**ICT582 Lab 1:  
Installing Python 3 and Create and Run Python Programs with Idle**

**Learning Objectives:**

1. Learn how to install Python 3 on your computer.
2. Be able to use Idle3 to create, edit and run Python programs.
3. Be able to run a Python program from the command line inside Command Prompt (Windows) or Terminal (Mac or Linux).
4. Be able to write simple Python programs that contain numerical expressions and strings and use the print function to output results to the user.

**Required Reading:**

* Lecture Notes: Topic 1.

**Reference:**

* <https://www.python.org/about/gettingstarted/>
* [ICT582 Lab Instructions](https://www.it.murdoch.edu.au/~S900432D/krIuUnc93_hhxyePllj154_8xei/topics/ICT582LabInstructions.shtml)

**Required Software:**

* Python 3 and Idle 3

**Exercises**

1. Install the curent version of Python (version 3.12) on your computer.
2. Create a folder lab01. Then use Idle3 to create a Python program to report your name, the city you are from and the course you are studying at Murdoch. Test the program until it runs correctly.

Save the program into the folder lab01. Name the program file ex2.py.

Note, depending on installation and whether your computer has an old version Python, the name of the Python interpreter on your computer could be named python or python3. The same is true for idle.

1. Copy the program from Exercise 2 into a new file ex3.py under folder lab01. Read (open) the program into Idle3. Add statements to print the codes and names of the units you are currently enrolled in at Murdoch University.

Run and test the program from Idle3 until it runs succesfully.

Save the program.

1. Start up a Command Prompt (if you uses Windows) or a terminal (if you use Mac or Linux). Change your current directory to folder lab01 using the command cd. Then copy the program from Exercise 3 to a new file ex4.py (use command copy ex3.py ex4.py on Windows or cp ex3.py ex4.py on macOS and Linux). Then use python3 from the command line to run the program (python ex4.py).
2. Use the formula (Fahrenheit - 32) x 5 / 9 to convert several temperature values from Fahrenheit to Celsius. Note, each time, you must store the temperature in Fahrenheit in a variable, and then use the above formula to calculate its value in Celsius and print the value out.

Note, this program must be named ex5.py and stored in folder lab01.

**The Weekly Lab**

Submit the following exercises:

* Exercise 3
* Exercise 4
* Exercise 5

This weekly lab must be submitted to the LMS. Refer to the Unit Information page in the unit LMS for the submission deadline and the week in which this weekly lab is assessed. You must adhere to [ICT582 Lab Instructions](https://www.it.murdoch.edu.au/~S900432D/krIuUnc93_hhxyePllj154_8xei/topics/ICT582LabInstructions.shtml) when preparing and submitting your weekly lab.

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