

Introduction to Python Programming

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- General Guidelines of Python Coding

- No variable declaration; however, variables must be initialized before use
 - * Variable names are case-sensitive
 - * Variable identifiers may consist of letters, digits, and underscores, but may not begin with a digit
- Many of the high-level programming languages like C, C++, or C use braces {} to mark a block of code; Python does it via indentation
 - * A code block representing the body of a function or a loop begins with the indentation and ends with the first unindented line
 - * Most programming languages provide indentation for better code formatting and don't enforce to have it

- Python Data Types

- Python determines the type of a literal directly from the syntax at runtime
- Boolean (bool): True or False
- Numeric: int, float, and complex
- String (str): 'myStr', "myStr"

- Can shorten IF statements to `VALUE_ON_TRUE IF <CONDITION> ELSE VALUE_ON_FALSE`

- Python FOR Loop

- Used when you know the total number of iterations required for execution

```
FOR ITER IN SEQUENCE:  
    STATEMENTS(ITER)
```

- * ITER represents the iterating variable. It gets assigned with the successive values from the input sequence
- * SEQUENCE may refer to any of the following Python objects: list, tuple, or string