

Basic Python 3 - Control Structures

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1 Control Stucture

- Condition
- For loop
- While loop

1.1 Condition

1.1.1 If

```
[ ]: a = 33
      b = 200
      if b > a:
          print("b is greater than a")
```

1.1.2 Indentation matters

```
[ ]: # You will get an error
      #if b > a:
      #print("b is greater than a")
```

1.1.3 Elif

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

1.1.4 Else

```
[ ]: 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")
```

1.1.5 Comparison Operators

Comparison operators are used to compare two values.

```
[ ]: a=50
      b=25
      print(a == b)
      print(a != b)
      print(a < b)
      print(a <= b)
      print(a > b)
      print(a >= b)
```

1.1.6 Logical operator

Logical operators are used to combine conditional statements.

```
[ ]: a=50
      b=25
      print(a>40 and b>40)
      print(a>40 or b>40)
      print(not(a>40))
```

1.2 For Loop

```
[ ]: fruits = ["apple", "banana", "cherry"]
      for x in fruits:
          print(x)
```

```
[ ]: for i in range(0,3):
      print(i)
```

```
[ ]: for i in range(0,3):
      print(fruits[i])
```

1.2.1 Indentation matters

```
[ ]: for i in range(0,3):
      print(fruits[i])
      print('-----')
```

```
[ ]: for i in range(0,3):
      print(fruits[i])
      print('-----')
```

1.2.2 Loop with dictionary

```
[ ]: mydic = {'arm': '000000000',  
            'ricky': '0812312341',  
            'winn': '0618201998',  
            'tao': '0811111111'}  
  
for key in mydic.keys():  
    print(key)
```

```
[ ]: for value in mydic.values():  
    print(value)
```

```
[ ]: for name, number in mydic.items():  
    print(name.title() + "'s number is " + number + '.')
```

1.3 while LOOP

```
[ ]: i = 0  
while i < 10:  
    print(i)  
    i = i + 1
```

1.3.1 Break

```
[ ]: i = 1  
while i < 6:  
    print(i)  
    if i == 3:  
        break  
    i += 1
```