# WEEK 1 - PYTHON BASICS

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🧠 THEORY CONCEPTS  
  
1. What is Programming?  
Programming means giving instructions to a computer to perform tasks. Python is a beginner-friendly language because it uses simple and readable syntax.  
  
Example:  
print("Hello, World!")  
  
2. Variables  
Variables are containers used to store data values such as numbers, text, or True/False.  
  
Example:  
name = "John"  
age = 22  
is\_student = True  
  
3. Basic Math Operations  
Python can perform addition, subtraction, multiplication, and division.  
  
Example:  
x = 10  
y = 5  
print(x + y)  
print(x - y)  
print(x \* y)  
print(x / y)  
  
4. Strings  
Strings are sequences of characters (text). You can combine them using +.  
  
Example:  
first\_name = "John"  
last\_name = "Doe"  
full\_name = first\_name + " " + last\_name  
print(full\_name)  
  
5. Lists  
Lists hold multiple values in one variable.  
  
Example:  
foods = ["Pizza", "Burger", "Pasta"]  
print(foods[0])  
  
6. Your First Program  
A program runs line by line in order.  
  
Example:  
print("Starting program...")  
print("Hello, World!")  
print("Program complete.")