

# Basic Python Programming

1. Can you write a program to find the average of odd numbers in the given list?
2. Write a Python Program to Find the third Largest Number in the given list?
3. Write a Python Program to find the count of Even and odd numbers in the given list?

```
Data= [68, 71, 21, 68, 32, 80, 64, 52, 92, 97, 93, 37, 61, 62, 23, 81, 67, 84, 33, 41, 92, 51, 71, 52, 92, 43, 80, 74, 69, 92, 79, 78, 70, 31, 34, 79, 73, 77, 96, 87, 53, 47, 85, 58, 58, 87, 44, 29, 94, 23, 65, 49, 71, 57, 96, 74, 30, 65, 62, 85, 34, 21, 81, 79, 84, 87, 22, 45, 59, 91, 26, 22, 46, 71, 60, 21, 67, 21, 56, 38, 82, 95, 77, 55, 37,61, 59, 89, 61, 75, 97, 72, 58, 23, 78, 20, 95, 67, 59, 56, 93, 82,35, 78, 94, 67, 25, 95, 90, 80, 78, 73, 91, 52, 59, 96, 46, 94, 99,78, 53, 40, 67, 76, 73, 46, 77, 40, 34, 38, 34, 42, 69, 86, 61, 76,21, 90, 52, 65, 36, 93, 55, 86, 95, 65, 30, 89, 86, 20, 92, 46, 58,75, 43, 57, 53, 42, 43, 37, 26, 90, 58, 31, 73, 71, 63, 70, 72, 78,26, 39, 35, 58, 84, 56, 24, 73, 36, 75, 32, 35, 56, 87, 87, 73, 80,78, 25, 61, 38, 94, 36, 90, 70, 65, 34, 61, 44, 85, 41, 50, 23, 34,20, 87, 84, 30, 21, 84, 65, 85, 88, 73, 54, 47, 77, 41, 35, 71]
```

->

```
>>> Data.sort()
```

```
>>> Data
```

```
[20, 20, 20, 21, 21, 21, 21, 21, 21, 22, 22, 23, 23, 23, 23, 24, 25, 25, 26, 26, 26, 29, 30, 30, 30, 31, 31, 32, 32, 33, 34, 34, 34, 34, 34, 34, 35, 35, 35, 35, 36, 36, 36, 37, 37, 37, 38, 38, 38, 39, 40, 40, 41, 41, 41, 42, 42, 43, 43, 43, 44, 44, 45, 46, 46, 46, 46, 47, 47, 49, 50, 51, 52, 52, 52, 52, 53, 53, 53, 54, 55, 55, 56, 56, 56, 56, 57, 57, 58, 58, 58, 58, 58, 58, 59, 59, 59, 59, 60, 61, 61, 61, 61, 61, 61, 62, 62, 63, 64, 65, 65, 65, 65, 65, 65, 67, 67, 67, 67, 68, 68, 69, 69, 70, 70, 70, 71, 71, 71, 71, 71, 71, 72, 72, 73, 73, 73, 73, 73, 73, 73, 73, 74, 74, 75, 75, 75, 76, 76, 77, 77, 77, 77, 78, 78, 78, 78, 78, 78, 78, 78, 79, 79, 79, 80, 80, 80, 80, 81, 81, 82, 82, 84, 84, 84, 84, 84, 85, 85, 85, 85, 86, 86, 86, 87, 87, 87, 87, 87, 87, 88, 89, 89, 90, 90, 90, 90, 91, 91, 92, 92, 92, 92, 92, 93, 93, 93, 94, 94, 94, 94, 95, 95, 95, 95, 96, 96, 96, 97, 97, 99]
```

