

## Conditional Statements

1. if
2. else
3. elif
4. nested if

In [1]:

```
1 a,b = 10,12
2 if(a>b):
3     print("a is greater than b")
4 else:
5     print("a is less than b")
```

a is less than b

In [2]:

```
1 n1 = int(input("enter 1st number:"))
2 n2 = int(input("enter 2nd number:"))
3 n3 = int(input("enter 3rd number:"))
4 if(n1>n2 and n1>n3):
5     print("n1 is greater number")
```

enter 1st number12  
enter 2nd number4  
enter 3rd number7  
n1 is greater number

In [4]:

```
1 n1 = int(input("enter 1st number:")) # 8
2 n2 = int(input("enter 2nd number:")) # 13
3 n3 = int(input("enter 3rd number:")) # -20
4 if(n1>n2 and n1>n3): # n2>n1 and n3<n1
5     print("n1 is greater number")
6 elif(n2>n1 and n2>n3):
7     print(n2," is big number")
8 else:
9     print(n3," is big number")
10
```

enter 1st number:8  
enter 2nd number:13  
enter 3rd number:-20  
13 n2 is big number

In [5]:

```
1 n1 = int(input("enter 1st number:")) # 8
2 n2 = int(input("enter 2nd number:")) # 13
3 n3 = int(input("enter 3rd number:")) # -20
4 n4 = int(input("enter 3rd number:"))
5 if(n1>n2 and n1>n3): # n2>n1 and n3<n1
6     print("n1 is greater number")
7 elif(n2>n1 and n2>n3):
8     print(n2, " is big number")
9 elif(n3>n1 and n3>n4):
10    print(n3, " is big number")
11 else:
12    print(n4, " is big number")
13
```

```
enter 1st number:1
enter 2nd number:2
enter 3rd number:3
enter 3rd number:4
4 is big number
```

## Nested if

In [8]:

```
1 n = int(input("Enter a number:"))
2 if(n != 0 and not(n<0)):
3     if(n%2 == 0):
4         print(n, "is even number")
5     elif(n%2 != 0):
6         print(n, "is odd number")
7 else:
8     print(n, "is not a positive number")
```

```
Enter a number:13
13 is odd number
```

In [9]:

```
1 n = int(input("Enter a number:"))
2 if(n >=0): # if(n != 0)
3     if(n%2 == 0):
4         print(n, "is even number")
5     elif(n%2 != 0):
6         print(n, "is odd number")
7 else:
8     print(n, "is not a positive number")
```

```
Enter a number:-12
-12 is not a positive number
```

In [12]:

```
1 n = int(input("Enter a number:"))
2 if(n == 10): # (10 == 10)
3     if(n%2 == 0):
4         print(n,"is even number")
5     elif(n%2 != 0):
6         print(n,"is odd number")
7 else:
8     print(n,"is not equals to 10")
```

Enter a number:12

12 is not equals to 10

## Looping statements

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

In [14]:

```
1 for i in range(5):
2     print(i)
```

0  
1  
2  
3  
4

In [15]:

```
1 for i in range(1,5): #i=1,i=2,i=2+1,i=3+1
2     print(i)
```

1  
2  
3  
4

In [16]:

```
1 for i in range(1,10,2):
2     print(i)
```

1  
3  
5  
7  
9

In [18]:

```
1 for i in range(1,10,2):
2     print(i,end=" ")
```

1 3 5 7 9

In [19]:

```
1 for i in range(1,11,2):  
2     print(i)
```

1  
3  
5  
7  
9

In [23]:

```
1 for i in range(2,11,2):  
2     print(i)
```

2  
4  
6  
8  
10

In [25]:

```
1 for i in range(10,1,-1):  
2     print(i)
```

10  
9  
8  
7  
6  
5  
4  
3  
2

In [26]:

```
1 for i in range(10,0,-1):  
2     print(i)
```

10  
9  
8  
7  
6  
5  
4  
3  
2  
1

In [31]:

```
1 for i in range(10,-1,-1):
2     print(i)
```

```
10
9
8
7
6
5
4
3
2
1
0
```

In [32]:

```
1 for i in range(10,0,-2):
2     print(i)
```

```
10
8
6
4
2
```

In [34]:

```
1 ## i += 1,i += 2.....correct syntax to assign
```

In [36]:

```
1 lst = [1,5,2,8,10]
2 for j in lst:
3     print(j)
```

```
1
5
2
8
10
```

In [41]:

```
1 fruits=["apple","banana","cherry",1]
2 for i in fruits:
3     print(i)
```

```
apple
banana
cherry
1
```

In [42]:

```
1 fruit = "Apple"
2 for i in fruit:
3     print(i)
```

A  
p  
p  
l  
e

In [44]:

```
1 x = 4
2 x += 2
3 print(x)
4 x += 3
5 print(x)
```

6  
9

In [ ]:

```
1
```