Lab 3: Wrangling sales data

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Exercise 1

i.

 $select(coffeeshop, !cogs) \# !cogs \rightarrow Select all columns except for the cogs column$

ii.

 $select(coffeeshop, starts_with("prod"))$ #Starts_with("prod") \rightarrow product_line, select a column that begins with "prod", such as product

iii.

 $select(coffeeshop, contains("pe")) #contains("pe") \rightarrow Select total_expenses column with "pe" in column name$

iv.

select(coffeeshop, caffeination = type) #Recall and rename the correction = type \rightarrow type column

Exercise 2

```
## # A tibble: 1,844 x 1
## caffeination
## <chr>
## 1 Decaf
## 2 Decaf
## 3 Decaf
## 4 Decaf
## 5 Decaf
## 6 Decaf
```

```
## 7 Decaf
   8 Decaf
##
   9 Decaf
## 10 Decaf
## # i 1,834 more rows
## # A tibble: 181 x 2
##
      product_line product
##
      <chr>
                    <chr>
##
    1 Leaves
                   Darjeeling
    2 Leaves
##
                   Darjeeling
##
    3 Leaves
                   Darjeeling
##
   4 Leaves
                   Darjeeling
##
    5 Leaves
                   Darjeeling
##
   6 Leaves
                   Darjeeling
##
   7 Leaves
                   Darjeeling
##
    8 Leaves
                    Darjeeling
##
    9 Leaves
                    Darjeeling
## 10 Leaves
                    Darjeeling
## # i 171 more rows
Exercise 3
## # A tibble: 1,844 x 10
##
       cogs date
                        market product_line product sales state total_expenses type
##
      <dbl> <date>
                        <chr> <chr>
                                             <chr>
                                                      <dbl> <chr>
                                                                           <dbl> <chr>
##
    1
         95 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       234 Colo~
                                                                               38 Decaf
##
    2
         95 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       234 Illi~
                                                                               52 Decaf
    3
         72 2012-01-01 Centr~ Beans
##
                                             Decaf ~
                                                       180 Colo~
                                                                               55 Decaf
##
        228 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       456 Illi~
                                                                               88 Decaf
##
         58 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       130 Ohio
                                                                               56 Decaf
##
    6
         84 2012-01-01 East
                               Beans
                                             Decaf ~
                                                       200 Flor~
                                                                               49 Decaf
##
    7
         77 2012-01-01 East
                               Beans
                                             Decaf ~
                                                       180 Flor~
                                                                               53 Decaf
##
   8
         83 2012-01-01 South
                               Beans
                                             Decaf ~
                                                       190 Texas
                                                                               39 Decaf
##
         54 2012-01-01 South
                               Beans
                                             Decaf ~
                                                       134 Texas
                                                                               26 Decaf
## 10
        234 2012-01-01 West
                                                       546 Cali~
                               Beans
                                             Decaf ~
                                                                              109 Decaf
## # i 1,834 more rows
## # i 1 more variable: product_profit <dbl>
```

A tibble: 1,844 x 10 ## cogs date market product_line product sales state total_expenses type ## <dbl> <date> <dbl> <chr> <chr> <chr> <chr>> <dbl> <chr> ## 1 95 2012-01-01 Centr~ Beans Decaf ~ 234 Colo~ 38 Decaf ## 95 2012-01-01 Centr~ Beans Decaf ~ 234 Illi~ 52 Decaf ## 3 72 2012-01-01 Centr~ Beans Decaf ~ 180 Colo~ 55 Decaf ## 4 228 2012-01-01 Centr~ Beans Decaf ~ 456 Illi~ 88 Decaf ## 5 58 2012-01-01 Centr~ Beans Decaf ~ 130 Ohio 56 Decaf

```
##
         84 2012-01-01 East
                                             Decaf ~
                                                       200 Flor~
                                                                              49 Decaf
                               Beans
##
   7
         77 2012-01-01 East
                               Beans
                                             Decaf ~
                                                       180 Flor~
                                                                              53 Decaf
##
         83 2012-01-01 South
                                             Decaf ~
                                                       190 Texas
                                                                              39 Decaf
                               Beans
##
   9
         54 2012-01-01 South
                                                       134 Texas
                                                                              26 Decaf
                               Beans
                                             Decaf ~
        234 2012-01-01 West
## 10
                               Beans
                                             Decaf ~
                                                       546 Cali~
                                                                             109 Decaf
## # i 1,834 more rows
## # i 1 more variable: 'sales - (cogs + total_expenses)' <dbl>
```

