

The screenshot shows a Jupyter Notebook titled "Data preprocessing.ipynb". The file explorer on the left indicates the current directory contains "sample\_data", which includes "Crude Oil Prices Daily.xlsx" and "archive.zip". The notebook has three code cells:

- Cell 1:** Imports pandas and loads the data into a DataFrame named `df`.
 

```
import pandas as pd
df = pd.read_excel('sample_data/Crude Oil Prices Daily.xlsx')
```
- Cell 2:** Displays `df.info()` to check the data structure.
 

```
[32]: df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 8216 entries, 0 to 8212
Data columns (total 2 columns):
 #   column          non-null count  dtype
---  ---
 0   Date            8216 non-null  datetime64[ns]
 1   Closing Value   8216 non-null  float64
dtypes: datetime64[ns](1), float64(1)
memory usage: 152.6 KB
```
- Cell 3:** Checks for missing values using `df.isnull().any()`.
 

```
df.isnull().any()
```

```
Date            False
Closing Value    False
dtype: bool
```
- Cell 4:** Checks the total count of missing values using `df.isnull().sum()`.
 

```
df.isnull().sum()
```

```
Date            0
Closing Value    0
dtype: int64
```

The screenshot shows a Jupyter Notebook titled "Data preprocessing.ipynb". The interface includes a top menu bar with options like File, Edit, View, Insert, Runtime, Tools, and Help. On the left, a "Files" sidebar shows a directory structure with "sample\_data", "Crude Oil Prices Daily.xlsx", and "archive.zip". The main area displays the following code cells:

```
[36] df.dropna(axis=0, inplace=True)
```

```
[37] df.isnull().sum()

date                0
Closing Value       0
dtype: int64
```

```
df_oil=df.reset_index()['Closing Value']
df_oil
```

```
0      25.56
1      26.00
2      26.53
3      25.85
4      25.87
...
8211   73.89
8212   74.19
8213   73.05
8214   73.78
8215   73.93
Name: Closing Value, Length: 8216, dtype: float64
```

The output of the last cell shows a series of oil prices indexed from 0 to 8215, with a name of "Closing Value" and a dtype of "float64".