

EC 361–001

R Practice 2

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INSTRUCTIONS: R Practices have the purpose of making students comfortable with the basics of R and RStudio for empirical macroeconomic analysis.

In this practice, you will improve your **intuition** about the main {tidyverse} functions: `select()`, `filter()`, `mutate()`, and `group_by()`. Not only is it important to know how to apply them in your own tasks, but also to **interpret** what a *pipeline* is doing when you are manipulating your data.

Have fun!

Problem 1

Suppose you are working with an R object called `price_data` in your RStudio environment. (This file does not exist in reality.) It looks like the following:

```
price_data

## # A tibble: 9 × 3
##   year price state
##   <dbl> <dbl> <chr>
## 1 2006   2.5  NY
## 2 2007   3    LA
## 3 2008   3.15 CA
## 4 2015   2    ID
## 5 2006   1.15 VT
## 6 2008   2.75 NY
## 7 2008   4    CT
## 8 2007   5.15 CT
## 9 2015   2    NY
```

For the following 5 parts, write down, in plain English, what each pipeline is trying to extract from this data set:

(a)

```
price_data %>%
  select(year, price)
```

(b)

```
price_data %>%
  filter(year > 2008)
```

(c)

```
price_data_subset <- price_data %>%
  filter(state %in% c("NY", "CT"))
```

(d)

```
price_data %>%
  mutate(price_cents = price * 100)
```

(e)

```
price_data %>%
  group_by(year) %>%
  summarize(mean_price = mean(price))
```