ROHAN DILIP BADGUJAR

E1\_502

Practical 3

INPUT:

from numpy.core.fromnumeric import mean

import numpy as np

array=np.loadtxt("/content/testmarks1.csv",delimiter=',',dtype=str,skiprows=1)

print(array)

EDS=[]

SON=[]

DT=[]

ET=[]

for i in array:

  EDS.append(float(i[1]))

  SON.append(float(i[2]))

  DT.append(float(i[3]))

  ET.append(float(i[4]))

print(EDS)

print(SON)

print(DT)

print(ET)

arr\_EDS=np.array(EDS)

arr\_SON=np.array(SON)

arr\_DT=np.array(DT)

arr\_ET=np.array(ET)

max\_EDS=max(arr\_EDS)

max\_SON=max(arr\_SON)

max\_DT=max(arr\_DT)

max\_ET=max(arr\_ET)

print("Max mraks in EDS:",max\_EDS)

print("Max mraks in SON:",max\_SON)

print("Max mraks in DT:",max\_DT)

print("Max mraks in ET:",max\_ET)

min\_EDS=min(arr\_EDS)

min\_SON=min(arr\_SON)

min\_DT=min(arr\_DT)

min\_ET=min(arr\_ET)

print("Min mraks in EDS:",min\_EDS)

print("Min mraks in SON:",min\_SON)

print("Min mraks in DT:",min\_DT)

print("Min mraks in ET:",min\_ET)

sum\_EDS=np.sum(arr\_EDS)

sum\_SON=np.sum(arr\_SON)

sum\_DT=np.sum(arr\_DT)

sum\_ET=np.sum(arr\_ET)

print("Summation of EDS :",sum\_EDS)

print("Summation of SON :",sum\_SON)

print("Summation of DT :",sum\_DT)

print("Summation of ET :",sum\_ET)

med\_EDS=np.median(arr\_EDS)

med\_SON=np.median(arr\_SON)

med\_DT=np.median(arr\_DT)

med\_ET=np.median(arr\_ET)

print("Median of EDS:",med\_EDS)

print("Median of SON:",med\_SON)

print("Median of DT:",med\_DT)

print("Median of ET:",med\_ET)

std\_EDS=np.std(arr\_EDS)

std\_SON=np.std(arr\_SON)

std\_DT=np.std(arr\_DT)

std\_ET=np.std(arr\_ET)

print("Standard Deviation of EDS:",std\_EDS)

print("Standard Deviation of SON:",std\_SON)

print("Standard Deviation of DT:",std\_DT)

print("Standard Deviation of ET:",std\_ET)

var\_EDS=np.var(arr\_EDS)

var\_SON=np.var(arr\_SON)

var\_DT=np.var(arr\_DT)

var\_ET=np.var(arr\_ET)

print("Variance of EDS :",var\_EDS)

print("Variance of SON :",var\_SON)

print("Variance of DT :",var\_DT)

print("Variance of ET :",var\_ET)

mean\_EDS=np.mean(arr\_EDS)

mean\_SON=np.mean(arr\_SON)

mean\_DT=np.mean(arr\_DT)

mean\_ET=np.mean(arr\_ET)

print("Mean of EDS:",mean\_EDS)

print("Mean of SON:",mean\_SON)

print("Mean of DT:",mean\_DT)

print("Mean of ET:",mean\_ET)

sort\_EDS=np.sort(arr\_EDS)

sort\_SON=np.sort(arr\_SON)

sort\_DT=np.sort(arr\_DT)

sort\_ET=np.sort(arr\_ET)

print("Sorting of EDS:",sort\_EDS)

print("Sorting of SON:",sort\_SON)

print("Sorting of DT:",sort\_DT)

print("Sorting of ET:",sort\_ET)

searchA=np.where(arr\_EDS==43.05)

searchB=np.where(arr\_SON==26.03)

searchC=np.where(arr\_DT==27.79)

searchD=np.where(arr\_ET==28.19)

print("SEARCH FOR EDS:",searchA)

print("SEARCH FOR SON:",searchB)

print("SEARCH FOR DT:",searchC)

print("SEARCH FOR ET:",searchD)

output:

[['801' '43.05' '27.79' '28.7' '27.79']

['802' '43.47' '28.52' '28.98' '27.89']

['803' '42.24' '28.16' '28.16' '25.63']

['804' '39.24' '26.16' '26.16' '26.16']

['805' '40.9' '26.03' '27.27' '25.65']

['806' '39.47' '26.31' '26.31' '25.21']

['807' '41.68' '25.63' '27.79' '25.46']

['808' '42.19' '27.61' '28.13' '26.21']

['809' '44.75' '28.35' '29.83' '28.21']

['810' '46.95' '28.88' '31.3' '28.53']]

[43.05, 43.47, 42.24, 39.24, 40.9, 39.47, 41.68, 42.19, 44.75, 46.95]

[27.79, 28.52, 28.16, 26.16, 26.03, 26.31, 25.63, 27.61, 28.35, 28.88]

[28.7, 28.98, 28.16, 26.16, 27.27, 26.31, 27.79, 28.13, 29.83, 31.3]

[27.79, 27.89, 25.63, 26.16, 25.65, 25.21, 25.46, 26.21, 28.21, 28.53]

Max mraks in EDS: 46.95

Max mraks in SON: 28.88

Max mraks in DT: 31.3

Max mraks in ET: 28.53

Min mraks in EDS: 39.24

Min mraks in SON: 25.63

Min mraks in DT: 26.16

Min mraks in ET: 25.21

Summation of EDS : 423.94

Summation of SON : 273.44

Summation of DT : 282.63

Summation of ET : 266.74

Median of EDS: 42.215

Median of SON: 27.7

Median of DT: 28.145

Median of ET: 26.185000000000002

Standard Deviation of EDS: 2.2181217279491228

Standard Deviation of SON: 1.1324857614998962

Standard Deviation of DT: 1.4784725225718605

Standard Deviation of ET: 1.2150407400577152

Variance of EDS : 4.920064000000002

Variance of SON : 1.282524

Variance of DT : 2.1858810000000006

Variance of ET : 1.4763240000000004

Mean of EDS: 42.394

Mean of SON: 27.344

Mean of DT: 28.262999999999998

Mean of ET: 26.674

Sorting of EDS: [39.24 39.47 40.9 41.68 42.19 42.24 43.05 43.47 44.75 46.95]

Sorting of SON: [25.63 26.03 26.16 26.31 27.61 27.79 28.16 28.35 28.52 28.88]

Sorting of DT: [26.16 26.31 27.27 27.79 28.13 28.16 28.7 28.98 29.83 31.3 ]

Sorting of ET: [25.21 25.46 25.63 25.65 26.16 26.21 27.79 27.89 28.21 28.53]

SEARCH FOR EDS: (array([0]),)

SEARCH FOR SON: (array([4]),)

SEARCH FOR DT: (array([6]),)

SEARCH FOR ET: (array([], dtype=int64),)