

Match case

```
In [10]: # match case ( it is similar to switch case )
# NOTE: '3.10 python version' allows match case statement .

num=int(input("Enter a number(0-5) :"))
match num:
    case 0:
        print(f"You have entered ZERO : {num}")
    case 1:
        print(f"You have entered one : {num}" )
    case 3:
        print(f"You have entered Three : {num}")
    case 4:
        print(f"You have entered fore : {num}")
    case 5:
        print(f"You have entered five : {num}")

    case _: # ' _ ' This operator is called underscore # It run when
        print(f"Sorry You have entered Invalid number : {num}")
```

Enter a number(0-5) :5
You have entered five : 5

if else condition in match case statement

```
In [23]: # write a match case using if else statement (Even or not number)?

num=int(input("Enter a number :"))
match num:
    case num if num>0 and num%2==0:
        print(f"Even number : {num} ")
    case num if num>0 and num%2 !=0:
        print(f"odd number : {num}")
    case _:
        print("You have Entered Zero ")
```

Enter a number :0
You have Entered Zero

In [15]: *# Task of Programing*

write a pyhon program to make calcuketor ?

```
n1=int(input("Enter 1st integer number :"))
n2=int(input("Enter 2st integer number :"))
print("Enter one option Which you wants to performs :-")
print("1) Additiona of Two number .")
print("2) Substraction of Two number .")
print("3) Mulltiply of Two number .")
print("4) Division of Two number .")
num=int(input())
match num:
    case 1:
        print("The Additional of Two Number :",n1+n2)
    case 2:
        print("The Substraction of Two Number :",n1-n2)
    case 3:
        print("The Multification of Two Number :",n1*n2)
    case 4:
        print("The Additional of Two Number :",n1/n2)
    case _:
        print("Sorry You have Entered wrong Key ??")
```

```
Enter 1st integer number :10
Enter 2st integer number :10
Enter one option Which you wants to performs :-
1) Additiona of Two number .
2) Substraction of Two number .
3) Mulltiply of Two number .
4) Division of Two number .
1
The Additional of Two Number : 20
```

In []:

map fuction

```
In [23]: # map() fuction defined

def cube(n):
    return n**3

x=map(cube,[1,2,3,4,5,6,7,8,9,10])
print(x)
print(type(x))
for i in x:
    print(i,end=" ")

print(list(x))    # It can be convert into List
```

```
<map object at 0x000002080426F910>
<class 'map'>
1 8 27 64 125 216 343 512 729 1000 []
```

```
In [33]: def Even_odd(n):
    if n%2==0:
        return "Even"
    else:
        return "odd"
y=map(Even_odd,[1,2,3,4,5,6,7,8])
print(list(y))
```

```
['odd', 'Even', 'odd', 'Even', 'odd', 'Even', 'odd', 'Even']
```

```
In [ ]: def Even_odd(n):
    if n%2==0:
        return "Even"
    else:
        return "odd"
y=map(Even_odd,[1,2,3,4,5,6,7,8])
print(list(y))
```

Filter function

```
In [41]: def Even_odd(n):  
         if n%2==0:  
             return True  
         else:  
             return False  
  
y=filter(Even_odd,[1,2,3,4,5,6,7,8])# filter object always Give only True values  
print(list(y))  
  
y=map(Even_odd,[1,2,3,4,5,6,7,8]) # filter object always Give only True values  
print(list(y))
```

[2, 4, 6, 8]

[False, True, False, True, False, True, False, True]

reduce fuction

```
In [50]: from functools import reduce  
  
def add(a,b):  
    return a+b  
  
y=reduce(add,[1,2,3,4,5])  
print(y)
```

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