Institute of Technology Tallaght
Department of Computing

Software Development 1

Worksheet/Laboratory

Instructions: Create one project and create a new file for each question.
After solving all the exercises, zip the project folder and upload the .zip file.

Exercise 1.

Create a program to read 3 separate values representing a time duration in hours, minutes, and seconds, store these values in three separate variables then calculate and print the equivalent total number of seconds.

Exercise 2.

Write a Python program, which reads the radius of a circle from the user, and compute the area. The area of a circle is πr^2, π is approximately 3.14159. Print the radius and the area of the circle in a single print statement and round the area to 3 decimal places

Exercise 3.

Three letter acronyms are common in business, IDE(Integrated Development Environment), PVM (Python Virtual Machine). Write a program that allows a user to enter three words and display the appropriate three-letter acronym. The three-letter acronym should be stored in one variable.

Exercise 4.

Write a Python program that allows the user to enter a password.
Print the length of the password and whether the password contains the symbol !

Exercise 5.

Write a Python program the allows the user to enter a word from the keyboard, the word must be at least 4 characters long.
Create a new string from the first 2 and the last two characters of the entered word.
Print the word entered by the user and the new word created by the program.

Exercise 6.

Write a Python program, which accepts a string and a number from the user and creates a new string, which consists of the inputted string repeated number times but with a space between each string. There should be no space after the last occurrence of the string. Enclose the outputted string in quotes.
Sample output below:

```
Input your string : Python
Input the number : 3
Your original word is Python
The newly created string is "Python Python Python"
```

Exercise 7.

Write a Python program to add ".py" to the end of a given filename entered by the user. Print the original and the new Python filename created.

Exercise 8.

Write a program that reads a value representing a number of seconds. Print the equivalent amount of time in hours, minutes, and seconds.