Practical-3.1

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1 create a function which finds a given number is even or odd

[4]:
```
a=int(input("enter value:"))
def oddeven(b):
    if(b%2==0):
        print(b, "is even")
    else:
        print(b,"is odd")

oddeven(a)
```

```
enter value:5
5 is odd
```

2 create a function which finds area of circle

[5]:
```
def area(r):
    return 3.14*r*r
```

[6]:
```
area(5)
```

[6]:
```
78.5
```

3 Python Built in functions

3.1 The Python built-in functions are defined as the functions whose functionality is pre-defined in Python. The python interpreter has several functions that are always present for use

3.1.1 Some example of Buit In finction

3.1.2 abs() : Return absolute value

3.1.3 sum(): python sum() function is used to get the sum of numbers of an iterable,

3.1.4 bool(): trurn true or false

3.1.5 eval() : Used to evalute thr values

3.1.6 float(): The python float() function returns a floating-point number from a number or string

3.1.7 len(): The python len() function is used to return the length (the number of items) of an object.

[22]:
```
sum([1,5,3,5,2,4])
```

[22]: 20

[8]:
```
sum([1,4,25,2,4,2,4],5)
```

[8]: 47

[10]:
```
sum([5.6,1.4,2,4.2])
```

[10]: 13.2

[11]:
```
a=[1,2,4,2,6,3,5,3,5,2,5,2]
print(len(a))
```

12

[12]:
```
float(9)
```

[12]: 9.0

[14]:
```
a=9
bool(a<9)
```

[14]: False

[17]:
```
abs(10.458832872631612)
```

[17]: 10.458832872631612

[19]:
```
x=10
print(eval('x+2'))
```

```
12
```

4 Python Lambda function is known as the anonymous function that is defined without a name. Python allows us to not declare the function in the standard manner, i.e., by using the def keyword. Rather, the anonymous functions are declared by using the lambda keyword.

4.1 However, Lambda functions can accept any number of arguments, but they can return only one value in the form of expression.

4.2 Syntax : lambda arguments: expression

[28]:
```
x=lambda a: a+10
```

[29]:
```
print(x(50))
```

```
60
```

[25]:
```
x= lambda x,y,z:x*y*z
```

[26]:
```
print(x(5,6,7))
```

```
210
```

4.2.1 The Python built-in filter() function accepts a function and a list as an argument. It provides an effective way to filter out all elements of the sequence. It returns the new sequence in which the function evaluates to True.

[43]:
```
y=[1,2,3,4,5,6,7,8,9,10]
oddlist=list(filter(lambda x:(x%2==1),y))
print(oddlist)
```

```
[1, 3, 5, 7, 9]
```

[44]:
```
y=[1,2,3,4,5,6,7,8,9,10]
oddlist=list(filter(lambda x:(x%2==0),y))
print(oddlist)
```

```
[2, 4, 6, 8, 10]
```

4.3 Create a filter which gives all the number from the list which is divisible by 5

4.4 The map() function in Python accepts a function and a list. It gives a new list which contains all modified items returned by the function for each item.

[41]:
```
numbers = [1, 2, 3, 4]
result = map(lambda x: x + x, numbers)
print(list(result))
```

```
[2, 4, 6, 8]
```

[42]:
```
numbers = [1, 2, 3, 4]
result = map(lambda x: x * x, numbers)
print(list(result))
```

```
[1, 4, 9, 16]
```

[ ]:
```

```