

# Day 1

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Setup

# Installing Python

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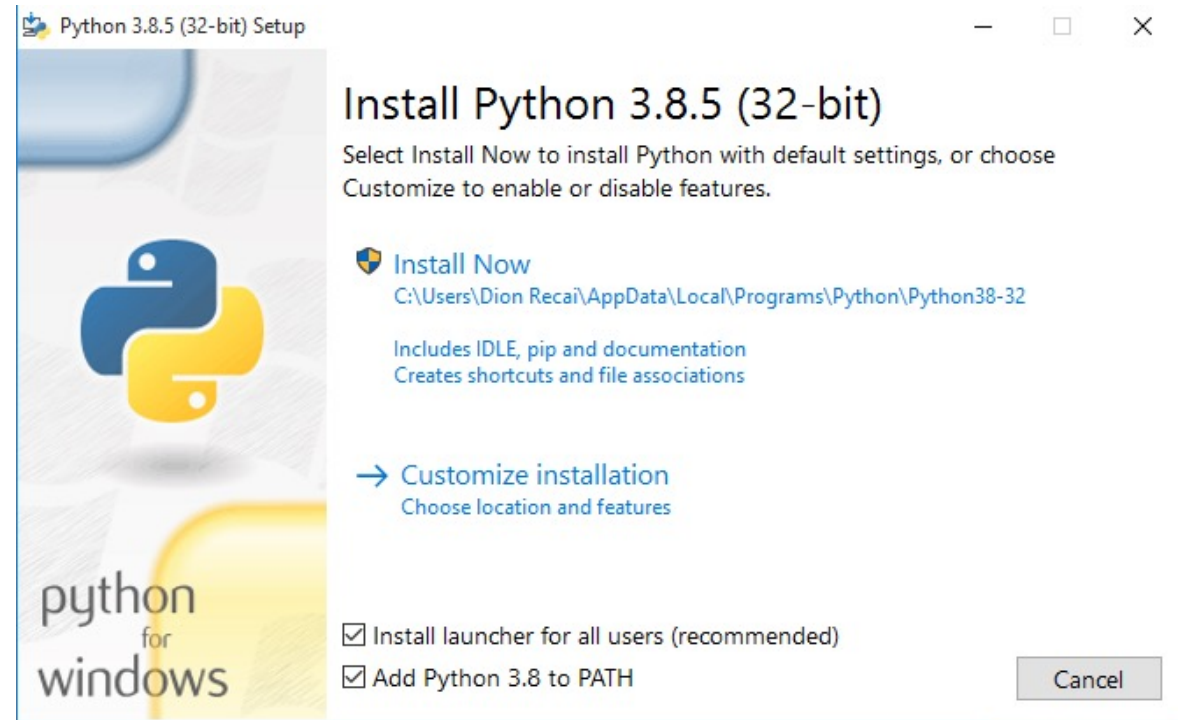
# Installing Python

- Python can be installed from the website [python.org/downloads](https://python.org/downloads).
- Or you can just search for Python download on the web.
- On the Python website, click the download Python button to download the installer. (see picture).
- Once the installer has downloaded, click on it to run it.
- You could also run it from your Downloads folder.



# Installing Python

- The following wizard will come up.
- **Make sure to select “Add to PATH”.**
- Click “Install Now”.
- You could click “Customize Installation” instead if you know what it is for.



# Installing Python

- Once Python has been installed, search for IDLE on your computer and open the IDLE app shown below.




**IDLE (Python 3.8 32-bit)**

Desktop app

# Installing Python

- When IDLE opens you will see the following window.
- This is called the Python shell.
- In the Python shell you can enter Python code and your computer will run that code.
- For now we will be programming in the Python shell.

 Python 3.8.5 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.5 (tags/v3.8.5:580fbb0, Jul 20 2020, 15:43:08) [MSC v.1926 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> |
```

Why do we need to  
download Python?

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# Why we don't use executable binary

- The two main disadvantages with using executable binary are:
  1. It is difficult to read and write.
  2. It might be different depending on your OS and CPU so programs will need to be re-written for different computers.
- For these reasons, programs are written in “higher-level” programming languages like Python.

# Why do we need to download Python?

- Since our computer cannot understand these programming languages, we need to download something to “translate” the programming language into executable binary.
- This translator is what we needed to download.
- There are two types of these “translators”
  1. Compilers
  2. Interpreters.
- Compilers directly translate a program from its original programming language into executable binary.
- Interpreters work in a slightly more complex way.
- Python uses an interpreter.