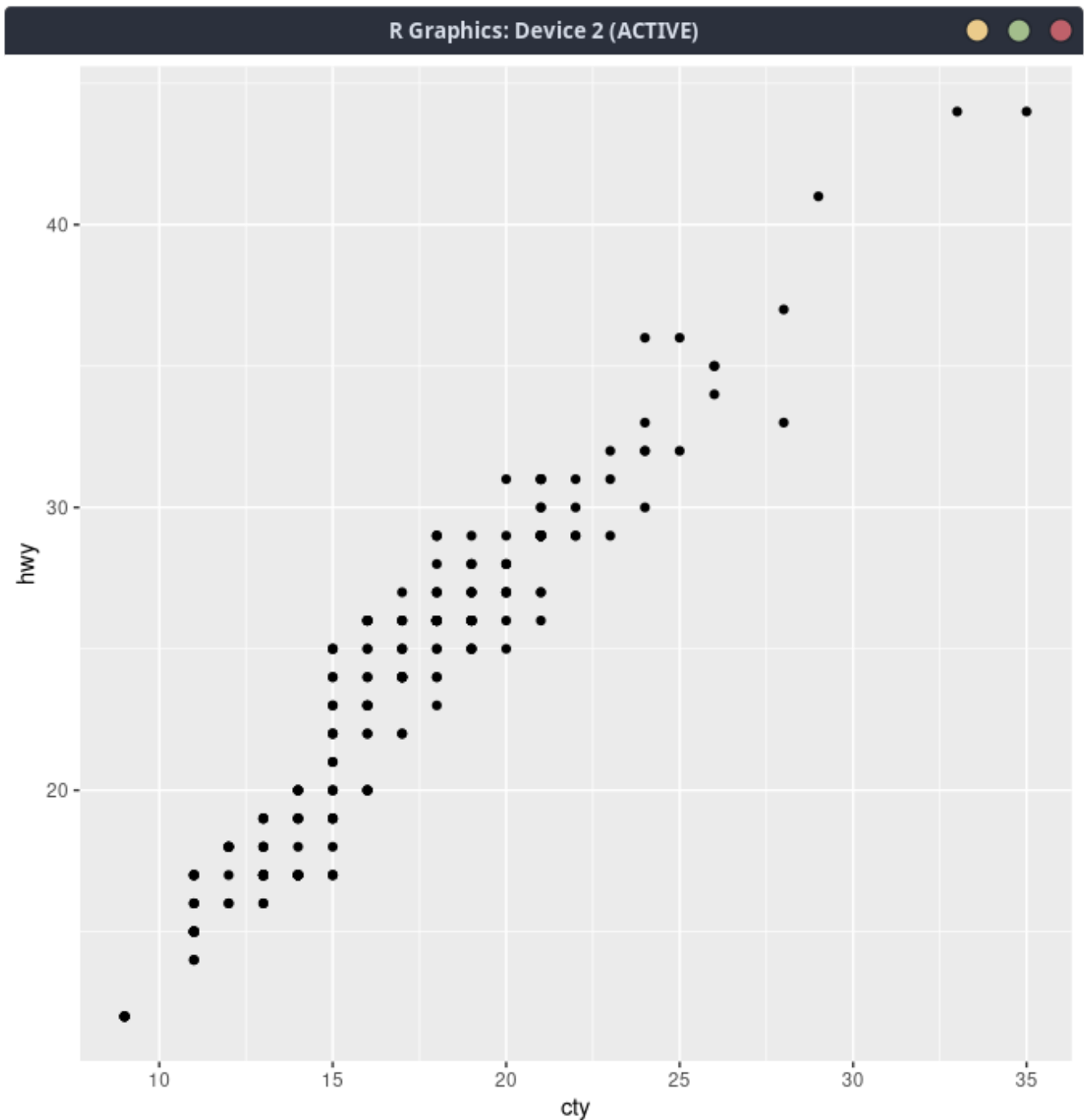

Section 28.2.1

3. Take an exploratory graphic that you've created in the last month, and add informative titles to make it easier for others to understand.

```
I have chosen to do the first graph we have done in this class
```

