DAY-1

Examples

Python Indentation:

1. if 5 > 2:

   print("Five is greater than two!")

2. **Python will give you an error if you skip the indentation:**
   if 5 > 2:
   print("Five is greater than two!")
3. **The number of spaces is up to you as a programmer, but it has to be at least one.**
   if 5 > 2:
   print("Five is greater than two!")
   if 5 > 2:
   print("Five is greater than two!")
4. **You have to use the same number of spaces in the same block of code, otherwise Python will give you an error.**
   if 5 > 2:
   print("Five is greater than two!")
   print("Five is greater than two!")

Python Variables

1. **Variables in Python:**
   x = 5
   y = "Hello, World!"
2. x = 5
   y = "John"
   print(x)
   print(y)
3. **Variables do not need to be declared with any particular type and can even change type after they have been set.**
   x = 4 # x is of type int
   x = "Sally" # x is now of type str
   print(x)
4. **String variables can be declared either by using single or double quotes.**
   x = "John"
   # is the same as
   x = 'John'
5. **multiple variables in one line**
   x, y, z = "Orange", "Banana", "Cherry"
   print(x)
   print(y)
   print(z)

6. x = y = z = "Orange"
   print(x)
   print(y)
   print(z)
7. **combine both text and a variable**
   x = "awesome"
   print("Python is " + x)
8. **add a variable to another variable**
   x = "Python is "
   y = "awesome"
   z = x + y
   print(z)
9. **x = 5**
   y = 10
   print(x + y)
10. **If you try to combine a string and a number, Python will give you an error**
    x = 5
    y = "John"
    print(x + y)
11. **Global Variables: Create a variable outside of a function, and use it inside the function**
    x = "awesome"
    def myfunc():
      print("Python is " + x)
    myfunc()
12. **Create a variable inside a function, with the same name as the global variable**
    x = "awesome"
    def myfunc():
      x = "fantastic"
      print("Python is " + x)
    myfunc()
    print("Python is " + x)
13. **If you use the global keyword, the variable belongs to the global scope.**
    def myfunc():
      global x
      x = "fantastic"
    myfunc()
    print("Python is " + x)
14. **To change the value of a global variable inside a function, refer to the variable by using the global keyword:**
    x = "awesome"
    def myfunc():
      global x
      x = "fantastic"

    myfunc()

print("Python is " + x)

Python Comments

1. **Comments starts with a #, and Python will ignore them:**
   #This is a comment
   print("Hello, World!")
2. **Comments can be placed at the end of a line, and Python will ignore the rest of the line.**
   print("Hello, World!") #This is a comment
3. **Comments does not have to be text to explain the code, it can also be used to prevent Python from executing code.**
   #print("Hello, World!")
   print("Cheers, Mate!")
4. #This is a comment
   #written in
   #more than just one line
   print("Hello, World!")
5. **Multiline String/Comment**
   """
   This is a comment
   written in
   more than just one line
   """
   print("Hello, World!")

Python Data Types

1. x = 5
   print(type(x))