Introduction to Programming with Python

Weekly Programming Assignment – Week 1

All solution files [Exercises 1 – 4] must be submitted at CodeGrade enabled Link in Moodle for grading on or before 13th of September 2021 at 11:59 PM

Exercise 1

(i) Download and Install Python 3.9.1 or above in your computer

(ii) Download and install Python's IDE* → IDLE or Thonny in your computer (*Any IDE is ok)

(iii) Execute the steps given in the lecture slides 12 and 13 (Refer Lecture slides_Week 1B.pdf in Moodle) [FirstProgram.py]

Exercise 2

Execute the following arithmetic calculations in the Python shell

```
(i)   45 + 98
(ii)  2 * 10/4
(iii) 90 - 13 + (60/7 * 10)
```

Execute the above-mentioned calculations (Exercise 2) by using print () function in the IDLE or Thonny and save the file as "arithmetic1.py" [Example: `print ("2+3 =",2+3)`]

Expected output

```
45 + 98 = 143
2 * 10/4 = 5.0
90 - 13 + (60/7 * 10 = 162.71428571428572
```

Exercise 3

Refer the example program given below that print a random number that in between 1 and 10

```
#importing random module that contains random functions
import random
# generates a random integer number which is in between 1 and 10 and
assign/save/store that in the variable n
n = random.randint(1,10)
print ("random number in between 1 and 10 is: ", n) # print the value
of n
```

Write a program that generates 3 different random numbers that are in between *11 and 19*; *1.5 and 2.5*; AND -20 and -5. Assign those generated numbers in the variables r1, r2 and r3 respectively and print them. Save the file as "randomnumbers1.py"

Attention! `random.randint()` work for integer numbers only

*Example output

```
random number in between 11 and 19 is: 17
random number in between 1.5 and 2.5 is: 2.3813773386210517
random number in between -20 and -5 is: -12
```

[*It should be noted, the random numbers stored in r1, r2, and r3 will be different every time when you run the code]

Exercise 4

Write a program that prompts the user to enter your birthyear, and current year. The program then outputs your age as of current year. Save the file as "yourAge.py"

[Hint: To get numbers as input in Python use int(input("……")]

```
Example Input
Enter your birth year: 1990
Enter the current year: 2021

Example output
Your age is (as of 2021): 31 years old
```

Exercise / task Number	File name that should be uploaded in the CodeGrade-Moodle	Points / Marks
1	FirstProgram.py → Exercise1_Week1 link	10
2	arithmetic1.py→ Exercise2_Week1 link	10
3	randomnumbers1.py→ Exercise3_Week1 link	15
4	yourAge.py → Exercise4_Week1 link	15