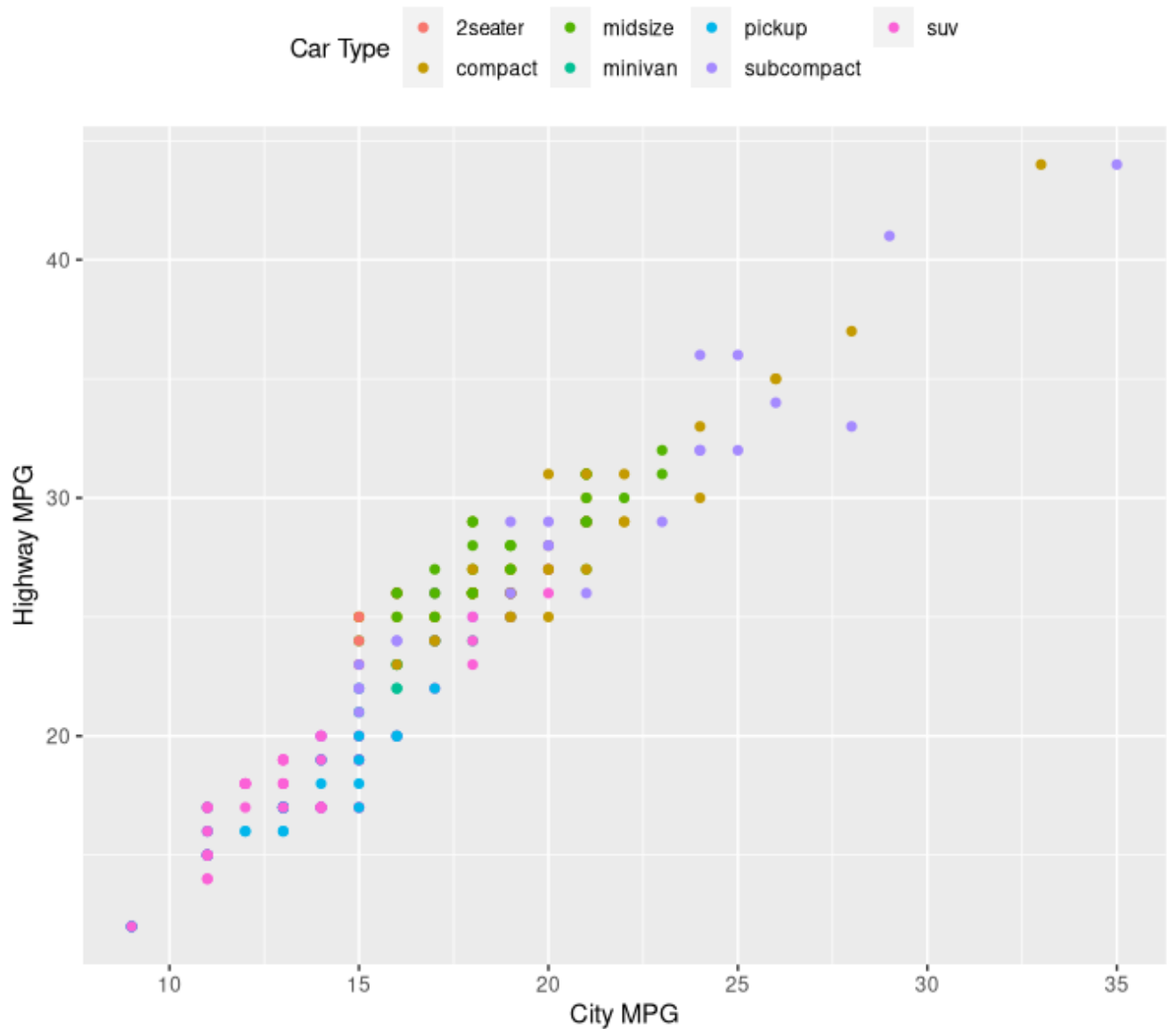
```
ggplot(data = mpg) + geom_point(mapping = aes(x = manufacturer, y = hwy))
```



```
ggplot(data = mpg) +  
  geom_point(mapping = aes(x = cty, y = hwy, color=class)) +  
  labs(  
    title = "City MPG vs Highway MPG",  
    subtitle = "Comparing the city mpg and the highway mpg for all points",  
    caption = "I just wanted to prove that I can generate a caption",  
    x="City MPG",  
    y="Highway MPG",  
    color="Car Type"  
  ) +  
  theme(  
    legend.position = "top"  
  )
```

City MPG vs Highway MPG

Comparing the city mpg and the highway mpg for all points



I just wanted to prove that I can generate a caption

Section 28.3.1

3. How do labels with `geom_text()` interact with faceting? How can you add a label to a single facet? How can you put a different label in each facet? (Hint: think about the underlying data.)

