filter(fun,sequential data)

```
def iseven(val):
  if val % 2 == 0:
    return True
  else:
    return False

l = [4,7,10,23,45,82]

result = filter(iseven,l)
for i in result:
  print(i)
```

```
4
10
82
```

```
print(iseven(100))
```

```
True
```

```
l = [4,7,10,23,45,82]

result = filter(lambda x: True if x%2==0 else False,l)
for i in result:
  print(i)
```

```
4
10
82
```

```
result = filter(lambda x:True if x.isupper()==True else False,'PyTHon'
for ch in result:
  print(ch,end=' ')
```

```
P T H
```

```
result = filter(lambda x:True if x.isupper()==False else False,'PyTHon
for ch in result:
  print(ch,end=' ')
```

```
y o n
```

map(fun,sequential_data)

```
result = map(lambda x:x**2,[5,4,3,7,8,1])
for i in result:
  print(i,end=' || ')
```

```
25 || 16 || 9 || 49 || 64 || 1 ||
```

```
result = map(lambda x:x[::-1],['python','sql','good','food'])
for i in result:
  print(i,end=' || ')
```

```
nohtyp || lqs || doog || doof ||
```

reduce(fun,sequential_data)

```
import functools
result = functools.reduce(lambda x,y:x+y,[1,2,3,4,5])
print(result)
```

```
15
```

```
print(functools.reduce(lambda x,y:x+y,'python'))
```

```
python
```

```
print(functools.reduce(lambda x,y:x+y,['p','y','t','h','o','n']))
```

```
python
```

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