First steps in Python

Objectives

Beginning to work with Python

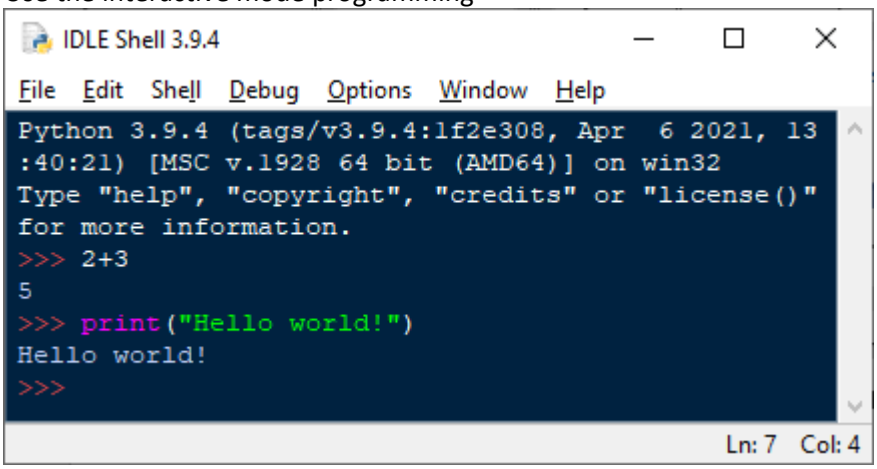
- Setup Python working environment
- Execute simple instructions using the Python interpreter
- Implement simple programs using Python IDLE and execute them

Setup Python working environment

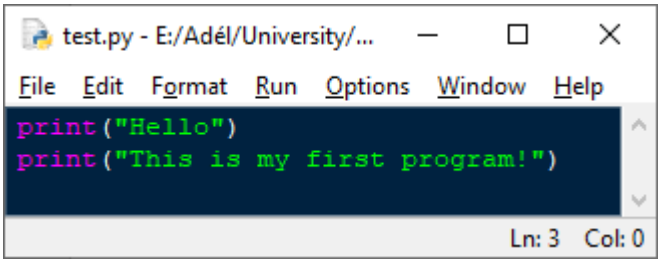
- Download the latest version of Python (3.10.x) from http://www.python.org/
- Choose the installer according to your operating system (e.g. Windows x86-64, Ubuntu 22.04.1 LTS, MacOS 10.15.7, etc.)
- Launch the executable file. Check "Add Python 3.10 to PATH" and then select "Customize installation".
- For more instructions on Python installation: http://www.youtube.com/watch?v=4Mf0h3HphEA

Using the Python interpreter

- IDLE = **I**ntegrated **D**eve**L**opment **E**nvironment
- Launch the IDLE from Start menu/Search Windows
- Try some simple instructions (see example below)
- Use the interactive mode programming