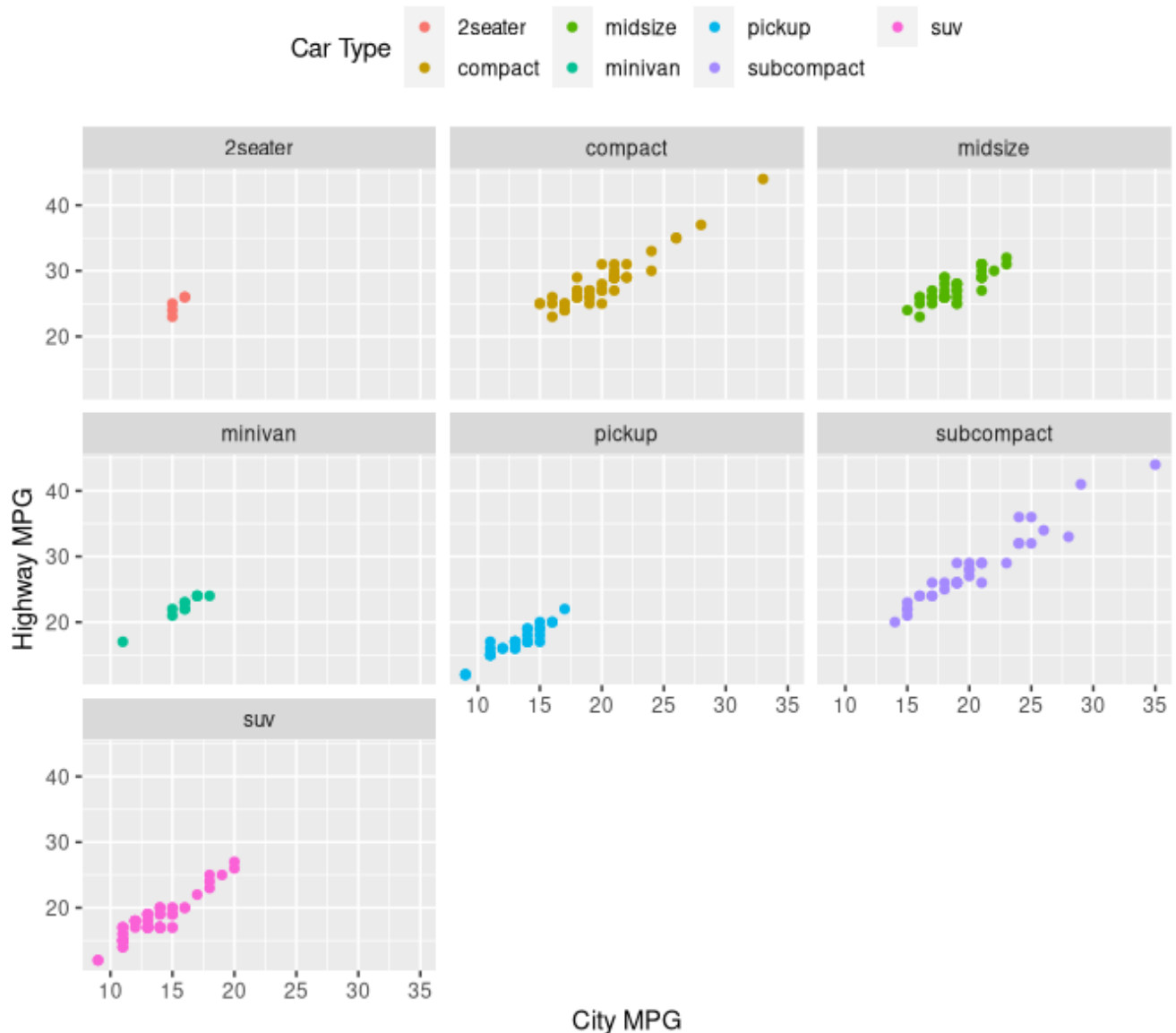
I decided to facet the above graph

```
ggplot(data = mpg) +  
  geom_point(mapping = aes(x = cty, y = hwy, color=class)) +  
  labs( title = "City MPG vs Highway MPG", subtitle = "Comparing the city mpg  
and the highway mpg for all points", caption = "I just wanted to prove that  
I can generate a caption", x="City MPG",y="Highway MPG", color="Car Type")  
+  
  theme(legend.position = "top") +  
  facet_wrap(~class)
```

