**If …Else**

Commonly used logical conditions from mathematics

* Equals : a==b
* Not Equal : 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 Keyword** used to create if statement

**Elif keyword**: if the previous conditions were not true, then try this condition

**Else Keyword**: catches anything which isn’t caught by the preceding conditions

x=56  
y=59  
if x==y:  
 print("x is equals to y")  
elif x>y:  
 print("x is greater than y")  
else:  
 print("x is not equal to y")  
 *#x is not equal to y*

**Shorthand If** — if you have only one statement to execute, you can use this method

x,y=56,59  
if x<y:print("x is less than y") *#x is less than y*

**Shorthand If..else** — if you have only one statement to execute, one for if one for else, you can use this method

x,y=56,59  
print("x is less than y ") if x<y else print("x is greater than y") *#x is less than y*

multiple else statement

a,b = 100,500  
print("a is greater than b") if a > b else print("a is equal to b") if a == b else print("a is less than b")

and keyword — is a logical operator, and is used to combine conditional statements

a,b,c=50,15,25  
if a>b and a<c:  
 print("b is less than a and c")  
elif c>a and c>b:  
 print("c is greater than a and b")  
else:  
 print ("a is greater than b and c")

*#a is greater than b and c*

or keyword —is a logical operator, and is used to combine conditional statements:

a,b,c=50,15,25  
if a>b or c==b:  
 print("a is greater than b and c")  
else:  
 print ("b is equal to c")  
  
*#a is greater than b and c*