



# WiT Hackathon Setting up Python with pip Starter User Guide

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## What is Python?

Python is a common programming language used for many things such as building websites, analysing data, creating AI tools and automating everyday tasks. It's known for being beginner friendly.

## What is pip?

pip is Python's package manager. Think of this as almost an app store for Python - it lets you download and install tools (known as packages) that other developers have already built. For example, instead of writing your own code to make charts, you can install a package using pip that does it for you.

# What is an IDE?

An IDE (Integrated Development Environment) is where you write and run your Python code. It helps you organise files, spot mistakes, and run your programs easily. This guide will use **VS Code** which is a free code editor that is lightweight, flexible and beginner-friendly.

## Setting up

### Step 1: Installing Python

1. To download Python please navigate to the correct webpage based upon the operating system you are using:
  - Windows: <https://www.python.org/downloads/windows/>
  - MacOS: <https://www.python.org/downloads/macos/>
  - Other: <https://www.python.org/downloads/>
2. Once you are there, please download the **latest stable version** of Python (e.g. 3.13.7)

## Python Releases for macOS

- [Latest Python 3 Release - Python 3.13.7](#)

### Stable Releases

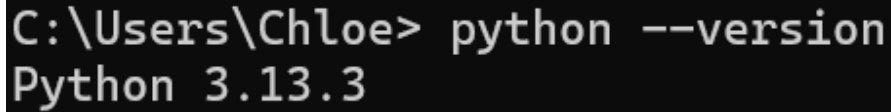
- [Python 3.13.7 - Aug. 14, 2025](#)
  - [Download macOS 64-bit universal2 installer](#)

3. Run the installer and install!
4. After installing, open up a terminal (Command Prompt on Windows, or Terminal on Mac/Linux) and type:

```
python --version
```

If that doesn't work, on some systems you may need to use:

```
python3 --version
```

A terminal window with a black background and white text. The prompt is 'C:\Users\Chloe>' and the command entered is 'python --version'. The output is 'Python 3.13.3'.

If you see a version number something similar to Python 3.13.6, then you are good to go!

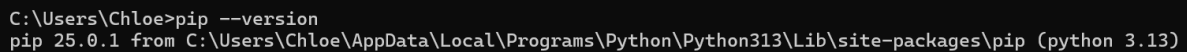
## Step 2: Installing pip

Most new versions of Python come with pip already installed. To check, run:

```
pip --version or pip3 --version
```

If you see a version number then pip is installed, if not then follow these steps below:

1. Run this command in your terminal: `python -m ensurepip --upgrade` or `python3 -m ensurepip --upgrade`
2. Then rerun `pip --version` to see if it has been installed

A terminal window with a black background and white text. The prompt is 'C:\Users\Chloe>' and the command entered is 'pip --version'. The output is 'pip 25.0.1 from C:\Users\Chloe\AppData\Local\Programs\Python\Python313\Lib\site-packages\pip (python 3.13)'.

Now you're ready to install Python packages!

## Step 3: Installing VS Code (IDE)

1. Download VS code from [code.visualstudio.com](https://code.visualstudio.com) and install it
2. Open VS Code
3. Go to Extensions (the puzzle piece icon on the left sidebar). Search for **Python** and install the official Python extension by Microsoft.



This extension helps you run Python code inside VS Code and gives you extra features like autocompletion and debugging.

