Resources

PyCharm is the Integrated Development Editor (IDE) that will use in this class to write and execute our programs.

Please download it here: **https://www.jetbrains.com/pycharm/download (https://www.jetbrains.com/pycharm/download)**

Lab Instructions

Objectives

At the end of this lab, you will be able to use PyCharm with Python 3.8 interpreter to write and run a simple Python program. In addition, you will know how to :

- store your files on a network drive (*H:*) so that you can work from any computer at RMIT
- upload your file to GitHub so that you can download it later from another computer and continue to work on it at home/cafe.

Introduction

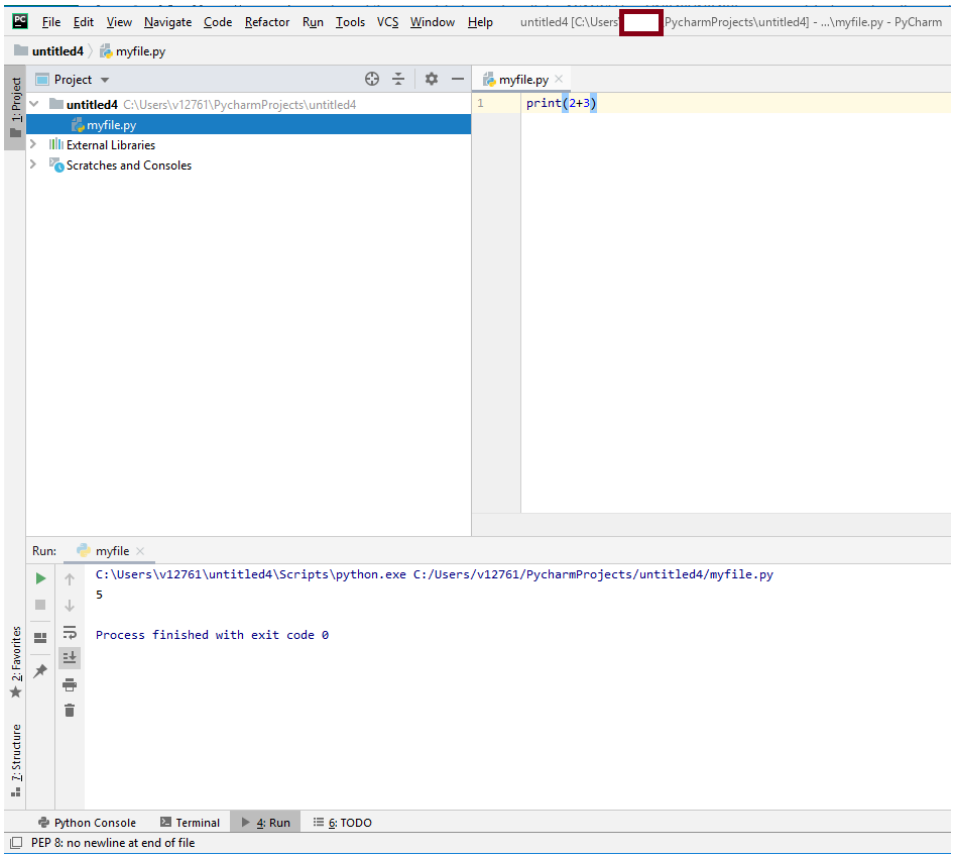
Tutorials provide you with hands-on programming exercises. They will help you apply what you learned from the lectures and prepare you ready for web tests, assignments and final exams. You are highly encouraged to ask your classmates or lecturer for help if you have any issues when working on the exercises.

In-class Exercises

This tutorial is detailed for PC/Windows

1. Log on to the computer using your student ID and password. Please note that the first time you log on, it will take over 5 minutes before the computer is set up.
2. Bring up Canvas to make sure you can see the class material.
3. Double click on PyCharm icon
4. Select "do not import settings"
5. Select "confirm" on the JetBrains user agreement and then "continue"
6. Select "don't send" usage statistics
7. Select "Skip remaining and set defaults

8. When you get to the PyCharm licence activation window select "license server" option and then select "discover server". Remember to add the port ":8080" to the end of the server link.
9. Select "Activate"
10. This will then bring up the IDE main window as shown below
11. Select "create new project". Notice the location for your work is set at the top of the window. The default is your home directory on this computer (e.g. C:\Users\s1234567\PycharmProjects\untitled1) but you can modify it to be your H drive so you access the files from another PC. You also need to select the triangle by (Project Interpreter .....) so that it points down and you can then change the base interpreter to Python3.8 (IMPORTANT!)
12. After the window opens - select IDE and Plugin "update" if it appears or click on "Create"
13. After the IDE window appears select "File"



14. Select "New"
15. Select "Python file"
16. Give it a name

17. Start having fun!!

Some examples you can try and do are

1. Prompt your basic information: name, student ID, birthday, major, ...
2. Set i and j to two different values and print out the values of i, j, the larger of i and j.
3. (Advance) Set X, Y and Z to three values where X <=Y<=Z and check whether a triangle with lengths X, Y and Z is equilateral, isosceles or scalene or that no triangle can be formed. For example, when X = 3, Y = 4 and Z = 4 the code prints “A triangle of sides X = 3, Y = 4 and Z = 4 is isosceles”.

To run the code you need to select the green right arrow or select "Run".

If you wish to continue at home you can right-click on the window and you can select the option to save the file and then you can email it to your home computer or copy it to your H drive.

Homework

Getting PyCharm working on your personal computer *by yourself!*

1. Python
    - Download the latest stable release (3.8 when this was written) of python from the **official python website (https://www.python.org/downloads/)**
    - Open the installer and follow the instruction
    - Remember where it is installed
    - Play around with pip install
2. PyCharm Community
    1. Go to **https://www.jetbrains.com/pycharm/download/ (https://www.jetbrains.com/pycharm/download/)** and download PyCharm Community
    2. Go to **https://www.jetbrains.com/student/ (https://www.jetbrains.com/student/)** and register with your student email
        - Note that many software companies provide free student license such as **https://education.github.com/pack (https://education.github.com/pack)** but you can search for many more!

3. Go to **https://github.com/ (https://github.com/)** and register/login with your account
    - Create a new git repo (you can set it to private)
    - Use **https://desktop.github.com/ (https://desktop.github.com/)** or **https://cli.github.com/ (https://cli.github.com/)** to clone your git repo WITH YOUR CODE to your personal computer
4. Open your project in PyCharm
    - Confirm your student account with JetBrains
    - Start PyCharm
    - Click on "open" and navigate to the folder containing your Python Project
    - Wait for the IDE to check your project
    - You may have to reset the Python Interpreter location (see *exercise 1, extra information*).