

Module 4 Lab 1 Solution

Welcome to our Lab Practice!

This lab is about repetition - while loops. Are you ready? Let's get started!

You will find some small tasks in sections below.

###Task: Print all integers from -5 to 5.

```
count = -5
while count <= 5:
    print(count)
    count += 1
```

```
-5
-4
-3
-2
-1
0
1
2
3
4
5
```

###Task: Print all integers of an interval given by the user

Ask the user to enter two integers and print all integers between (including) them.

```
low = int(input('Enter the lower bound of interval: '))
high = int(input('Enter the upper bound of interval: '))
count = low
while count <= high:
    print(count)
    count += 1
```

```
Enter the lower bound of interval: 2
Enter the upper bound of interval: 5
2
3
4
5
```

###Task: Double The Number

Step 1: Ask the user to enter a small positive number (0 - 10)

Step 2: Double the number, print it out, and repeat, until the number beyond 1,000,000

(How fast the number is growing)

```
n = int(input('Enter a small positive number (0-10): '))
while n <= 1000000:
    print(n)
    n *= 2
```

```
Enter a small positive number (0-10): 2
2
4
8
16
32
64
128
256
512
1024
2048
4096
8192
16384
32768
65536
131072
262144
524288
```

###Task: Keep asking for candy until 'STOP'

Step1: Ask the user to enter anything

Step2: print a message 'Thanks! I got a candy'

Step3: Repeat Step 1 and 2, until the user enter 'Done'

Step4: print a message 'Thanks! I have enough.'

```
msg = input('Enter anything to continue, enter "Done" to stop: ')
while msg != 'Done':
    print('Thanks! I got a candy')
    msg = input('Enter anything to continue, enter "Done" to stop: ')
print('Thanks! I have enough')
```

```
Enter anything to continue, enter "Done" to stop: else
Thanks! I got a candy
Enter anything to continue, enter "Done" to stop: ok
Thanks! I got a candy
Enter anything to continue, enter "Done" to stop: Done
Thanks! I have enough
```

Task: Password Setup

- Ask the user to enter a new password.
- Ask the user to enter the password again.
- If the second input matches the first one, print "You are all set", otherwise, repeat the process.

```
password1 = input('Enter a new password:')
password2 = input('Enter the password again:')
while password1 != password2:
    password1 = input('Enter a new password:')
    password2 = input('Enter the password again:')
print('You are all set')
```

```
Enter a new password:12
Enter the password again:3
Enter a new password:12
Enter the password again:12
You are all set
```