ComIT

Tools of the Trade

Summary

- We will introduce the tools and software you will be using to program in Python!
- You will need:
  1. A text editor or IDE
  2. A terminal emulator (command line interface).
  3. Git (for version control, more on that later)

Text Editor

What is an IDE?

- Stands for “Integrated Development Environment”
- They are text editors that have additional features that make editing and debugging code easier:
  - Coloured text for syntax highlighting
  - Built-in warnings and errors for incomplete or incorrect code
  - Code completion and auto-formatting
  - Many many more!

Visual Studio Code

- VS Code can be found here: https://code.visualstudio.com/download
- There is also a tutorial available called “Getting Started with Python in VS Code”: https://code.visualstudio.com/docs/python/python-tutorial
  - The tutorial assumes you have some knowledge of Python and programming and so it may be something you can reference later
- VS Code uses “extensions” to provide specific functionality for different programming languages.
  - You will need the “Python” extension from Microsoft

Terminal Emulator

What is a “Terminal Emulator”?

- In the context of this class, a terminal emulator is a program that **provides a command line interface** to your computer.
- A command line interface is an alternative way of interacting with your computer.
- Rather than clicking on icons or dragging around windows, you type in text commands, which are then interpreted and then processed,
- The program that interprets your commands is called the **shell**.
- Command Prompt, PowerShell, Bash, Fish, and Zsh are all examples of shells.

Which Terminal Emulator?

- If you are on Windows, you will likely need to install an emulator. PowerShell and Command Prompt are usually there by default, but there is a better option...
  - Windows Terminal is pretty great, and can run many different shells.
- MacOS and Linux operating systems often have a good Terminal Emulator installed by default.

Git

What is Git?

- Git is a **distributed version control system** that allows developers to track versions of files.
  - A distributed version control system is a form of version control where the complete codebase and it’s full history, is mirrored on every developer’s computer.
- It was created by Linus Torvalds while he was developing the Linux Kernel.
- It’s the de facto standard for version control
- It’s free and open source, and can be found here.

Questions?