Conditional statements

In [ ]:
```
what is meant by conditions in english
suppose if some thing is happend in one direction so that is the solution
        if not is happend in different direction so that another one is solu
        else   is hapend in different direction so that another one is solu


if
if not ======== else
```

In [ ]:
```
yes    or    no

if ======= yes
else ===== no
```

In [ ]:
```
# syntax
# whenever the colon is there indentation will come

if  <condition>:
    #st1
    #st2
    #st3
```

if

In [2]:
```
name=input("enter a name:") # step-1:ask keyboard enter some name name='pyth
if name=='python':          # step-2: 'python'=='python'    True
    print("hello")          # step-3:  hello
```

```
enter a name:p
```

In [ ]:
```
name='python'  # storing the value
name=='python' # comapring the value
```

In [3]:
```
'anil'=='python'
```

Out[3]:
```
False
```

In [4]:
```
'python'=='python'
```

Out[4]:
```
True
```

In [ ]:
```
if <True/False>
```

In [6]:
```
name=input("enter a name:")   # step-1: ask the key board  name='python'
if name=='python':            # step-2:  if  'python'=='python'   if True:
    print('hello')            # inside the if block
    print(name)               # name also inside the if block
```

```
enter a name:p
```

In [7]:
```
############################
name='python'    # step-1: name='python'
##############################
if name=='python':  # 'python'=='python'
    print('hello')  # i will print hello , i came out

################################

print(name)        # print(name)= python
```

```
hello
python
```

In [8]:
```
############################
name='p'    # step-1: name='p'
##############################
if name=='python':  # if 'p'=='python'    False
    print('hello')  # no permisson

################################

print(name)
```

```
p
```

In [9]:
```
name='python'          # step-1: name='python'
if name=='python':     # step-2: 'python'=='python'  True
    print(3+5)         # step-3: 8

else:                  # whenever if True , else will not work
    print('enter correct one')
```

```
8
```

In [10]:
```
name='p'             # step-1: name='p'
if name=='python':    # step-2: 'p'=='python'  False
    print(3+5)        # step-3: no permission

else:                 # whenever if True , else will not work
    print('enter correct one')
```

```
enter correct one
```

In [13]:
```
name=input('enter a name:')  # name='p'
if name=='python':
    print('hello',name)
    print("how are you")
else:
    print('provide a valid one')
    print('you are out')

print('hey',end=' ')
print('bro')
```

```
enter a name:p
provide a valid one
you are out
hey bro
```

In [ ]:
```
# WAP ask the user enter a number
# print weather it is an odd number  or  even number

# step-1: number = eval(input('enter a number'))
# step-2: if number%2==0: print it is an even
# step-3: else oddnumber
```

In [18]:
```
n=eval(input("Enter the name : ")) # n=9

if n%2==0:                          # 1==0  False
    print("It is even number")
else:
    print("It is odd number")
```

```
Enter the name : 9
It is odd number
```

In [16]:
```
9%2
```

Out[16]:
```
1
```

In [ ]:
```
try and except block
```

In [21]:
```
try:
    n=eval(input("Enter the name : ")) # n=9

    if n%2==0:                          # 1==0  False
        print("It is even number")
    else:
        print("It is odd number")

except Exception as e:
    print(e)
```

```
Enter the name : p
name 'p' is not defined
```

In [ ]:
```
# WAP ask the user to genertae a random integer number
# print it is an even or odd number
```

In [26]:
```
import random
try:
    n=random.randint(1,100)

    if n%2==0:
        print("{} is a even number".format(n))
    else:
        print("{} is odd number".format(n))

except Exception as e:
    print(e)
```

```
86 is a even number
```

In [32]:
```
# wap ask the user enter a number
# if it is>=0 then print postive
# otherwise print it is a negative number

try:
    n=eval(input("enter a number:"))

    if n>=0:
        print("{} is a postive number".format(n))
    else:
        print("{} is negative number".format(n))

except Exception as e:
    print(e)
```

```
enter a number:-9
-9 is negative number
```

In [29]:
```
import random
try:
    n=random.randint(-100,100)

    if n>=0:
        print("{} is a postive number".format(n))
    else:
        print("{} is negative number".format(n))

except Exception as e:
    print(e)
```

```
-34 is negative number
```

