

DICTIONARY

```
In [2]: ▶ #Add rollno and marks {name:mark} for n number of students through keyboard in a dictionary
import operator
n=int(input("Enter no of records"))
d={}
for i in range(1,n+1):
    name= input("Enter name %d"%(i))
    mark=int(input("Enter mark %d"%(i)))
    d[name]=mark
    print(d)
sorted_a= sorted(d.items(), key=operator.itemgetter(0),reverse=True)
print(sorted_a)
```

```
Enter no of records4
Enter name 1Pranav
Enter mark 198
{'Pranav': 98}
Enter name 2Nachi
Enter mark 299
{'Pranav': 98, 'Nachi': 99}
Enter name 3Ravi
Enter mark 3100
{'Pranav': 98, 'Nachi': 99, 'Ravi': 100}
Enter name 4Vinod
Enter mark 496
{'Pranav': 98, 'Nachi': 99, 'Ravi': 100, 'Vinod': 96}
[('Vinod', 96), ('Ravi', 100), ('Pranav', 98), ('Nachi', 99)]
```

Add name and salary {name:salary} for n number of employees through keyboard in a dictionary and print them in name alphabetical order with salary

```
In [3]: ▶ import operator
n=int(input("Enter no of records"))
d={}
for i in range(1,n+1):
    name= input("Enter name %d"%(i))
    mark=int(input("Enter salary %d"%(i)))
    d[name]=mark
    print(d)
sorted_a= sorted(d.items(), key=operator.itemgetter(0),reverse=False)
print(sorted_a)
```

```
Enter no of records3
Enter name 1Pranav
Enter salary 165000
{'Pranav': 65000}
Enter name 2Nachi
Enter salary 245872
{'Pranav': 65000, 'Nachi': 45872}
Enter name 3Ravi
Enter salary 398653
{'Pranav': 65000, 'Nachi': 45872, 'Ravi': 98653}
[('Nachi', 45872), ('Pranav', 65000), ('Ravi', 98653)]
```

```
In [4]: ▶ #Add name and salary {name:salary} for n number of employees through keyboard in a d
import operator
n=int(input("Enter no of records"))
d={}
for i in range(1,n+1):
    name= input("Enter name %d"%(i))
    mark=int(input("Enter salary %d"%(i)))
    d[name]=mark
    print(d)
sorted_a= sorted(d.items(), key=operator.itemgetter(1),reverse=False)
print(sorted_a)
print("max=%d  "%sum(d.values()))
print("max=%d  "%max(d.values()))
print("min=%d  "%min(d.values()))
print("avg=%d  "%(sum(d.values())/2))
```

```
Enter no of records3
Enter name 1Pranav
Enter salary 152000
{'Pranav': 52000}
Enter name 2Vinod
Enter salary 256321
{'Pranav': 52000, 'Vinod': 56321}
Enter name 3Nachi
Enter salary 355000
{'Pranav': 52000, 'Vinod': 56321, 'Nachi': 55000}
[('Pranav', 52000), ('Nachi', 55000), ('Vinod', 56321)]
max=163321
max=56321
min=52000
avg=81660
```

```
In [7]: ▶ #Add name and salary {name:salary} for n number of employees through keyboard in a d
import operator
n=int(input("Enter no of records"))
d={}
for i in range(1,n+1):
    name= input("Enter name %d"%(i))
    sal=int(input("Enter salary %d"%(i)))
    if (sal >2000 and sal< 4000):
        d[name]=sal
print(d)
```

```
Enter no of records2
Enter name 1Pranav
Enter salary 12513
Enter name 2Nachi
Enter salary 21254
{'Pranav': 2513}
```

