

```
def filter_string(f):
    def process(x):
        if isinstance(x,str):
            return f(x) # call MakeUpper function, if x is s
        else:
            return 'Invalid data type' # for other than str
    return process # return process function from filter_s
```

```
@filter_string # MakeUpper = filter_string(MakeUpper)
```

```
def makelower(s):
    return s.lower()
```

```
def MakeUpper(s):
    return s.upper()
```

```
makelower('HELLO')
```

```
'hello'
```

```
MakeUpper('venkat')
```

```
☞ 'VENKAT'
```

```
def eliminate_digits_symbols(f):
    def process(string):
        new_str = ''
        for i in string:
            if i.isalpha():
                new_str = new_str + i
            else:
                f(new_str)
        return process
```

```
@eliminate_digits_symbols
```

```
def showstring(s):
    print(s)
```

```
showstring('python3')
```

```
python
```

```
showstring('sdlflsdj405943805340**))*'))
```

```
sdlflsdj
```

```
def showlist(lst):
    for i in lst:
        print(i,end=' ')
```

```
showlist([1,4,3,2,'a',94,3,'c'])
```

```
1 4 3 2 a 94 3 c
```

```
def filterint(f):
    def process(li):
        l = []
        for i in li:
            if isinstance(i,int):
                l.append(i)
            else:
                f(l)
        return process
```

```
@filterint
```

```
def showlist(lst):
    for i in lst:
        print(i,end=' ')
```

```
showlist([3,4,2,'python','IPL','transporter',12])
```

```
3 4 2 12
```

```
def filter_prime(f):  
    def process(li):  
        l = []  
        for num in li:  
            for j in range(2,num):  
                if num%j == 0:  
                    break  
            else:  
                l.append(num)  
        else:  
            f(l)  
    return process
```

```
@filter_prime  
def showlist(lst):  
    for i in lst:  
        print(i,end=' ')
```

```
showlist([11,26,43,64,71,101,24,32])
```

```
11 43 71 101
```

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