Welcome to the CoGrammar

Getting Started With Your BootCamp

The session will start shortly...

Questions? Drop them in the chat. We'll have dedicated moderators answering questions.

Cyber Security Session Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

Software Engineering Session Housekeeping cont.

- For all **non-academic questions**, please submit a query: **www.hyperiondev.com/support**
- Report a **safeguarding** incident: **www.hyperiondev.com/safeguardreporting**
- We would love your **feedback** on lectures: **Feedback on Lectures**

Safeguarding & Welfare

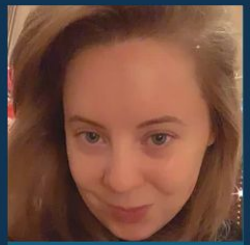
We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:

Ian Wyles
Designated Safeguarding Lead

Simone Botes

Rafiq Manan



Charlotte Witcher

Nurhaan Snyman

Ronald Munodawafa

Tevin Pitts

Scan to report a safeguarding concern

or email the Designated Safeguarding Lead:
Ian Wyles
safeguarding@hyperiondev.com

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Learning Objectives & Outcomes

- Before the end of this lecture, one should be able to:
  - Set up their development Environment
  - Explain the purpose of pseudo code in problem-solving and program design.
  - Write their first computer program using python
  - Define variables and utilise variables in their programs.


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Installation guidance.

- Before we get going, please consult the ‘Additional Reading - Installation, Sharing and Collaboration’ guide that accompanies this task.
- The guide provides a detailed instruction on setting up (On macOs, linux or windows):
  - Visual Studio Code
  - Python

What is Pseudo Code?

- Pseudo code is a simple, plain-English way of describing steps to solve a problem.
- In programming, it is not actual code but rather a tool to plan the logic of a program.
- Helps programmers think through problems and structure solutions before coding.

Example: Instructions for making a sandwich

- Start
- Take two slices of bread
- Spread butter on both slices of bread
- Add filling of choice (e.g. Ham/Cheese)
- Close the sandwich with both slices
- End.

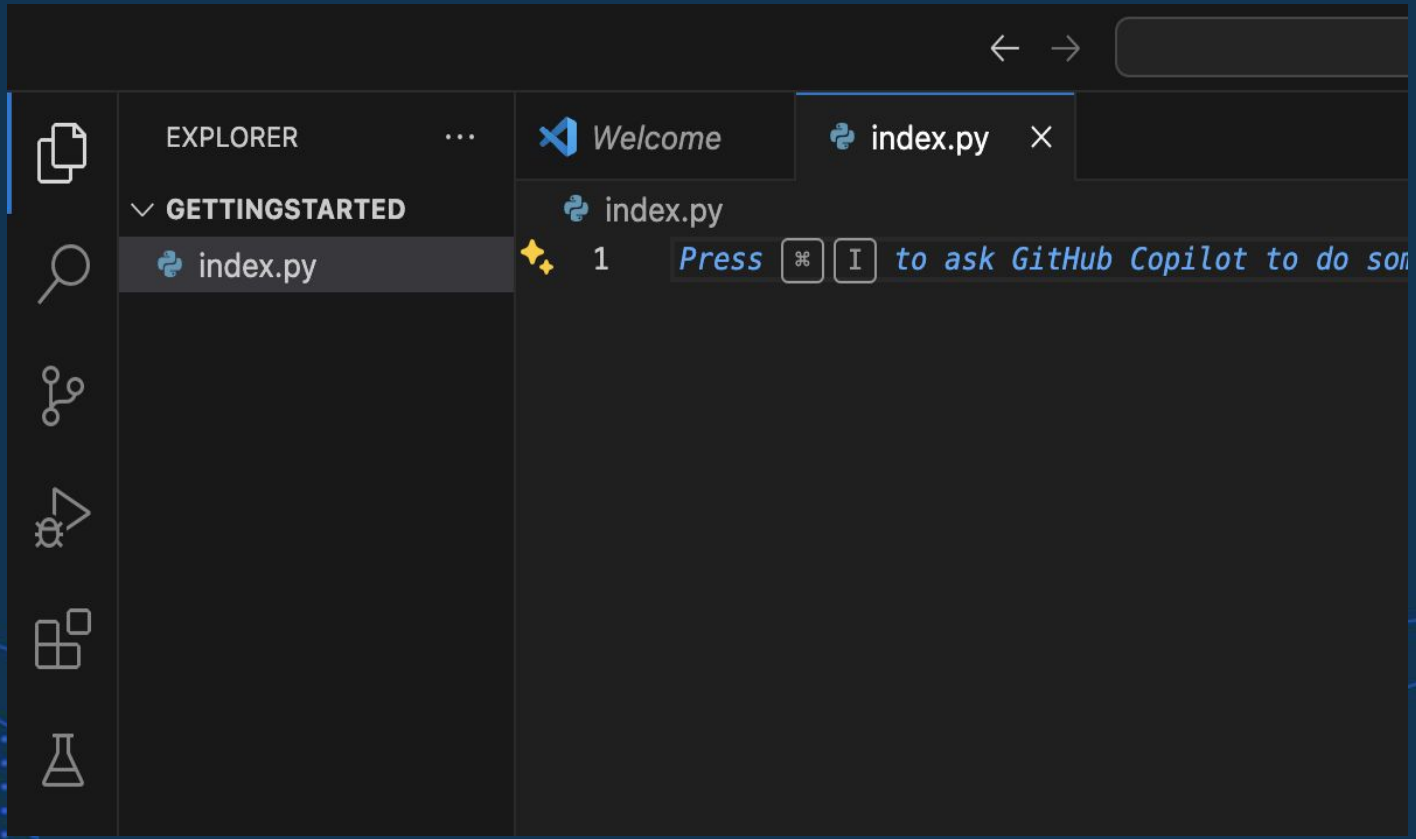
Introduction to Python

- Python is a high-level, interpreted programming language known for its simplicity and readability.
- Widely used for:
  - Web development
  - Data analysis
  - Machine learning
  - Automation and more.