R Graphics: Device 2 (ACTIVE)

City MPG vs Highway MPG

Comparing the city mpg and the highway mpg for all points



I just wanted to prove that I can generate a caption

If I add text it will impact the entire graph

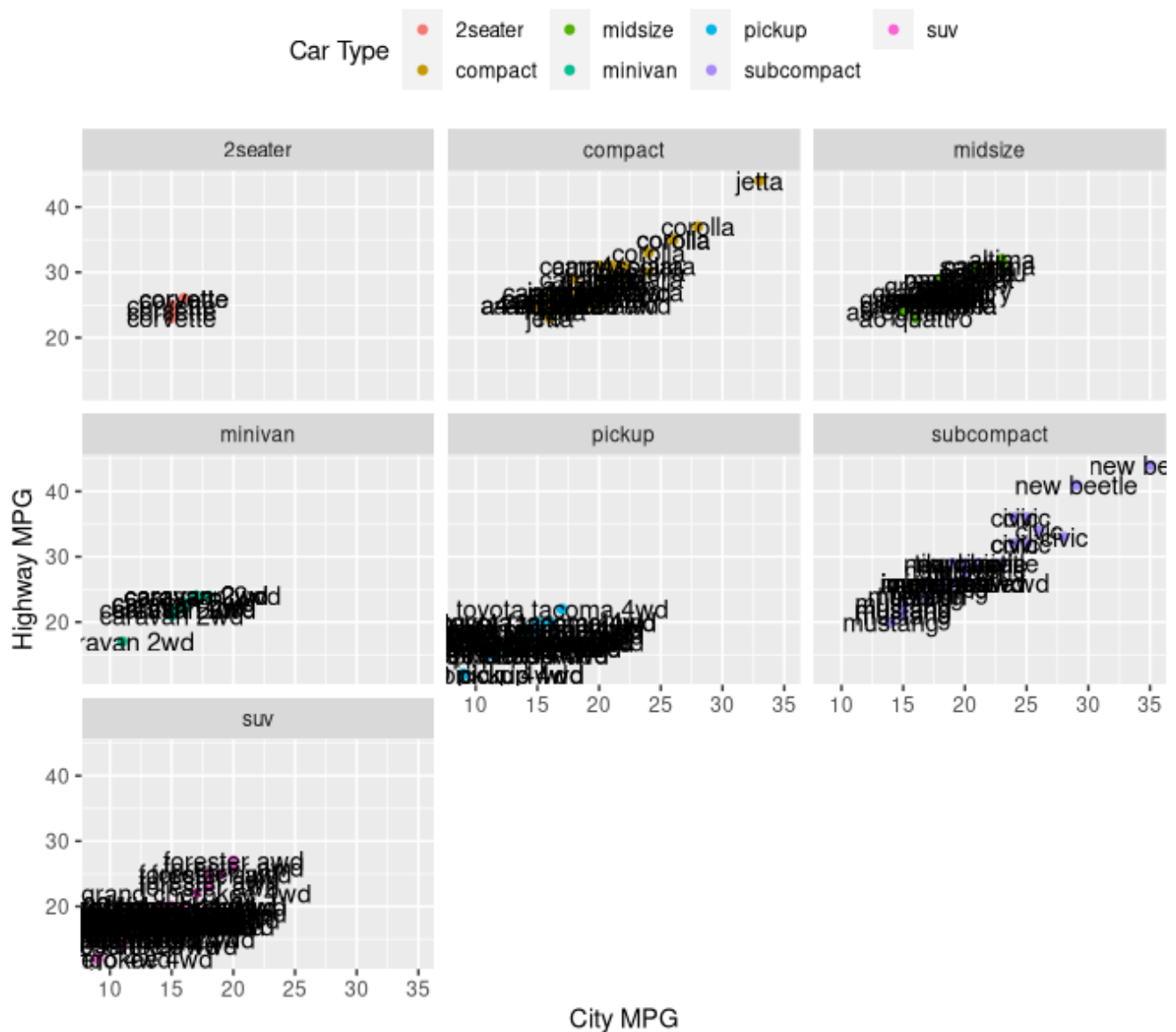
```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = cty, y = hwy, color=class)) +
  labs(
    title = "City MPG vs Highway MPG",
    subtitle = "Comparing the city mpg and the highway mpg for all points",
    caption = "I just wanted to prove that I can generate a caption",
    x="City MPG",
    y="Highway MPG",
    color="Car Type"
  ) +
```

```
theme(
  legend.position = "top"
) +
geom_text(data=mpg, mapping=aes(x = cty, y = hwy, label=model))+
facet_wrap(~class)
```

