MA615_Assignment_2

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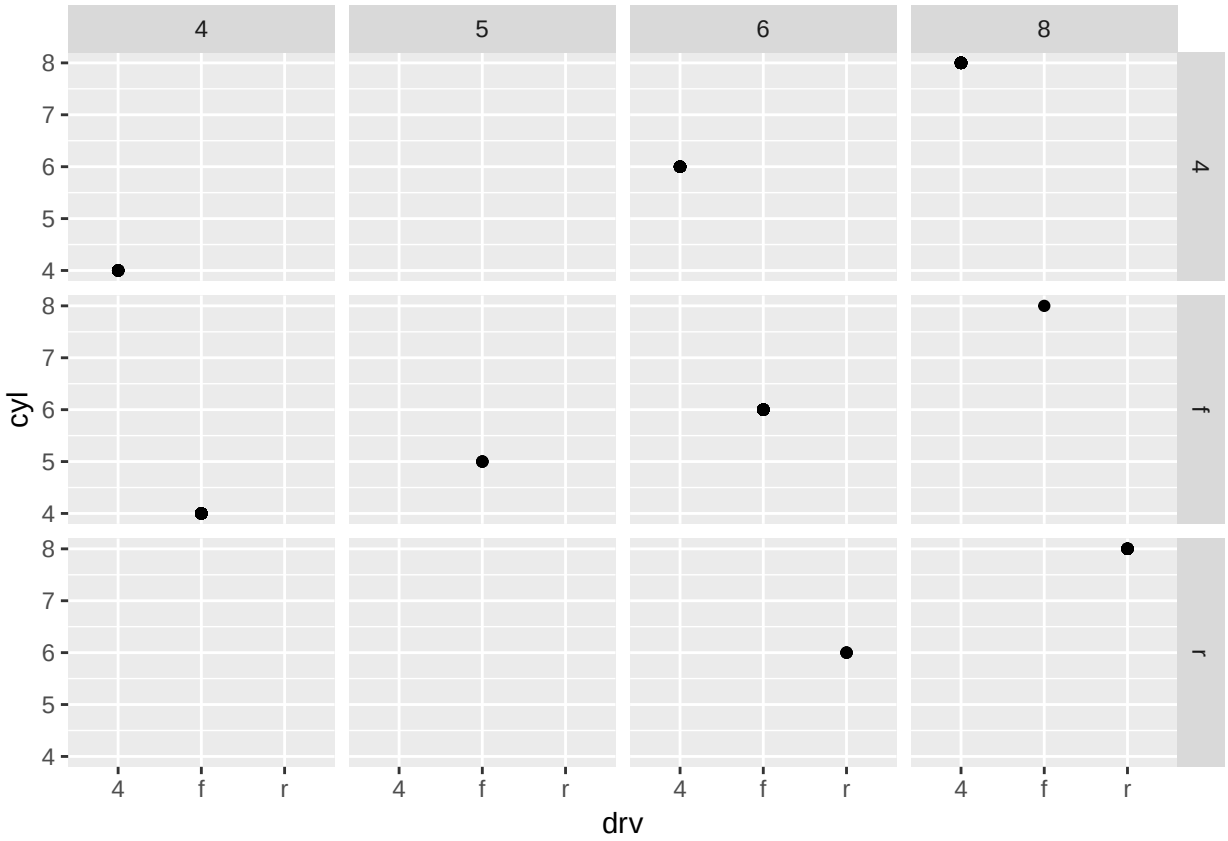
R4DS Exercises

3.5.1.2. What do the empty cells in plot with facet_grid(drv ~ cyl) mean? How do they relate to this plot?

```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = drv, y = cyl)) +
  facet_grid(drv ~ cyl)
```




```
"It means there is no valid data meeting the requirement of drv and cyl, that is, the number of cylinde
```