->

```
# Python program to print Even Numbers in a List
```

```
# Data
```

```
Data = [20, 20, 20, 21, 21, 21, 21, 21, 21, 22, 22, 23, 23, 23, 23, 24, 25, 25, 26, 26, 26, 29, 30, 30, 30, 31, 31, 32, 32, 33, 34, 34, 34, 34, 34, 34, 35, 35, 35, 35, 36, 36, 36, 37, 37, 37, 38, 38, 38, 39, 40, 40, 41, 41, 41, 42, 42, 43, 43, 43, 44, 44, 45, 46, 46, 46, 46, 47, 47, 49, 50, 51, 52, 52, 52, 52, 53, 53, 53, 54, 55, 55, 56, 56, 56, 56, 57, 57, 58, 58, 58, 58, 58, 58, 59, 59, 59, 59, 60, 61, 61, 61, 61, 61, 61, 62, 62, 63, 64, 65, 65, 65, 65, 65, 65, 67, 67, 67, 67, 67, 68, 68, 69, 69, 70, 70, 70, 71, 71, 71, 71, 71, 71, 72, 72, 73, 73, 73, 73, 73, 73, 73, 73, 74, 74, 75, 75, 75, 76, 76, 77, 77, 77, 77, 78, 78, 78, 78, 78, 78, 78, 78, 79, 79, 79, 80, 80, 80, 80, 81, 81, 82, 82, 84, 84, 84, 84, 85, 85, 85, 85, 86, 86, 86, 87, 87, 87, 87, 87, 87, 88, 89, 89, 90, 90, 90, 90, 91, 91, 92, 92, 92, 92, 92, 92, 93, 93, 93, 94, 94, 94, 94, 95, 95, 95, 95, 96, 96, 96, 97, 97, 99]
```

```
for num in Data:
```

```

if num % 2 == 0:

    print(num, end=",")

```

#### **#Output(Even numbers)**

```

20,20,20,22,22,24,26,26,26,30,30,30,32,32,34,34,34,34,34,34,36,36,36,38,38,38,40,40,42,42,44,44,46,46,46,4
6,50,52,52,52,52,54,56,56,56,56,58,58,58,58,58,58,60,62,62,64,68,68,70,70,70,72,72,74,74,76,76,78,78,78,78
,78,78,80,80,80,80,82,82,84,84,84,84,84,86,86,86,88,90,90,90,90,92,92,92,92,92,94,94,94,94,96,96,96,

```

#### **# Python program to print Odd Numbers in a List**

```

# Data

```

```

Data = [20, 20, 20, 21, 21, 21, 21, 21, 21, 22, 22, 23, 23, 23, 23, 24, 25, 25, 26, 26, 26, 29, 30, 30, 30, 31, 31,
32, 32, 33, 34, 34, 34, 34, 34, 34, 35, 35, 35, 35, 36, 36, 36, 37, 37, 37, 38, 38, 38, 39, 40, 40, 41, 41, 41, 42,
42, 43, 43, 43, 44, 44, 45, 46, 46, 46, 46, 47, 47, 49, 50, 51, 52, 52, 52, 52, 53, 53, 53, 54, 55, 55, 56, 56, 56,
56, 57, 57, 58, 58, 58, 58, 58, 59, 59, 59, 59, 60, 61, 61, 61, 61, 61, 61, 62, 62, 63, 64, 65, 65, 65, 65, 65,
65, 67, 67, 67, 67, 67, 68, 68, 69, 69, 70, 70, 70, 71, 71, 71, 71, 71, 71, 72, 72, 73, 73, 73, 73, 73, 73, 74,
74, 75, 75, 75, 76, 76, 77, 77, 77, 77, 78, 78, 78, 78, 78, 78, 78, 79, 79, 79, 80, 80, 80, 80, 81, 81, 82, 82, 84,
84, 84, 84, 85, 85, 85, 85, 86, 86, 86, 87, 87, 87, 87, 87, 87, 88, 89, 89, 90, 90, 90, 90, 91, 91, 92, 92, 92,
92, 92, 93, 93, 93, 94, 94, 94, 94, 95, 95, 95, 95, 96, 96, 96, 97, 97, 99]

```

```

for num in Data:

```

```

    if num % 2 != 0:

        print(num, end=",")

```

#### **#Output(Odd numbers)**

```

21,21,21,21,21,21,23,23,23,23,25,25,29,31,31,33,35,35,35,35,37,37,37,39,41,41,41,43,43,43,45,47,47,49,51,5
3,53,53,55,55,57,57,59,59,59,59,61,61,61,61,61,61,63,65,65,65,65,65,65,67,67,67,67,69,69,71,71,71,71,71
,71,73,73,73,73,73,73,73,75,75,75,77,77,77,77,79,79,79,81,81,85,85,85,85,87,87,87,87,87,87,89,89,91,91,93,
93,93,95,95,95,95,97,97,99,

