

The Series in Pandas is a one-dimensional array that uses the **Series()** method to create a Series, but it also uses different built-in attributes and methods for basic functionalities. In this lesson, let us see such attributes and methods in **Python Pandas for Series**:

- **dtype**: Return the dtype.
- **ndim**: Return the Number of dimensions
- **size**: Return the number of elements.
- **name**: Return the name of the Series.
- **hasnans**: Returns True if NaNs are in the series.
- **index**: The index of the series
- **head()**: Return the first n rows.
- **tail()**: Return the last n rows.
- **info()**: Display the Summary of the series

Let us understand them one by one:

## dtype

The **pandas.series.dtype** is used to return the datatype of the Series.

## dtype

The `pandas.series.dtype` is used to return the datatype of the Series.

Let us now see an example to implement the type attribute in Python Pandas:

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100]

# Create a Series using the Series() method
s = pd.Series(data)

# Display the Series
print("Series: \n", s)

# Datatype
print("\nSeries Datatype: ", s.dtype)
```

## Output

```
Series:
0      10
1      20
2      40
3      80
4     100
dtype: int64

Series Datatype:  int64
```

## ndim

The `pandas.series.ndim` is used to return the number of dimensions of the Series.

Let us now see an example to implement

## ndim

The `pandas.series.ndim` is used to return the number of dimensions of the Series.

Let us now see an example to implement the `ndim` attribute in Python Pandas

Men

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100]

# Create a Series using the Series() method
s = pd.Series(data)

# Display the Series
print("Series: \n", s)

# Dimensions
print("\nSeries Dimensions: ", s.ndim)
```

## Output

```
Series:
0      10
1      20
2      40
3      80
4     100
dtype: int64

Series Dimensions:  1
```

## size

The `pandas.series.size` is used to return

number of elements in the Pandas Series

## size

The `pandas.series.size` is used to return the number of elements in the Pandas Series.

Let us now see an example to implement the size attribute in Python Panda

Menu

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100]

# Create a Series using the Series() method
s = pd.Series(data)

# Display the Series
print("Series: \n", s)

# Return the number of elements in the Series
print("\nSeries Size: ", s.size)
```

## Output

```
Series:
0      10
1      20
2      40
3      80
4     100
dtype: int64

Series Size: 5
```



## name



`pandas.series.name` is used to return the name of the Series in Pandas.

## name

The `pandas.series.name` is used to return the name of the Series in Pandas.

Let us now see an example to implement the name attribute in Python Pandas:

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```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100]

# Create a Series using the Series() method
# We have set the Series name using the name attribute
s = pd.Series(data, name = "MyNumberSeries")

# Display the Series
print("Series: \n", s)

# Return the name of the Series
print("\nSeries Name: ", s.name)
```

## Output

```
Series:
0      10
1      20
2      40
3      80
4     100
Name: MyNumberSeries, dtype: int64

Series Name:  MyNumberSeries
```

## hasnans

The `pandas.series.hasnans` attribute

returns True if NaNs are in the Pandas Series.



# hasnans

The `pandas.series.hasnans` attribute returns True if NaNs are in the Pandas Series.

Let us now see an example to implement the hasnans attribute in Python Pandas:

Men

```
import pandas as pd
import numpy as np

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100, np.NaN]

# Create a Series using the Series() method
s = pd.Series(data)

# Display the Series
print("Series: \n", s)

# Check whether the Series has NaNs
print("\nDoes the Series has NaN? ", s.hasnans)
```

## Output

```
Series:
0      10.0
1      20.0
2      40.0
3      80.0
4     100.0
5        NaN
dtype: float64

Does the Series has NaN?  True
```



# index

The `pandas.series.index` attribute is used to display the index of the Pandas Series.

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Let us now see an example to implement the index attribute in [Python Pandas](#):

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100]

# Create a Series using the Series() method
s = pd.Series(data, index=["RowA", "RowB"])

# Display the Series
print("Series (with custom index labels).")

# Return the index of the Series
print("\nSeries Index: ", s.index)
```



Output

# head()

The `pandas.series.head()` method is used to return the first `n` rows of the Pandas Series.

Let us now see an example to implement the `head()` method in Python Pandas

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100, 200, 300, 500]

# Create a Series using the Series() method
s = pd.Series(data, index=["RowA", "RowB", "RowC", "RowD", "RowE", "RowF", "RowG", "RowH"])

# Display the Series
print("Series (with custom index labels):")

# Return the first n rows.
# The 5 is default for n
print("\nThe first 5 rows of the series:")
```

## Output

```
Series (with custom index labels):
RowA      10
RowB      20
RowC      40
RowD      80
RowE     100
RowF     200
RowG     300
RowH     500
dtype: int64

The first 5 rows of the series:
RowA      10
RowB      20
RowC      40
RowD      80
RowE     100
```



## tail()

The `pandas.series.tail()` method is used to return the last `n` rows of the Pandas Series.

Let us now see an example to implement the `tail()` method in Python Panda

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100, 200, 300, 500]

# Create a Series using the Series() method
s = pd.Series(data, index=["RowA", "RowB", "RowC", "RowD", "RowE", "RowF", "RowG", "RowH"])

# Display the Series
print("Series (with custom index labels):")

# Return the last n rows.
# The 5 is default for n
print("\nThe last 5 rows of the series:\n")
```

## Output

```
Series (with custom index labels):
RowA      10
RowB      20
RowC      40
RowD      80
RowE     100
RowF     200
RowG     300
RowH     500
dtype: int64

The last 5 rows of the series:
RowD      80
RowE     100
RowF     200
RowG     300
RowH     500
```

# info()

The `pandas.series.info()` method is used to display the Summary of the Pandas Series.

Let us now see an example to implement the `info()` method in Python Pandas

Men

```
import pandas as pd

# Data to be stored in the Pandas Series
data = [10, 20, 40, 80, 100, 200, 300, 500]

# Create a Series using the Series() method
s = pd.Series(data, index=["RowA", "RowB", "RowC", "RowD", "RowE", "RowF", "RowG", "RowH"])

# Display the Series
print("Series (with custom index labels):")

# Return the summary of the series
print("\nSeries Summary:\n", s.info())
```

## Output

```
Series (with custom index labels):
RowA      10
RowB      20
RowC      40
RowD      80
RowE     100
RowF     200
RowG     300
RowH     500
dtype: int64
<class 'pandas.core.series.Series'>
Index: 8 entries, RowA to RowH
Series name: None
Non-Null Count  Dtype
-----
RowA: 1 non-null    int64
RowB: 1 non-null    int64
RowC: 1 non-null    int64
RowD: 1 non-null    int64
RowE: 1 non-null    int64
RowF: 1 non-null    int64
RowG: 1 non-null    int64
RowH: 1 non-null    int64
dtypes: int64(1)
memory usage: 128.0+ bytes
```