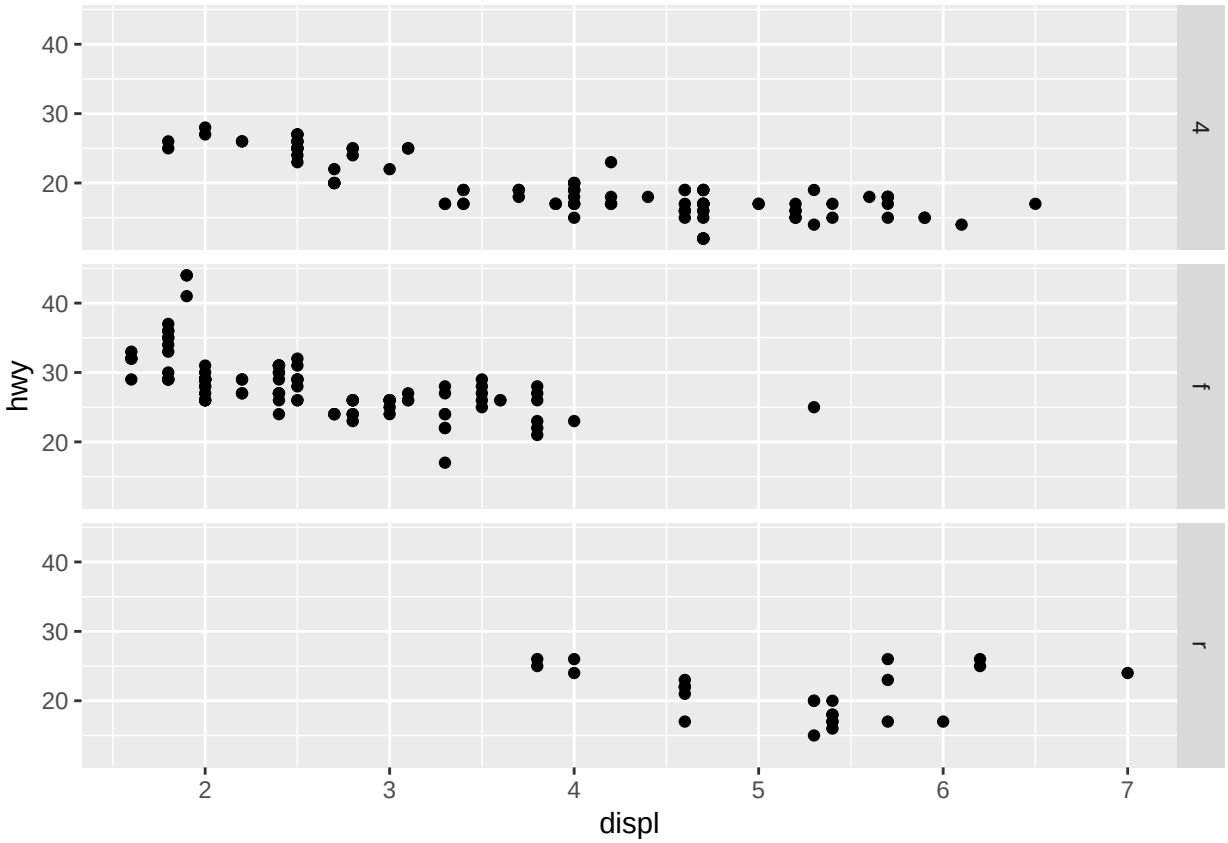
```
## [1] "It means there is no valid data meeting the requirement of drv and cyl, that is, the number of
```

```
"In this way, we can divide the data into specific groups with specific factors so we can compare the c
```

```
## [1] "In this way, we can divide the data into specific groups with specific factors so we can compare
```

