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Tutorial 01

1) Write a Python program to sum all the items in a list(without using built in function)

```
list1=[1,2,-8]
total = 0
for ele in range(0, len(list1)):
    total +=list1[ele]
total
```

```
-5
```

2) Write a Python program to get the largest number from a list. (without built in function)

```
elements = [5, 10, 3, 25, 7, 4, 15]
max = elements[0]
i = 1
while i < len(elements):
    if elements[i] > max:
        max = elements[i]
    i += 1
max
```

```
25
```

3) Write a Python program to get the smallest number from a list. (without built in function)

```
elements = [5, 10, 3, 25, 7, 4, 15]
smallest = elements[0]
i = 1
while i < len(elements):
    if elements[i] < smallest:
        smallest = elements[i]
    i += 1
smallest
```

```
3
```

4) Write a Python program to remove duplicates from a list.

```
a = [10,20,30,20, 10,50,60,40,80,50,40]
print(list(set(a)))
```

```
[40, 10, 80, 50, 20, 60, 30]
```

5) Write a Python program to print the numbers of a specified list after removing even numbers from it.

```
num = [7,8, 120, 25, 44, 20, 27]
num = [x for x in num if x%2!=0]
print(num)
```

```
[7, 25, 27]
```

6) Write a Python function that takes two lists and returns True if they have at least one common member.(without using built in function)

```
def common_data(list1, list2):
    return bool(set(list1) & set(list2))

list1=[1,2,3,4,5]
list2= [5,6,7,8,9]
```

```
print(bool(set(list1) & set(list2)))
common_data(list1, list2)
```

```
True
True
```

7) Write a python code to square each element of a list.

```
list1=[2, 3, 4, 5, 6]

list1=[x**2 for x in list1]
list1
```

```
[4, 9, 16, 25, 36]
```

8) Write a python code to filter odd and even number from a list.

```
def filter_odd_even_numbers(input_list):
    even_numbers = list(filter(lambda x: x % 2 == 0, input_list))
    odd_numbers = list(filter(lambda x: x % 2 != 0, input_list))
    return odd_numbers, even_numbers

numbers = [2, 23, 24, 51, 46, 67]
odd_numbers, even_numbers = filter_odd_even_numbers(numbers)
print("Odd elements are",odd_numbers)
print("Even elements are",even_numbers)
```

```
Odd elements are [23, 51, 67]
Even elements are [2, 24, 46]
```