##Topic 5 - Loop, Conditional Statement & Function Assignment

Loop

Write a "for" loop to iterate and print value from 100 to 200 (Points 5)

```
for i in range (100,200):
    print(i)
```

```
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
```

```
190
191
192
193
194
195
196
197
198
199
```

Write a for loop to iterate and print the **odd numbers** between from 0 to 100 (Points 10)

```
for i in range(100):
    if (i%2==1):
        print(i)
```

```
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
51
53
55
57
59
61
63
65
67
```

```
69
71
73
75
77
79
81
83
85
87
89
91
93
95
97
99
```

Write a "While" loop to iterate and print value from 0 to 50 (Points 5)

```
i=0
while i < 50:
    print(i)
    i=i+1
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
```

```
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
```

Loop with Conditional Statement

Given the list below

age=[10,15,30,90,100,10,20]

Loop through the list and print all of the value (Points 5)

```
age=[10,15,30,90,100,10,20]

for x in age:
    print(x)
```

```
10
15
30
90
100
10
20
```

Using loop and conditional statement, print **all the value higher than 50** (Points 10)

```
for x in age:
    if (x>50):
        print(x)
```

```
90
100
```

Using loop and conditional statement, replace **all the value lower than 50** into "Low Value" (Points 15)

```
new_age=[]
for x in age:
    if(x<50):
        new_age.append("Low Value")
    else:
        new_age.append(x)
new_age
```

```
['Low Value', 'Low Value', 'Low Value', 90, 100, 'Low Value', 'Low
Value']
```

Function

Create a function to find the area of a rectangle. (Points 15)

```
def area(l,w):
    result=l*w
    return result

area(3,4)
```

```
12
```

Create a function to transform string into uppercase. This function will have one parameter input:

x= string of word

i.e x="I love food" => x="I LOVE FOOD"

(Points 15)

```
def UC(x):
    x=x.upper()
    return x

UC("I love food")
```

```
'I LOVE FOOD'
```

Create a function called "calculate". This function will have three parameter input :

1. a= a number input
2. b= a number input
3. method = "+" , "-" , "*" , "/"

The function will return the value based on the method chosen. i.e if "*" is in input parameter then the function will return a+b (Points 20)

```
def calculate(a,b,method):
    if (method == "+"):
        result=a+b
    elif (method == "-"):
        result=a-b
    elif (method == "*"):
        result=a*b
    elif (method == "/"):
        result=a/b
    return result

print(calculate(15,3,"+"))
print(calculate(15,3,"-"))
print(calculate(15,3,"*"))
print(calculate(15,3,"/"))
```

```
18
12
45
5.0
```