Writing your first computer program with python.

- Programs are executable files that perform the instructions given by the programmer.
- Since there are variety of languages, in order to write a python script or code, you need to create a python file.
- We can name the file with any user defined name and have the **.py extension** after it.
- The file created should live inside a known folder in your laptop.

Writing your first computer program with python.



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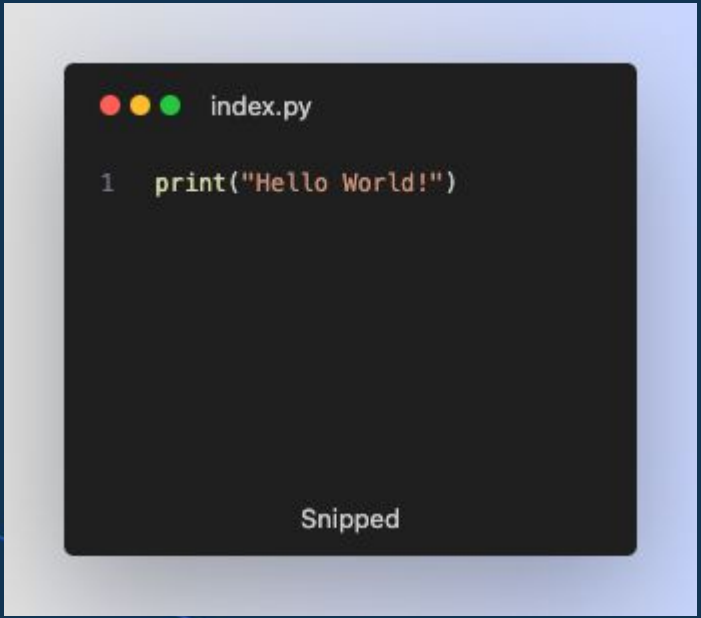
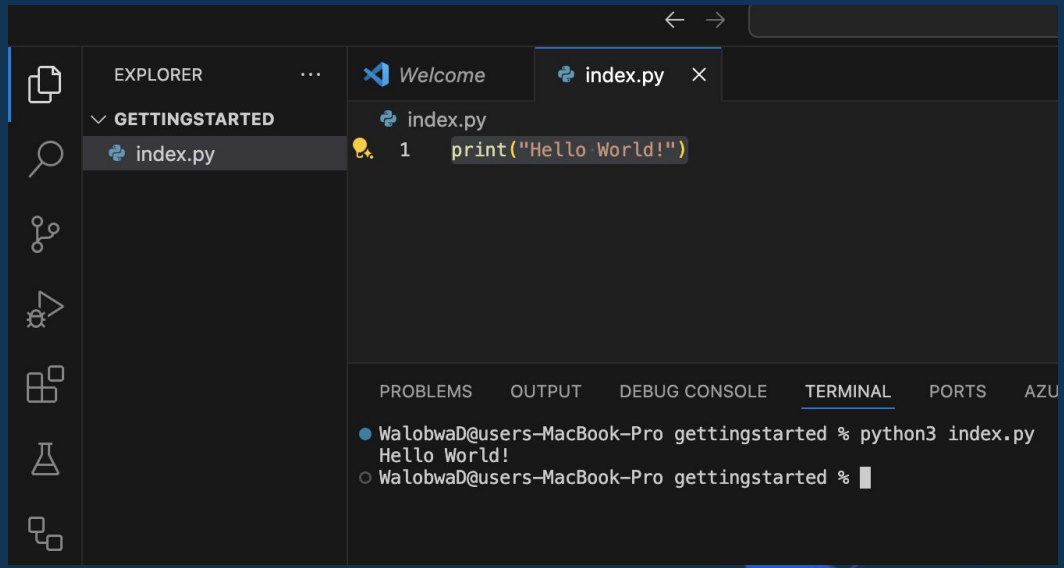
Writing your first computer program with python.

- The print() function:
  - For our first program, we may want to display or output information to the user. The most common way to view program output is to use the print function.
  - The print function takes in the data to display as an argument.
  - Example: print(“Hello World”)
- To run this program, you need to open your terminal and write in the command python followed by the name of the file created with the script.

Running your first python script.





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Variables

- A variable is a named storage location in a computer's memory that holds a value that can be changed or updated as the program runs.
- In python, we use the following format to create a variable and design a value to it.

```
variable_name = value_you_want_to_store
```

How to get input.

- Sometimes you might want the user to enter data that will be used by your program, to do this, you need to use the input method.

```
name = input("Enter your name: ")
```

- The variable name stores what the user entered into the box as a string.

Questions and Answers

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Thank you for attending

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