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Program/Notebook to demonstrate dat wragling in python using A) Series B) Timedelta

Series

```
#Importing Required Python Libraries
import pandas as pd
import numpy as np
```

```
#Creating Series from a numpy array
Array = np.array(['v', 'i', 's', 'k', 'a', 'p', 'l', 'w'])
Data = pd.Series(Array)
Data
```

```
0    v
1    i
2    s
3    k
4    a
5    p
6    l
7    w
dtype: object
```

```
df = pd.read_excel("Book1.xlsx")
df.head(2)
```

	Sr.	Enrollment No.	Name of Student	CA-I (10marks)	CA-II (10marks)	Midterm (20marks)	UT1	OEA	Midsem split
0	1	2054491246001	AAKANKSHA ANIL SALUNKE	8	8	18	6	8	6
1	2	2054491246002	ABHINASH KAILASH JOSHI	8	9	18	7	8	4

```
#Converting UT1 column into series of Book1.xlsx
Ser = pd.Series(df['UT1'])
#Sorting Values of UT1
Ser.head().sort_values()
```

```
0    6
2    6
1    7
3    8
4    8
Name: UT1, dtype: int64
```

```
#Reading from 1th index to 4th index rows only
df.iloc[1: 4]
```

	Sr.	Enrollment No.	Name of Student	CA-I (10marks)	CA-II (10marks)	Midterm (20marks)	UT1	OEA	Midsem split
1	2	2054491246002	ABHINASH KAILASH JOSHI	8	9	18	7	8	4
2	3	2054491246003	ADITYA JITENDRA MALI	6	8	14	6	8	4
3	4	2054491246004	AISHWARYA AVINASH PATIL	9	9	19	8	8	5

```
#Counting Total values in for each columns in Book1.xlsx
df.count()
```

```
Sr.                 67
Enrollment No.      67
Name of Student     67
CA-I (10marks)      67
CA-II (10marks)     67
Midterm (20marks)   67
UT1                 67
OEA                 67
Midsem split        67
dtype: int64
```

```python
print("Shape = ",df.shape)
```

        Shape = (67, 9)

```python
print("Size = ",df.size)
```

        Size = 603

```python
print("DataFrame Dimension = ",df.ndim)
```

         DataFrame Dimension = 2

```python
print("Total Memory Occupied= ",df.memory_usage())
```

        Total Memory Occupied= Index   128
        Sr.   53
        Enrollment No.   536
        Name of Student   536
        CA-I (10marks)   536
        CA-II (10marks)   536
        Midterm (20marks)   536
        UT1   536
        OEA   536
        Midsem split   536
        dtype: int64

```python
#Changing Name of Column
NC = pd.Series(df['UT1'], name='UT Test 1')
NC.head(3)
```

        0   6
        1   7
        2   6
        Name: UT Test 1, dtype: int64

▾ Timedelta

```python
#Importing Required Libraries
import pandas as pd
```

```python
#Creating a timedelta object by passing a string literal
print(pd.Timedelta('5 days 8 hours 45 minutes 30 seconds'))
```

        5 days 08:45:30

```python
#Create a timedeltaobject by passing an integer, with the unit
print(pd.Timedelta(6, unit='h'))
```

        0 days 06:00:00

```python
#data offsets
print(pd.Timedelta(days=5))
print(pd.Timedelta(hours=5))
print(pd.Timedelta(days=5, hours=4, minutes=2, seconds=30))
```

        5 days 00:00:00
        0 days 05:00:00
        5 days 04:02:30