R Graphics: Device 2 (ACTIVE)

City MPG vs Highway MPG

Comparing the city mpg and the highway mpg for all points

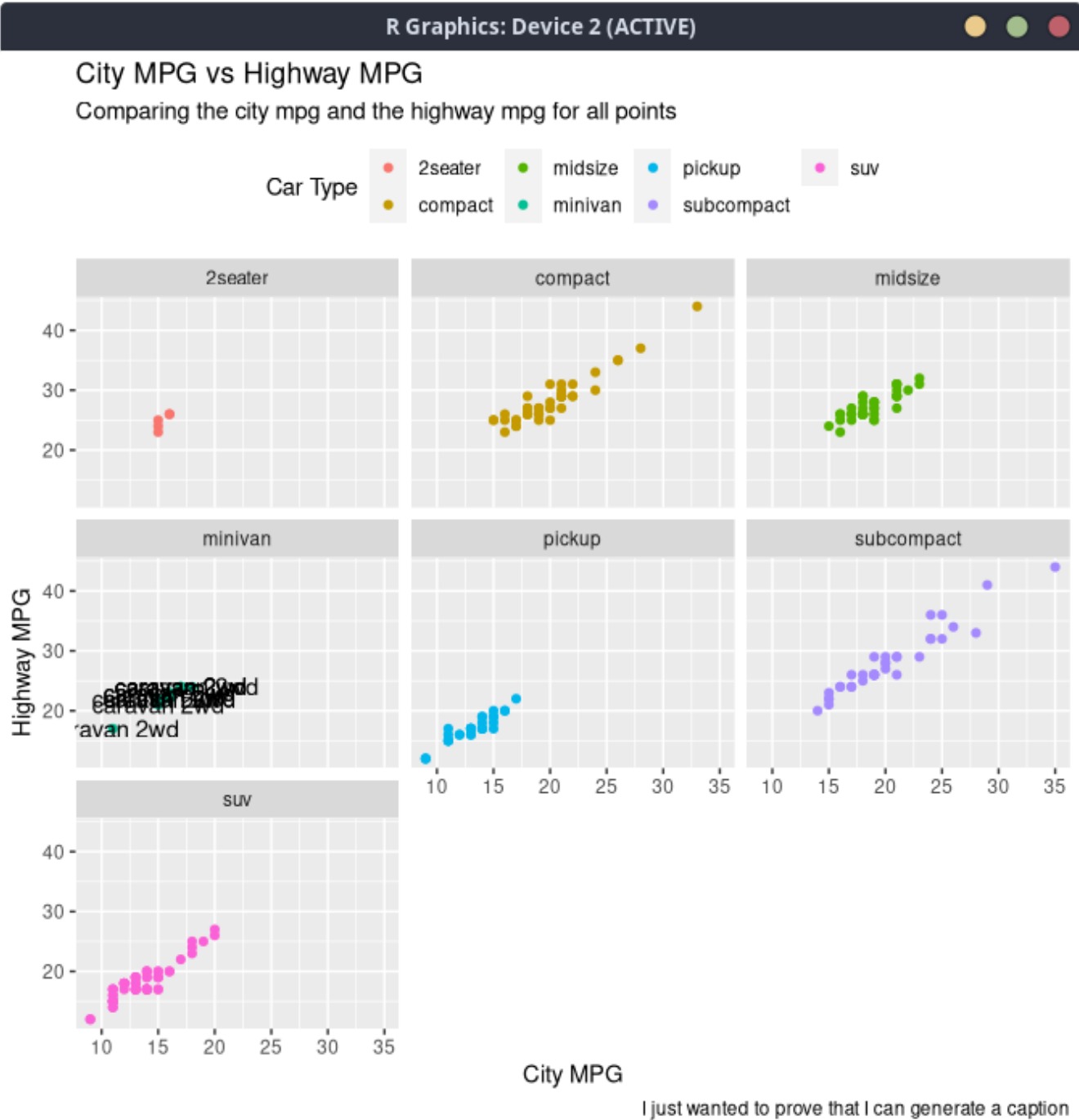


I just wanted to prove that I can generate a caption

so if I want to make sure it only impacts one facet we will simply trim the data and overwrite my data in the `geom_text`

```
yehaw <- mpg %>%
  filter(class=="minivan")
```

```
ggplot(data = mpg) +  
geom_point(mapping = aes(x = cty, y = hwy, color=class)) +  
labs(  
  title = "City MPG vs Highway MPG",  
  subtitle = "Comparing the city mpg and the highway mpg for all points",  
  caption = "I just wanted to prove that I can generate a caption",  
  x="City MPG",  
  y="Highway MPG",  
  color="Car Type"  
) +  
theme(  
  legend.position = "top"  
) +  
geom_text(data=yehaw, mapping=aes(x = cty, y = hwy, label=model))+  
facet_wrap(~class)
```



Section 28.4.4

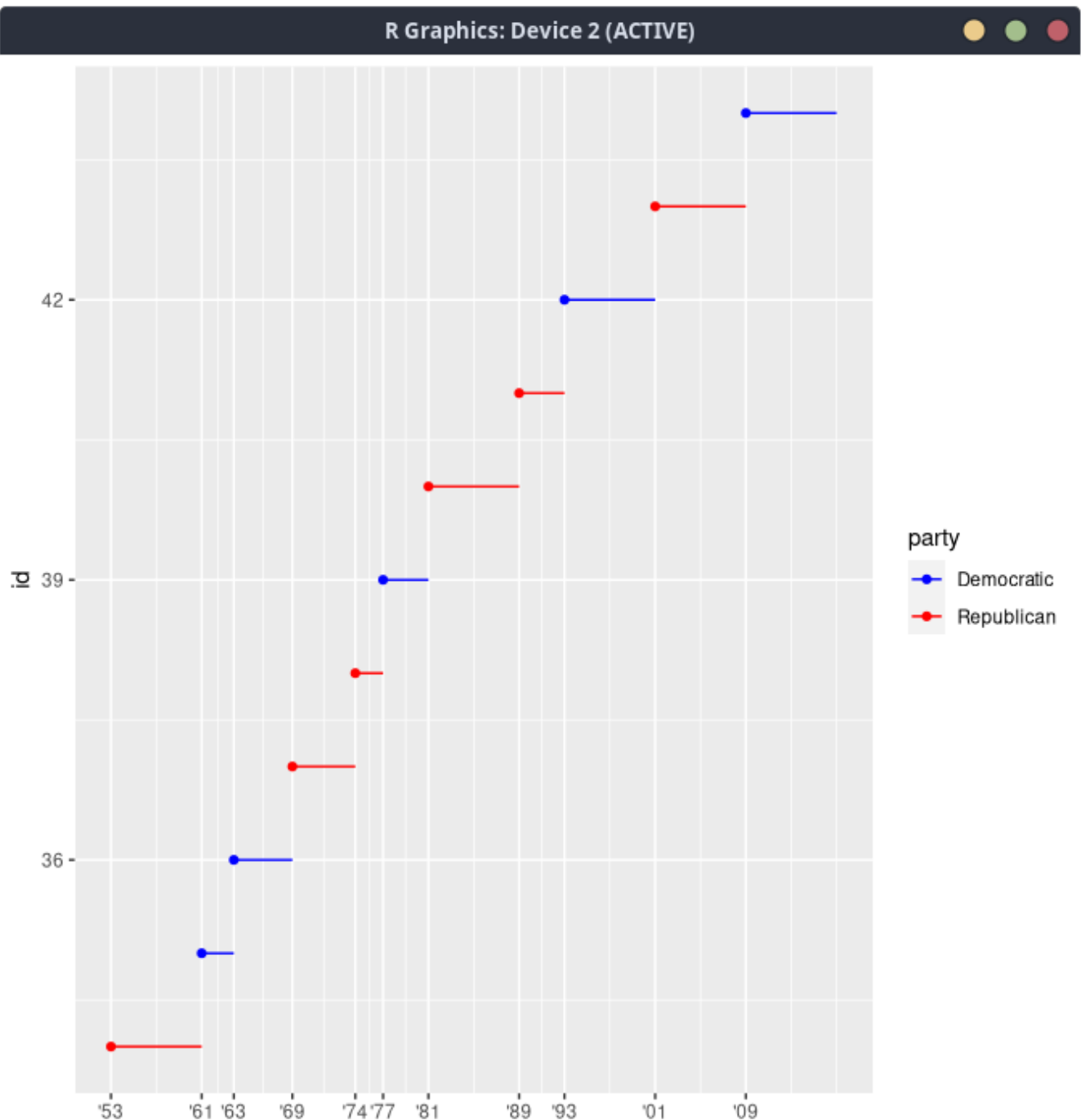
3. Change the display of the presidential terms by:

```
presidential %>%
  mutate(id = 33 + row_number()) %>%
  ggplot(aes(start, id)) +
    geom_point() +
    geom_segment(aes(xend = end, yend = id)) +
    scale_x_date(NULL, breaks = presidential$start, date_labels = "'%y")

presidential %>%
  mutate(id = 33 + row_number()) %>%
  ggplot(aes(start, id, colour = party)) +
    geom_point() +
    geom_segment(aes(xend = end, yend = id)) +
    scale_colour_manual(values = c(Republican = "red", Democratic =
"blue"))
```

