

1.1 Write a Python Program to implement your own myreduce() function which works exactly like Python's built-in function reduce()

```
def myreduce(add, list):
    return a
def add(a,b):
    return a+b
list=[4,8,46,12]
a=list[0]
for i in range(1,len(list)):
    b=list[i]
    a=add(a,b)
print(myreduce(add, list))
```

1.2 Write a Python program to implement your own myfilter() function which works exactly like Python's built-in function filter()

```
def myfilter(even, list_2):
    return even(a)
list=[1,2,3,5,6,7,8,9,11,12]
list2=[]
def even(a):
    for i in list:
        if i%2==0:
            list2.append(i)
    print(list2)
myfilter(even, list)
```

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2. Implement List comprehensions to produce the following lists.

Write List comprehensions to produce the following Lists

CODE:

```
list = ['x', 'xx', 'xxx', 'xxxx', 'y', 'yy', 'yyy', 'yyyy', 'z', 'zz', 'zzz', 'zzzz']
mylist = []

for i in list:
    if "x" in i or "y" in i or "z" in i:
        mylist.append(i)
```

```
print(mylist)
```

```
list = ['x', 'y', 'z', 'xx', 'yy', 'zz', 'xxx', 'yyy', 'zzz', 'xxxx', 'y  
yyyy', 'zzzz']
```

```
mylist = []
```

```
for i in list:
```

```
    if "x" in i or "y" in i or "z" in i:
```

```
        mylist.append(i)
```

```
print(mylist)
```