Anonymous function:-

sometimes we can declare a function without any name,such type of nameless functions are called anonymous functions or lambda functions.

single line code.

lambda function:-

we can define by using lambda keyword.

syntax:-

```
variable = lambda parameters:expression
```

Note:- By using Lambda function we can write very concise code that readability of the program will be improved.

```
#WAP to craete a lambda function to find squre

s = lambda n:n*n
print("the squre of 4 is:",s(4))

#WAP lambda to find biggest no.

s = lambda a,b:a if a>b else b
print("The biggest no is:",s(10,20))
```

Note:-

Lambda function interally returns expression value and we are not required to write return statement explicitly.

2.Someties we can pass function as argument to another function.in such cases lambda function are best choice.

filter() function:-

we can use filter() function to filter values from the given sequence based on some condition.

syntax:-

```
variable= filter(function,sequence)
```

```
#WAP to filter only even no.

l = [5,10,15,20,25,30,35,40,45,50]

s = list(filter(lambda x:x%2==0,l))
print(s)
```

map() function:-

For every element present in the given sequence apply some functionality and generate new element with the required modification,For this requirement we should go for map() function.

syntax:-

```
variable= map(function,sequence)

l = [5,10,15,20,25,30,35,40,45,50]

s = list(map(lambda x:2*x,l))
print(s)
```

reduce():-

reduce function reduce sequence of element into a single element by applying the specified function.

syntax:-

```
variable= map(function,sequence)
```

reduce() function present in functools module and hence we should import it.

```
from functools import *

l = [10,20,30,40]
s = reduce(lambda x,y:x+y,l)
print(s)
```