

ECE326 (Programming Languages) – Fall 2022

Practical Assignment 1

Due: before next week's Practical

- Goal: to install python and familiarize with python IDE
- Install python 3.10.x:
<https://www.python.org/downloads/>
- Download and configure PyCharm IDE :
<https://www.jetbrains.com/pycharm/download/>
- Invoke python in Interactive mode (as shown in Lecture#2)
- Invoke python in Script mode (as shown in Lecture#2)
- Define a python function that will print the first 100 factorial numbers 1!, 2!, ..., 100!
 - If system cannot print up to 100!, what will be the reason?
 - Find out the maximum number possible on your system. Provide reasons.
 - Check all boundary conditions (Hint: no factorial for -ve number)
 - Calculate the total time (ideally CPU time, but wall clock is fine) required and report it
 - Try to optimize the computation (Hint: 9! is simply 9*8!) and calculate the total time again. Did the time reduce? Explain both Yes and No cases.
- Submit the python code along with a short report. Prefix the filenames with your UTORid.