**Experiment No.: 1**

**Name: RITTYMARIYA K R**

**Roll No:28**

**Batch: MCA B**

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**Aim**

Programs to handle data using pandas.

#1.How to create Series with nd array

import pandas as pd

import numpy as np

arr=np.array([10,15,18,22])

s = pd.Series(arr)

print(s)

out put

0 10

1 15

2 18

3 22

dtype: int64

2. How to create Series with Mutable index

import pandas as pd

import numpy as np

arr=np.array(['a','b','c','d'])

s=pd.Series(arr,

index=['first','second','third','fourth'])

print(s)

out put

first a

second b

third c

fourth d

dtype: object

3. Creating a series from a Dictionary

import pandas as pd

s={'name':'hardik','iplteam':'mi','runs':100}

p=pd.Series(s)

print(p)

out put

name hardik

iplteam mi

runs 100

dtype: object

4. Print all the values of the Series by multiplying them by 2

import pandas as pd

p=pd.Series([1,2,3,4,5])

print(p)

print("multlipling all values in series by 2")

print(p\*2)

out put

0 1

1 2

2 3

3 4

4 5

dtype: int64

multlipling all values in series by 2

0 2

1 4

2 6

3 8

4 10

dtype: int64

5. Print Square of all the values of the series

import pandas as pd

p=pd.Series([1,2,3,4,5])

print('..............................................')

print("square of all values")

print(p\*\*2)

')

0 1

1 2

2 3

3 4

4 5

dtype: int64

square of all values

0 1

1 4

2 9

3 16

4 25

dtype: int64

6. Print all the values of the Series that are greater than2

import pandas as pd

p=pd.Series([1,2,3,4,5])

print("when the value greater than 2")

print(p[p>2])

print('..............................................')

out put

when the value greater than 2

2 3

3 4

4 5

dtype: int64

7. Addition of two series

import pandas as pd

s1=pd.Series([1,2,3,4,5],index=['a','b','c','d','e'])

s2=pd.Series([1,2,3,4,5],index=['a','b','c','d','e'])

print(s1)

print(s2)

print(s1+s2)

out put

a 1

b 2

c 3

d 4

e 5

dtype: int64

a 1

b 2

c 3

d 4

e 5

dtype: int64

a 2

b 4

c 6

d 8

e 10

dtype: int64

8. Print the first and last 5 elements of a series

import pandas as pd

import numpy as np

arr=np.array([10,12,23,3,4,56,57,6,7])

s=pd.Series(arr)

print(s.head(5))

out put

0 10

1 12

2 23

3 3

4 4

dtype: int64

9. Print the values from index 0 to 5

import pandas as pd

import numpy as np

arr=np.array([10,12,23,3,4,56,57,6,7])

s=pd.Series(arr)

print(s.head(6))

out put

0 10

1 12

2 23

3 3

4 4

5 56

dtype: int64

10. Selection Using loc, iloc index label

import pandas as pd

import numpy as np

arr=np.array([10,12,23,3,4,56,57,6,7])

s=pd.Series(arr)

print(s)

print(s.loc[:2])

print(s.iloc[3:4])

out put

0 10

1 12

2 23

3 3

4 4

5 56

6 57

7 6

8 7

dtype: int64

0 10

1 12

2 23

dtype: int64

3 3

dtype: int64

11. Retrieve subsets of data using slicing

import pandas as pd

import numpy as np

arr=np.array([10,12,23,3,4])

s=pd.Series(arr,index=['A','B','C','D','E'])

print(s)

print(s[::-1])

out put

A 10

B 12

C 23

D 3

E 4

dtype: int64

E 4

D 3

C 23

B 12

A 10

dtype: int64