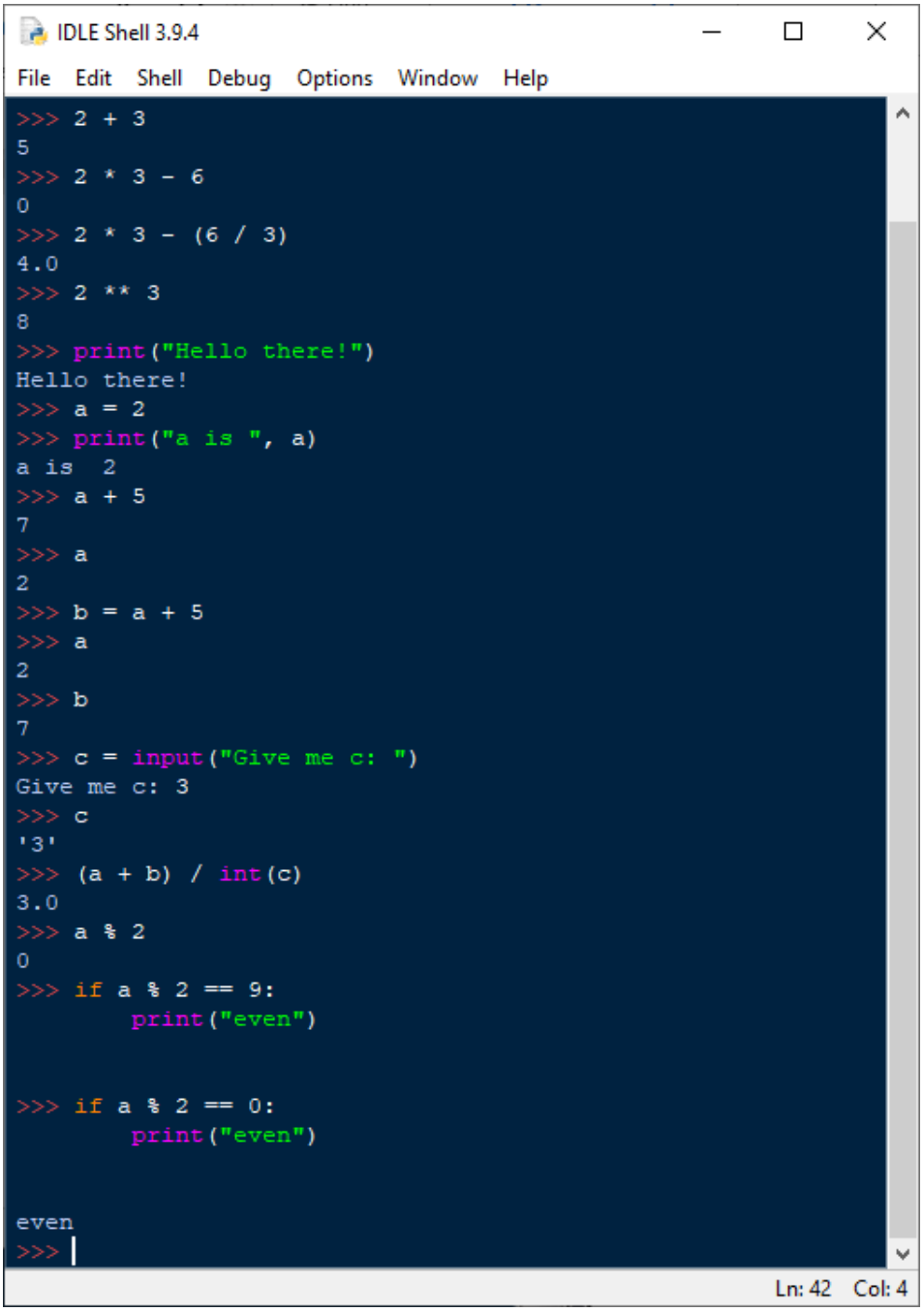
- Use the scripting mode programming: *File -> New File…*



To run your code: *Run-> Run module (F5)*

Problem specification

1. Compute the sum of two given numbers.
2. Compute the product of the first n natural numbers.
3. Verify if a given number is perfect number.
   Hint: a number is called perfect when the sum of its positive divisors (less than the itself) is equal to the number
   e.g. 6 = 1 + 2 + 3


IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
>>> 2 + 3
5
>>> 2 * 3 - 6
0
>>> 2 * 3 - (6 / 3)
4.0
>>> 2 ** 3
8
>>> print("Hello there!")
Hello there!
>>> a = 2
>>> print("a is ", a)
a is 2
>>> a + 5
7
>>> a
2
>>> b = a + 5
>>> a
2
>>> b
7
>>> c = input("Give me c: ")
Give me c: 3
>>> c
'3'
>>> (a + b) / int(c)
3.0
>>> a % 2
0
>>> if a % 2 == 9:
print("even")
>>> if a % 2 == 0:
print("even")
even
>>>
Ln: 42 Col: 4