In [ ]:
```
# 0 is a postive number
# if a number >0 ===== it is postive
# if a number <0 ===== it is a negative
# if a number ==0 ===== it is a zero


# if    elif    else
# if <condition>   >0
# elif <condition> <0
# else:            ==0
```

In [ ]:
```
# if a number>=0======pos
# if a number <0 ===== neg

# when you have 2 conditions
# if    else
```

In [39]:
```
try:
    num=eval(input("enter a number:")) # step-1: number=0
    if num>0:                          # step-2: 0>0  False
        print("{} is a positive number".format(num))
    elif num<0:                        #  0<0  F
        print("{} is a negative number".format(num))
    else:                              #
        print("it is zero")            # it is zero

except Exception as e:
    print(e)
```

```
enter a number:p
name 'p' is not defined
```

In [41]:
```
# WAP ask the user enter a number
# if number=1   print one
# if number=2   print two
# if number=3   print three
# if number=4   print four
# otherwise     print enter only 1 2 3 4

try:
    num=eval(input("eenter a number:"))
    if num==1:
        print('one')
    elif num==2:
        print('two')
    elif num==3:
        print('three')
    elif num==4:
        print('four')
    else:
        print('enter only 1 2 3 4')

except Exception as e:
    print(e)
```

```
eenter a number:4
four
```

In [ ]:
```
#WAP ask the user enter distance
#if the distance between 0 and 2km print the fare is 20rs
#if the distance between 2km to 4km print the fare is 40rs
# if the distance between 4km to 6km print the fare is 60rs
# if the distance morethan 6km print the fare is 100rs
```

In [3]:
```
dist=eval(input('please enter the distance '))
if 0<dist<=2:
    print('Fare is 20rs')
elif 2<dist<=4:
    print('Fare is 40rs')
elif 4<dist<=6:
    print('Fare is 60rs')
else:
    print('Fare is 100rs')
```

```
please enter the distance 4
Fare is 40rs
```

In [4]:
```
try:
    num=eval(input("enter the distance"))
    if num<=2:
        print("Fare is rupees 40")
    elif num<=4:
        print('Fare is ripees 60')
    elif num<=6:
        print('Fare is ripees 100')

    else:
        print("enter correct distance")
except Exception as e:
    print(e)
```

```
enter the distance4
Fare is ripees 60
```

In [9]:
```
try:
    km=eval(input("Enter number of KMs:"))
    if km <2:
        print("Distance between 0 and 2km fare is 20RS")
    elif km >=2 and km<4:
        print("Distance between 2 and 4km fare is 40RS")
    elif km >=4 and km<6:
        print("Distance between 4 and 6km fare is 60RS")
    elif km >=6:
        print("Distance morethan 6km fare is 100RS")
except Exception as e:
    print(e)
```

```
Enter number of KMs:7
Distance morethan 6km fare is 100RS
```

In [11]:
```
try:
    distance=eval(input("enter the distance:"))
    if distance>=0 and distance<=2:
        print("fare is rs.20")
    elif distance>=2 and distance<=4:
        print("fare is rs.40")
    elif distance>=4 and distance<=6:
        print("fare is rs.60")
    else:
        print("fare is rs.100")
except Exception as e:
    print(e)
```

```
enter the distance:2,2
'>=' not supported between instances of 'tuple' and 'int'
```

In [12]:
```
try :
    dis=eval(input("enter the distance :"))
    if dis==0 and dis <=2 :
        print("the fare is 20")
    elif dis>=2 and dis <=4 :
        print("the fare is 40")
    elif dis>=4 and dis <=6 :
        print("the fare is 60")
    else :
        print("the fare is 100")
except Exception as e:
    print(e)
```

```
enter the distance :6
the fare is 60
```

In [16]:
```
#WAP ask the user enter distance
#if the distance between 0 and 2km print the fare is 20rs
#if the distance between 2km to 4km print the fare is 40rs
# if the distance between 4km to 6km print the fare is 60rs
# if the distance morethan 6km print the fare is 100rs

# step-1: enter the distnace
distance=eval(input("enter the distance in km:"))
# step-2:
if distance>0 and distance<2:
    print("the fare between 0 to 2km is 20rs")
elif distance>2 and distance<4:
    print("the fare between 2 to 4km is 40rs")
elif distance>4 and distance<6:
    print("the fare between 4 to 6km is 60rs")
else:
    print("the fare greater than 6km is 100rs")
```

```
enter the distance in km:7
the fare greater than 6km is 100rs
```

