Basic Python #2

AI Mentorship

Outline

1. Python: User Input
2. Python: String Operation
3. Python: String Formatting
4. Python: Booleans
5. Python: Lists
6. Python: Conditions (If...else)

Python: User Input

Python allows for user input.
That means we are able to ask the user for input as a string.

Example:

```
name = input("Enter name:")
print("Your name is: " + name)
```

Python: String Operations

Get the character at position 1 (the first character has the position 0)

```
a = "Hello, World!"
print(a[1])
```

Get the characters from position 2 to position 5 (not included):

```
b = "Hello, World!"
print(b[2:5])
```

The `len()` function returns the length of a string:

```
a = "Hello, World!"
print(len(a))
```

Python: String Operations

Merge variable `a` with variable `b` into variable `c`:

```
a = "Hello"
b = "World"
c = a + b
print(c)
```

To add a space between them, add a `" "`:

```
a = "Hello"
b = "World"
c = a + " " + b
print(c)
```

Python: String Formatting

The `format()` method takes the passed arguments, formats them, and places them in the string where the placeholders `{}` are:

```
age = 36
txt = "My name is John, and I am {}".format(age)
print(txt)
```

Python: Booleans

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

Example:

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

a = 10
b = 9
if b > a:
  print("b is greater than a")
else:
  print("b is not greater than a")
```

Python: List

They can contain any type of variable, and they can contain as many variables as you wish. Lists can also be iterated over in a very simple manner. Here is an example of how to build a list.

Example:

```
mylist = []
mylist.append(1)
mylist.append(2)
mylist.append(3)
print(mylist[0]) # prints 1
print(mylist[1]) # prints 2
print(mylist[2]) # prints 3

# prints out 1,2,3
for x in mylist:
    print(x)
```

Python: Conditions (If...else)

Python uses boolean variables to evaluate conditions. The boolean values True and False are returned when an expression is compared or evaluated.

Conditions : ==, !=, >, <, >=, <=, and, or , not

```
a = 200
b = 33
if b > a:
  print("b is greater than a")
elif a == b:
  print("a and b are equal")
else:
  print("a is greater than b")
```