Cheatography

Python For Loops Cheat Sheet

by Nouha_Thabet via cheatography.com/103894/cs/21442/

For Loop

A for loop is used for iterating over a sequence (that is either a list, a tuple, a dictionary, a set, or a string).

For Loop - String

```
For i in "Color":
     print(i)
>>> C
>>> o
>>> l
>>> o
>>> r
```

For Loop - Dictionary

```
Car = {
      "brand": "Ford",
      "model": "Focus",
      "year": 2013
}
for i in Car:
      print(i)
>>> brand
>>> model
>>> year
```

In this example we only print the keys of the dictionary, in the next example we will print the value of each key.

```
for i in Car:
      print(Car[i])
>>> Ford
>>> Focus
>>> 2013
```

For Loop - Tuple

```
RYB_color = ("Red","Y-
ellow","Blue")
for i in RYB_color:
     print(i)
>>> Red
>>> Yellow
>>> Blue
```

For Loop - List

```
RYB_color = ["Red","Y-
ellow","Blue"]
for i in RYB_color:
     print(i)
>>> Red
>>> Yellow
>>> Blue
```

The break Statement

```
for i in RYB_color:
     if(i == "Yellow"):
          break
     print(i)
>>> Red
```

With the `break` statement we can stop the loop before it has looped through all the items. In this example the loop stopped when the item is equal to "Yellow"

The continue Statement

```
for i in RYB_color:
     if(i == "Yellow"):
          continue
     print(i)
>>> Red
>>> Blue
```

With the `continue` statement we can stop the current iteration of the loop, and continue with the next.

The range() Function

```
for i in range(3):
      print(i)
>>> 0
>>> 1
>>> 2
```

The `range(n)` is a function that returns a sequence of numbers, starting from 0 by default, and increments by 1 (by default), and ends at `(n -1)`.

```
for i in range(2,5):
      print(i)
>>> 2
>>> 3
>>> 4
```

In this example `range(j,n)` returns a sequence of numbers, starting from `j` and incremented by 1 (by default), and ends at `(n - 1)`.

```
for i in range(2,10,3):
      print(i)
>>> 2
>>> 5
>>> 8
```

In this example `range(j,n,k)` returns a sequence of numbers, starting from `j` and incremented by `k` and ends at `(n - 1)`.

Else in For Loop

```
for i in range(3):
     print(i)
else:
     print("finally
finished !")
>>> 0
>>> 1
>>> 2
>>> finally finished !
```

Nested Loops

```
list_1 = ["Data" , "-
Machine learning"]
list_2 = ["Scientis-
t","Engineer"]

for i in list_1:
    for j in list_2:
       print(i,j)
>>> Data Scientist
>>> Data Engineer
>>> Machine Learning
Scientist
>>> Machine Learning
Engineer
```

The pass Statement

```
for i in RYB_color:
     pass
```

for loops cannot be empty, but if we for some reason have a for loop with no content, we can put in the pass statement to avoid getting an error.