internship studio

Welcome to

INTERNSHIP STUDIO

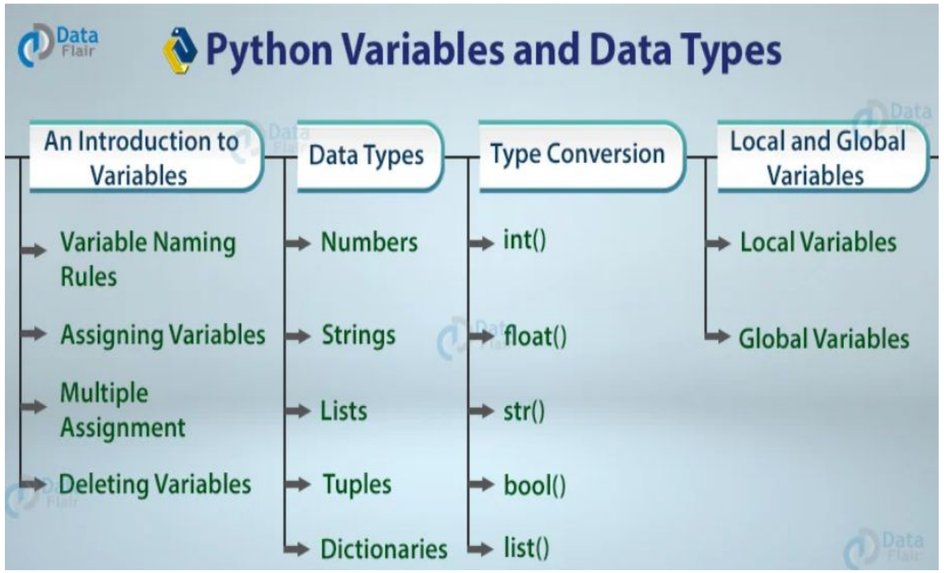
Module 04 | Lesson 01

Introduction to Python for Data Analytics

Data Types, Variables & Operators in Python

Introduction

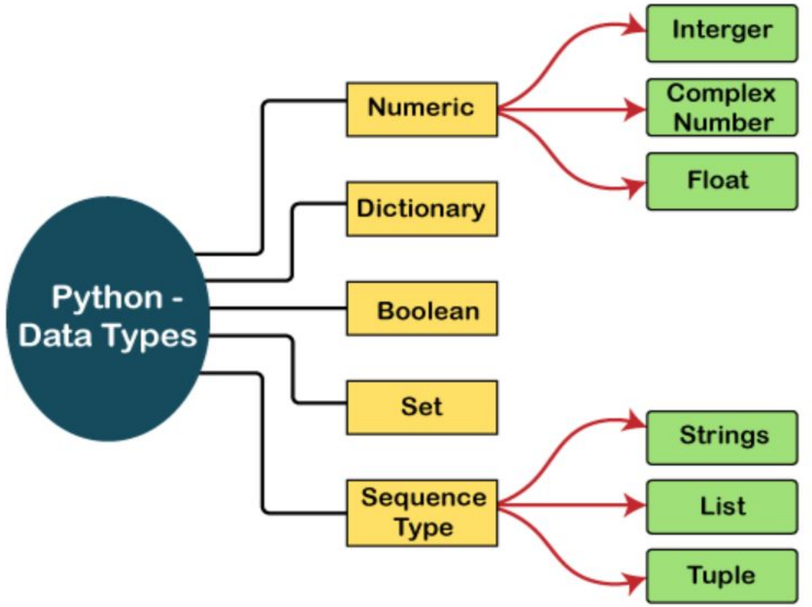
- Python is a versatile programming language that supports a wide range of data types, variables, and operators.
- Understanding these concepts is crucial for writing efficient and effective Python code.



Data Types

Python has several built-in data types, including: Numeric types: int, float, complex:

1. Sequence types: list, tuple, range
2. Text type: str
3. Mapping type: dict
4. Set types: set, frozenset
5. Boolean type: bool

