Python Practical 3 (Question 2-5)

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2. The provided code stub will read in a dictionary containing key/value pairs of name:[marks] for a list of students. Print the average of the marks array for the student name provided, showing 2 places after the decimal.

In [1]:
```
d={"Krishna":[67.00,68.00,69.00],"Arjun":[70.00,98.00,63.00],"Malika":[52.00,56.00,60.00],"H
arsh":[25.00,26.50,28.00],"Anurag":[26,28,30]}

for i in d:
    avg=(d[i][0]+d[i][1]+d[i][2])/3
    print("Marks obtained by" i ":" '%.2f'%avg)
```

```
Marks obtained by Krishna : 68.00 Marks
obtained by Arjun : 77.00 Marks
obtained by Malika : 56.00 Marks
obtained by Harsh : 26.50 Marks
obtained by Anurag : 28.00
```

3.Create a Nested Dictionary Using the given table in the format:

Write a Python Code to: Q.1. Find the country with maximum gold medals

In [2]:
```
olympic={"Great_Britain": {"GBR": {"gold":29,"silver":17,"bronze":19}},"China": {"CHN": {"go
ld":38,"silver":28,"bronze":22}},"Russia": {"RUS": {"gold":24,"silver":25,"bronze":32}},"Uni
ted States": {"US": {"gold":46,"silver":28,"bronze":29}},"Korea": {"KOR": {"gold":13,"silve
r":8,"bronze":7}},"Japan": {"JPN": {"gold":7,"silver":14,"bronze":17}},"Germany": {"GER": {
"gold":11,"silver":11,"bronze":14}}}
max=0
max_gold=""
for i in olympic:
    for j in olympic[i]:
        if olympic[i][j]["gold"] > max:
            max=olympic[i][j]["gold"]
            max_gold=i
```

```
Country with maximum gold medals: United States
```

Q.2. Find the countries with more than 20 gold medals

In [3]:
```
l=[]
for i in olympic:
    for j in olympic[i]:
        if olympic[i][j]["gold"] > 20:
            l.append(i)

print("Countries with more than 20 gold medals" l)
```

```
Countries with more than 20 gold medals ['Great_Britain', 'China', 'Russia', 'United States']
```

Q.3. Evaluate the Dictionary and print the name of each country with its gold medals and total number of medals

In [10]:
```
olympics={"Great_Britain": {"GBR": {"gold":29,"silver":17,"bronze":19}},"China": {"CHN": {"g
old":38,"silver":28,"bronze":22}},"Russia": {"RUS": {"gold":24,"silver":25,"bronze":32}},"Un
ited States": {"US": {"gold":46,"silver":28,"bronze":29}},"Korea": {"KOR": {"gold":13,"silve
r":8,"bronze":7}},"Japan": {"JPN": {"gold":7,"silver":14,"bronze":17}},"Germany": {"GER": {
"gold":11,"silver":11,"bronze":14}}}
print("Country, Gold medals, total medals :")

for i in olympics:
    for j in olympics[i]:
        print(i, olympics[i][j]["gold"],olympics[i][j]["gold"] + olympics[i][j]["silver"] +
```

```
Country, Gold medals, total medals :
Great_Britain 29 65
China 38 88
Russia 24 81
United States 46 103
Korea 13 28
Japan 7 38
Germany 11 36
```

4. For the purposes of marketing research, a survey of 1000 women is conducted in a town. The results show that 52 % liked watching comedies, 45% liked watching fantasy movies and 60% liked watching romantic movies. In addition, 25% liked watching comedy and fantasy both, 28% liked watching romantic and fantasy both and 30% liked watching comedy and romantic movies both. 6% liked watching none of these movie genres.Here are our questions we should find the answer:

(1) How many women like watching all the three movie genres?

In [1]:
```
print("n(C U F U R) = n(C)+n(F)+n(R)-n(C n F)-n(F n R)-n(C n R)+n(C n F n R)")
print("n(C) = 520 and n(F) = 450 and n(R)=600 ")
print("Given that n(C U F U R) = 940")
C=520
F=450
R=600
uni=940
inter1=250
inter2=280
inter3=300

ans = uni - (C + F + R - inter1 - inter2 - inter3) print("Value of n(C n F
```

```
n(C U F U R) = n(C)+n(F)+n(R)-n(C n F)-n(F n R)-n(C n R)+n(C n F n R) n(C) = 520
and n(F) = 450 and n(R)=600
Given that n(C U F U R) = 940 Value
of n(C n F n R) is :  200
```

(2) Find the number of women who like watching only one of the three genres.

In [ ]:

(3) Find the number of women who like watching at least two of the given genres

In [ ]:

5. Write a Python Program to Count the Number of Each Vowel, consonants and spaces in the given String(Multiline) using Dictionary (Use V_dict for vowels and C_dict for consonants and spaces)

In [5]:
```
d={"vowel_count":0,"character_count":0,"space_count":0} s='''My name is
Yashasvi Srivastava'''
l=list(s)

vowels=['a','e','i','o','u']
for i in l:
    if i!='¥n':
        if i in vowels:
```

```
{'vowel_count': 10, 'character_count': 16, 'space_count': 4}
```

In [ ]: