

A. create a Numpy array and perform aggregation fuction.

B. use lambda,filter,map and reduce methods(function).

```
In [1]: #array Aggregation function
```

```
'''
1.mean
2.prod
3.min
4.max
5.standard deviation
6.sum
'''
```

```
Out[1]: '\n1.mean\n2.prod\n3.min\n4.max\n5.standard deviation\n6.sum\n\n'
```

```
In [2]: import numpy as np
```

```
In [3]: #Creation of a array using numpy model
```

```
arr=np.array([1,5,6,3,8,6])
arr
```

```
Out[3]: array([1, 5, 6, 3, 8, 6])
```

```
In [4]: #mean functions
```

```
mean=arr.mean()
print('Mean is ',mean)
```

```
Mean is = 4.833333333333333
```

```
In [5]: #prod function
```

```
product=arr.prod()
print('Multiplication of all the elements in the array = ',product)
```

```
Multiplication of all the elements in the array = 4320
```

```
In [6]: #min function
```

```
minimum=arr.min()
print('Minimum=',minimum)
```

```
Minimum= 1
```

```
In [7]: #max function
```

```
maximum=arr.max()
print('Maximum= ',maximum)
```

```
Maximum= 8
```

```
In [8]: #std function(standard Deviation)
```

```
standard_deviation=arr.std()
print('standard deviation =',standard_deviation)
```

```
standard deviation = 2.266911751455907
```

```
In [9]: #sum function
```

```
sum=arr.sum()
print('Sum of all the elements in the array =',sum)
```

```
Sum of all the elements in the array = 29
```

In [10]: *#Lambda method*

```
x=lambda x:x+4  
print(x(6))
```

10

In [11]: *#Map function*

```
lis=[2,3,5,8,6]  
print(list(map(lambda x:x+6,lis)))
```

[8, 9, 11, 14, 12]

In [13]: *#Reduce function*

```
from functools import reduce  
lst=[4,8,5,9]  
reduce(lambda x,y:x+y,lst)
```

Out[13]: 26

In [16]: *#Filter function*

```
lst=[22,4,66,78,4]  
print(list(filter(lambda x :x > 15, lst)))
```

[22, 66, 78]

In []: