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Panel C

Python Assignment No.5

Programming Assignment 5: Write a Python Program to implement following concepts related functions A.

1. Doc String
2. return

B. In-Built Function:

1.abs
2.divmod
3.enumerate
4.filter
5.map
6.reduce
7.isinstance
8.lanbda function (lambda function with inbuilt-functions)

C.Write a Python Program to implement User Defined function to make a simple calculator that can add, subtract, multiply and division

In [1]:
```
"""
As mentioned above, Python docstrings are strings used right after the definition o
class, or module.We can later use this to document information abt our functions
"""
print(print.__doc__)
"""
The Python return statement is a component of functions and methods.Its used to mak
"""
def afunc():
    return("Returned Apple")

print("\n"+afunc())
```

```
print(value, ..., sep=' ', end='\n', file=sys.stdout, flush=False)

Prints the values to a stream, or to sys.stdout by default.
Optional keyword arguments:
file:  a file-like object (stream); defaults to the current sys.stdout.
sep:   string inserted between values, default a space.
end:   string appended after the last value, default a newline.
flush: whether to forcibly flush the stream.
```

```
Returned Apple
```

In [2]:
```
"""
Absoluete value is the magnitude of a real number without regard to its sign. This
"""
n = -9.5
print(abs(n))
```

```
9.5
```

In [3]:
```
# Divmod() method takes two numbers and returns a tuple consisting of their quotien
qr = divmod(192,13)
print("The quotient of 192/13 is "+str(qr[0]))
print("The Remainder of 192/13 is "+str(qr[1]))
```

```
The quotient of 192/13 is 14
The Remainder of 192/13 is 10
```

In [4]:
```
"""The enumerate object yields pairs containing a count (from start, which
defaults to zero) and a value yielded by the iterable argument.
Enumerate is useful for obtaining an indexed list"""
L1st = ["apple" ,"tiger" ,"balm"]
print(list(enumerate(L1st,start = 1000)))
```

```
[(1000, 'apple'), (1001, 'tiger'), (1002, 'balm')]
```

In [5]:
```
"""
The filter() func takes 2 args, first a function that is user defined
"""
def salt_filter(li):
    salt = ["clg actv", "neem actv", "Himalaya complete", "Pepsodent"]
    if li in salt:
        return True
    else:
        return False
TP = ["clg actv", "neem actv", "Himalaya complete", "Pepsodent", "clg red",]
salt_tp = filter(salt_filter,TP)
print(list(salt_tp))
#above program filters the salt toothpastes
```

```
['clg actv', 'neem actv', 'Himalaya complete', 'Pepsodent']
```

In [6]:
```
#The map() function is used when we need to pass a lis of iterables element by elem
nums = (1,2,3,4,5,6,7,8,9)
def evenifier(n):
    if (n%2 == 0):
        return n
    else:
        return n+1
evenonly = map(evenifier , nums)
print(list(evenonly))
```

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

In [7]:
```
#The reduce function applies a combination of i'th and i+1'th term to a function, s
from functools import reduce
nums = [3, 4, 6, 9, 34, 12]
def dub_sum(first, second):
    return first + second

result = reduce(dub_sum, nums)
print(result)
```

```
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```

In [8]:
```
#The isinstance() function returns True if the specified object is of the specified
x = 10
y = isinstance(x,(int, float))
print(y)

l = "Y"
l1 = isinstance(l,(int,float))
print(l1)
```

```
True
False
```