**Aim**: Create one-dimensional data using series and perform various operations on it.

**Theory:**

Pandas Series is a one-dimensional labelled data structure which can hold data such as strings, integers and even other Python objects. It is built on top of a numpy array and is the primary data structure to hold one-dimensional data in pandas.

In Python, a pandas Series can be created using the constructor pandas.Series().

**Code:**

# importing pandas module

import pandas as pd

# creating a series

data = pd.Series([5, 2, 3,7], index=['a', 'b', 'c', 'd'])

# creating a series

data1 = pd.Series([1, 6, 4, 9], index=['a', 'b', 'd', 'e'])

print(data)

print(data1)

# .add

print('Addition')

Add = data.add(data1, fill\_value=0)

print(Add)

# .sub

print('subtraction')

sub = data.sub(data1, fill\_value=0)

print(sub)

# .mul

print('mul')

mul = data.mul(data1)

print(mul)

# . div

print('div')

div = data.div(data1)

print(div)

# . pow

print('pow')

pow=data.pow(data1)

print(pow)

**Output :**

a 5

b 2

c 3

d 7

dtype: int64

a 1

b 6

d 4

e 9

dtype: int64

Addition

a 6.0

b 8.0

c 3.0

d 11.0

e 9.0

dtype: float64

subtraction

a 4.0

b -4.0

c 3.0

d 3.0

e -9.0

dtype: float64

mul

a 5.0

b 12.0

c NaN

d 28.0

e NaN

dtype: float64

div

a 5.000000

b 0.333333

c NaN

d 1.750000

e NaN

dtype: float64

pow

a 5.0

b 64.0

c NaN

d 2401.0

e NaN

dtype: float64

**Result:**

We can select any row and column of the series by passing the name of the rows it becomes one-dimensional and considered as Series. Here we have performed various operation like addition and subtraction and multiplication of two series.