**Anonymous function or lambda:**

The below code shows the regular use of a function

Def square (a):

Return a \* a

Result = square (5)

Print(result)

F = lambda a: a \* a

Result= f (5)

Print(result)

We can pass an Expression is a+a or a \* a or a+b or a\*b into many arguments: below example

Graphical user interface, application

Description automatically generated

f = lambda a,b,c : a + b + c

result = f(1,2,3)

print(result)

Below program shows that we use a regular function on how to find the even functions in a given list using FILTER class – look at the syntax in the IDE by hovering on filter.

Graphical user interface, text, application, email

Description automatically generated

Now let’s do the same with the anonymous function to achieve the same result as shown below. Understand the syntax for **FILTER .** we have something called filter

Graphical user interface, text, application

Description automatically generated

Let’s see how **map** function works

Graphical user interface

Description automatically generated with medium confidence

Graphical user interface, text, application, email

Description automatically generated

Let’s look at how **reduce** function works with function and without it. The next program is with a regular function and the one after is without the regular function, we used **reduce** which requires to import functools module.

1+2+3+45+5+6+67+10 = 122

Graphical user interface, text, application, timeline

Description automatically generated

Graphical user interface, application

Description automatically generated

from functools import reduce

# def even(n):

#     return n % 2 == 0

# def add\_all(a,b):

#     return a + b

nums = [1,2,3,4,5,56,7,8,9]

result = list(filter(lambda n : n % 2 == 0, nums))

doubles = list(map(lambda n : n \* 2, nums))

sum = reduce(lambda a,b: a + b, nums)

print(sum)

# print(result)

<https://www.programiz.com/python-programming/examples/celsius-fahrenheit>

# Python Program to convert temperature in celsius to fahrenheit

# change this value for a different result

celsius = 37.5

# calculate fahrenheit

fahrenheit = (celsius \* 1.8) + 32

print('%0.1f degree Celsius is equal to %0.1f degree Fahrenheit' %(celsius,fahrenheit))

<https://www.programiz.com/python-programming/examples/positive-negative-zero>

<https://www.programiz.com/python-programming/examples/odd-even>

nums = float(input('enter the number to check even/odd: '))

if nums % 2 == 0:

    print('{} is a even num'.format(nums))

else:

    print('{} is a odd num'.format(nums))