In [ ]:
```
x    y     xandy    x or y
0    0       0        0
0    1       0        1
1    0       0        1
1    1       1        1


distance>0 and distance<2
True       and   True  ===== True (permission granted)
False      and   True  ===== False (No permission)
False      and   False ===== False ( NO P)
True       and   False ===== False (No p)
```

In [17]:
```
#WAP ask the user enter distance
#if the distance between 0 and 2km print the fare is 20rs
#if the distance between 2km to 4km print the fare is 40rs
# if the distance between 4km to 6km print the fare is 60rs
# if the distance morethan 6km print the fare is 100rs

# step-1: enter the distnace
distance=eval(input("enter the distance in km:"))

if distance>=6:
    print("100rs")
elif distance>=4:
    print("the fare between 4 to 6 is 6okm")
elif distance>=2:
    print("the fare between 2 to 4km is 40rs")
else:
    print("the fare less than 2km is 20rs")
```

```
enter the distance in km:2.3
the fare between 2 to 4km is 40rs
```

In [ ]:
```
#WAP ask the user enter percentage
# if percentage >90 print Grade A
# if percentage between 70 and 90 print Grade B
# if percentage between 50 and 70 print grade C
# if percentage less than 50 print Grade D
```

In [20]:
```
try:
    n1=eval(input("Enter the percentage:"))
    if n1>=90:
        print("Grade is A")
    elif n1>=70:
        print("Grade is B")
    elif n1>=50:
        print("Grade is C")
    else:
        print("Grade is D")
except Exception as e:
    print(e)
```

```
Enter the percentage:55
Grade is C
```

In [ ]:
```
# wap ask the user enter a number
# check the first condition if number>=0

# if that is true chcek one more condition if number==0 then print it is a z
# other wise it is postive number

# otherwise it is a negative number
```

In [23]:
```
# method-1
number=eval(input("enter a number:"))
if number>=0:
    if number==0:
        print("it is a zero")
    else:
        print("it is postive number")

else:
    print("it is a negtaive number")
```

```
enter a number:-9
it is a negtaive number
```

In [24]:
```
# Method-2
number=eval(input("enter a number:"))
if number>0:
    print("it is a pos number")

elif number==0:
    print("it is a zero")

else:
    print("it is a negtaive number")
```

```
enter a number:-9
it is a negtaive number
```

In [27]:
```
# WAP ask the user enter a number greater than or equal to zero
# chcek if it is between 1 and 99; print the number between 1 and 99
# chcek if it is zero; print zero
# check if it is more than 99 ; print the number is outof range

number=eval(input())
if number<99:
    if number==0:
        print('zero')
    else:
        print('number beyween 1 to 99')

else:
    print("out of range")
```

```
800
out of range
```

In [29]:
```
number=eval(input())
if number<99:
    if number==0:
        print('zero')

    elif number<0:
        print('negative number')
    else:
        print('number is between 1 to 99')

else:
    print("out of range")
```

```
99
out of range
```

In [ ]:
```
# what is your if condition
# if that is True ==== how many combinations
<99
-99
0
p
```

In [31]:
```
number=eval(input())
if number>=0:                # 50
    if number==0:            # 50==0
        print('zero')
    elif number<99:          # 50<99
        print('number between 0 to 99')

else:
    print("out of range")
```

```
0.5
number between 0 to 99
```

In [ ]:
```
# wap ask the user enter a gender
# if gender=='Male'
#    ask the user enter age
#    if age>25 ; print (he is a man)
#   nput("Enter the Gender: ") otherwise ; print (he is a boy)

# otherwise
#   ask the user enter age
#   if age>25; print (she is a woman)
#   otherwise ; print (she is a girl)
```

In [ ]:
```
#wap ask the user enter three numbers
# find which is the greatest number

# frequent interview question
```

In [ ]:
```
gender=input("Enter the Gender: ")
if gender=='male':
    age=eval(input("Enter the age"))
    if age>25:
        print("he is a man")
    else:
        print("he is a boy")
else:
    age=eval(input(("enter the age")))
    if age>25:
        print("she is a women")
    else:
         print("she is girl")
```

In [ ]:
```

```