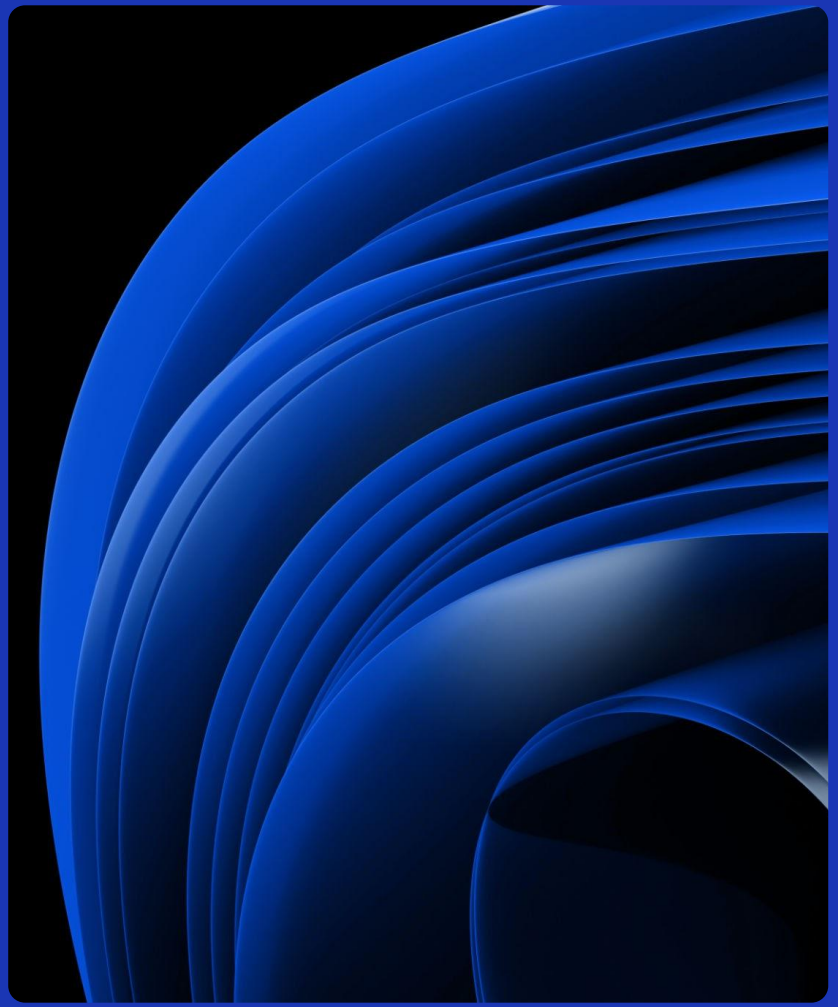
A My Path MN and BDPATCF Collaboration

Intro to Python

Led by William Munnich
Friday 2/22/2025



Class Timeline and Topics | Part A

Level A

- **2/22/25**
  - AI as a Learning Tool, Syntax Cheat Sheet, GitHub Setup and Basics
  - **PROJECT 1:** Portfolio Site (Hosted on GitHub)
  - First Push to Repository From Web and VSCode
- **3/1/25**
  - Variables, Data Types, For Loops, While Loops, If Statements, Libraries
- **3/8/25**
  - Types of Programming Languages, Python Programming Styles, Versatility of Python
- **3/15/25**
  - Python Problem Solving, How to Debug, Stack Overflow, Reading Source Documentation
  - The Power of Pseudocode
- **3/22/25**
  - Functions, Programs, File Types, Referencing Functions in a Different File, Databases

Class Timeline and Topics | Part B

Level B

- **3/29/25**
  - **PROJECT 2:** Web Scraping → Saving To a File → Changing File Type → Deleting Files
- **4/5/25**
  - **PROJECT 3:** Local Web-Based Media Server With Supabase Local (Starting)
- **4/12/25**
  - **PROJECT 3:** Local Web-Based Media Server With Supabase Local (Wrapping Up)

Generative AI

Tool	Strengths	Weaknesses	Best For
ChatGPT	Versatile, explanatory, API-accessible	No IDE integration, verbose	General coding, learning
Gemini	Multimodal, Google integration, web	Less coding-specialized	Google users, multimedia coding
Claude	Reliable, context-rich, safe	No web access, no IDE integration	Complex projects, accuracy
Grok	Web-savvy, reasoning, free	Maturing, limited IDE support	Trend-aware, budget coders
GitHub Copilot	IDE-integrated, multi-model, real-time	Subscription cost, less chatty	Professional IDE workflows
DeepSeek	Efficient, reasoning, local	Setup complexity, limited features	Technical, private coding
Local Open WebUI	Flexible, private, model-agnostic	Requires setup, model-dependent	Custom, offline coding

Benefits of Knowing a Programming Language

Benefits of Knowing a Programming Language:

1. **Enhanced Communication with AI**
2. **Improved Debugging**
3. **Customization and Adaptation**
4. **Enhanced Problem-Solving Skills**

Python Cheat Sheet

https://docs.google.com/document/d/1jYkAW0korggMG-1YM_Y-1p_cUPuBaCVJTHHj5cc9EP0/edit?usp=sharing

Git/GitHub Cheat Sheet

https://docs.google.com/document/d/1XI8apBG-ilpvo8hv6_yRf7HOceChP-I6JmIqcg-3I4M/edit?usp=sharing

VSCode Commands

https://docs.google.com/document/d/1c9lR7Z8HdVDQXsNbHwQp3VqhX8I3T-gt2dbSf2d1cfQ/edit?usp=sharing

Project 1: Portfolio Site

1) Make a GitHub Account
2) Make repository called “your username”.github.io
3) Copy code from https://github.com/williammunnich/williammunnich.github.io/blob/main/template.html and put it into your repo in a file called “**index.html**”
4) Update the repo with your name, abut, contact, and then try using generative ai to modify the site

Hello World!

Let’s try and get your first Python code to run.

```
print(“Hello World!”)
```

```
python hello.py
```