COMP801 – WEEK 2 – EXERCISES

OBJECTIVES

- Able to get user inputs
- Able to use basic control structures
  - one-way selection (if)
  - two-way selection (if….else)
- Able to use while and for loop

USEFUL FUNCTIONS:

- `len (x)` : get the length of variable x
- `input()` : get inputs from user
- `split()`: to split a string into a list
- `split(separator)`: separator is optional and is used when the separator is not a whitespace

QUESTIONS:

For each of the following questions, you have to write a python code, run it, and check your answer.

1) **What is the result of the following code? And what are the different between line (1) and (2)**

```
print("Please enter your first name: ")

firstName = input()

length = len(firstName)

print(firstName)

print("My first name is: ", firstName) (1)
```

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```
print("My first name is: " + firstName) (2)

print("My first name has",length,"characters.")
```

2) **What is the output of the following code?**

```
fullName = "Ngoc LE"

dob = "27/02/2023"

nameList = fullName.split()

dobList = dob.split("/")

print("Words in my full name: ", nameList)

print("elements in my date of birth: ", dobList)

print("My first name is:", nameArr[0])

print("My year of birth is:", dobArr[2])
```

3) **Write a program to get user details (full name, date of birth) and print out the inputs as below (the text in red is dependent on the user inputs)**

```
My full name is: Ngoc LE

My date of birth is: 27-02-2023

My last name is: LE

My month of birth is: 02
```

4) **What is the result of the code below?**

```
x = 5

if(x>0):

    print(x, "is a positive number.")
```

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```
if(x<0):

    print(x, "is a negative number.")

if (x==0):

    print(x, "is zero.")
```

5) **Write a program to ask a user to enter a number and check if the input number is zero or negative or positive. Your code should produce a result similar with the following example (the text in red is dependent on the user inputs).**

```
Please enter a number: 34

34 is an even number
```

6) **Write a program to print out the following results using (the text in red is dependent on the user inputs).**

```
Please enter a number: 7

The list includes:

7

5

3

1
```

7) **What is the result of the following code?**

```
x = "4"

intVal = int(x)

for i in range (0, intVal):

    print(i, end = " ")
```

8) **Write a program to print out the following results (the text in red is dependent on the user inputs).**

```
Please enter a number: 5

Sum of integer numbers from 1 to 5 is 15
```

9) **Write a program to print out the following results (the text in red is dependent on the user inputs).**

```
Please enter a number: 5

1 + 2 + 3 + 4 + 5 = 15
```

10) **Write a program to print out the following results (the text in red is dependent on the user inputs).**

```
Please enter a number: 5

1 + 2 + 3 + 4 + 5 = 15
```

11) **Write a program to print out integer numbers from 1 to 100 those are divisible by 3.**

12) **Write a program to print out the sum of even numbers from 1 to 100.**

13) **Write a program to print out integer numbers from 99 to 1 those are divisible by 7.**

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