**Creating a Sample Dataframe**

import pandas as pd

import numpy as np

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# Creating a sample DataFrame with missing values

data = {

'School ID': [101, 102, 103, np.nan, 105, 106, 107, 108],

'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eva', 'Frank', 'Grace', 'Henry'],

'Address': ['123 Main St', '456 Oak Ave', '789 Pine Ln', '101 Elm St', np.nan, '222 Maple Rd', '444 Cedar Blvd', '555 Birch Dr'],

'City': ['Los Angeles', 'New York', 'Houston', 'Los Angeles', 'Miami', np.nan, 'Houston', 'New York'],

'Subject': ['Math', 'English', 'Science', 'Math', 'History', 'Math', 'Science', 'English'],

'Marks': [85, 92, 78, 89, np.nan, 95, 80, 88],

'Rank': [2, 1, 4, 3, 8, 1, 5, 3],

'Grade': ['B', 'A', 'C', 'B', 'D', 'A', 'C', 'B']

}

​

df = pd.DataFrame(data)

print("Sample DataFrame:")

​

print(df)

**Output:**

**Sample Dataframe:**  
 School ID Name Address City Subject Marks Rank Grade  
0 101.0 Alice 123 Main St Los Angeles Math 85.0 2 B  
1 102.0 Bob 456 Oak Ave New York English 92.0 1 A  
2 103.0 Charlie 789 Pine Ln Houston Science 78.0 4 C  
3 NaN David 101 Elm St Los Angeles Math 89.0 3 B  
4 105.0 Eva NaN Miami History NaN 8 D  
5 106.0 Frank 222 Maple Rd NaN Math 95.0 1 A  
6 107.0 Grace 444 Cedar Blvd Houston Science 80.0 5 C  
7 108.0 Henry 555 Birch Dr New York English 88.0 3 B

**Removing Rows with Missing Values**

* Simple and efficient: Removes data points with missing values altogether.
* Reduces sample size: Can lead to biased results if missingness is not random.
* Not recommended for large datasets: Can discard valuable information.

In this example, we are removing rows with missing values from the original DataFrame (df) using the dropna() method and then displaying the cleaned DataFrame (df\_cleaned).

# Removing rows with missing values

df\_cleaned = df.dropna()

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# Displaying the DataFrame after removing missing values

print("\nDataFrame after removing rows with missing values:")

print(df\_cleaned)

**Output:**

**DataFrame after removing rows with missing values:**  
 School ID Name Address City Subject Marks Rank Grade  
0 101.0 Alice 123 Main St Los Angeles Math 85.0 2 B  
1 102.0 Bob 456 Oak Ave New York English 92.0 1 A  
2 103.0 Charlie 789 Pine Ln Houston Science 78.0 4 C  
6 107.0 Grace 444 Cedar Blvd Houston Science 80.0 5 C  
7 108.0 Henry 555 Birch Dr New York English 88.0 3 B