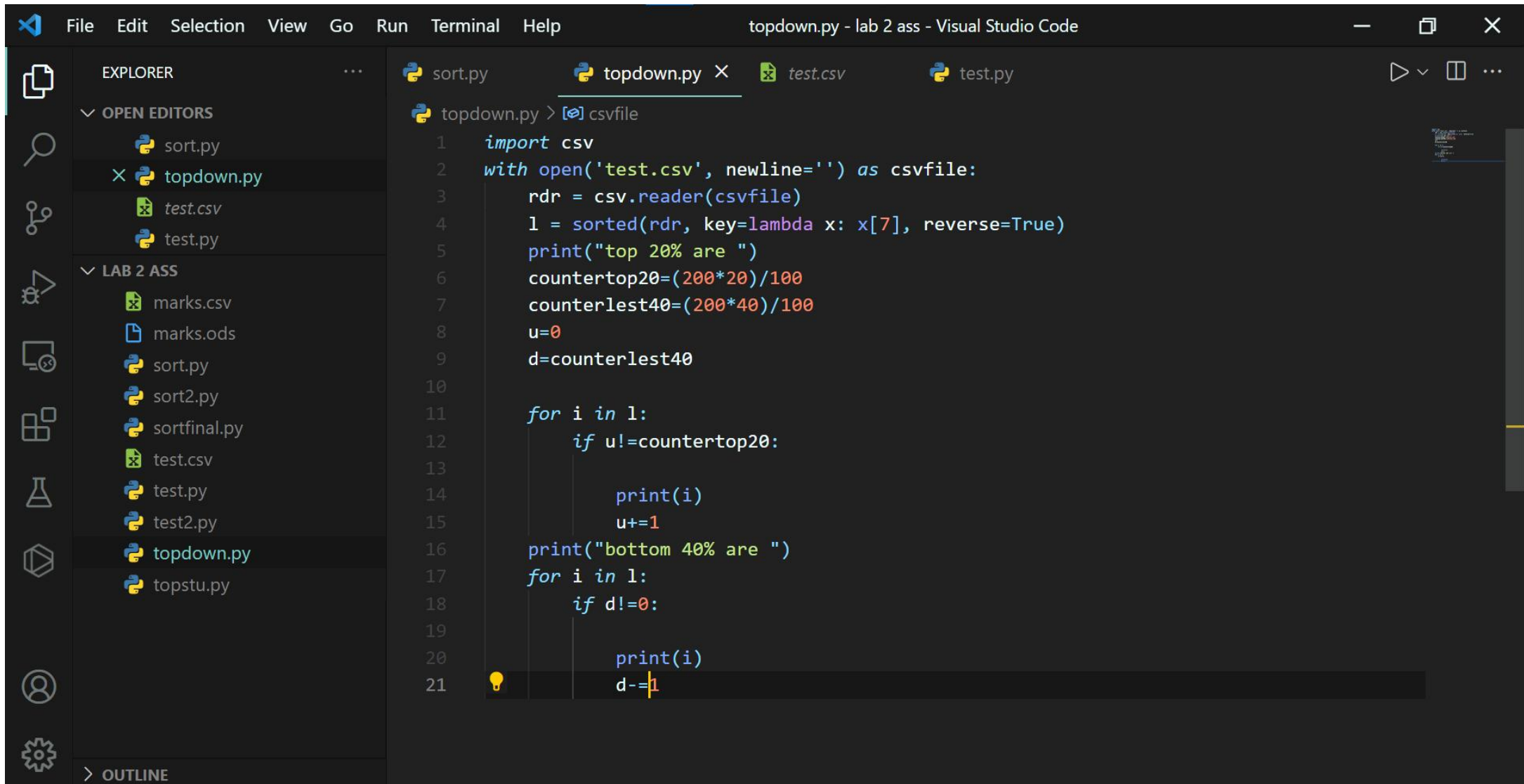


Lab 2 q2 code



topdown.py - lab 2 ass - Visual Studio Code

EXPLORER

OPEN EDITORS

- sort.py
- topdown.py
- test.csv
- test.py

LAB 2 ASS

- marks.csv
- marks.ods
- sort.py
- sort2.py
- sortfinal.py
- test.csv
- test.py
- test2.py
- topdown.py
- topstu.py

