# IF , ELSE.... FOR LOOP

> print this is hour in current minute is odd

In [1]:

```
#CODE HERE
minute = 53
if minute%2 == 1:
    print("Minute : {}".format(minute))
    print("This is odd minute")
```

```
Minute : 53
This is odd minute
```

> if today is saturday then print 'Party !!!' or if sunday print take rest other wise print work , work, work

In [2]:

```
#CODE HERE
day = "Sunday"
if day == 'Monday' or day =='Tuesday' or day =='Wednesday' or day =='Thursday' or day=='Fri
    print("Work work Work")
elif day == 'Saturday':
    print("Party!")
elif day == 'Sunday':
    print("Today is : Sunday")
    print('Take Rest.')
```

```
Today is : Sunday
Take Rest.
```

> Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200 (both included). The numbers obtained should be printed in a comma-separated sequence on a single line.

In [3]:

```
#CODE HERE
```

In [4]:

```
#CODE HERE
for i in range(2000,3201):
    if i%7 == 0:
        print(i,end=',')
```

```
2002,2009,2016,2023,2030,2037,2044,2051,2058,2065,2072,2079,2086,2093,2100,2
107,2114,2121,2128,2135,2142,2149,2156,2163,2170,2177,2184,2191,2198,2205,22
12,2219,2226,2233,2240,2247,2254,2261,2268,2275,2282,2289,2296,2303,2310,231
7,2324,2331,2338,2345,2352,2359,2366,2373,2380,2387,2394,2401,2408,2415,242
2,2429,2436,2443,2450,2457,2464,2471,2478,2485,2492,2499,2506,2513,2520,252
7,2534,2541,2548,2555,2562,2569,2576,2583,2590,2597,2604,2611,2618,2625,263
2,2639,2646,2653,2660,2667,2674,2681,2688,2695,2702,2709,2716,2723,2730,273
7,2744,2751,2758,2765,2772,2779,2786,2793,2800,2807,2814,2821,2828,2835,284
2,2849,2856,2863,2870,2877,2884,2891,2898,2905,2912,2919,2926,2933,2940,294
7,2954,2961,2968,2975,2982,2989,2996,3003,3010,3017,3024,3031,3038,3045,305
2,3059,3066,3073,3080,3087,3094,3101,3108,3115,3122,3129,3136,3143,3150,315
7,3164,3171,3178,3185,3192,3199,
```

> Write a program which can compute the factorial of a given numbers. The results should be printed in a comma-separated sequence on a single line. Suppose the following input is supplied to the program: 8 Then, the output should be: 40320

In [5]:

```
#CODE HERE
num = int(input("Enter a value to compute factorial : "))
fact = 1;
for i in range(1,num+1):
    fact = fact*i;
print("{}! =".format(num),fact)
```

```
Enter a value to compute factorial : 8
8! = 40320
```

> With a given integral number n, write a program to generate a dictionary that contains (i, i*i) such that is an integral number between 1 and n (both included). and then the program should print the dictionary. Suppose the following input is supplied to the program: 8 Then, the output should be: {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}

*Hint* : use dict()

In [6]:

```
#CODE HERE
num = int(input("Enter a number : "))
dict1 = {}
for i in range(1,num+1):
    dict2 = {i:i**2}
    dict1.update(dict2)
print(dict1)
```

```
Enter a number : 8
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}
```

create user defined fuction for

- addition "add"
- subtraction "sub"
- multiplication "mul"
- division "div"
- power "pow"

In [7]:

```
#CODE HERE
num1 = int(input("Enter first  number : "))
num2 = int(input("Enter second number : "))
keyword = str(input("Enter a keyword {add, sub, mul, div, pow} : "))
if keyword == 'add':
    print("Addition of {} and {} is : ".format(num1,num2), num1+num2)
elif keyword == 'sub':
    print("Subtraction of {} by {} is : ".format(num1,num2), num1-num2)
elif keyword == 'mul':
    print("Multiplication of {} by {} is : ".format(num1,num2), num1*num2)
elif keyword == 'div':
    print("Division of {} by {} is : ".format(num1,num2), num1/num2)
elif keyword == 'pow':
    print("Power of {} by {} is : ".format(num1,num2), num1**num2)
```

```
Enter first  number : 8
Enter second number : 6
Enter a keyword {add, sub, mul, div, pow} : pow
Power of 8 by 6 is :  262144
```

