 10/30/1995
572  4/7/1988  7144
4/29/2014
...
4373 4/17/2003
7891 3/30/2017
4859 3/31/2005
3264 11/10/1998  2732
10/1/1996

[7811 rows x 1 columns]
print(X_test)

      Date
5993 10/2/2009
7764 9/30/2016
7937 6/5/2017
```

```
7986 8/11/2017
2402 6/12/1995
...
6706 8/1/2012
5489 10/3/2007
7663 5/15/2016
396 7/30/1987
8206 6/15/2018
```

```
[412 rows x 1 columns]print(y_train)
```

```
1940      17.87
2270      17.77
2500      17.67
572       17.05
7144     101.56
...
4373      30.10
7891      50.35
4859      55.31
3264      13.54
2732      24.35
```

```
Name: Closing Value, Length: 7811, dtype: float64
```

```
print(y_test)
```

```
5993      69.80
7764      48.24
7937      47.40
7986      48.82
2402      18.87
...
6706      88.99
5489      79.97
7663      46.80
396       21.47
8206      65.01
```

```
Name: Closing Value, Length: 412, dtype: float64
```