Lab Week 03

Functions

Basic Functions

*Functions allow us to group related code into a **named entity** making large program more manageable. In addition, it also allows us to **reuse** the named entity making the program shorter. Furthermore, **modification** is easier since similar code is centralized.*

*Create a program that repeat same task multiple time. Example **week6ex1.py**:*

Instead of

```
print ("Hello Buddy")
print ("How are you?")
print ("Hello Buddy")
print ("How are you?")
print ("Hello Buddy")
print ("How are you?")
```

we use function

```
def hellomat():
    print ("Hello Buddy")
    print ("How are you?")
    return

hellomat()
hellomat()
hellomat()
```

Exercise 1

Create a program called MyNameInput.py that ask for a name and display back the name using a function. Ask the user repeatedly (Minimum 3 times).

Output example

```
Your name please >> Buddy
Your name is Buddy
Your name please >> Linda
Your name is Linda
Your name please >> joyah
Your name is joyah
```

Functions with Parameters

*The parentheses in a function definition block is used to pass parameters or arguments. Example **week6ex2.py***

```
    def add_number(n1, n2):
        sum = n1 + n2
        print ("Total of", n1 , "and", n2, "is", sum)
        return

    add_number(4,5)
```

```
add_number(10,20)
add_number (10.3,20.4)
```

Exercise 2

Create a program called MyAgeInput.py that ask for an age. Pass the age to a function that calculates and displays the birth year.

Output example

```
Your age please >> 20
Your birth year is 1997
```

Functions that return Values

The return keyword can be used to return a value. Example ***week6ex3.py***

```
def add3number(n1, n2, n3):
     sum = n1 + n2 + n3
     return sum

n1 = 4
n2 = 6
n3 = 10
sum = add3number(n1, n2, n3)
print(n1 , "+", n2, "+", n3, "=", sum)
sum = add3number(0.5, 20, 3.5)
print(0.5 , "+", 20, "+", 3.5, "=", sum)
```

Exercise 3

Create a program called calcBirthYear that ask for an age. Pass the age to a function that ***calculates and returns*** *back the birth year to be displayed by the program.*

Output example

```
Your age please >> 20
Your birth year is 1997
```

Exercise 4

Create a program called convertFtToM that pass feet (ft) value. Pass the value to a function that calculates and returns back the metre (m) value to be displayed in the program.

Output example

```
Convert ft to m >> 20
20 ft is 6.096 m
```

- The End -