hw 02

Vinay K L

2023-09-10

mtcars[mtcars\$cyl < 6,]</pre>

```
##
                           disp hp drat
                   mpg cyl
                                              wt qsec vs am gear carb
## Datsun 710
                                  93 3.85 2.320 18.61
                  22.8
                         4 108.0
                         4 146.7
## Merc 240D
                  24.4
                                   62 3.69 3.190 20.00
                                                                      2
## Merc 230
                  22.8
                         4 140.8
                                   95 3.92 3.150 22.90
                                                                      2
                                                         1
## Fiat 128
                  32.4
                           78.7
                                   66 4.08 2.200 19.47
                                                                      1
## Honda Civic
                  30.4
                         4 75.7
                                   52 4.93 1.615 18.52
## Toyota Corolla 33.9
                            71.1
                                   65 4.22 1.835 19.90
                                                         1
                                                                      1
## Toyota Corona
                  21.5
                         4 120.1
                                   97 3.70 2.465 20.01
                                                                      1
## Fiat X1-9
                  27.3
                         4 79.0
                                  66 4.08 1.935 18.90
                                                                      1
## Porsche 914-2
                  26.0
                         4 120.3 91 4.43 2.140 16.70
                                                         0
                                                                      2
                                                                      2
## Lotus Europa
                  30.4
                         4 95.1 113 3.77 1.513 16.90
                                                         1
## Volvo 142E
                  21.4
                         4 121.0 109 4.11 2.780 18.60
                                                                      2
```

mtcars[-(1:3),]

```
##
                        mpg cyl disp hp drat
                                                   wt
                                                       qsec vs am gear carb
## Hornet 4 Drive
                               6 258.0 110 3.08 3.215 19.44
                       21.4
                                                              1
                                                                            1
## Hornet Sportabout
                        18.7
                               8 360.0 175 3.15 3.440 17.02
                                                                      3
                                                                            2
## Valiant
                               6 225.0 105 2.76 3.460 20.22
                       18.1
## Duster 360
                        14.3
                               8 360.0 245 3.21 3.570 15.84
                                                                      3
                                                              0
                                                                 0
                                                                            4
## Merc 240D
                        24.4
                               4 146.7
                                        62 3.69 3.190 20.00
                                                                            2
## Merc 230
                       22.8
                               4 140.8
                                       95 3.92 3.150 22.90
                                                                            2
## Merc 280
                       19.2
                               6 167.6 123 3.92 3.440 18.30
                                                                            4
## Merc 280C
                               6 167.6 123 3.92 3.440 18.90
                                                                      4
                                                                            4
                        17.8
                                                                      3
## Merc 450SE
                        16.4
                               8 275.8 180 3.07 4.070 17.40
                                                              0
                                                                            3
                                                                      3
## Merc 450SL
                       17.3
                               8 275.8 180 3.07 3.730 17.60
                                                                            3
## Merc 450SLC
                        15.2
                               8 275.8 180 3.07 3.780 18.00
                               8 472.0 205 2.93 5.250 17.98
                                                                      3
## Cadillac Fleetwood 10.4
                                                                            4
## Lincoln Continental 10.4
                               8 460.0 215 3.00 5.424 17.82
                                                                      3
                                                                            4
                                                                      3
## Chrysler Imperial
                        14.7
                               8 440.0 230 3.23 5.345 17.42
## Fiat 128
                        32.4
                                  78.7
                                        66 4.08 2.200 19.47
                                                                      4
                                                                            1
## Honda Civic
                        30.4
                                  75.7
                                        52 4.93 1.615 18.52
                                                                      4
                                                                            2
                        33.9
                                                                      4
## Toyota Corolla
                               4 71.1
                                        65 4.22 1.835 19.90
                                                                            1
## Toyota Corona
                        21.5
                               4 120.1
                                        97 3.70 2.465 20.01
                                                                            2
## Dodge Challenger
                       15.5
                               8 318.0 150 2.76 3.520 16.87
                                                              0
                                                                      3
## AMC Javelin
                        15.2
                               8 304.0 150 3.15 3.435 17.30
                                                                      3
                                                                            2
                                                                      3
                                                                            4
## Camaro Z28
                        13.3
                               8 350.0 245 3.73 3.840 15.41
                                                                 Λ
## Pontiac Firebird
                       19.2
                               8 400.0 175 3.08 3.845 17.05
                                                                            2
                               4 79.0 66 4.08 1.935 18.90
## Fiat X1-9
                        27.3
                                                                            1
```

```
26.0
                             4 120.3 91 4.43 2.140 16.70 0 1
## Porsche 914-2
## Lotus Europa
                      30.4
                            4 95.1 113 3.77 1.513 16.90 1 1
                                                                 5
                                                                      2
                      15.8
## Ford Pantera L
                            8 351.0 264 4.22 3.170 14.50 0 1
                                                                      4
## Ferrari Dino
                             6 145.0 175 3.62 2.770 15.50 0 1
                                                                      6
                      19.7
## Maserati Bora
                      15.0
                            8 301.0 335 3.54 3.570 14.60
                                                                 5
                                                                      8
## Volvo 142E
                      21.4
                            4 121.0 109 4.11 2.780 18.60 1 1
                                                                      2
mtcars[mtcars$cyl == 8, ]
##
                       mpg cyl disp hp drat
                                                wt qsec vs am gear carb
## Hornet Sportabout
                      18.7
                             8 360.0 175 3.15 3.440 17.02
                                                          0 0
                                                                      2
## Duster 360
                      14.3
                            8 360.0 245 3.21 3.570 15.84
                                                             0
                                                                      4
## Merc 450SE
                                                                      3
                      16.4
                            8 275.8 180 3.07 4.070 17.40 0
                                                            0
                                                                 3
## Merc 450SL
                      17.3
                            8 275.8 180 3.07 3.730 17.60
## Merc 450SLC
                      15.2
                            8 275.8 180 3.07 3.780 18.00
                                                          0 0
                                                                 3
                                                                      3
## Cadillac Fleetwood 10.4
                            8 472.0 205 2.93 5.250 17.98
                                                          0
                                                            0
                                                                 3
## Lincoln Continental 10.4
                            8 460.0 215 3.00 5.424 17.82 0
                                                            Ω
                                                                 3
                                                                      4
## Chrysler Imperial 14.7
                            8 440.0 230 3.23 5.345 17.42 0
                            8 318.0 150 2.76 3.520 16.87 0 0
                                                                 3
                                                                      2
## Dodge Challenger
                      15.5
## AMC Javelin
                            8 304.0 150 3.15 3.435 17.30 0
                                                                 3
                                                                      2
                      15.2
                                                             Ω
                                                                 3
## Camaro Z28
                      13.3
                            8 350.0 245 3.73 3.840 15.41 0 0
                                                                      4
## Pontiac Firebird
                      19.2 8 400.0 175 3.08 3.845 17.05 0 0
                                                                 3
                                                                      2
                      15.8
                            8 351.0 264 4.22 3.170 14.50 0 1
## Ford Pantera L
                                                                 5
                                                                      4
                             8 301.0 335 3.54 3.570 14.60 0 1
## Maserati Bora
                      15.0
```