topdown.py > [0] csvfile

```
1 import csv
2 with open('test.csv', newline='') as csvfile:
3     rdr = csv.reader(csvfile)
4     l = sorted(rdr, key=lambda x: x[7], reverse=True)
5     print("top 20% are ")
6     countertop20=(200*20)/100
7     counterlest40=(200*40)/100
8     u=0
9     d=countertop20
10
11     for i in l:
12         if u!=countertop20:
13
14             print(i)
15             u+=1
16     print("bottom 40% are ")
17     for i in l:
18         if d!=0:
19
20             print(i)
21             d-=1
```

OUTLINE

lab 2 q2 output

The screenshot shows the Visual Studio Code interface with the following components:

- Explorer Panel:** Displays the file structure. Under "OPEN EDITORS", `sort.py`, `topdown.py` (selected), and `test.csv` are listed. Under "LAB 2 ASS", `marks.csv`, `marks.ods`, `sort.py`, `sort2.py`, `sortfinal.py`, `test.csv`, `test.py`, `test2.py`, `topdown.py` (selected), and `topstu.py` are listed. The "OUTLINE" panel is collapsed.
- Terminal Panel:** Shows the output of a command. The text "top 20% are" is followed by a list of 20 rows of data, each containing 8 comma-separated values in single quotes.
- Terminal Output:**

```
top 20% are
['Sno', 'Math', 'CS', 'GK', 'Prog', 'Comm', 'Sel', 'total']
['72', '5', 'NA', 'NA', '5', '-1', '1', '9.0']
['94', '3', 'NA', 'NA', '4', '0', '0', '7.0']
['18', '2', 'NA', 'NA', '4', '0', '0', '6.0']
['17', '0', '5', '0', 'NA', '0', '0', '5.0']
['78', 'NA', 'NA', 'NA', '5', 'NA', '1', '5.0']
['87', '5', 'NA', '0', 'NA', '0', '0', '5.0']
['114', '5', 'NA', 'NA', 'NA', '0', '0', '5.0']
['154', '0', '0', 'NA', '5', 'NA', '0', '5.0']
['155', '5', 'NA', '0', 'NA', 'NA', '0', '5.0']
['187', 'NA', 'NA', 'NA', '5', 'NA', '0', '5.0']
['1', 'NA', 'NA', 'NA', '4', '0', '0', '4.0']
['2', 'NA', 'NA', 'NA', '4', 'NA', '0', '4.0']
['4', '0', 'NA', 'NA', '4', 'NA', '1', '4.0']
['25', '0', '3', '0', '2', '-1', '0', '4.0']
['26', 'NA', 'NA', 'NA', '4', 'NA', '1', '4.0']
['34', 'NA', 'NA', 'NA', '4', 'NA', '0', '4.0']
['39', 'NA', 'NA', 'NA', '4', '0', '0', '4.0']
['56', '0', 'NA', 'NA', '4', 'NA', '0', '4.0']
['59', '0', '-1', 'NA', '5', 'NA', '1', '4.0']
['80', '0', 'NA', 'NA', '4', 'NA', '0', '4.0']
['90', 'NA', 'NA', 'NA', '4', 'NA', '0', '4.0']
['127', '0', 'NA', 'NA', '4', 'NA', '0', '4.0']
['156', 'NA', 'NA', 'NA', '4', 'NA', '0', '4.0']
['158', '0', '0', '0', '4', 'NA', '0', '4.0']
['163', 'NA', 'NA', '0', '4', 'NA', '0', '4.0']
```
- Terminal Tabs:** Two tabs labeled "powershell" are visible on the right side of the terminal panel.

lab 2 q2 output

File Edit Selection View Go Run Terminal Help

topdown.py - lab 2 ass - Visual Studio Code

EXPLORER

OPEN EDITORS

sort.py
topdown.py
test.csv
test.py

LAB 2 ASS

marks.csv
marks.ods
sort.py
sort2.py
sortfinal.py
test.csv
test.py
test2.py
topdown.py
topstu.py

OUTLINE

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

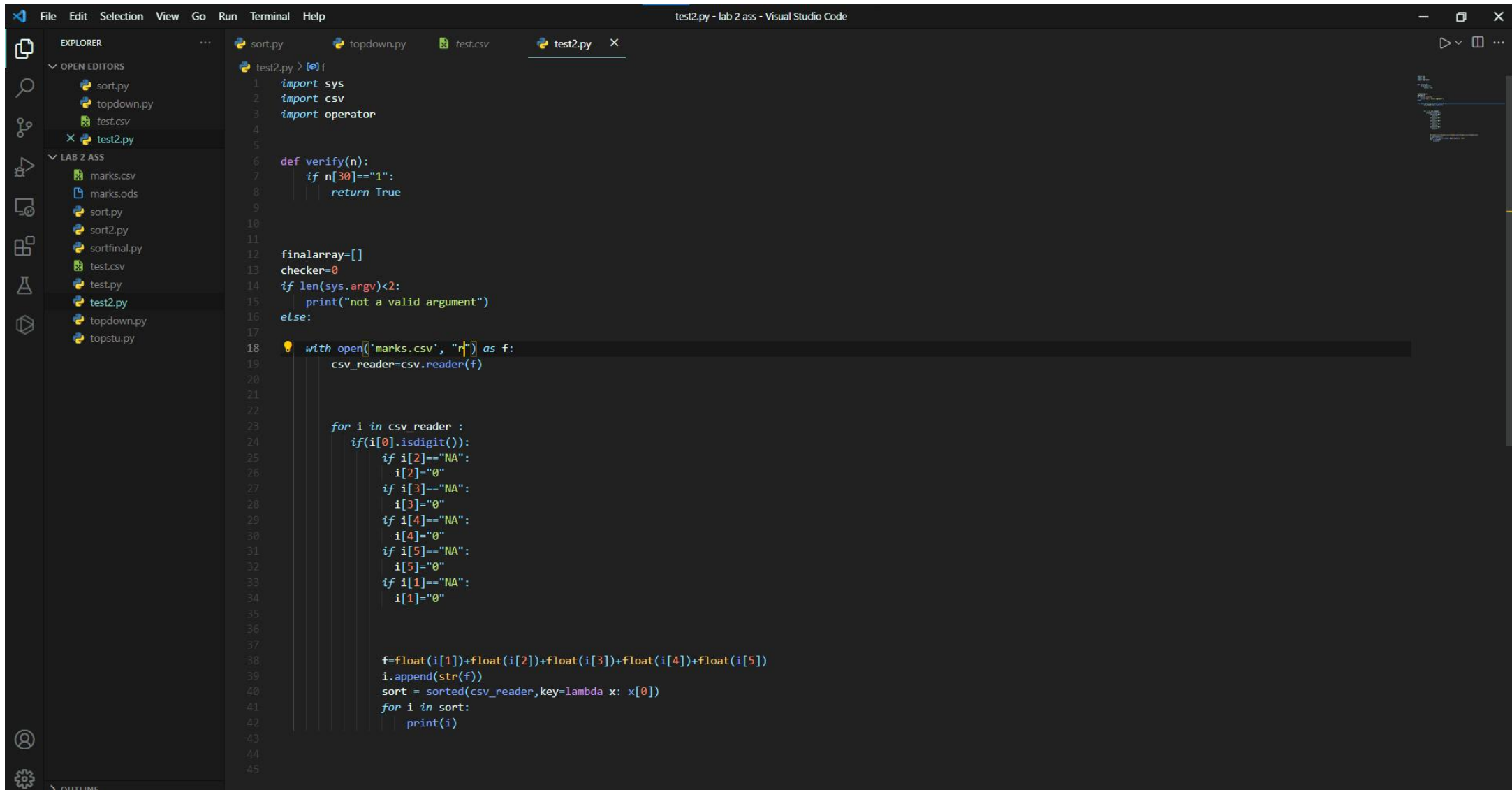
```
['92', '0', 'NA', 'NA', '3', 'NA', '0', '3.0']  
['107', '2', 'NA', '0', '1', 'NA', '0', '3.0']  
['109', 'NA', 'NA', 'NA', '3', 'NA', '0', '3.0']  
['120', 'NA', 'NA', 'NA', '3', 'NA', '0', '3.0']  
['122', 'NA', 'NA', 'NA', '3', 'NA', '0', '3.0']  
bottom 40% are  
['Sno', 'Math', 'CS', 'GK', 'Prog', 'Comm', 'Sel', 'total']  
['72', '5', 'NA', 'NA', '5', '-1', '1', '9.0']  
['94', '3', 'NA', 'NA', '4', '0', '0', '7.0']  
['18', '2', 'NA', 'NA', '4', '0', '0', '6.0']  
['17', '0', '5', '0', 'NA', '0', '0', '5.0']  
['78', 'NA', 'NA', 'NA', '5', 'NA', '1', '5.0']  
['87', '5', 'NA', '0', 'NA', '0', '0', '5.0']  
['114', '5', 'NA', 'NA', 'NA', '0', '0', '5.0']  
['154', '0', '0', 'NA', '5', 'NA', '0', '5.0']  
['155', '5', 'NA', '0', 'NA', 'NA', '0', '5.0']  
['187', 'NA', 'NA', 'NA', '5', 'NA', '0', '5.0']  
['1', 'NA', 'NA', 'NA', '4', '0', '0', '4.0']  
['2', 'NA', 'NA', 'NA', '4', 'NA', '0', '4.0']  
['4', '0', 'NA', 'NA', '4', 'NA', '1', '4.0']  
['25', '0', '3', '0', '2', '-1', '0', '4.0']  
['26', 'NA', 'NA', 'NA', '4', 'NA', '1', '4.0']  
['34', 'NA', 'NA', 'NA', '4', 'NA', '0', '4.0']  
['39', 'NA', 'NA', 'NA', '4', '0', '0', '4.0']  
['56', '0', 'NA', 'NA', '4', 'NA', '0', '4.0']  
['59', '0', '-1', 'NA', '5', 'NA', '1', '4.0']  
['80', '0', 'NA', 'NA', '4', 'NA', '0', '4.0']
```

+ v v x

powershell
powershell

Python 3.9.5 64-bit 0 0 tabnine Ln 21, Col 16 Spaces: 4 UTF-8 CRLF Python Go Live Prettier

lab 2 q1 to code to add extra total marks collum in csv file



The screenshot shows the Visual Studio Code interface with a Python script named `test2.py` open in the editor. The script is designed to read a CSV file named `marks.csv`, calculate a total mark for each row, and append this total to the end of each row. The script includes a `verify` function to check for a specific condition in the CSV data. The Explorer sidebar on the left shows the project structure, including files like `sort.py`, `topdown.py`, `test.csv`, and `test2.py`. The LAB 2 ASS section contains files like `marks.csv`, `marks.ods`, and various `sort` files.

```
test2.py > [0] f
1  import sys
2  import csv
3  import operator
4
5
6  def verify(n):
7      if n[30]=="1":
8          return True
9
10
11
12  finalarray=[]
13  checker=0
14  if len(sys.argv)<2:
15      print("not a valid argument")
16  else:
17
18      with open('marks.csv', "r") as f:
19          csv_reader=csv.reader(f)
20
21
22
23          for i in csv_reader :
24              if(i[0].isdigit()):
25                  if i[2]=="NA":
26                      i[2]="0"
27                  if i[3]=="NA":
28                      i[3]="0"
29                  if i[4]=="NA":
30                      i[4]="0"
31                  if i[5]=="NA":
32                      i[5]="0"
33                  if i[1]=="NA":
34                      i[1]="0"
35
36
37
38              f=float(i[1])+float(i[2])+float(i[3])+float(i[4])+float(i[5])
39              i.append(str(f))
40              sort = sorted(csv_reader,key=lambda x: x[0])
41              for i in sort:
42                  print(i)
43
44
45
```

