Linegraph Lab

Your Name

2023-02-01

Line Graphs

Using the housing dataset, we want to see the trends of the house values over time.

Filter only the first Quarter from each year (`Qrtr == 1`) when considering the different years and discard all other rows. Use either the "filter" function (install the dplyr library) or "subset" function from Base R to accomplish this.
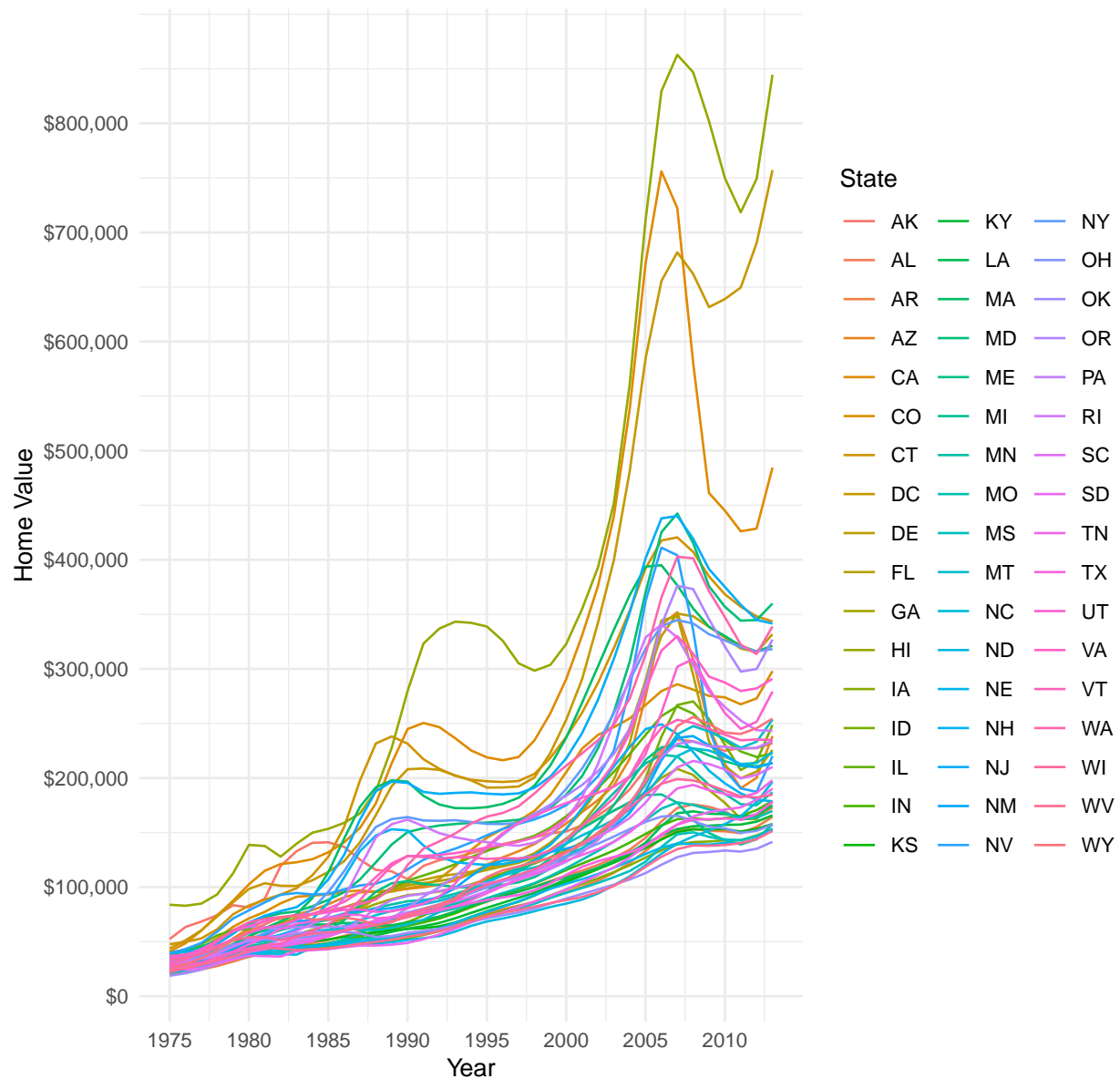
Do all of the following:

  i. Have different colored lines for different states.

 ii. Make sure the x-axis has ticks starting with 1975 and ending with 2013 with ticks every 5 years in-between.

iii. Make sure the y-axis has ticks for every 100,000 (starting with 100,000 and ending with 800,000) but format it in a dollar amount $XXX,XXX. Use the dollar_format() function from the scales package to accomplish this.

 iv. Change the y-axis label to one that does not have a period between the words.

  v. Add an appropriate title.

```
setwd("C:/Users/tomse/OneDrive/Desktop/Data Viz")
library(dplyr)
library(scales)
housing<-read.csv("housing.csv", header=T)
housing_qrtr <- housing%>%
                 filter(Qrtr==1)
 all_states <- ggplot(housing_qrtr) +
  aes(x = Year, y = Home.Value, colour = State) +
  geom_line() +
  scale_color_hue(direction = 1) +
  theme_minimal()+
  scale_y_continuous("Home Value", breaks = seq(0, 800000, by=100000),labels=scales::dollar_format())+
  scale_x_continuous("Year", breaks = seq(1975, 2013, by= 5))+
   ggtitle("Rising and Falling Home Values")

 all_states
```
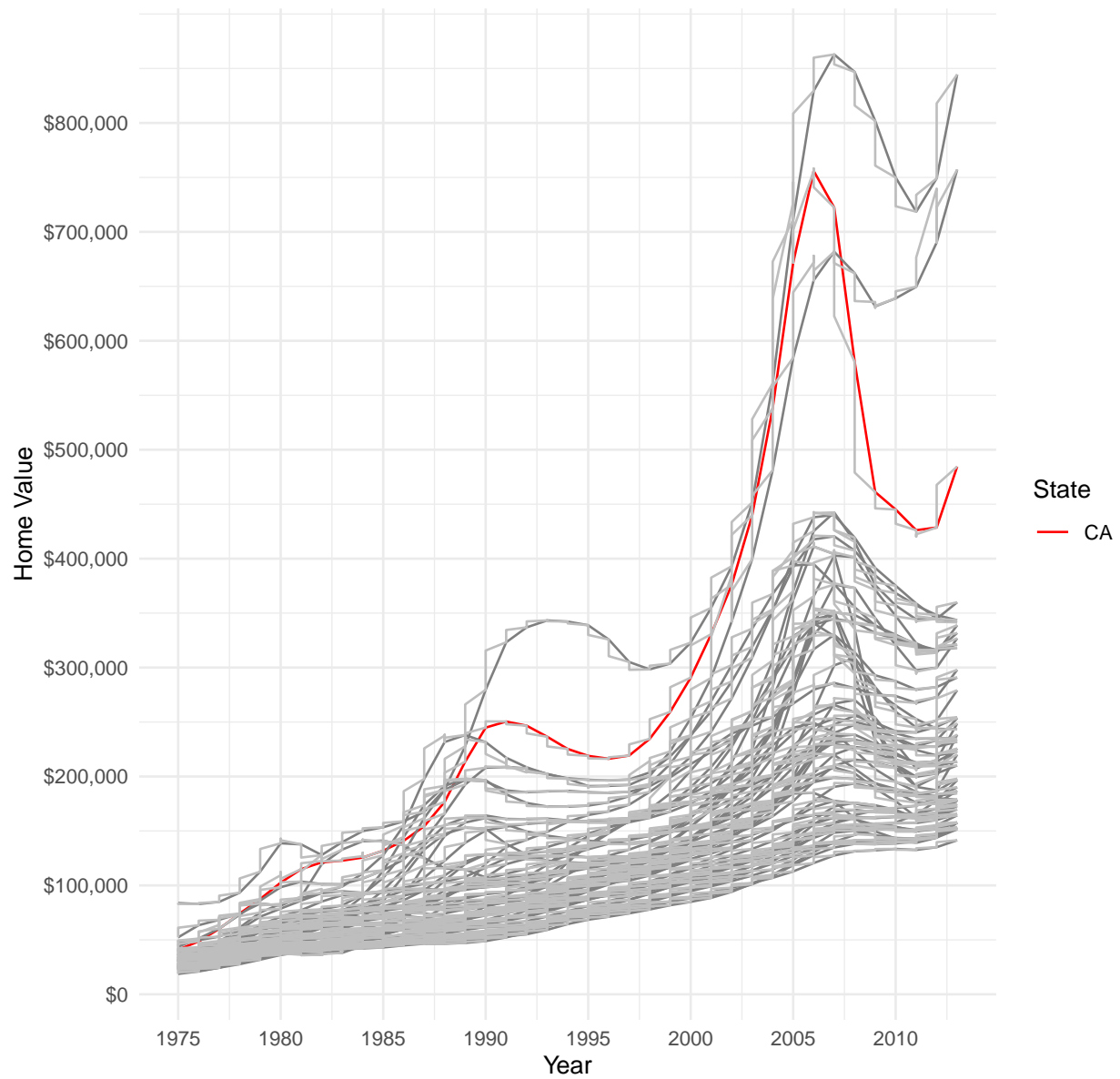
Rising and Falling Home Values

Now, color all lines gray except for California. Make California red. Add a nicer theme.

```
CA_red <- all_states + geom_line(data = housing, aes(group = State), color = "grey") +
    scale_color_manual(values = c("CA" = "red"))

CA_red
```

Rising and Falling Home Values

What happened around 2008 that might be relevant to the dip in home prices everywhere? Was California more or less affected during this dip in prices?

Your Answer Mortgage market crash, recession