### **Ex. No. : 8.1** Sort Dictionary by Values Summation

**Program:**

n = int(input()) d = {} for i in range(n): s = input().split() d[s[0]] = list(map(int, s[1:])) d1 = {k: sum(v) for k, v in d.items()} sorted\_d = dict(sorted(d1.items(), key=lambda x: x[1])) for k, v in sorted\_d.items():

print(k, v)

### **Ex. No. : 8.2** Student Record

**Program:**

n=int(input()) d={} for i in range(n): na=input().split() d[na[0]]=[int(na[1]),int(na[2]),int(na[3])] l=int(na[3])

h=0 for i in d: if h< sum(d[i]): h=sum(d[i])

j=i

h1=sum(d[i]) print(j) h=0

for i in d: if(h<d[i][1]): h=d[i][1] j=i for i in d: if(h==d[i][1]): print(i,end=" ") l1=[] k=[] print()

for i in d: if(l>d[i][2]): l=d[i][2] j=i for i in d: if(l==d[i][2]): l1.append(i) for i in range(-1,-len(l1)-1,-1):

print(l1[i],end=" ") print()

for i in d: if h1> sum(d[i]): h1=sum(d[i])

j=i print(j)

**Ex. No. : 8.3** [**Scramble Score**](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5780)

**Program:**

def calculate\_scrabble\_score(word): # Dictionary mapping letters to points letter\_points = {

'A': 1, 'B': 3, 'C': 3, 'D': 2, 'E': 1, 'F': 4, 'G': 2, 'H': 4,

'I': 1, 'J': 8, 'K': 5, 'L': 1, 'M': 3, 'N': 1, 'O': 1, 'P': 3,

'Q': 10, 'R': 1, 'S': 1, 'T': 1, 'U': 1, 'V': 4, 'W': 4, 'X': 8,

'Y': 4, 'Z': 10

}

score = 0 for letter in word:

letter = letter.upper()

score += letter\_points.get(letter, 0) # Add the points for each letter, defaulting to 0 if not found

return score

word=input()

score = calculate\_scrabble\_score(word) print(f"{word} is worth {score} points.")

### **Ex. No. : 8.4** Uncommon words

s1 = input().split() s2 = input().split() d = {} for i in s1: if i not in d: d[i] = 1 else: d[i] += 1 for i in s2: if i not in d: d[i] = 1 else: d[i] += 1 for i in d: if d[i] == 1: print(i, end=" ")

### **Ex. No. : 8.5** Winner of Election

n=int(input()) d={}

for i in range(n): s=input() if s not in d: d[s]=1 else: d[s]+=1 h=0

for i in d: if h<d[i]: h=d[i] j=i print(j)