Aim: Write a Python code to create a data series and various operations on it.

1. Creating Data Series:

Code:

```
#import the pandas library and aliasing as pd , Create a Data series:
import pandas as pd
import numpy as np
data = np.array(['v','e','s','i','t'])
s = pd.Series(data)
print(s)
```

Output:

```
0    v
1    e
2    s
3    i
4    t
dtype: object
```

2. Creating DataSeries using index:

Code:

```
# Create a DataSeries using index:
import pandas as pd
import numpy as np
data = np.array(['Atharva','Bhargav','Gaurang','Upendra','Divisha','Manav'])
s = pd.Series(data,index=[100,101,102,103,104,105])
print(s)
```

Output:

```
100    Atharva
101    Bhargav
102    Gaurang
103    Upendra
104    Divisha
105      Manav
dtype: object
```

3. Creating a Series from dict(Dictionary keys are used to construct indexes.)

Code;

```
# Create a Series from dict(Dictionary keys are used to construct index.)
data = {'Atharva' : 03., 'Bhargav': 04. ,'Gaurang' : 11., 'Upendra' :
13.,}
s = pd.Series(data)
print(s)
```

Output:

```
Atharva     3.0
Bhargav     4.0
Gaurang    11.0
Upendra    13.0
dtype: float64
```

4. Accessing Data from Series with Position

Code:

```
# Accessing Data from Series with Position
s = pd.Series([1,2,3,4,5,6],index =
['atharva','bhargav','gaurang','upendra','divisha', 'manav'])
#retrieve the specific element
print(s[3])
```

Output:

```
print(s[3])

4
```

5. Retrieving elements from with index

A. First 3 element

Code:

```
import pandas as pd
s = pd.Series([1,2,3,4,5,6],index =
['atharva','bhargav','gaurang','upendra','divisha', 'manav'])
#retrieve the first three element
print(s[:3])
```

Output:

```
atharva    1
bhargav    2
gaurang    3
dtype: int64
```

B. Last three element

Code:

```
import pandas as pd
s = pd.Series([1,2,3,4,5,6],index =
['atharva','bhargav','gaurang','upendra','divisha', 'manav'])
#retrieve the last three element
print(s[-3:])
```

Output:

```
upendra    4
divsiha    5
manav      6
dtype: int64
```

Conclusion:

We have successfully performed the aim of the experiment on the topic of data series.