## Conditional Statements

- if
- elif
- else
- nested if

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

a is greater than b

In [2]:
```python
1  s,d = 12,10
2  if(a<b):
3      print("a is greater than b")
4  else:
5      print("a less than b")
```

a less than b

In [3]:
```python
1  n1 = int(input("enter 1st value:"))          #finding biggest number
2  n2 = int(input("enter 2nd number:"))
3  n3 = int(input("enter 3rd number:"))
4  if(n1>n2 and n1<n3):    # n2<n1 and n3<n1
5      print(n1,"is big number")
6  elif(n2>n1 and n2>n3):
7      print(n2,"is big number")
8  else:
9      print(n3,"is big number")
```

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

# Nested if

In [6]:
```python
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      if(n%2 != 0):
6          print(n,"is odd number")
7  else:
8      print(n,"is not equal to 10")
```

```
enter a number:12
12 is not equal to 10
```

In [7]:
```python
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
6  if(n%2 != 0):
7          print(n,"is odd number")
```

```
enter a number:23
23 is odd number
```

In [9]:
```python
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      if(n%2 != 0):
6          print(n,"is odd number")
7  else:
8      print(n,"is not a positive number")
```

```
enter a number:-3
-3 is not a positive number
```

In [10]:
```python
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:-3
-3 is not a positive number
```

## Looping Statements

- A loop is used for iteration over a sequence(list,tup)

In [11]:
```python
1  for i in range(5):
2      print(i)
```

```
0
1
2
3
4
```

In [12]:
```python
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 [14]:
```python
1  for i in range(1,10,2):
2      print(i, end=" ")
```

```
1 3 5 7 9
```

In [17]:
```python
1  for i in range(2,11,2):
2      print(i)
```

```
2
4
6
8
10
```

In [18]:
```python
1  for i in range(10,0,-1):
2      print(i)
```

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

In [19]:
```python
1  for i in range(10,0,-2):
2      print(i)
```

```
10
8
6
4
2
```

In [20]:
```python
i += 2
i += 1                  #(no ouput)
```

In [22]:
```python
lst = [1,5,2,8,10]
for j in lst:
    print(j)
```

```
1
5
2
8
10
```

In [ ]:
```python

```