```

### **1. Can you write a program to find the average of odd numbers in the given list?**

```

->

```

```

#To Find Average Odd numbers

```

```

#Take Output(Odd numbers)

```

```

#First sum all the odd numbers

```

```

>>> sum(Odd)

```

```
#Output
```

```
7127
```

```
#To find Average = sum of the observations / number of observations .i.e Average=sum(Odd) / len(Odd)
```

```
>>> len(Odd)
```

```
#Output
```

```
115
```

```
>>> avg = sum(Odd)/len(Odd)
```

```
print("The average is ", avg)
```

```
#Output
```

```
The average is 61.97391304347826
```

## 2. Write a Python Program to Find the third Largest Number in the given list?

```
->
```

```
#To Remove Duplicate data from List
```

```
Data = list(dict.fromkeys(Data))
```

```
print(Data)
```

```
#Output
```

```
[20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 99]
```

```
#Output of removed duplicate list
```

```
Data = [20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 99]
```

```
#Create variables to hold list
```

```
largest_num = Data[0]
```

```
second_largest_num = Data[0]
```

```
third_largest_num = Data[0]
```

```
for i in Data :
```

```

#Check if the current number is greater than the largest number

if i > largest_num :

    third_largest_num = second_largest_num

    second_largest_num = largest_num

    largest_num = i

#If the first condition failed, check if it is larger than the second-largest number or not.

elif i > second_largest_num :

    third_largest_num = second_largest_num

    second_largest_num = i

#If the second condition failed, check if it is larger than the third-largest number or not.

elif i > third_largest_num :

    third_largest_num = i

#Print the third largest number form list

print("Third largest number of the list is {}".format(third_largest_num))

```

### **#Output**

Third largest number of the list is 96

### **3. Write a Python Program to find the count of Even and odd numbers in the given list?**

->

```

>>> Data = [20, 20, 20, 21, 21, 21, 21, 21, 21, 22, 22, 23, 23, 23, 23, 24, 25, 25, 26, 26, 26, 29, 30, 30, 30, 31,
31, 32, 32, 33, 34, 34, 34, 34, 34, 34, 35, 35, 35, 35, 36, 36, 36, 37, 37, 37, 38, 38, 38, 39, 40, 40, 41, 41, 41,
42, 42, 43, 43, 43, 44, 44, 45, 46, 46, 46, 46, 47, 47, 49, 50, 51, 52, 52, 52, 52, 53, 53, 53, 54, 55, 55, 56, 56,
56, 56, 57, 57, 58, 58, 58, 58, 58, 58, 59, 59, 59, 59, 60, 61, 61, 61, 61, 61, 61, 62, 62, 63, 64, 65, 65, 65, 65,
65, 65, 67, 67, 67, 67, 67, 68, 68, 69, 69, 70, 70, 70, 71, 71, 71, 71, 71, 71, 72, 72, 73, 73, 73, 73, 73, 73,
74, 74, 75, 75, 75, 76, 76, 77, 77, 77, 77, 78, 78, 78, 78, 78, 78, 78, 79, 79, 79, 80, 80, 80, 80, 81, 81, 82, 82,
84, 84, 84, 84, 84, 85, 85, 85, 85, 86, 86, 86, 87, 87, 87, 87, 87, 87, 88, 89, 89, 90, 90, 90, 90, 91, 91, 92, 92,
92, 92, 92, 93, 93, 93, 94, 94, 94, 94, 95, 95, 95, 95, 96, 96, 96, 97, 97, 99]

count_odd = 0

count_even = 0

for x in Data:

```

```
if not x % 2:  
    count_even+=1  
else:  
    count_odd+=1  
print("Data of even numbers :",count_even)  
print("Data of odd numbers :",count_odd)
```

### **#Output**

Data of even numbers : 105

Data of odd numbers : 115