

Series in Pandas is a one-dimensional array, like a column in a table. It is a labeled array that can hold data of any type. The **Series()** method is used for this and has the following parameters:

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- **data:** The data to be stored in the Pandas Series
- **index:** The index values should have the same length as the data.
- **dtype:** It is the datatype for the output Series.
- **name:** Set the series name with the name parameter
- **copy:** To copy the input data

In this lesson, we will understand what is Series with the following examples:

- Create a Pandas Series
- Access a value from a Pandas Series
- Name your own indexes in a Pandas Series
- Access a value from a Pandas Series with labels

Create a Pandas Series

To create a series in Python, we use the

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To create a series in Python, we use the `Series()` method. Let us see an example:

```
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)
```

Menu

Output

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

The 0,1,2,3, etc. are the index numbers i.e. labels.

Access a value from a Pandas Series

Let us see how to access a specific value from a Series. The `[]` is used to access a value. Set the index of the value you want to display inside `[]`:

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

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

# Access a value
print("\nValue from a Pandas Series: ",s[2])
```

Output

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

Value from a Pandas Series: 40
```

Name your own indexes in a Pandas Series

The `index` argument is used to set and

name your own indexes in a Series i.e. the

Name your own indexes in a Pandas Series

The `index` argument is used to set and name your own indexes in a Series i.e. the labels can be set accordingly. Let us see an example:

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, index = ["RowA", "RowB", "RowC", "RowD", "RowE"])

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

Output

```
Series (with custom index labels):
RowA      10
RowB      20
RowC      40
RowD      80
RowE     100
dtype: int64
```

Access a value from a Pandas Series with labels

If you have set the custom index for labels as shown above, then accessing any value from the Series is quite easy. Refer to the label and that's it. Let's see an example:

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Menu

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# 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", "RowC", "RowD", "RowE"])


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

# Access a value referring the label
print("\nValue from a Pandas Series with label RowA is:", s["RowA"])
```

Output

```
Series (with custom index labels):
RowA      10
RowB      20
RowC      40
RowD      80
RowE     100
dtype: int64

Value from a Pandas Series with label RowA is: 10
```

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