3.1 Python Installation

Our academy offering you the Python code editor in our web site which will provide you the ability to start write & run Python code without installing anything on your computer. Our editor also allows you to save now & resume later functionality which prevent the code loss.

The Python programming language is maintained and available from Python Software Foundation → https://www.python.org.

If you want to install Anaconda, the Spyder Code Editor and the Python packages (such as NumPy, SciPy, matplotlib etc) are included in the Anaconda Distribution. You can install it from https://www.anaconda.com.

After installing Python you can set the installed folder in Windows → Environment Variable → path to give you the ability to run Python from any location of your system.

3.2 Python Editors

An Editor is a program where you create your code (and where you can run and test it). Most Editors have also features for Debugging. For simple Python programs you can use our ByteUp Academy Code Play Editor (https://byteupacademy.azurewebsites.net/Team/CodeEditor), but for more advanced programs any of the better editor is recommended. Example, Python IDLE (https://www.python.org), Visual Studio Code (https://code.visualstudio.com), Spyder (https://www.spyder-ide.org), Visual Studio (https://visualstudio.microsoft.com), PyCharm (https://www.jetbrains.com/pycharm/), Jupyter Notebook (http://jupyter.org) etc.

Which editor you should use depends on your background, what kind of code editors you have used previously, your programming skills, what your are going to develop in Python, etc.
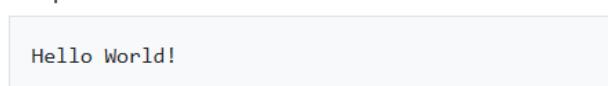
3.3 First Python Program

We will start using Python and create some code examples. So, lets Login into our academy portal, https://byteupacademy.azurewebsites.net/ . In the Dashboard, under Learning Hub you should be able to see "My Code Play". Just click on & it will open the Code Editor. You can simply choose Python from Language dropdown. You should now be able to see the Code Editor window.

Or if you have your preferred Python Editor, open it & type the following:

```python
print("Hello World!")
```

By clicking on the green Run button in our Academy editor, the below output will be displayed.
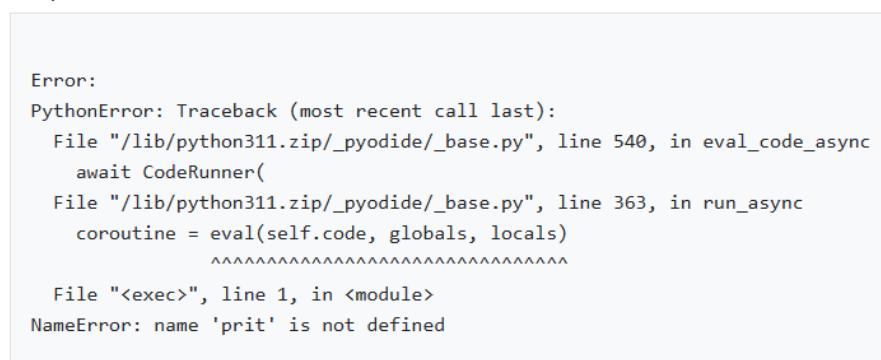
```
Output

  Hello World!
```

Note: Each of the Python editor having its own way of executing Python program. if you are using any of your preferred editor & requires help to run the Python program please let your coach know.

Python will throws error for any of the syntax errors like below.

```python
prit("Hello World!")
```

The above code throws below errow:

```
Output

  Error:
  PythonError: Traceback (most recent call last):
    File "/lib/python311.zip/_pyodide/_base.py", line 540, in eval_code_async
      await CodeRunner(
    File "/lib/python311.zip/_pyodide/_base.py", line 363, in run_async
      coroutine = eval(self.code, globals, locals)
                  ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
    File "<exec>", line 1, in <module>
  NameError: name 'prit' is not defined
```

You are able to proceed further by only fixing the issue.

You made your first Python program. Let the journey continue ....!