Contents

3. PANDAS – NaN Value

1. NaN Value

- ✓ The full form of NaN is **N**ot **a** **N**umber
- ✓ The purpose of NaN is, to represent the missing values in data.
- ✓ The data type of NaN is float.
- ✓ During data analysis we need to handle these NaN values.
- ✓ We will learn **more** about NaN in **12th** chapter which is handling missing values chapter.

2. None, NaN, nan and null

- ✓ None, NaN, nan, and null are synonyms.
- ✓ These all are repressing to empty or missing data found in a Series, DataFrame.

Program Name: Creating Series with NaN values
demo1.py

```
import pandas as pd
import numpy as np

marks = [36, 70, np.nan, 60]
s = pd.Series(marks)
print(s)
```

Output

```
0    36.0
1    70.0
2     NaN
3    60.0
dtype: float64
```

Program Name: Creating Series with NaN values
demo2.py

```
import pandas as pd
import numpy as np

names = ["Daniel", "Ranjan", "Swathi", np.nan]
s = pd.Series(names)
print(s)
```

Output

```
0     Daniel
1     Ranjan
2     Swathi
3        NaN
dtype: object
```

3. While loading any file

- ✓ While loading any csv/excel/json file, if columns having missing values, then pandas consider those values as NaN.
- ✓ We will learn same point during loading files.