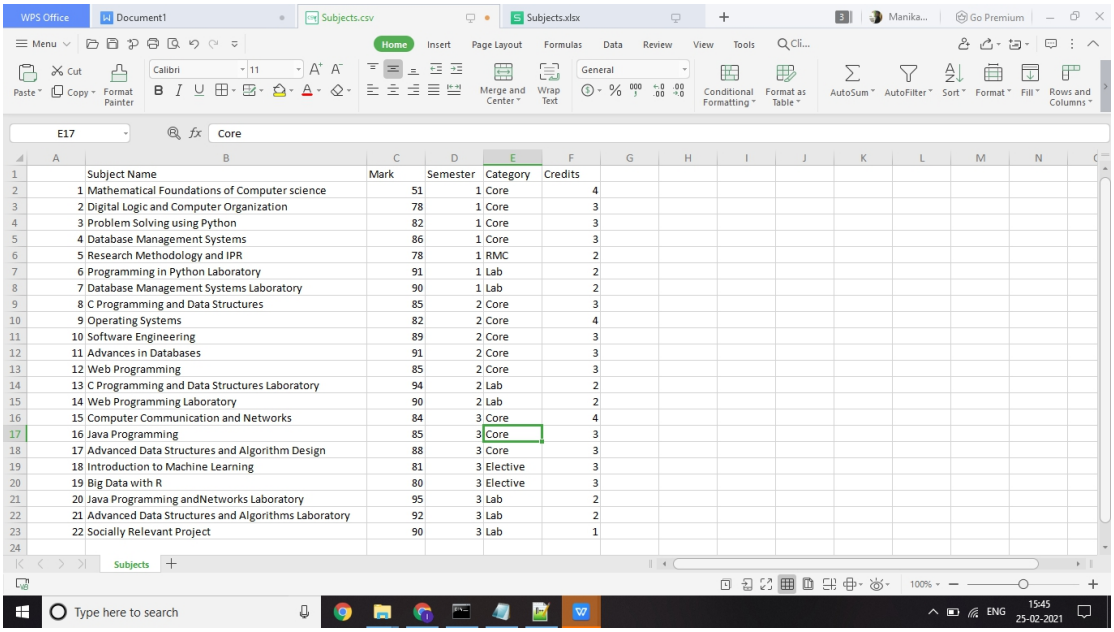
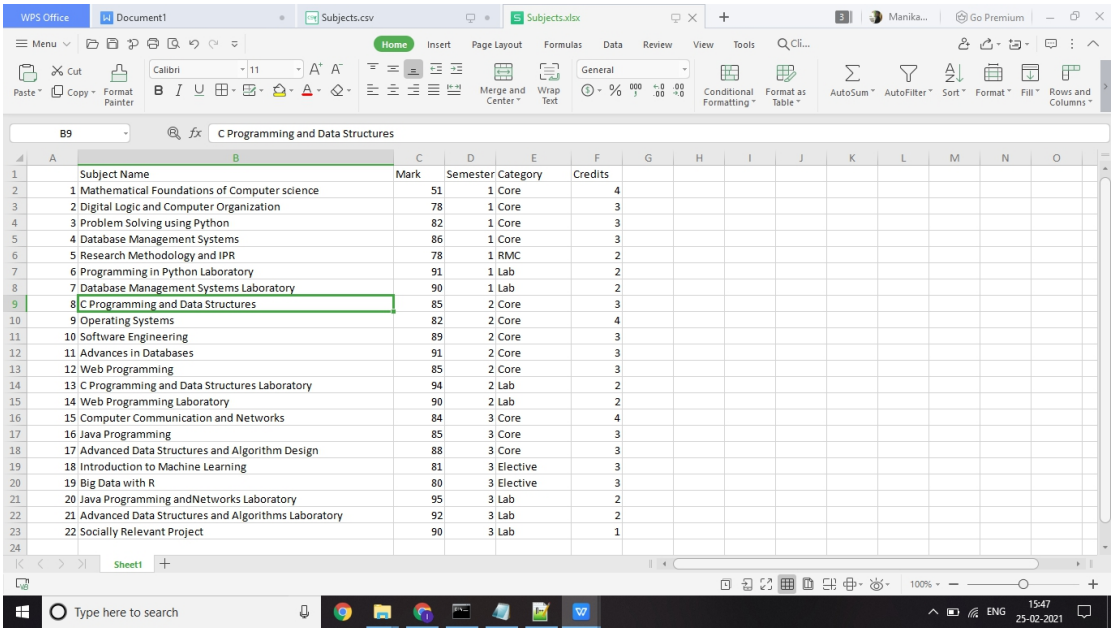
Data Science Laboratory

