

Python Booleans

Booleans represent one of two values: `True` or `False`.

Boolean Values

In programming you often need to know if an expression is `True` or `False`.

You can evaluate any expression in Python, and get one of two answers, `True` or `False`.

When you compare two values, the expression is evaluated and Python returns the Boolean answer:

Example

```
print(10 > 9)
print(10 == 9)
print(10 < 9)
```

When you run a condition in an if statement, Python returns `True` or `False`:

Example

Print a message based on whether the condition is `True` or `False`:

```
a = 200
b = 33

if b > a:
    print("b is greater than a")
else:
    print("b is not greater than a")
```

Python Lists

In Python, the sequence of various data types is stored in a list. A list is a collection of different kinds of values or items. Since Python lists are mutable, we can change their elements after forming. The comma (,) and the square brackets [enclose the List's items] serve as separators.

Although six Python data types can hold sequences, the List is the most common and reliable form. A list, a type of sequence data, is used to store the collection of data. Tuples and Strings are two similar data formats for sequences.

Lists written in Python are identical to dynamically scaled arrays defined in other languages, such as Array List in Java and Vector in C++. A list is a collection of items separated by commas and denoted by the symbol [].

List Declaration

1. `# a simple list`
2. `list1 = [1, 2, "Python", "Program", 15.9]`
3. `list2 = ["Amy", "Ryan", "Henry", "Emma"]`
- 4.
5. `# printing the list`
6. `print(list1)`
7. `print(list2)`
- 8.
9. `# printing the type of list`
10. `print(type(list1))`
11. `print(type(list2))`

Output:

```
[1, 2, 'Python', 'Program', 15.9]
['Amy', 'Ryan', 'Henry', 'Emma']
< class ' list ' >
< class ' list ' >
```

Characteristics of Lists

The characteristics of the List are as follows:

- The lists are in order.
- The list element can be accessed via the index.
- The mutable type of List is
- The rundowns are changeable sorts.
- The number of various elements can be stored in a list.