

# Conditional Statements....

In [ ]:

```
--> For decision making purpose..  
--> We use these statements when we want to execute a block  
    of code when the given condition is true or false.....  
--> 4 types of conditional statements  
    1.if  
    2.if-else  
    3.elif  
    4.nested-if
```

In [ ]:

```
if: if statement checks for a given condition,  
    if the given condition is true, then the set of code  
    present inside the block will be executed...
```

if syntax:

```
    if(condition): (True)  
        statements  
        statements
```

In [1]:

```
# static way  
a=45  
b=56  
if b>a: # 56>45--> (True)  
    print("b is greater than a")
```

b is greater than a

In [4]:

```
# dynamic way  
a=int(input('Enter 1st number: '))  
b=int(input('Enter 2nd number: '))  
if(b>a):  
    print("b is greater than a")
```

Enter 1st number: 45

Enter 2nd number: 78

b is greater than a

In [ ]:

```
# i/p: 6  
# o/p: postive number
```

In [13]:

```
a=int(input())
if(a>0):
    print(a,"is postive number")
```

9  
9 is postive number

In [15]:

```
n1 = int(input())
n2 = int(input())
if n1 > n2:
    print("{0} is greater than {1}".format(n1,n2))
```

56  
12  
56 is greater than 12

In [ ]:

**if-else:** The statement itself tells that **if** a given condition **is** true then execute the statements present inside of block **and if** the condition **is** false then execute **else** block

**if-else** syntax:  
    **if**(condition): (True)  
        statements  
    **else**:  
        statements

In [17]:

```
# i/p: 6          7
# o/p: even      odd
n=int(input('Enter number: '))
if(n%2==0):      # 6%2==0(True)   7%2==0(false)
    print("Even")
else:
    print("Odd")
```

Enter number: 7  
Odd

In [ ]:

*# elif statement : to check one or more conditions*

In [ ]:

```
syntax:
    if(condition1):
        statements
    elif(condition2):
        statements
    elif(condition3):
        statements
    .
    .
    .
    .
else:
    statements
```

In [20]:

```
# maximum of 3 numbers
a=int(input()) # 45
b=int(input()) # 78
c=int(input()) # 23
if(a>b and a>c): # 45>78(F ) and 45>23(T)--> F
    print(a,"is the biggest number")
elif(b>c): # (78>23)--> (True)
    print(b,"is the biggest number")
else:
    print(c,"is the biggest number")
```

```
45
23
78
78 is the biggest number
```

In [ ]:

```
# i/p: 6
even
36--- power 2
# i/p: 5
odd
125 -- power 3
```

In [24]:

```
n=int(input())
if(n%2==0):
    print("even")
    print(n**2)
else:
    print("Odd")
    print(n**3)
```

```
8
even
64
```

In [ ]:

```

0-sunday
1-monday
2-tuesday
3-wednesday
4-thursday
5-friday
6-saturday
above 7-- invalid input

# i/p: 6
# o/p: saturday

```

In [28]:

```

n=int(input()) # 3
if(n==0): # 3==0(F)
    print("sunday")
elif(n==1): # 3==1(F)
    print("monday")
elif(n==2): # 3==2(F)
    print("tuesday")
elif(n==3): # (3==3) (T)
    print("wednesday")
elif(n==4):
    print("thursday")
elif(n==5):
    print("friday")
elif(n==6):
    print("saturday")
else:
    print("invalid input")

```

3  
wednesday

In [ ]:

```

# Nested if syntax:

if(condition):
    if(condition):
        statements
    else:
        statements
else:
    statements

```

In [ ]:

```

# i/p: 4
even
>10 --- power 2
<10 --- power 3
# i/p: 5
odd number

```

In [8]:

```
n=int(input())
if(n%2==0): # 4%2==0(T)
    # print("Even")
    if(n>10): # 4>10(F)
        print("even",n**2)
    else:
        print("even",n**3)
else:
    print("Odd")
```

24  
even 576

In [ ]:

```
i/p:
user id : 100 to 200 -----> 101
pwd:   enter password -----fixed pwd

password fixed----- 5673

o/p: Welcome
o/p: Invalid password

I/P: 67
o/p: Invalid userid
```

In [ ]:

In [ ]: