

Loops in Python

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Agenda for Discussion

1 Python: Repeating your actions!

- Making Choices
- Repeating Actions: while
- Repeating Actions: for



Conditional Operators

Python supports logical conditions just like C/C++:

Equals:

`a == b`



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Equals:

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Less than:

`a < b`



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Equals:

`a == b`

Not Equals:

`a != b`

Less than:

`a < b`

Less than or equal to:

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Conditional Operators

Python supports logical conditions just like C/C++:

Equals:

`a == b`

Not Equals:

`a != b`

Less than:

`a < b`

Less than or equal to:

`a <= b`

Greater than:

`a > b`



Conditional Operators

Python supports logical conditions just like C/C++:

Equals:

`a == b`

Not Equals:

`a != b`

Less than:

`a < b`

Less than or equal to:

`a <= b`

Greater than:

`a > b`

Greater than or equal to:

`a >= b`



If..Else

An example usage of conditional operators can be shown with if..else:



If..Else

An example usage of conditional operators can be shown with if..else:

```
ageK = 58
ageD = 32
if ageK > ageD:
    print("True!")
else:
    print("False")
```

```
age1 = 32
age2 = 32
if age2 > age1:
    print("True")
elif a == b:
    print("False, they are equals!")
else:
    print("Age1 is greater, it is the opposite!")
```



If..Else Shortcuts

```
a = 50  
b = 23  
print("A") if a > b else print("B")
```



If..Else Shortcuts

```
a = 50  
b = 23  
print("A") if a > b else print("B")
```

Guess the output?

```
a = 26  
b = 26  
print("A") if a > b else print("=") if a == b else print("B")
```

Find out what Nested If's can be used for!



Learning 'while' watching a video

```
countApples = 1
while countApples < 10:
    print(countApples)
    countApples += 1
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```
countApples = 1
while countApples < 10:
    print(countApples)
    if countApples == 3:
        break
    countApples += 1
```



'while' you continue to watch

```
countApples = 0
while countApples < 10:
    countApples += 1
    if countApples == 5:
        continue
    print(countApples)
```



'For' the students

```
gadgetsOwned = ["phone", "smartWatch", "tablet"]  
for gadget in gadgetsOwned:  
    print(gadget)
```



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```
gadgetsOwned = ["phone", "smartWatch", "tablet"]  
for i in gadgetsOwned:  
    if i == "smartWatch":  
        print("You are too rich! Not eligible for donation!")  
        break  
    print(i)
```



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gadgetsOwned = ["phone", "smartWatch", "tablet"]  
for gadget in gadgetsOwned:  
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for i in range(10):  
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for i in gadgetsOwned:  
    if i == "smartWatch":  
        print("You are too rich! Not eligible for donation!")  
        break  
    print(i)
```

```
for i in range(10):  
    print(i)
```

```
for i in range(len(gadgetsOwned)):  
    gadgetsOwned[i]
```



Practice!

Practicing is the key to understand the use of loops.

Most of you would be familiar with how loops are used in C/C++ and hence we are inclined to keep this video short. But if you are unfamiliar with loops, the only way out is practice.



References

- [Python: Basics](#)
- [W3Schools: Python](#)
- [e-Yantra Homepage](#)



Thank You!

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Post your queries at: resources@e-yantra.org