3.5.1.3. What plots does the following code make? What does . do?

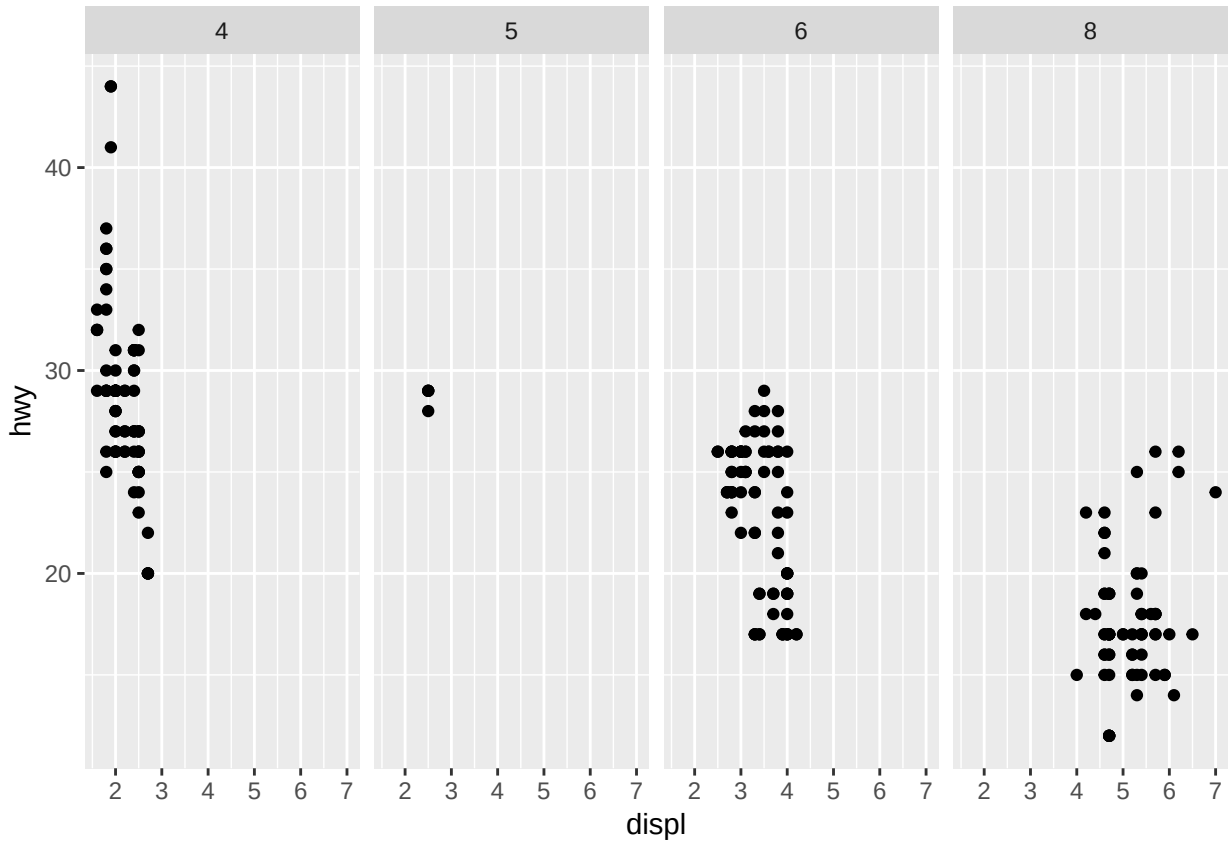
```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy)) +
  facet_grid(drv ~ .)
```




```
"The plot adds the third variable the way of driven on the row."
```

```
## [1] "The plot adds the third variable the way of driven on the row."
```

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




```
"The plot adds the third variable the number of cylinders on the column."
```

```
## [1] "The plot adds the third variable the number of cylinders on the column."
```

