Lecture Assignment 5

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2022-04-15

library(tidyverse)

```
## -- Attaching packages ------- tidyverse 1.3.1 --
## v ggplot2 3.3.5  v purr  0.3.4
## v tibble 3.1.6  v dplyr  1.0.8
## v tidyr  1.2.0  v stringr 1.4.0
## v readr  2.1.2  v forcats 0.5.1

## -- Conflicts ------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag() masks stats::lag()
```

Part 4.4

Question 1

The code does not work because "my_variable" is missing a dot on the 'i'. Therefore, "my_variable" is not found because it was never created as an object. Instead, "my_variable" was created as an object. This is a small syntax error.

```
my_variable <- 10
my_variable</pre>
```

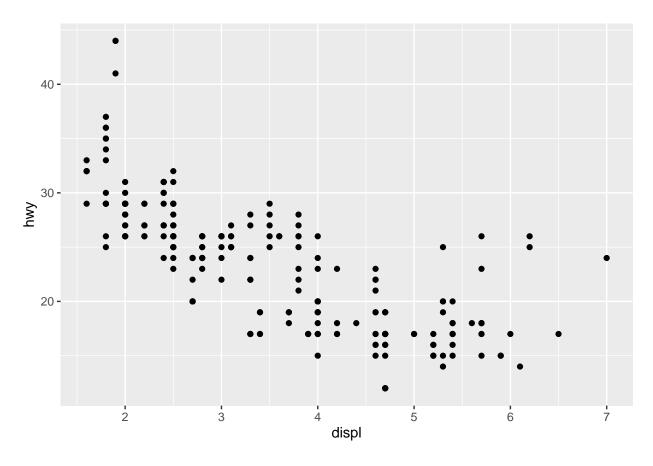
[1] 10

Fixing it makes the code run fine.

Question 2

```
library(tidyverse)

ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy))
```



```
filter(mpg, cyl == 8)
```

A tibble: 70×11

```
cyl trans drv
##
      manufacturer model
                                displ year
                                                                         hwy fl
                                                                                   class
                                                                  cty
##
      <chr>
                    <chr>
                                <dbl> <int> <int> <chr> <int> <int> <chr>
                                                                                   <chr>>
                                                                          23 p
##
    1 audi
                    a6 quattro
                                  4.2
                                       2008
                                                 8 auto~ 4
                                                                   16
                                                                                   mids~
    2 chevrolet
                                       2008
##
                    c1500 sub~
                                  5.3
                                                 8 auto~ r
                                                                   14
                                                                          20 r
                                                                                   suv
##
    3 chevrolet
                    c1500 sub~
                                  5.3
                                       2008
                                                 8 auto~ r
                                                                   11
                                                                          15 e
                                                                                   suv
##
    4 chevrolet
                    c1500 sub~
                                  5.3
                                       2008
                                                                   14
                                                                          20 r
                                                 8 auto~ r
                                                                                   suv
    5 chevrolet
                    c1500 sub~
                                  5.7
##
                                       1999
                                                 8 auto~ r
                                                                   13
                                                                          17 r
                                                                                   suv
##
    6 chevrolet
                    c1500 sub~
                                  6
                                       2008
                                                 8 auto~ r
                                                                   12
                                                                          17 r
                                                                                   suv
##
    7 chevrolet
                    corvette
                                  5.7
                                       1999
                                                 8 manu~ r
                                                                   16
                                                                          26 p
                                                                                   2sea~
##
    8 chevrolet
                    corvette
                                  5.7
                                       1999
                                                 8 auto~ r
                                                                   15
                                                                          23 p
                                                                                   2sea~
    9 chevrolet
                    corvette
                                  6.2
                                       2008
                                                 8 manu~ r
                                                                   16
                                                                          26 p
                                                                                   2sea~
## 10 chevrolet
                                  6.2
                                       2008
                                                                          25 p
                    corvette
                                                 8 auto~ r
                                                                   15
                                                                                   2sea~
## # ... with 60 more rows
```

filter(diamonds, carat > 3)

```
## # A tibble: 32 x 10
##
      carat cut
                     color clarity depth table price
                                                                  у
##
      <dbl> <ord>
                     <ord> <ord>
                                    <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
                                                                    <dbl>
##
       3.01 Premium I
                            Ι1
                                     62.7
                                              58
                                                  8040
                                                        9.1
                                                               8.97
                                                                     5.67
##
    2
      3.11 Fair
                            Ι1
                                     65.9
                                              57
                                                  9823
                                                        9.15
                                                              9.02
                                                                     5.98
##
    3
       3.01 Premium F
                           I1
                                     62.2
                                              56
                                                  9925
                                                        9.24
                                                               9.13
                                                                     5.73
##
    4
       3.05 Premium E
                            Ι1
                                     60.9
                                              58 10453
                                                        9.26
                                                               9.25
                                                                     5.66
##
    5
       3.02 Fair
                     Ι
                            Ι1
                                     65.2
                                              56 10577
                                                        9.11
                                                               9.02
                                                                     5.91
##
    6
       3.01 Fair
                                                        9.54
                     Η
                           Ι1
                                     56.1
                                              62 10761
                                                               9.38
                                                                     5.31
##
    7
       3.65 Fair
                           Ι1
                                     67.1
                                              53 11668
                                                        9.53
                                                               9.48
                                                                     6.38
                                                        9.44
                                                                     5.85
##
    8
       3.24 Premium H
                            Ι1
                                     62.1
                                              58 12300
                                                               9.4
##
       3.22 Ideal
                     Ι
                            Ι1
                                     62.6
                                              55 12545
                                                        9.49
                                                               9.42
                                                                     5.92
                                              57 12587
                                                              9.59
## 10 3.5 Ideal
                     Η
                            I1
                                     62.8
                                                        9.65
                                                                     6.03
## # ... with 22 more rows
```

Question 3

Pressing Alt + Shift + K pops up keyboard shortcuts. We can get to the same place in the menu under Tools -> Keyboard Shortcuts Help.

Part 11.2.2

Question 1

To read a file where fields are separated with "|", we would use the read_delim() function with the argument delim = "|".

Question 2

List of all arguments read_csv() and read_tsv() have in common,

```
intersect(names(formals(read_csv)), names(formals(read_tsv)))
```

```
##
    [1] "file"
                           "col_names"
                                              "col_types"
                                                                 "col_select"
   [5] "id"
                           "locale"
                                              "na"
                                                                 "quoted_na"
##
                                                                 "skip"
                           "comment"
                                              "trim_ws"
##
   [9] "quote"
## [13] "n_max"
                           "guess_max"
                                              "name_repair"
                                                                 "num_threads"
                                              "skip_empty_rows" "lazy"
## [17] "progress"
                           "show_col_types"
```

read_csv() and read_tsv() have the same arguments.

Question 3

col_positions(), which defines the column positions, is the most important argument to read_fwf().