# LAB SHEET - 2

**Aim** - **1.**Write a python program to load and display a csv file.

**2.**Write a python program to compute mean, median, mode, variance, and standard deviation of a given datasets.

**Date of assignment** - 03/09/2024

**Date of submission** - 10/09/2024

**Roll number** - 23619002

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**1.**Write a python program to load and display a csv file.

**SOLUTION:-**

```
import csv
marks=[]
with open('Students.csv', mode ='r')as file:
  csvFile = csv.reader(file)
  for lines in csvFile:
        print(lines)
        marks.append(int(lines[3]))
avg=sum(marks)/len(marks)
print('The average marks is:',avg)
```

**OUTPUT:-**

```
['ADITYA KUMAR', '23619002', 'JHARKHAND', '95']
['RAHUL KUMAR', '23619027', 'DELHI', '89']
['RAJUL GOYAL', '23619040', 'UP', '58']
['GOPAL NAYAK', '23619014', 'ODISHA', '96']
['SATYAM SHARMA', '23619030', 'HIMACHAL PRADESH', '84']
The average marks is: 84.4
```

**2.**Write a python program to compute mean, median, mode, variance, and standard deviation of a given datasets.

**SOLUTION**:-

```
import csv
import statistics
def read_csv_column(file_path,column_index):
    marks=[]
    with open('Students.csv', mode ='r')as file:
```

```
        csvFile = csv.reader(file)
        for lines in csvFile:
            print(lines)
            marks.append(int(lines[3]))
    return marks
file_path='Students.csv'
column_index=3
def compute_stastistics(marks):
    mean=statistics.mean(marks)
    median=statistics.median(marks)
    mode=statistics.mode(marks)
    variance=statistics.variance(marks)
    std_dev=statistics.stdev(marks)
    return mean,median,mode,variance,std_dev
marks=read_csv_column(file_path,column_index)
mean,median,mode,variance,std_dev=compute_stastistics(marks)
print('mean:',mean)
print('median:',median)
print('mode:',mode)
print('variance:',variance)
print('standard deviation:',std_dev)
```

**OUTPUT**:-

```
mean: 84.4
median: 89
mode: 95
variance: 241.3
standard deviation: 15.533834040570923
```