Project

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0.1 WAP to print index at which a particular value exists. If the value exists at multiple locations in the list then print all the indices. Also count the number of times that value is repeated in the list.

```python
value = int(input("Enter the value to find?"))

lists = [1, 2, 8, 22, 18, 2, 50, 2, 12]

def count(nums,c):
    count=0
    for i in range(len(nums)):
        if nums[i]==c:
            count+=1
    return count

index = []
for  i in range(len(lists)):
    if lists[i]==value:
        index.append(i)
print("Value is present at these index position(s):"+str(index))
print('{} has occurred {} times'.format(value, count(lists, value)))
```

```
Value is present at these index position(s):[1, 5, 7]
2 has occurred 3 times
```

0.2 WAP to remove all the duplicates from a list.

```python
list = [1, 2, 3, 1, 2, 4, 5, 4 ,6, 2]
print("Given List : ", list)
temp_list = []

for i in list:
    if i not in temp_list:
```

```
        temp_list.append(i)

my_list = temp_list
print("List After removing duplicates : ", my_list)
```

```
Given List :  [1, 2, 3, 1, 2, 4, 5, 4, 6, 2]
List After removing duplicates :  [1, 2, 3, 4, 5, 6]
```

0.3 WAP that creates a list of 10 random integers. Then create two lists – odd list and even list.

[131]:
```python
import random
ints=[]

for i in range(10):
    ints.append(random.randrange(11))
oddList=[]
evenList=[]
print("Random List:"+str(ints))

for i in ints:
    if i%2==0:
        evenList.append(i)
    else:
        oddList.append(i)

print("Even List:"+str(evenList))
print("Odd List:"+str(oddList))
```

```
Random List:[8, 4, 1, 2, 8, 3, 7, 4, 1, 2]
Even List:[8, 4, 2, 8, 4, 2]
Odd List:[1, 3, 7, 1]
```

0.4 WAP to generate Fibonacci sequence and store it in a list. Then find the sum of even valued terms.

[138]:
```python
def fibo(num):
    temp=0
    fibonos=[0,1]

    if num > 2:
        for i in range(2,num):
            fibonos.append(fibonos[i-1]+fibonos[i-2])
    return fibonos

def evenTerms(fiboList):
    sums=[]
    for i in fiboList:
```

```
        if i%2 == 0:
            sums.append(i)
    return(sum(sums))



num = int(input("Enter Range of Fibonnacci series:")) #12
print("Fibbonacci series = ",fibo(num))
print("Sum of Even Terms = ",evenTerms(fibo(num)))
```

```
Fibbonacci series =  [0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
Sum of Even Terms =  44
```

0.5 WAP that scans an email address and form a tuple of user name and domain.

```
[147]: mails = ["shubham@mail.com","takankhar@gmail.com","vit@vit.edu"]

       for mail in mails:
           username = (mail.split('@')[0])
           domain = (mail.split('@')[1])

           print("Username:"+username)
           print("domain:"+domain)
           print()
```

```
Username:shubham
domain:mail.com

Username:takankhar
domain:gmail.com

Username:vit
domain:vit.edu
```

0.6 WAP to find the union, intersection, difference between two sets.

```
[148]: set1 = {0, 2, 4, 6, 8, 5, 10};
       set2 = {1, 3, 5, 7, 9};

       print("Union = ", set1 | set2)
       print("Intersection = ", set1 & set2)
       print("Difference = ", set1 - set2)
```

```
Union =  {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
Intersection =  {5}
Difference =  {0, 2, 4, 6, 8, 10}
```

```
[ ]:
```