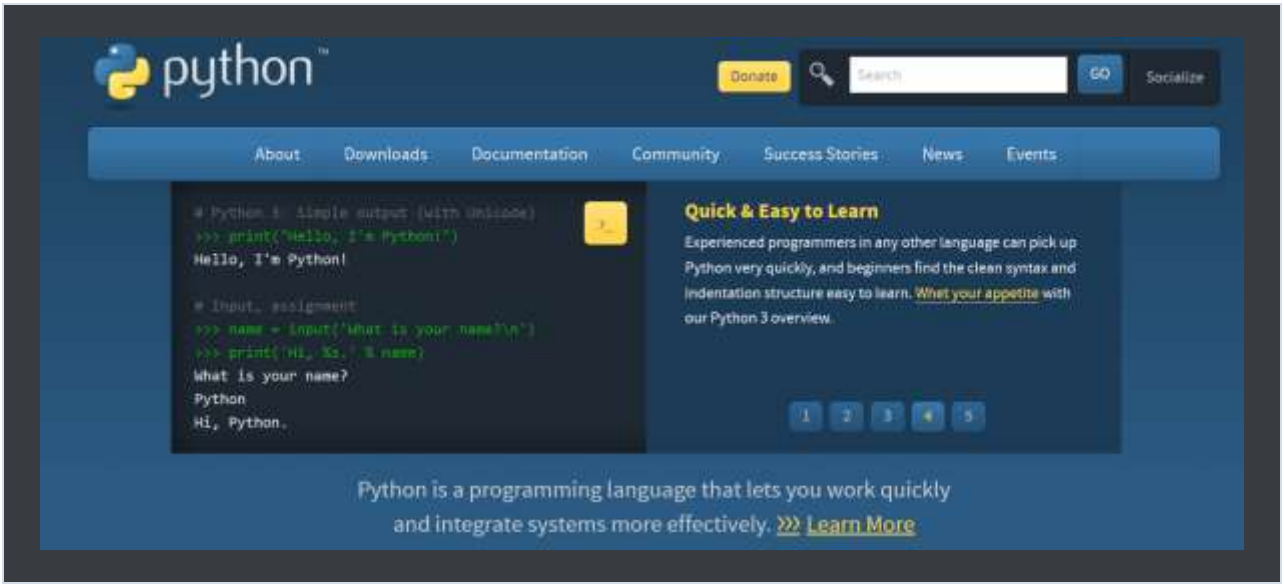
Programming Foundations

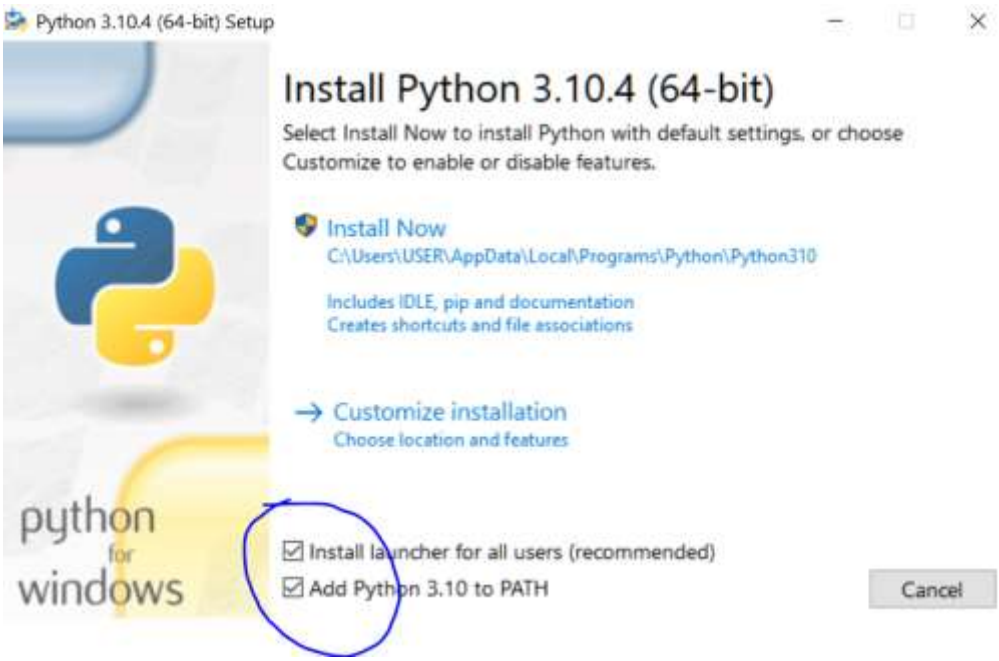
Lab 1 Part 1: Software Installation and testing of Python programs

