

13. Write a Pandas program to detect missing values of a given DataFrame. Display True or False.

CODE:

```
13.Missing values.py - C:/Query processing/13.Missing values.py (3.11.1)
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import pandas as pd
import numpy as np

# Create a dataframe with random values
data = np.random.rand(10, 4)
df = pd.DataFrame(data, columns=['A', 'B', 'C', 'D'])

# Introduce some NaN values
nan_indices = np.random.choice(range(10), size=5, replace=False)
for col in df.columns:
    df.loc[nan_indices, col] = np.nan

# Detect missing values
missing_values = df.isna()

# Display the DataFrame with True for missing values and False for non-missing values
print("DataFrame with True for missing values and False for non-missing values:")
print(missing_values)
```

OUTPUT:

```
>>> ===== RESTART: C:/Query processing/13.Missing values.py =====
DataFrame with True for missing values and False for non-missing values:
   A    B    C    D
0  True  True  True  True
1  False False False False
2  True  True  True  True
3  False False False False
4  True  True  True  True
5  True  True  True  True
6  False False False False
7  True  True  True  True
8  False False False False
9  False False False False
>>>
```