.csv file



	Subject Name	Mark	Semester	Category	Credits
1	Mathematical Foundations of Computer science	51	1	Core	4
2	Digital Logic and Computer Organization	78	1	Core	3
3	Problem Solving using Python	82	1	Core	3
4	Database Management Systems	86	1	Core	3
5	Research Methodology and IPR	78	1	RMC	2
6	Programming in Python Laboratory	91	1	Lab	2
7	Database Management Systems Laboratory	90	1	Lab	2
8	C Programming and Data Structures	85	2	Core	3
9	Operating Systems	82	2	Core	4
10	Software Engineering	89	2	Core	3
11	Advances in Databases	91	2	Core	3
12	Web Programming	85	2	Core	3
13	C Programming and Data Structures Laboratory	94	2	Lab	2
14	Web Programming Laboratory	90	2	Lab	2
15	Computer Communication and Networks	84	3	Core	4
16	Java Programming	85	3	Core	3
17	Advanced Data Structures and Algorithm Design	88	3	Core	3
18	Introduction to Machine Learning	81	3	Elective	3
19	Big Data with R	80	3	Elective	3
20	Java Programming andNetworks Laboratory	95	3	Lab	2
21	Advanced Data Structures and Algorithms Laboratory	92	3	Lab	2
22	Socially Relevant Project	90	3	Lab	1

.xlsx file



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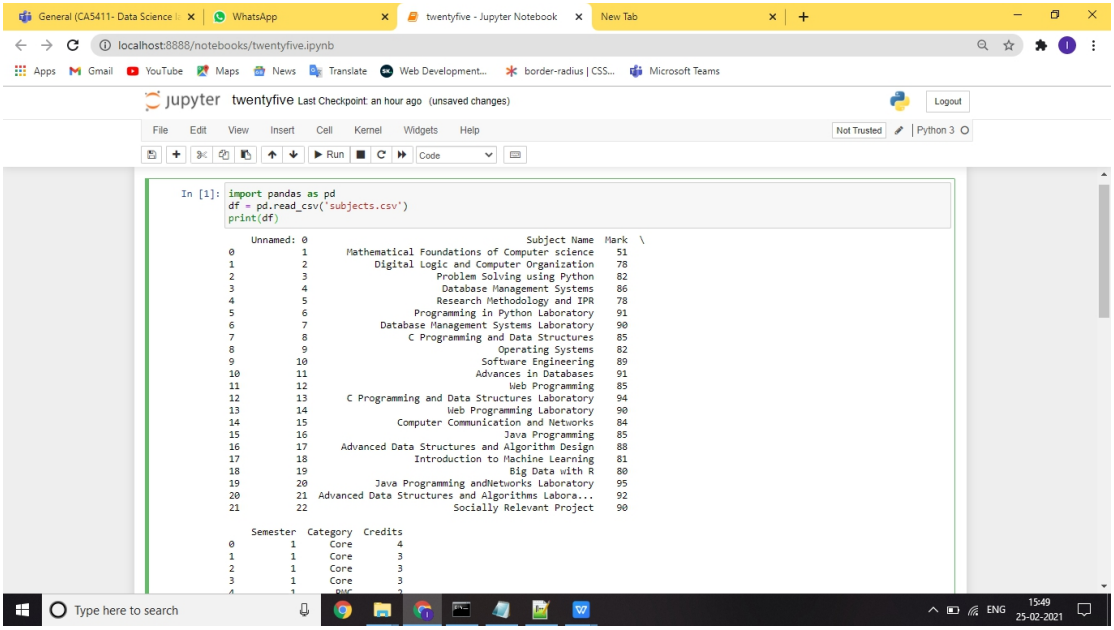

CODE:

```
import pandas as pd
df = pd.read_excel('subjects.xlsx')
with pd.option_context('display.max_rows', None, 'display.max_columns', None):
   print(df.head(10))
   print(df.tail(2))
#mean
print(df['Mark'].mean())
#median
print("Median:", df['Mark'].median())
print(df['Mark'].describe())
```

OUTPUT:

```
    Unnamed: 0                                       Subject Name  Mark
0            1       Mathematical Foundations of Computer science    51
1            2            Digital Logic and Computer Organization    78
2            3                      Problem Solving using Python     82
3            4                       Database Management Systems     86
4            5                     Research Methodology and IPR      78
5            6                  Programming in Python Laboratory     91
6            7              Database Management Systems Laboratory   90
7            8                  C Programming and Data Structures    85
8            9                                Operating Systems      82
9           10                           Software Engineering       89
10          11                           Advances in Databases      91
11          12                                Web Programming       85
12          13          C Programming and Data Structures Laboratory 94
13          14                     Web Programming Laboratory       90
14          15                Computer Communication and Networks   84
15          16                                Java Programming      85
16          17          Advanced Data Structures and Algorithm Design 88
17          18                     Introduction to Machine Learning 81
18          19                                Big Data with R       80
19          20              Java Programming andNetworks Laboratory 95
20          21  Advanced Data Structures and Algorithms Labora...   92
21          22                             Socially Relevant Project 90

    Semester Category  Credits
20         3      Lab        2
21         3      Lab        1
84.86363636363636
Median: 85.5
count    22.000000
mean     84.863636
std       9.041152
min      51.000000
25%      82.000000
50%      85.500000
75%      90.000000
max      95.000000
Name: Mark, dtype: float64
```