

Python Data Types

A Comprehensive Guide with Examples

DATA TYPE	DESCRIPTION	EXAMPLE CODE	OUTPUT
Integer (<code>int</code>)	Whole numbers, positive or negative, without a decimal point.	<code>x = 10</code>	<code><class 'int'></code>
Float (<code>float</code>)	Real numbers with decimal points.	<code>y = 3.14</code>	<code><class 'float'></code>
Complex (<code>complex</code>)	Numbers with both a real and imaginary part.	<code>z = 2 + 3j</code>	<code><class 'complex'></code>
String (<code>str</code>)	Sequence of characters enclosed in quotes.	<code>text = "Hello World"</code>	<code><class 'str'></code>
List (<code>list</code>)	Ordered, mutable collection of items.	<code>fruits = ["apple", "banana"]</code>	<code>['apple', 'banana']</code>
Tuple (<code>tuple</code>)	Ordered, immutable collection of items.	<code>coords = (10, 20)</code>	<code><class 'tuple'></code>
Dictionary (<code>dict</code>)	Collection of key-value pairs.	<code>person = {"name": "Alice"}</code>	<code>{'name': 'Alice'}</code>

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Set (<code>set</code>)	Unordered collection of unique items.	<code>unique_nums = {1, 2, 3}</code>	<code>{1, 2, 3}</code>
Boolean (<code>bool</code>)	Represents truth values: <code>True</code> or <code>False</code> .	<code>is_valid = True</code>	<code><class 'bool'></code>
None (<code>NoneType</code>)	Represents the absence of a value.	<code>value = None</code>	<code><class 'NoneType'></code>