1. Combining the two variants shown above.

```
presidential %>%
  mutate(id = 33 + row_number()) %>%
  ggplot(aes(start, id, colour = party)) +
    geom_point() +
    geom_segment(aes(xend = end, yend = id)) +
    scale_x_date(NULL, breaks = presidential$start, date_labels = "'%y") +
    scale_colour_manual(values = c(Republican = "red", Democratic =
"blue"))
```

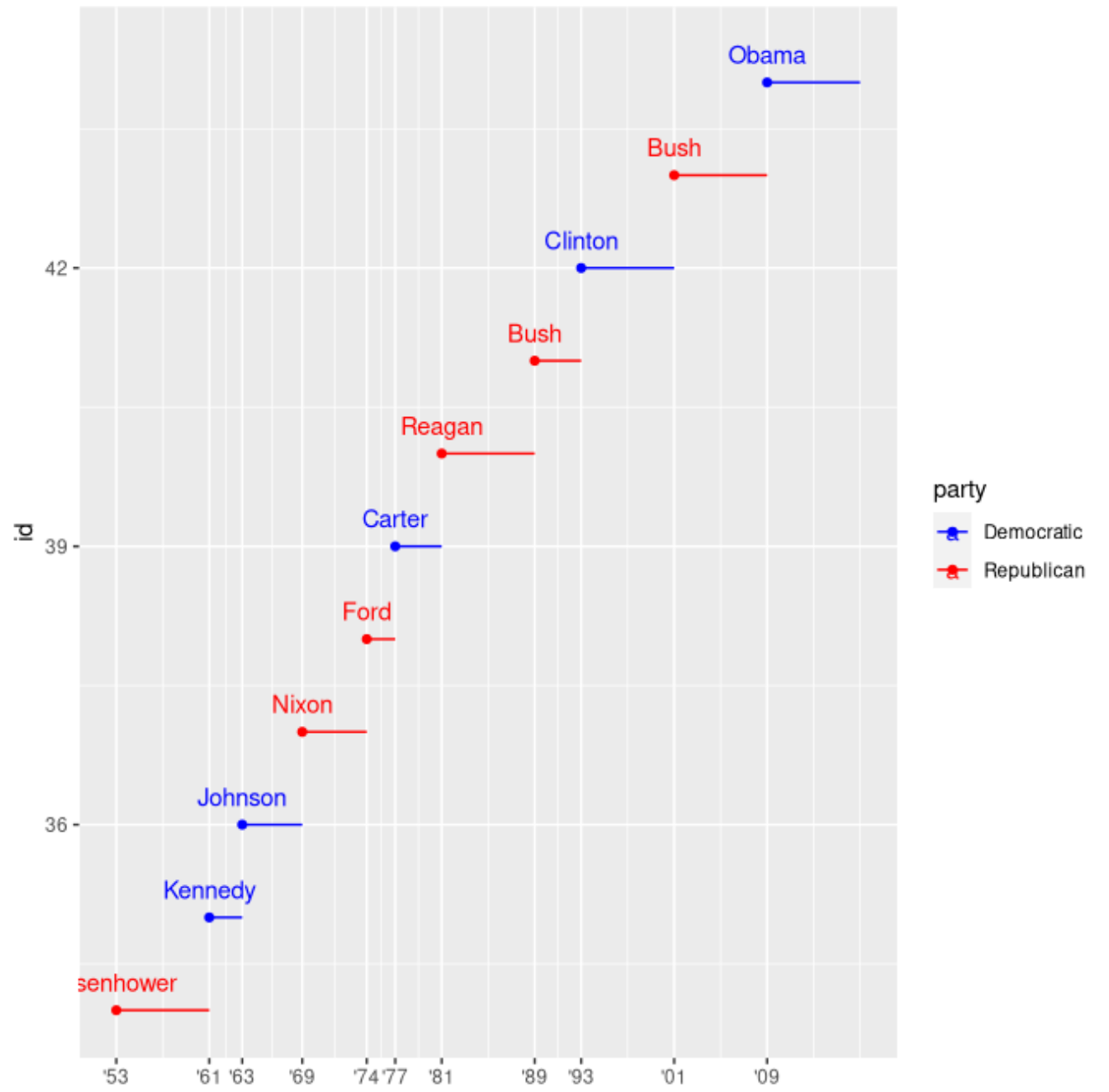


2. Improving the display of the y axis.

3 Labelling each term with the name of the president.

```
presidential %>%
  mutate(id = 33 + row_number()) %>%
  ggplot(aes(start, id, colour = party)) +
    geom_point() +
    geom_segment(aes(xend = end, yend = id)) +
    geom_text(aes(x = start, y = id, label=name), position =
position_nudge(y = 0.3)) +
    scale_x_date(NULL, breaks = presidential$start, date_labels = "%y") +
    scale_colour_manual(values = c(Republican = "red", Democratic =
"blue"))
```

R Graphics: Device 2 (ACTIVE)



Section 11.2.2:

2. Apart from file, skip, and comment, what other arguments do read_csv() and read_tsv() have in common?

```
read_csv(file, col_names = TRUE, col_types = NULL,  
  locale = default_locale(), na = c("", "NA"), quoted_na = TRUE,  
  quote = "\"", comment = "", trim_ws = TRUE, skip = 0,  
  n_max = Inf, guess_max = min(1000, n_max),  
  progress = show_progress(), skip_empty_rows = TRUE)
```

```
read_tsv(file, col_names = TRUE, col_types = NULL,  