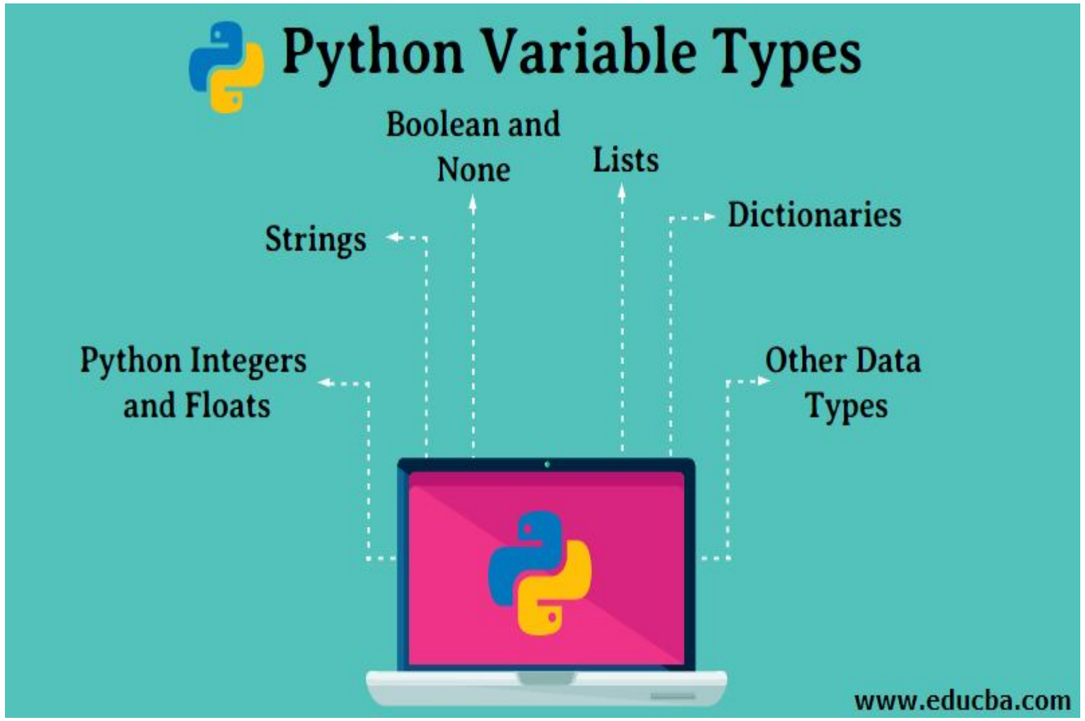


Variables

- Variables are used to store and manipulate data in Python.

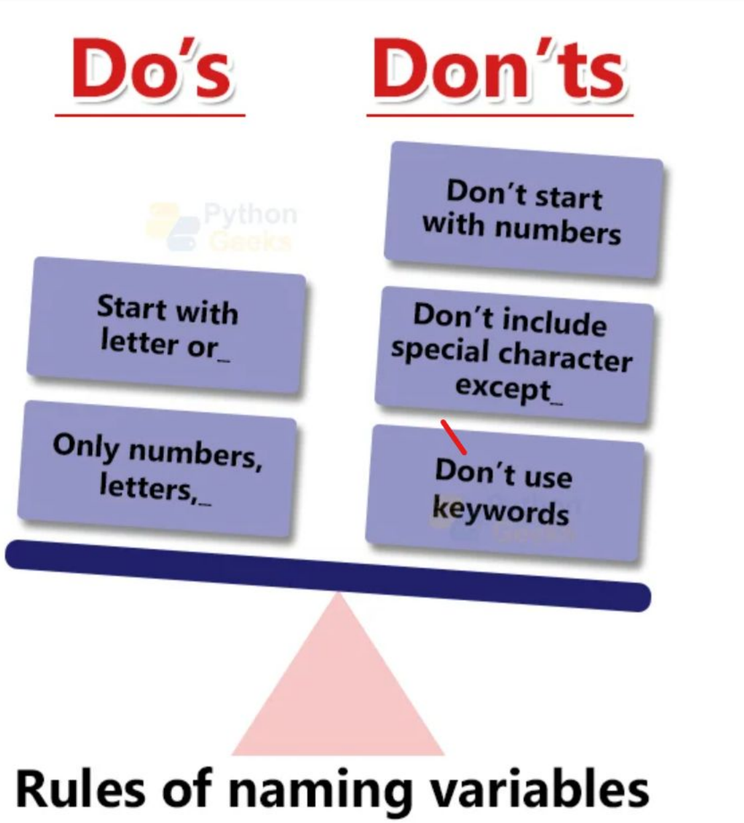
- In Python, you don't need to declare a variable before using it. Just assign a value to it, and Python will automatically determine the variable's type.

- Variables can hold different data types, and their values can be changed throughout the program.



Variable Naming Rules

- Variable names in Python must follow certain rules: Start with a letter or underscore
- Can contain letters, digits, and underscores
- Case-sensitive (e.g., "myVar" and "myvar" are different variables)



Operators

- Operators are used to perform operations on variables and values.
- Python supports various types of operators, including:
  - Arithmetic operators: +, -, *, /, %, **
  - Assignment operators: =, +=, -=, *=, /=
  - Comparison operators: ==, !=, >, <, >=, <=
  - Logical operators: and, or, not
  - Bitwise operators: &, |, ^, ~, <<, >>

Resources

1. Python documentation: (https://docs.python.org/3/)

2. Real Python: Online platform with tutorials, articles, and videos on various Python topics, including data types, variables, and operators. (https://realpython.com/)
3. Python.org: Official Python website with tutorials, guides, and resources covering data types, variables, and operators. (https://www.python.org/about/gettingstarted/)

SUMMARY

You got this

- Python supports a wide range of data types, variables, and operators.
- Understanding these concepts is essential for writing Python code effectively.
- Regular practice and experimentation will help solidify your understanding.

Next session

New Module! Starting off with NumPy