ANKIT KUMAR

D-414

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202201040161

ESSENTIALS OF DATA SCIENCE

ASSIGNMENT 1

STUDENT DATASHEET

STUDENT ID	NAME	ENGLISH	MATHS	SCIENCE		SOCIAL STIDIES	MARATHI
401	ALVIN	90	85	87	98	75	
402	ANAND	58	75	84	94	79	
403	VAISHNAVI		49	94	78	87	68
404	ARHANT		94	87	94	78	87
405	ATHARAV		80	87	68	69	89
406	GANESH		90	65	50	88	97
407	ARPAN URF BHAI		100	100	100	100	100
408	PRATIK	71	75	74	81	93	
409	ISHIKA	56	84	77	38	96	
410	DHANASHREE	45	67	39	97	76	

CODE:

```
with open('STUDENT_DATASHEET.csv', 'r') as file:
    data = file.readlines()
data = [row.strip().split(',') for row in data[1:]]
print(data)


eng_grade = [float(row[2]) for row in data]

maths_grade = [float(row[3]) for row in data]

science_grade = [float(row[4]) for row in data]
```

```python
social_studies_grade = [float(row[5]) for row in data]
marathi_grade = [float(row[6]) for row in data]


def average(a_list):
    sum = 0
    for element in a_list:
        sum += element
    return sum/len(a_list)


def high(a_list):
    high = 0
    for element in a_list:
        if element > high:
            high = element
    return high


def sum(a_list):
    sum = 0
    for grade in a_list:
        sum += grade
    return sum


def per(a_list):
    None


print('English')
print('average', (average(eng_grade)))
print('sum',sum(eng_grade))
print('highest: ', high(eng_grade))
print('\n')
print('mathematics')
```

```
print('average', (average(maths_grade)))

print('sum',sum(maths_grade))

print('highest: ', high(maths_grade))

print('\n')

print('Science')

print('average', (average(science_grade)))

print('sum',sum(science_grade))

print('highest: ', high(science_grade))

print('\n')

print('Social Studies')

print('average', (average(social_studies_grade)))

print('sum',sum(social_studies_grade))

print('highest: ', high(social_studies_grade))

print('\n')

print('Marathi')

print('average', (average(marathi_grade)))

print('sum',sum(marathi_grade))

print('highest: ', high(marathi_grade))
```

output:

PS C:\Users\Arpan\OneDrive\Desktop\ARPAN BANDIWADEKAR\EDS_ASSIGNMENT_1> & "C:/Users/Arpan/OneDrive/Desktop/ARPAN BANDIWADEKAR/SEMESTERS/FY SEM2 SUBJECTS/ESSENTIALS OF DATA SCIENCE/python.exe" "c:/Users/Arpan/OneDrive/Desktop/ARPAN BANDIWADEKAR/EDS_ASSIGNMENT_1/stud_datasheet.py"

[['401', 'ALVIN', '90', '85', '87', '98', '75'], ['402', 'ANAND', '58', '75', '84', '94', '79'], ['403', 'VAISHNAVI', '49', '94', '78', '87', '68'], ['404', 'ARHANT', '94', '87', '94', '78', '87'], ['405', 'ATHARAV', '80', '87', '68', '69', '89'], ['406', 'GANESH', '90', '65', '50', '88', '97'], ['407', 'ARPAN URF BHAI', '100', '100', '100', '100', '100'], ['408', 'PRATIK', '71', '75', '74', '81', '93'], ['409', 'ISHIKA', '56', '84', '77', '38', '96'], ['410', 'DHANASHREE', '45', '67', '39', '97', '76']]

English

average 73.3

mathematics

average 81.9

sum 819.0

highest: 100.0

Science

average 75.1

sum 751.0

highest: 100.0

Social Studies

average 83.0

sum 830.0

highest: 100.0

Marathi

average 86.0

sum 860.0

highest: 100.0

PS C:\Users\Arpan\OneDrive\Desktop\ARPAN BANDIWADEKAR\EDS_ASSIGNMENT_1>