  locale = default_locale(), na = c("", "NA"), quoted_na = TRUE,  
  quote = "\t", comment = "", trim_ws = TRUE, skip = 0,  
  n_max = Inf, guess_max = min(1000, n_max),  
  progress = show_progress(), skip_empty_rows = TRUE)
```

to save you a long reading its all of them taken from the [readr documentation](#)

Section 11.3.5:

2.

1. What happens if you try and set `decimal_mark` and `grouping_mark` to the same character?

```
> parse_number("100.300.45", locale=locale(decimal_mark=".",  
grouping_mark="."))  
Error: `decimal_mark` and `grouping_mark` must be different
```

It just errors out

2. What happens to the default value of `grouping_mark` when you set `decimal_mark` to “,”?

```
> parse_number("100.300,45", locale=locale(decimal_mark=","))  
[1] 100300.4
```

as we can see the dot automatically becomes the new grouping marker

3. What happens to the default value of `decimal_mark` when you set the `grouping_mark` to “.”?

```
> parse_number("100.300,45", locale=locale(grouping_mark="."))  
[1] 100300.4
```

Decimal gets overridden to become the ‘,’

7. Generate the correct format string to parse each of the following dates and times:

```
#example
parse_date("04/15/99", "%m/%d/%y")

d1 <- parse_date("January 1, 2010", "%B %d, %Y")

d2 <- parse_date("2015-Mar-07", "%Y-%b-%d")

d3 <- parse_date("06-Jun-2017", "%d-%b-%Y")

d4 <- parse_date(c("August 19 (2015)", "July 1 (2015)"), "%B %d (%Y)")

d5 <- parse_date("12/30/14", "%m/%d/%y") # Dec 30, 2014
```