# Hello World

## Exercise 1: About Python

Python is a high-level, general-purpose programming language. Programming languages are used to write instructions for computers. High-level means that Python commands are written with a combination of English words and special symbols. General-purpose means that Python is used by many people for different types of applications, such as desktop applications and websites.

There are two major releases of Python in use today, known as Python 2.*x* and Python 3.*x*. For *Introduction to Programming*, you will be using Python 3.6.*x*. Backward compatibility means that legacy code continues to work in new versions of the language. Generally, Python remains backward compatible within minor version releases, but there are syntax incompatibilities between major versions, such as between Python 2.*x* and Python 3.*x*.

The website python.org has installers and general documentation for Python.

Most systems will have one or more versions of Python installed, with Python 2.7 as the default.

1. To confirm the default version of Python installed in your lab, you need to enter the following command in the lower left panel (*bash* terminal):  
    python --version

To check other versions of python available, type the following commands -  
 python2 --version

python3 --version

python3.5 --version

python3.6 --version  
Confirm that you have the following results -  
 ~ $ python --version

Python 2.7.12

~ $ python2 --version

Python 2.7.12

~ $ python3 --version

Python 3.6.4

~ $ python3.5 --version

Python 3.5.2

~ $ python3.6 --version

1. Python 3.6.4

## Exercise 2: Write Your First Python Program

When learning to program, it is traditional to start with the “Hello World!” program. This simple program verifies that you have installed the Python tools correctly.

1. A file hello\_world.py has been created for you in the work folder. From the file browser in the far-left panel, open the work folder to find the file hello\_world.py.
2. Click hello\_world.py to open in the source code editor.

Note

The .py is the extension for Python files.

1. Type the following text in the editor:  
   print("Hello World!")
2. To run the program, type the following at the terminal:  
   python3.6 hello\_world.py
3. Verify the program prints the words “Hello World!”

Congratulations! You have written your first Python program.