If-else

In [1]:

```
a = True
if a:
    print("Inside If")
else:
    print("Inside Else")
```

```
Inside If
```

In [2]:

```
# Importance of indentation
a = True
if a:
    print("Inside If")
     print("Inside if 2")
else:
    print("Inside Else")
```

```
  File "<ipython-input-2-e1291fc607a3>", line 5
    print("Inside if 2")
    ^
IndentationError: unexpected indent
```

In [3]:

```
a = True
if a:
    print("Inside If")
    print("Inside if 2")
else:
    print("Inside Else")
```

```
Inside If
Inside if 2
```

In [4]:

```
a = False
if a:
    print("Inside If")
    print("Inside if 2")
else:
    print("Inside Else")
```

```
Inside Else
```

In [5]:

```
# check number to be odd or even
num = int(input())
remainder = num%2
is_even = (remainder == 0) #return boolean value
if is_even:
    print("Number is Even.")
else:
    print("Number is Odd.")
```

```
7
Number is Odd.
```

In [6]:

```
#shorter version
num = int(input())
even_num = (num%2 == 0)
if(even_num):
     print("Number is Even.")
else:
    print("Number is Odd.")
```

```
4
Number is Even.
```

In [7]:

```
# More shorter version
num = int(input())
if(num%2 == 0):
     print("Number is Even.")
else:
    print("Number is Odd.")
```

```
2
Number is Even.
```

In [8]:

```
# if even then print , otherwise print nothing
num = int(input())
if(num%2 == 0):
     print("Number is Even.")
```

```
9
```

Using Relational and logical operators

In [9]:

```
a = int(input())
b = int(input())
c1 = a>10
c2 = b>10
c = c1 and c2

if(c == True):
    print("Yes, Both Values are greater than 10.")
else:
    print("No, Both Values are greater than 10.")
```

```
9
88
No, Both Values are greater than 10.
```

In [10]:

```
### shoreter version, with logical expression in if block
a = int(input())
b = int(input())

if(a>10 and b>10):
    print("Yes, Both Values are greater than 10.")
else:
    print("No, Both Values are greater than 10.")
```

```
100
123
Yes, Both Values are greater than 10.
```

Number is 7 or not

In [11]:

```
c = int(input())
if(c != 7):
    print("number is not 7")
else:
    print("number is 7")
```

```
9
number is not 7
```

In [12]:

```
c = int(input())
if(c == 7):
    print("number is  7")
else:
    print("number is not 7")
```

```
6
number is not 7
```

Else-If

In [13]:

```
# Largest of 3 Numbers
i = int(input())
j = int(input())
k = int(input())

if(i>=j and i>=k):
    print("Number ",i," is Largest.")
elif(j>=i and j>=k):
    print("Number ",j," is Largest.")
else:
    print("Number ",k," is Largest.")
```

```
5
5
5
Number  5  is Largest.
```

In [14]:

```
# COLOR BASED ON NUMBER
n = int(input())
if(n>10):
    print("Red")
elif(5<=n<=10):
    print("Green")
elif(0<n<5):
    print("Yellow")
```

```
3
Yellow
```

In [15]:

```
n = int(input())
if(n>10):
    print("Red")
elif(n>=5 and n<=10):
    print("Green")
elif(n>0 and n<5):
    print("Yellow")
```

```
7
Green
```

Execution of If-Else block only run in one block, if first block run then it can't go in second block. If second block run then it can't go in third block and

so on..

In [16]:

```
# REMOVE COMPLEMERNTARY CONDTIONS (AND N<10) and (and n<5)
n = int(input())
if(n>10):
    print("Red")
elif(n>=5):
    print("Green")
elif(n>0):
    print("Yellow")
```

```
3
Yellow
```

Changing condition order can change the executuion order. So, Order of If-Else Block is matters a lot. Else Block is optional.

In [17]:

```
# Example
n = int(input())

if(n>=5):
    print("Green")
elif(n>10):
    print("Red")
elif(n>0):
    print("Yellow")
```

```
123
Green
```

Nested Conditionals

In [19]:

```
num = int(input())
if(num%2 == 0):
    print("Number is Even.")
    if num == 0:
        print("Number is Zero")
else:
    print("Number is Odd.")
```

```
5
Number is Odd.
```

In [22]:

```
n = int(input())
m = int(input())

if n%2 == 0:
    if(m%2 == 0):
        print("1")
    else:
        print("2")
else:
    print("3")
```

```
2
3
2
```

In [21]:

```
print(1)
```

```
1
```

In [ ]: