```
1 "C:\Program Files\python310\python.exe" C:/Users/
   prati/PycharmProjects/pythonProject9/
   practical1combine.py
 2 Summary Statistics for mtcars:
 3
                            cyl
                                        disp
                 mpq
   am
            gear
                      carb
                      32.000000
 4 count
          32.000000
                                   32.000000
                                                    32.
   000000
          32.000000 32.0000
 5 mean
          20.090625
                       6.187500
                                  230.721875
                                                     0.
   406250
            3.687500
                        2.8125
 6 std
           6.026948
                       1.785922
                                  123.938694
                                                     0.
   498991
            0.737804
                        1.6152
 7 min
          10.400000
                       4.000000
                                   71.100000
                                                     0.
   000000
            3.000000
                        1.0000
 8 25%
          15.425000
                       4.000000
                                  120.825000
                                                     0.
                        2.0000
   000000
            3.000000
 9 50%
          19.200000
                       6.000000
                                  196.300000
                                                     0.
   000000
                        2.0000
            4.000000
10 75%
          22.800000
                       8.000000
                                  326.000000
                                                     1.
   000000
            4.000000
                        4.0000
          33.900000
                       8.000000
11 max
                                 472.000000
                                                     1.
   000000
            5.000000
                        8.0000
12
13 [8 rows x 11 columns]
14
15 General Information for mtcars:
16 <class 'pandas.core.frame.DataFrame'>
17 RangeIndex: 32 entries, 0 to 31
18 Data columns (total 12 columns):
19
   #
                Non-Null Count
        Column
                                  Dtype
20 ---
        _ _ _ _ _
21
        model
                32 non-null
    0
                                 object
22
    1
                32 non-null
                                 float64
        mpq
23
    2
        cyl
                 32 non-null
                                  int64
    3
24
        disp
                 32 non-null
                                 float64
25
    4
                 32 non-null
                                 int64
        hp
    5
26
        drat
                 32 non-null
                                 float64
27
    6
                32 non-null
        wt
                                 float64
28
    7
        qsec
                 32 non-null
                                 float64
29
    8
                 32 non-null
                                 int64
        ٧S
30
    9
                 32 non-null
                                 int64
        am
```

```
31
    10
                32 non-null
                                int64
        gear
32
   11
        carb
                32 non-null
                                int64
33 dtypes: float64(5), int64(6), object(1)
34 memory usage: 3.1+ KB
35 None
36
37 Quartile Information for mtcars:
38
            mpg cyl
                         disp
                                  hp
                                       drat
               am qear
                         carb
   qsec
          ٧S
39 0.25
                4.0
                      120.825
                                      3.080
         15.425
                               96.5
                                                  16.
                    3.0
   8925
        0.0 0.0
                          2.0
40 0.50
         19.200 6.0
                     196.300
                               123.0
                                      3.695
                                                  17.
   7100
        0.0 \quad 0.0
                    4.0
                          2.0
         22.800 8.0 326.000
41 0.75
                               180.0 3.920
                                                  18.
   9000
         1.0
              1.0
                    4.0
                          4.0
42
43 [3 rows x 11 columns]
44 Summary Statistics for cars:
45
                mpq
                           cyl
                                      disp
   am
            qear
                     carb
          32.000000
                     32.000000
46 count
                                 32.000000
                                                 32.
   000000 32.000000 32.0000
          20.090625
                      6.187500
                                230.721875
47 mean
                                                  0.
   406250
           3.687500 2.8125
48 std
          6.026948
                      1.785922
                                123.938694
                                                  0.
   498991
         0.737804 1.6152
49 min
          10.400000
                      4.000000
                                 71.100000
                                                  0.
   000000
            3.000000
                     1.0000
50 25%
          15.425000
                      4.000000
                                120.825000
                                                  0.
   000000
            3.000000
                     2.0000
51 50%
          19.200000
                      6.000000
                                196.300000
                                                  0.
   000000
            4.000000
                       2.0000
52 75%
                      8.000000
          22.800000
                                326.000000
                                                  1.
   000000
            4.000000
                       4.0000
          33.900000
                      8.000000
53 max
                                472.000000
                                                  1.
   000000
            5.000000
                       8.0000
54
55 [8 rows x 11 columns]
56
57 General Information for cars:
58 <class 'pandas.core.frame.DataFrame'>
```

```
59 RangeIndex: 32 entries, 0 to 31
60 Data columns (total 12 columns):
61
    #
        Column
                Non-Null Count
                                 Dtype
62 ---
63
    0
        model
                32 non-null
                                 object
64
   1
        mpq
                32 non-null
                                 float64
65
   2
                32 non-null
        cyl
                                 int64
    3
66
        disp
                32 non-null
                                 float64
67
   4
                32 non-null
        hp
                                 int64
68
    5
        drat
                32 non-null
                                 float64
69
   6
                32 non-null
                                 float64
        wt
70
   7
                32 non-null
                                 float64
        qsec
71
    8
        ٧S
                32 non-null
                                 int64
72
   9
                32 non-null
                                 int64
        am
73
    10
                32 non-null
                                 int64
        qear
74
    11
                32 non-null
        carb
                                 int64
75 dtypes: float64(5), int64(6), object(1)
76 memory usage: 3.1+ KB
77 None
78
79 Quartile Information for cars:
80
                 cyl
                          disp
            mpg
                                   hp
                                        drat
               am qear
                          carb
   qsec
          ٧S
81 0.25
         15.425 4.0 120.825
                                96.5
                                       3.080
                                                    16.
                     3.0
   8925
         0.0 0.0
                           2.0
         19.200 6.0
82 0.50
                     196.300
                                123.0
                                       3.695
                                                    17.
                     4.0
                           2.0
   7100
         0.0 \quad 0.0
                      326.000
83 0.75
         22.800 8.0
                                180.0
                                       3.920
                                                    18.
   9000
         1.0
              1.0
                     4.0
                           4.0
84
85 [3 rows x 11 columns]
86 Original Iris dataset:
87
      sepal_length sepal_width petal_length
   petal_width species
88 0
               5.1
                             3.5
                                            1.4
                                                         0
   . 2
       setosa
89 1
               4.9
                             3.0
                                            1.4
                                                         0
   . 2
       setosa
90 2
               4.7
                             3.2
                                            1.3
                                                         0
   . 2
       setosa
91 3
               4.6
                             3.1
                                            1.5
                                                         0
```

```
File - practical1combine
 91.2
        setosa
                              3.6
                                             1.4
 92 4
                 5.0
    0.2 setosa
 93
 94 Subset of Iris Dataset:
 95 0
            True
 96 1
           False
 97 2
           False
 98 3
           False
 99 4
          False
100
           . . .
101 145
          False
        False
102 146
103 147
          False
104 148
           True
105 149
           False
106 Length: 150, dtype: bool
107
108 Aggregate result - Mean petal length for each
    species:
109
                 petal_length
110 species
111 setosa
                        1.464
112 versicolor
                        4.260
113 virginica
                        5.552
114
115 Process finished with exit code 0
116
```