## Write a Python program that accepts a string and calculate the number of digits and letters.

- Input
  - Hello321Bye360
- Output
  - Digit - 6
  - Letter - 8

In [8]:

```
# CODE HERE
word = str(input("Enter the text : "))
count = 0
count1 = 0
for i in word:
    if i.isalpha():
        count += 1
    elif i.isdigit():
        count1 += 1
print('Digit : ',count1)
print('Letter : ',count)
```

```
Enter the text : innomatics1231239746
Digit :  10
Letter :  10
```

## With a given tuple (1,2,3,4,5,6,7,8,9,10), write a program to print the first half values in one line and the last half values in one line.

In [9]:

```
# METHOD - 1
t = (1,2,3,4,5,6,7,8,9,10)
for i in t:
    if i<=5:
        print(i,end = ' ')
print()
for i in t:
    if i>5:
        print(i,end=' ')
```

```
1 2 3 4 5
6 7 8 9 10
```

In [10]:

```
# METHOD - 2
t = (1,2,3,4,5,6,7,8,9,10)
t1 = t[0:5]
t2 = t[5:]
print(t1,end=' ')
print(t2)
```

```
(1, 2, 3, 4, 5) (6, 7, 8, 9, 10)
```

In [11]:

```
# METHOD - 3
t = (1,2,3,4,5,6,7,8,9,10)
t1 = t[0:5]
t2 = t[5:]
print(list(t1))
print(list(t2))
```

```
[1, 2, 3, 4, 5]
[6, 7, 8, 9, 10]
```

## Write a program to generate and print another tuple whose values are even numbers in the given tuple (1,2,3,4,5,6,7,8,9,10)

In [12]:

```
t = (1,2,3,4,5,6,7,8,9,10)
l = []
for i in t:
    if i%2 == 0:
        l += [i]
    else:
        pass
print(tuple(l))
```

```
(2, 4, 6, 8, 10)
```

## Write a program which accepts a string as input to print "YES" if the string is "yes" or "YES" or "Yes", otherwise print "No"

In [19]:

```
text = input("Please type something. --> ")
if text == 'yes' or text == 'YES' or text == 'Yes':
    print("YES")
else:
    print("No")
```

```
Please type something. --> yes
YES
```

## Please write a program to generate a list with 5 random numbers between 100 and 200 inclusive.

In [20]:

```
import random
l = []
for i in range(100,201):
    n = random.randint(100,201)
    l = l+[n]
    if len(l)==5:
        break
    else:
        continue
print(l)
```

```
[108, 101, 108, 144, 164]
```

## Please generate a random float where the value is between 5 and 95 using Python module.

In [21]:

```
import random
f = random.uniform(5,96)
print(f)
```

```
20.70364380399009
```

## [1,1,1,1,3,3,4,4,4,5,6,7,8,8,8]

### 1. from the above list print the uniques values

### 2. count how many times each number exist

### 3. Print the number which is occured more number of times

In [22]:

```
l = [1,1,1,1,3,3,4,4,4,5,6,7,8,8,8]
s = set(l)
l1 = list(s)
print("The unique elements in list are : ", l1)
```

```
The unique elements in list are :  [1, 3, 4, 5, 6, 7, 8]
```

In [23]:

```
for i in s:
    print("The number of times {} exist : ".format(i),l.count(i))
```

```
The number of times 1 exist :  4
The number of times 3 exist :  2
The number of times 4 exist :  3
The number of times 5 exist :  1
The number of times 6 exist :  1
The number of times 7 exist :  1
The number of times 8 exist :  3
```

In [24]:

```
for i in s:
    if l.count(i)>=4:
        print("The number repeated highest number of times : ",i)
    else:
        pass
```

```
The number repeated highest number of times :  1
```