Python Data Types & Structures

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Anonymous

My student is learning Python for the first time, give information on the following with example codes.

Data types and Structures

- *Strings
- *booleans, integer, float, list, tuples, dictionary
- *with NumPy library: NumPy array and NumPy array operation

Introduction to Python Data Types and Structures

Python is a versatile and widely-used programming language with a variety of built-in data types and structures. Understanding these is crucial for data manipulation, analysis, and algorithm development. Here, we'll explore basic data types and structures along with examples, including some operations using the NumPy library, which is fundamental in scientific computing.

1. Basic Data Types

- Strings: Used for text.
- **Booleans**: Represent logical values (True or False).
- Integers: Whole numbers.
- Floats: Numbers with decimal points.

Example Code:

```
python

# Strings
my_string = "Hello, world!"
print(my_string)
```