In [8]:  #Python program to convert a 3 digit number into words

```
def convert_to_words(num):
    l = len(num);
    if (l == 0):
        print("empty string");
        return;


    if (l > 4):
        print("Length more than 4 is not supported");
        return;
    single_digits = ["zero", "one", "two", "three",
                    "four", "five", "six", "seven",
                    "eight", "nine"];
    two_digits = ["", "ten", "eleven", "twelve",
                 "thirteen", "fourteen", "fifteen",
                 "sixteen", "seventeen", "eighteen",
                 "nineteen"];
    tens_multiple = ["", "", "twenty", "thirty", "forty",
                    "fifty", "sixty", "seventy", "eighty",
                    "ninety"];
    tens_power = ["hundred", "thousand"];
    print(num, ":", end = " ");
    if (l == 1):
        print(single_digits[ord(num[0]) - '0']);
        return;
    x = 0;
    while (x < len(num)):
        if (l >= 3):
            if (ord(num[x]) - 48 != 0):
                print(single_digits[ord(num[x]) - 48],
                      end = " ");
                print(tens_power[l - 3], end = " ");

                l -= 1;
            else:
                if (ord(num[x]) - 48 == 1):
                    sum = (ord(num[x]) - 48 +
                          ord(num[x + 1]) - 48);
                    print(two_digits[sum]);
                    return;
                elif (ord(num[x]) - 48 == 2 and
                      ord(num[x + 1]) - 48 == 0):
                    print("twenty");
                    return;
                else:
                    i = ord(num[x]) - 48;
                    if(i > 0):
                        print(tens_multiple[i], end = " ");
                    else:
                        print("", end = "");
                    x += 1;
                    if(ord(num[x]) - 48 != 0):
                        print(single_digits[ord(num[x]) - 48]);
                x += 1;
    convert_to_words("221");
    convert_to_words("159");
```

221 : two hundred twenty one

159 : one hundred fifty nine


FILES

In [9]:  *#Python Program to count the total number of charaters (except blank space) in a text file*

```
input_file = input("Enter File name : ")
file_txt = open(input_file)
text = file_txt.read()
charc = 0
for i in text:
    if(i != " " and i != "\n" ):
        charc += 1


print ("total num of characters: ",charc);
```

Enter File name : test.py
total num of characters: 19

In [11]:  *#Python Program to print all the numbers present in a text file with its total number*

```
input_file = input("Enter File name : ")
file_txt = open(input_file)
text = file_txt.read()
w = []
d = dict()
for line in text:
    line = line.strip()
    if(line.isdigit()):
        w.append(line)
for j in w:
    if j in d:
        d[j] = d[j] + 1
    else:
        d[j] = 1
for key in list(d.keys()):
    print(key, ":", d[key])
```

Enter File name : test.py
9 : 1
8 : 2
7 : 3
6 : 2
3 : 1
1 : 2
2 : 2
5 : 3
4 : 3

In [12]:  *#Python Program to append the contents of one file to another file by getting the contents of one file*

```
name1 = input("Enter file to be read from: ")
name2 = input("Enter file to be appended to: ")
fin = open(name1, "r")
data2 = fin.read()
fin.close()
fout = open(name2, "a")
fout.write(data2)
fout.close()
```

Enter file to be read from: test.py
Enter file to be appended to: pk.txt

In [13]: ▶ *#Python Program to count the number of blank spaces in a text file.*

```
fname = input("Enter file name: ")
k = 0

with open(fname, 'r') as f:
    for line in f:
        words = line.split()
        for i in words:
            for letter in i:
                if(letter.isspace()):
                    k=k+1
print("Occurrences of blank spaces:")
print(k)
```

Enter file name: test.py
Occurrences of blank spaces:
38

In [14]: ▶ *#Python Program to read a file and capitalize the first letter of every word in the*

```
fname = input("Enter file name: ")
with open(fname, 'r') as f:
    with open("out.txt", "w") as f1:
        for line in f:
            l=line.title()
            f1.write(l)
file2=open("out.txt", 'r')
line=file2.readline()
while(line!=""):
    print(line)
    line=file2.readline()
file2.close()
```

Enter file name: test.py
Print("Hello World")

9876312154855426477