Task 1: Installing Python

- https://www.python.org/



- **Don't forget to check "Add Python to Path"**

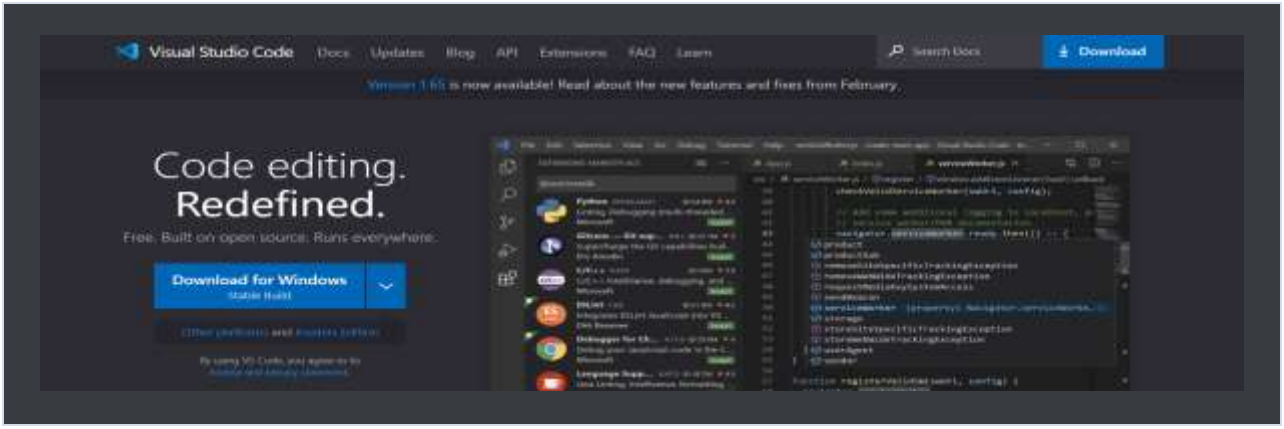


Task 2: Using Interactive python to test installation

- Open command prompt
- Type **python --version**
- Type **python** to go to the chevron prompt
- Type the following lines at the >>>
    - print('The world of Python')
    - 2 + 5
    - x = 10
    - print(x)
- Type exit() or quit() or press (ctrl + z)

Task 3: Installing Visual Studio Code

- https://code.visualstudio.com/



Task 4: Adding a project in Visual Studio Code

- Create a folder on your desktop "**pythonlabs**"
- Open the project folder in VS Code
- Create a subfolder "**lab1**"

Task 5: Writing a python script using Visual Studio Code

- Save the below code in **lab1** - file name: "**firstprogram.py**"

```
name = "joey"
print("welcome to python lesson 1", name)
```

Task 6: Select a Python interpreter

Python is an interpreted language. Thus, in order to run Python code and get Python IntelliSense, you must tell VS Code which interpreter to use. From within VS Code, select a Python 3 interpreter by opening the Command Palette (*Ctrl+Shift+P*), start typing the **Python: Select Interpreter** command to search, then select the command.

Task 7: Running the program in Visual Studio Code

- In the menu bar click on Terminal > New Terminal
- Navigate to the "**lab1"** directory
- To run the program, type
    - **py firstprogram.py**

Task 8: Running the program in command prompt

- Open command prompt
- Navigate to the directory "**lab1**"
- Type **dir** for directory listing
- Run the "**firstprogram.py**"

Task 9:

Add further codes in the above program to display your contact number, email, dob, address and country. Run the program.

Task 10: Adding some cool extensions in VS Code

First, go to **settings** and check out the default settings

Next, go to **Extensions** and install the following cool extensions:

- Material Theme Icons
    - Go to **Color Theme** and set the following theme:
        - Material Theme Darker High Contrast
- Material Icons
- Prettier
    - Press **ctrl** + **,**
    - In the search bar, type "**Format on Save**"
    - Check the checkbox to auto format your codes when you save a file
- Bracket pair colorization toggler
- Indent Rainbow
- Live Server
- Emmet
    - Type **!tab** to generate html template code
    - Type **h2** and press enter to generate <**h2**> tags
    - Type **ul>li*4** to generate a 4 list items
    - Type **button#btnlogin** to generate a button with **id** btnlogin
    - Type **Lorem50** to generate 50 lorem ipsum
- Python
- Auto rename tag
- CSS Peek: Press ctrl and hover over an html class attribute to see the CSS codes
- Html CSS support
    -
    - For example if you need to create the above line again, just type **div.banner-top** and press tab to generate the line.
- JavaScript ES6
- IntelliCode