Conditional Statements

- if
- elif
- else
- Nested if

In [2]:

```python
a,b = 12,10
if(a<b):
    print("a is greater than b")
else:
    print("a is less than b")
```

a is less than b

In [3]:

```python
n1 = int(input("Enter 1st number: ")) # 8
n2 = int(input("Enter 2nd number: ")) # 13
n3 = int(input("Enter 3rd number: ")) # -20
if(n1>n2 and n1>n3): # n2<n1 and n3<n1
    print(n1,"is big number")
elif(n2>n1 and n2>n3):
    print(n2,"is big number")
else:
    print(n3,"is big number")
```

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

In [4]:

```python
n1=int(input("1st num: "))
n2=int(input("2nd num: "))
n3=int(input("3rd num: "))
n4=int(input("4rt num: "))
if(n1>n2 and n1>n3 and n1>n4):
    print(n1,"n1 is big:")
elif(n2>n1 and n2>n3 and n2>n4):
    print(n2,"n2 is big:")
elif(n3>n1 and n3>n2 and n3>n4):
    print(n3,"n3 is big:")
else:
    print(n4,"n4 is big:")
```

1st num: 1
2nd num: 2
3rd num: 3
4rt num: 4
4 n4 is big:

Nested if

In [14]:

```python
n = int(input("Enter a number:"))
if(n != 0 and not(n<0)):
    if(n%2 == 0):
        print(n,"is even number")
    elif(n%2 != 0):
        print(n,"is odd number")
else:
    print(n,"is not a positive number")
```

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

In [ ]:

```python
n = int(input("Enter a number:"))
if(n >= 0):
    if(n%2 == 0):
        print(n,"is even number")
    elif(n%2 != 0):
        print(n,"is odd number")
else:
    print(n,"is not a positive number")
```

In [ ]:

```python
n = int(input("Enter a number:"))
if(n == 10): # (10 == 10)
    if(n%2 == 0):
        print(n,"is even number")

if(n%2 != 0):
    print(n,"is odd number")
```

Looping statements

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

In [15]:

```python
for i in range(5): # 0 to n-1
    print(i)
```

```
0
1
2
3
4
```

In [16]:

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

```
1
2
3
4
```

In [20]:

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

```
1
3
5
7
9
```

In [21]:

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

```
2
4
6
8
10
```

In [22]:

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

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

In [23]:

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

```
10
8
6
4
2
```

In [24]:

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

```
1
5
2
8
10
```

In [7]:

```python
x = 4
x += 2
print(x)
```

```
6
```

In [8]:

```python
a,b = 5,3
a += b
a -= b
```

In [ ]:

```python
n=int(input("enter a number:"))
if(n==10):
    if(n%2=0):
        print(n,"is a even")
        if(n%2!=0):
            print(n,"is a odd ")
                else:
                    print("nis not equal to 10")
```