lab 2 q1 code for sorting new csv file

The screenshot displays the Visual Studio Code interface. The Explorer sidebar on the left shows the project structure under 'LAB 2 ASS', including files like marks.csv, marks.ods, sort.py, sort2.py, sortfinal.py, test.csv, test.py, test2.py, and topstu.py. The main editor window shows the code for sortfinal.py, which is currently open. The code imports the csv module, opens 'test.csv' as a csvfile, creates a csv reader, sorts the data by the 7th column in descending order, and prints the sorted list. The bottom panel shows the terminal output of the script, displaying five rows of sorted data. The terminal prompt is PS C:\Users\sudeep\Desktop\lab 2 ass>.

```
sortfinal.py > [?] csvfile
1 import csv
2 with open('test.csv', newline='') as csvfile:
3     rdr = csv.reader(csvfile)
4     l = sorted(rdr, key=lambda x: x[7], reverse=True)
5     for i in l:
6         print(i)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
['22', 'NA', 'NA', '-1', 'NA', 'NA', '0', '-1.0']
['63', 'NA', 'NA', 'NA', 'NA', '-1', '0', '-1.0']
['64', '0', 'NA', '-1', 'NA', '0', '0', '-1.0']
['75', 'NA', 'NA', '-1', 'NA', '0', '0', '-1.0']
['89', 'NA', '-1', '0', 'NA', '0', '0', '-1.0']
PS C:\Users\sudeep\Desktop\lab 2 ass>
```

Code
powershell
powershell
powershell
powershell

lab2 q1 output

sortfinal.py - lab 2 ass - Visual Studio Code

EXPLORER

OPEN EDITORS

- sort.py
- sortfinal.py
- test.csv
- test.py
- test2.py
- sort2.py
- topstu.py
- marks.csv

LAB 2 ASS

- marks.csv
- marks.ods
- sort.py
- sort2.py
- sortfinal.py
- test.csv
- test.py
- test2.py
- topstu.py

OUTLINE

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
[ '153', 'NA', 'NA', 'NA', '2', 'NA', '0', '2.0' ]  
[ '161', '0', 'NA', 'NA', '2', 'NA', '0', '2.0' ]  
[ '168', 'NA', 'NA', 'NA', '2', 'NA', '0', '2.0' ]  
[ '173', 'NA', 'NA', '0', '2', 'NA', '0', '2.0' ]  
[ '189', '0', 'NA', 'NA', '2', 'NA', '0', '2.0' ]  
[ '193', 'NA', '0', '0', '2', '0', '0', '2.0' ]  
[ '200', 'NA', 'NA', 'NA', '2', 'NA', '0', '2.0' ]  
[ '128', '2', 'NA', 'NA', '5', '5', '1', '12.0' ]  
[ '29', '5', '5', '0', 'NA', 'NA', '0', '10.0' ]  
[ '131', 'NA', '5', 'NA', '5', 'NA', '0', '10.0' ]  
[ '188', '5', 'NA', 'NA', '5', 'NA', '1', '10.0' ]  
[ '192', '5', '0', '5', 'NA', 'NA', '1', '10.0' ]  
[ '15', 'NA', '-1', 'NA', '2.5', 'NA', '0', '1.5' ]  
[ '11', 'NA', '1', '0', 'NA', '0', '0', '1.0' ]  
[ '21', '0', 'NA', 'NA', '1', 'NA', '0', '1.0' ]  
[ '23', '0', 'NA', 'NA', '1', '0', '0', '1.0' ]  
[ '33', 'NA', 'NA', 'NA', '1', 'NA', '0', '1.0' ]  
[ '35', '-1', 'NA', 'NA', '2', 'NA', '0', '1.0' ]  
[ '41', '0', '0', '0', '1', 'NA', '0', '1.0' ]  
[ '42', 'NA', 'NA', '0', '1', 'NA', '0', '1.0' ]  
[ '43', '0', '1', '0', 'NA', 'NA', '0', '1.0' ]  
[ '51', 'NA', 'NA', 'NA', '1', '0', '0', '1.0' ]  
[ '52', 'NA', '1', 'NA', 'NA', 'NA', '0', '1.0' ]
```

Python 3.9.5 64-bit 0 0 tabnine Ln 1, Col 1 (178 selected) Spaces: 4 UTF-8 CRLF Python Go Live Prettier