mtcars[mtcars\$cyl == 4 | mtcars\$cyl == 6,]

```
##
                 mpg cyl disp hp drat
                                          wt qsec vs am gear carb
## Mazda RX4
                 21.0
                       6 160.0 110 3.90 2.620 16.46 0 1
## Mazda RX4 Wag 21.0
                       6 160.0 110 3.90 2.875 17.02 0 1
                                                                 4
                 22.8
                      4 108.0 93 3.85 2.320 18.61
## Datsun 710
                                                    1 1
                                                                1
## Hornet 4 Drive 21.4 6 258.0 110 3.08 3.215 19.44
                                                   1 0
                                                                1
## Valiant
                18.1 6 225.0 105 2.76 3.460 20.22
                                                   1 0
                                                                1
                 24.4 4 146.7 62 3.69 3.190 20.00
## Merc 240D
                                                    1
                                                       0
## Merc 230
                 22.8
                      4 140.8 95 3.92 3.150 22.90
                                                       0
                                                            4
                                                                2
                                                    1
## Merc 280
                19.2 6 167.6 123 3.92 3.440 18.30
                                                    1 0
                      6 167.6 123 3.92 3.440 18.90
## Merc 280C
                 17.8
                                                    1 0
                                                                4
## Fiat 128
                 32.4
                      4 78.7 66 4.08 2.200 19.47
                                                    1 1
                                                            4
                                                                1
## Honda Civic
                 30.4
                      4 75.7 52 4.93 1.615 18.52
                                                            4
                                                                2
                                                    1 1
## Toyota Corolla 33.9
                     4 71.1 65 4.22 1.835 19.90
                                                                1
## Toyota Corona 21.5 4 120.1 97 3.70 2.465 20.01
                                                   1 0
                                                                1
## Fiat X1-9
                 27.3
                      4 79.0 66 4.08 1.935 18.90
                                                    1
                                                                1
## Porsche 914-2 26.0 4 120.3 91 4.43 2.140 16.70
                                                    0 1
                                                           5
                                                                2
                 30.4 4 95.1 113 3.77 1.513 16.90
                                                                2
## Lotus Europa
                                                    1 1
                19.7
                       6 145.0 175 3.62 2.770 15.50
                                                                6
## Ferrari Dino
                                                   0 1
                                                            5
                 21.4
                       4 121.0 109 4.11 2.780 18.60 1 1
                                                                2
## Volvo 142E
```