Python Conditions and If statements

Python supports the usual logical conditions from mathematics:
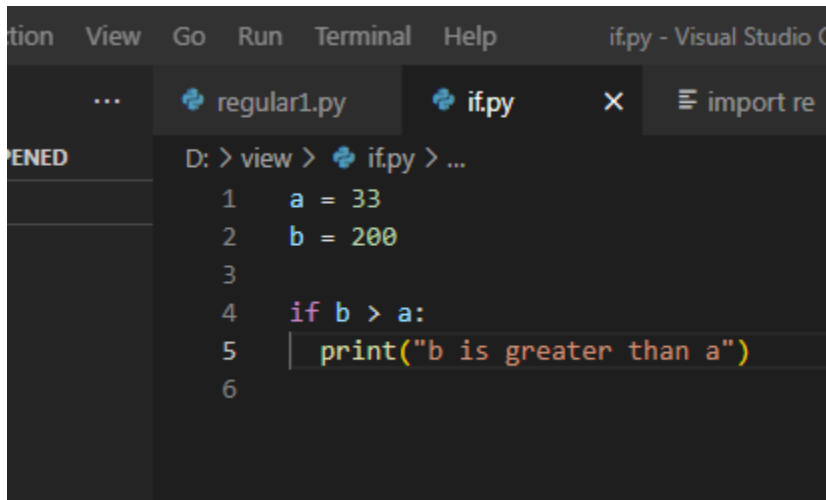
- Equals: a == b
- Not Equals: a != b
- Less than: a < b
- Less than or equal to: a <= b
- Greater than: a > b
- Greater than or equal to: a >= b

These conditions can be used in several ways, most commonly in "if statements" and loops.

An "if statement" is written by using the if keyword.

Example

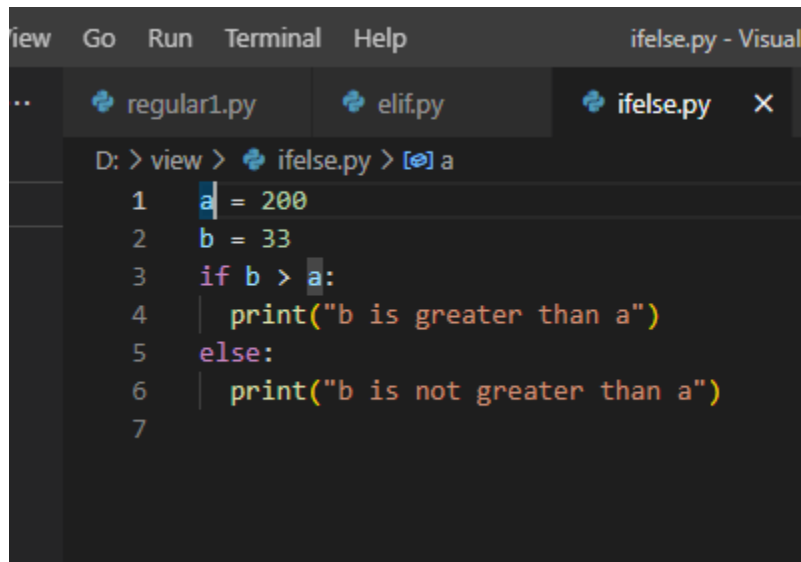If statement (save file name   if.py as shown below)

Run command in terminal python if.py as shown below.

Output:-

```
PS D:\view> python if.py
b is greater than a
PS D:\view> []
```

If else :-

Example: (save file   ifelse.py as shown below):-

```
iew  Go  Run  Terminal  Help              ifelse.py - Visual

··   regular1.py       elif.py         ifelse.py   X

     D: > view >  ifelse.py > [∅] a
     1    a = 200
     2    b = 33
     3    if b > a:
     4      print("b is greater than a")
     5    else:
     6      print("b is not greater than a")
     7
```