Exercise 4

```
## # A tibble: 1,844 x 11
##
       cogs date
                        market product_line product sales state total_expenses type
##
      <dbl> <date>
                        <chr>
                               <chr>>
                                             <chr>>
                                                     <dbl> <chr>
                                                                           <dbl> <chr>
##
    1
         95 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       234 Colo~
                                                                               38 Decaf
##
    2
         95 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       234 Illi~
                                                                               52 Decaf
##
         72 2012-01-01 Centr~ Beans
    3
                                             Decaf ~
                                                       180 Colo~
                                                                               55 Decaf
##
    4
        228 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       456 Illi~
                                                                               88 Decaf
   5
         58 2012-01-01 Centr~ Beans
##
                                             Decaf ~
                                                       130 Ohio
                                                                               56 Decaf
##
         84 2012-01-01 East
                                             Decaf ~
                                                       200 Flor~
                                                                               49 Decaf
    6
                               Beans
         77 2012-01-01 East
##
    7
                               Beans
                                            Decaf ~
                                                       180 Flor~
                                                                              53 Decaf
##
   8
         83 2012-01-01 South
                                             Decaf ~
                                                       190 Texas
                                                                              39 Decaf
                               Beans
##
         54 2012-01-01 South Beans
                                             Decaf ~
                                                       134 Texas
                                                                              26 Decaf
        234 2012-01-01 West
## 10
                               Beans
                                             Decaf ~
                                                       546 Cali~
                                                                             109 Decaf
## # i 1,834 more rows
## # i 2 more variables: product_profit <dbl>, expiration_date <date>
```

Exercise 5

```
## # A tibble: 10 x 10
                        market product_line product sales state total_expenses type
##
       cogs date
##
      <dbl> <date>
                        <chr> <chr>
                                             <chr>
                                                     <dbl> <chr>
                                                                           <dbl> <chr>
##
   1
         95 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       234 Colo~
                                                                              38 Decaf
##
   2
         95 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       234 Illi~
                                                                              52 Decaf
         72 2012-01-01 Centr~ Beans
##
   3
                                             Decaf ~
                                                       180 Colo~
                                                                              55 Decaf
        228 2012-01-01 Centr~ Beans
##
                                             Decaf ~
                                                       456 Illi~
                                                                              88 Decaf
##
   5
         58 2012-01-01 Centr~ Beans
                                             Decaf ~
                                                       130 Ohio
                                                                              56 Decaf
##
   6
         84 2012-01-01 East
                                             Decaf ~
                                                       200 Flor~
                                                                              49 Decaf
                               Beans
         77 2012-01-01 East
                                             Decaf ~
                                                                              53 Decaf
##
   7
                               Beans
                                                       180 Flor~
         83 2012-01-01 South
##
   8
                               Beans
                                             Decaf ~
                                                       190 Texas
                                                                              39 Decaf
##
   9
         54 2012-01-01 South
                                                       134 Texas
                                                                              26 Decaf
                               Beans
                                             Decaf ~
## 10
        234 2012-01-01 West
                                                       546 Cali~
                                                                             109 Decaf
                               Beans
                                             Decaf ~
## # i 1 more variable: product_profit <dbl>
```

Exercise 6

Exercise 7