

```
In [1]: x = False  
        y = True
```

```
In [2]: x and y #if any value is False then the value is False
```

```
Out[2]: False
```

```
In [3]: x or y #if any value is True then the value is True
```

```
Out[3]: True
```

```
In [4]: z = False  
        x and y and z
```

```
Out[4]: False
```

```
In [5]: x
```

```
Out[5]: False
```

```
In [6]: not x
```

```
Out[6]: True
```

```
In [7]: y
```

```
Out[7]: True
```

```
In [8]: not y
```

```
Out[8]: False
```

```
In [9]: x and y
```

```
Out[9]: False
```

```
In [10]: not (x and y)M
```

```
Out[10]: True
```

Membership Operations and Identity Operation

```
In [11]: myList = [3,55,45,67,33,666,90]
         myVal = 1
         myVal in myList #checks if the value is available in the list or not
```

```
Out[11]: False
```

```
In [12]: myVal2 = 67
         myVal2 in myList
```

```
Out[12]: True
```

Identity points to value allocated in memory

```
In [14]: a = 100
         b = 100
```

```
In [15]: id(a)
```

```
Out[15]: 8791024451504
```

```
In [16]: id(b) #both ids are same as they have equal values and provided the same memory location
```

```
Out[16]: 8791024451504
```

```
In [17]: a = 200 #changes the value
```

```
In [20]: id(a)  
         #now the id of a
```

```
Out[20]: 8791024454704
```

```
In [21]: id(b)
```

```
Out[21]: 8791024451504
```

```
In [22]: b = 200 # changes the value to a
```

```
In [23]: id(b)
```

```
Out[23]: 8791024454704
```

```
In [ ]:
```