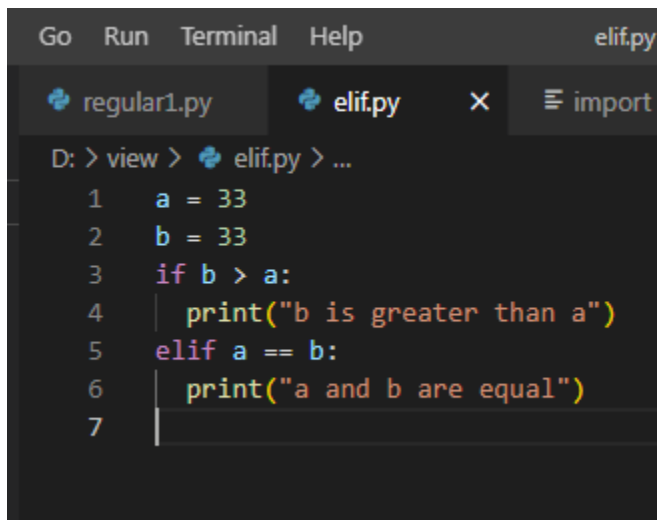Run command in terminal   python ifelse.py as shown below.

Output:-

```
PS D:\view> python ifelse.py
b is not greater than a
PS D:\view>
```

Elif

The elif keyword is pythons way of saying "if the previous conditions were not true, then try this condition".

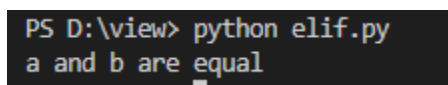# Example: (save file   elif.py as shown below):-

```
Go   Run   Terminal   Help                    elif.py

  regular1.py      elif.py    ×      import

D: > view >    elif.py > ...
  1     a = 33
  2     b = 33
  3     if b > a:
  4         print("b is greater than a")
  5     elif a == b:
  6         print("a and b are equal")
  7
```

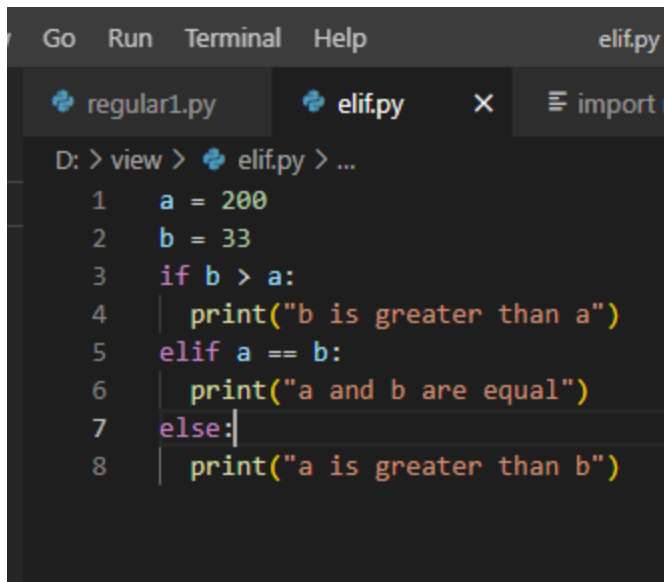Run command in terminal   python elif.py as shown below.

Output:-

```
PS D:\view> python elif.py
a and b are equal
```

Else

The else keyword catches anything which isn't caught by the preceding
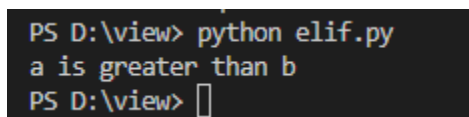conditions.

Example (save file name as elif.py)

```
Go   Run   Terminal   Help                    elif.py

   regular1.py        elif.py    ×    import

   D: > view >    elif.py > ...
   1    a = 200
   2    b = 33
   3    if b > a:
   4        print("b is greater than a")
   5    elif a == b:
   6        print("a and b are equal")
   7    else:
   8        print("a is greater than b")
```

Run command in terminal   python elif.py   as shown below.

Output:-

```
PS D:\view> python elif.py
a is greater than b
PS D:\view>
```