Rewrite the shiny app

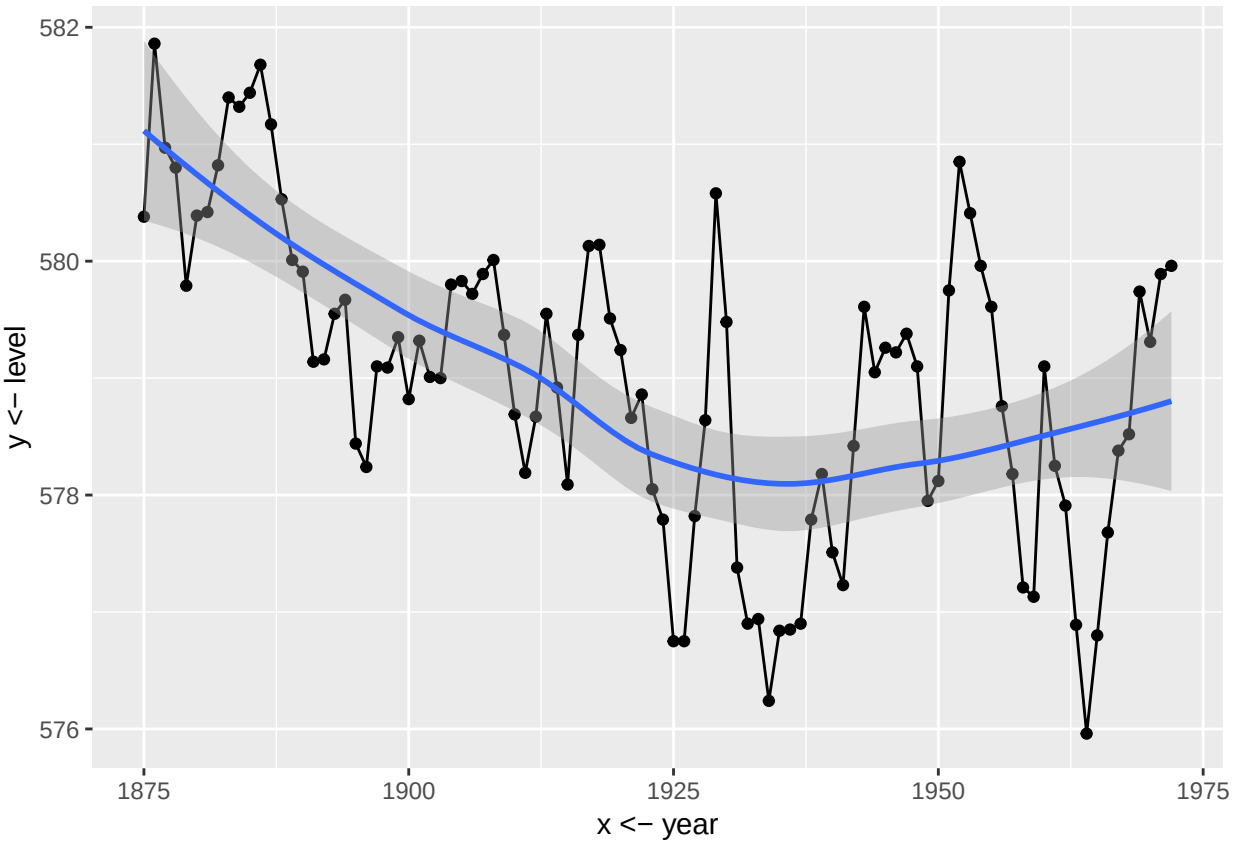
Lake Huron

```
#Load the data of Lake Huron
LakeHuron <- data.frame("year" = 1875:1972, "level" = LakeHuron)
#Plot broken line
ggplot(data = LakeHuron, aes(x <- year, y <- level)) +
  geom_line()
```

```
## Don't know how to automatically pick scale for object of type ts. Defaulting to continuous.
```

```
#Add smooth line
ggplot(data = LakeHuron, aes(x <- year, y <- level)) +
  geom_point() +
  geom_line() +
  geom_smooth()
```

```
## Don't know how to automatically pick scale for object of type ts. Defaulting to continuous.
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```


582
580
578
576
y <− level
1875
1900
1925
1950
1975
x <− year