Data and Visual Analitics

Lab Excersice 02a

NumPy

Write a Python NumPy program that accepts student names and five marks (store in separate NumPy array). Calculate the total marks and percentage based on the input. Display student names and marks, total and average based on sample out below:

In [4]:
```
import numpy as np
stuname = np.array([ ])
ra = np.array([ ])
dva = np.array([ ])
pml = np.array([ ])
nlp = np.array([ ])
hcda = np.array([ ])
num = input("How many students?: ")
for i in num:
    name = input("name of student ")
    stuname = np.append(stuname,name)
    mark = int(input("RA mark of the student "))
    ra = np.append(ra,mark)
    mark = int(input("DVA mark of the student "))
    dva = np.append(dva,mark)
    mark = int(input("PML mark of the student "))
    pml = np.append(pml,mark)
    mark = int(input("NLP mark of the student "))
    nlp = np.append(nlp,mark)
    mark = int(input("HCDA mark of the student "))
    hcda = np.append(hcda,mark)
for i in num:
    total=ra+dva+pml+nlp+hcda        #total=ra[i]+dva[i]+pml[i]+nlp[i]+hdca[i]
    percent=float(total)/5.0
    tot=total
    per=percent
    if(percent >=91 and percent <=100):
        result="Your Grade is A+";
    elif(percent >=81 and percent <=90):
        result="Your Grade is A";
    elif(percent >=71 and percent <=80):
```

```
        result="Your Grade is B+";
    elif(percent >=61 and percent <=70):
        result="Your Grade is B";
    elif(percent >=51 and percent <=60):
        result="Your Grade is C+";
    elif(percent >=41 and percent <=50):
        result="Your Grade is C";
    elif(percent >=0 and percent <=40):
        result="Your Grade is F";
    else:
        result="Strange Grade..!!";
for i in num:
    print("Student Name :" ,stuname)
    print("Regression Analysis mark :" ,ra)
    print("Data Visual Analytics mark :" ,dva)
    print("Practical Machine Learning mark:" ,pml)
    print("Natural Language Processing mark:" ,nlp)
    print("Health Care Data analytics mark:" ,hcda)
    print("Total:" , tot)
    print("Percentage:" , per)
    print("Grade:" , result)
```

```
How many students?: 1
name of student Ravi kumar
RA mark of the student 70
DVA mark of the student 80
PML mark of the student 89
NLP mark of the student 93
HCDA mark of the student 78
Student Name : ['Ravi kumar']
Regression Analysis mark : [70.]
Data Visual Analytics mark : [80.]
Practical Machine Learning mark: [89.]
Natural Language Processing mark: [93.]
Health Care Data analytics mark: [78.]
Total: [410.]
Percentage: 82.0
Grade: Your Grade is A
```