Data Science – Pandas – Series - Attributes

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4. PANDAS – SERIES - ATTRIBUTES

1. Series Attributes

- ✓ Series is a predefined class.
- ✓ Series having different attributes.
- ✓ These attributes return information about the object.

1.1. values

- ✓ values is predefined attribute in Series class.
- ✓ We can access values attribute by using series object.
- ✓ This attribute returns the group of values as an array.

```
Program
           Accessing values attribute.
Name
           demo1.py
           import pandas as pd
           marks = [56, 45, 35, 41, 44, 60]
           s = pd.Series(marks)
           print(s)
           print(s.values)
Output
                  56
                  45
                  35
                  41
                  44
                  60
            dtype: int64
            [56 45 35 41 44 60]
```

```
Program Accessing values attribute.
demo2.py

import pandas as pd

names = ["Bharath", "Daniel", "Nireekshan"]
s = pd.Series(names)

print(s)
print(s.values)

Output

Bharath
Daniel
Nireekshan
dtype: object
['Bharath' 'Daniel' 'Nireekshan']
```

1.2. index

- ✓ index is predefined attribute in Series class.
- ✓ We can access index attribute by using series object.
- ✓ This attribute returns the index range like, RangeIndex(start=0, stop=6, step=1)

```
Accessing index attribute.
Program
Name
           demo3.py
           import pandas as pd
           marks = [56, 45, 35, 41, 44, 60]
           s = pd.Series(marks)
           print(s)
           print(s.index)
Output
                 56
                 45
                 35
                 41
                 44
                 60
            dtype: int64
            RangeIndex(start=0, stop=6, step=1)
```

```
Program
            Accessing index attribute.
Name
            demo4.py
            import pandas as pd
            marks = [56, 45, 35, 41, 44, 60]
            i = [11, 12, 13, 14, 15, 16]
            s = pd.Series(marks, index = i)
            print(s)
            print(s.index)
Output
            11
12
                   56
                  45
                   35
                  41
            15
                  44
                   60
            dtype: int64
            Int64Index([11, 12, 13, 14, 15, 16], dtype='int64')
```

```
Program
            Accessing index attribute.
Name
            demo5.py
            import pandas as pd
            marks = [56, 45, 35, 41, 44, 60]
            i = ['a', 'b', 'c', 'd', 'e', 'f']
            s = pd.Series(marks, index = i)
            print(s)
            print(s.index)
Output
                  56
                  45
                  35
                  41
                  44
                  60
            dtype: int64
            Index(['a', 'b', 'c', 'd', 'e', 'f'], dtype='object')
```

1.3. dtypes

- √ dtypes is predefined attribute in Series class.
- ✓ We can access dtypes attribute by using series object.
- ✓ This attribute returns data type of series column.

```
Program
           Accessing dtypes attribute.
           demo6.py
Name
           import pandas as pd
           marks = [56, 45, 35, 41, 44, 60]
           s = pd.Series(marks)
           print(s)
           print(s.dtypes)
Output
                  56
                  45
                  35
                  41
                  44
                  60
            dtype: int64
            int64
```

```
Accessing dtypes attribute.
Program
           demo7.py
Name
           import pandas as pd
           salaries = [1000.23, 1100.45, 8889.7, 999.87]
           s = pd.Series(salaries)
           print(s)
           print(s.dtypes)
Output
                 1000.23
                 1100.45
                 8889.70
                  999.87
           dtype: float64
           float64
```

```
Program
          Accessing dtypes attribute.
           demo8.py
Name
           import pandas as pd
           names = ["Daniel", "Abhinav", "Dinesh", "Akshitha"]
           s = pd.Series(names)
           print(s)
           print(s.dtypes)
Output
                    Daniel
                  Abhinav
                    Dinesh
                 Akshitha
           dtype: object
           object
```

1.4. size

- ✓ size is predefined attribute in Series class.
- ✓ We can access size attribute by using series object.
- ✓ This attribute returns number of values in series.

```
Program
           Accessing size attribute.
           demo9.py
Name
           import pandas as pd
            marks = [56, 45, 35, 41, 44, 60]
            s = pd.Series(marks)
            print(s)
            print(s.size)
Output
                  56
                  45
                  35
                  41
                  44
                  60
            dtype: int64
```