# Programming

#### Variable

- Data representation that possess a location in memory
- Name and location are fixed, it stores data
- Data change

# Examples

#### Variables

- Main building block of a program
- Its data might change
- They have different types

## Primitive Data Types

- Int
- Char
- Bool

## Complex Types

- String
- List/Map, etc.
- Class/functions
- None

### Operators

- Base operations +, -, \*, /, %
- Examples

#### Concatenation

- Adding string together
- Str and int

#### Casting and built-in

- Variables can be "cast" to other types
  - int(), char(), float(), str()
- Python possess many built-in "functions"

### Tips and Tricks

- Use comments to define logic (#)
- Start small
- Do not repeat yourself
- Keep it simple
- Test often

### Installing packages

- In the terminal type:
  - pip install <package name>
    - Exemple: pip install openai