## Step 4: Example: Writing Your First Python Program

1. In VS Code, click **File** → **New File**, and save it as **hello.py**.
2. Inside the file, write:

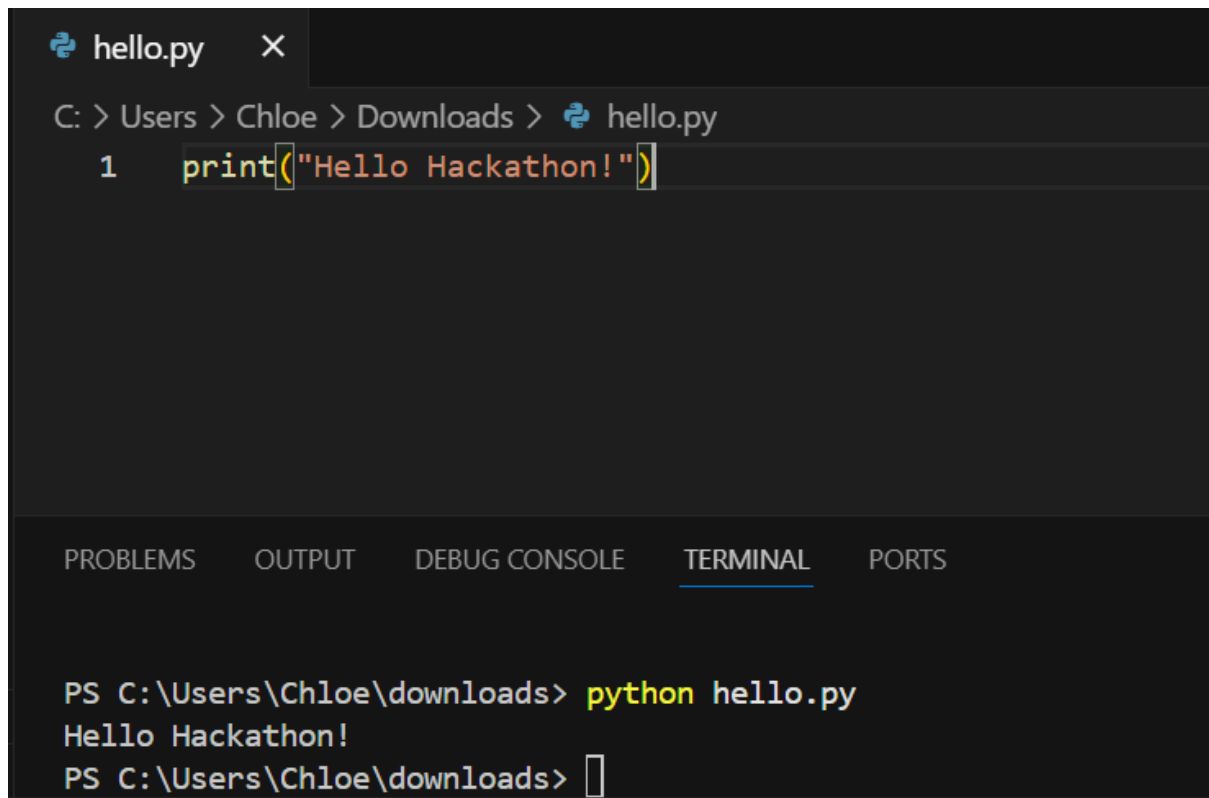
```
print("Hello Hackathon!")
```

3. Save the file (MacOS: cmd + s, Windows: ctrl + s)
4. To run it: Open a terminal in VS Code (View → Terminal) and type:

```
python hello.py or python3 hello.py
```

You should see:

Hello Hackathon!



```
hello.py X
C: > Users > Chloe > Downloads > hello.py
1 print("Hello Hackathon!")

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\Chloe\downloads> python hello.py
Hello Hackathon!
PS C:\Users\Chloe\downloads> 
```

## Step 5: Example: Install Your First Package with pip

Let's install a fun package called **pyfiglet**, which turns text into cool ASCII art.

In your terminal, type:

```
pip install pyfiglet or pip3 install pyfiglet
```

1. Once it installs, create a new file (e.g. **art.py**) and add:

```
import pyfiglet
```

```
print(pyfiglet.figlet_format("Hackathon!"))
```

2. Save (MacOS: cmd + s, Windows: ctrl + s) and run it by typing this in the terminal:

```
python art.py or python3 art.py
```

3. You'll see "Hackathon!" printed in big ASCII letters.

```
hello.py x
C:\Users\Chloe> cd Downloads & python hello.py
1 import pyfiglet
2
3 print(pyfiglet.figlet_format("Hackathon!"))

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS powershell + - [ ] [X] ... ^ X

PS C:\Users\Chloe\downloads> pip install pyfiglet
Collecting pyfiglet
  Downloading pyfiglet-1.0.4-py3-none-any.whl.metadata (7.4 kB)
  Downloading pyfiglet-1.0.4-py3-none-any.whl (1.8 MB)
    ━━━━━━━━━━━━━━━━━━━━ 1.8/1.8 MB 23.8 MB/s eta 0:00:00
Installing collected packages: pyfiglet
Successfully installed pyfiglet-1.0.4

[notice] A new release of pip is available: 25.0.1 -> 25.2
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\Chloe\downloads> python hello.py

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