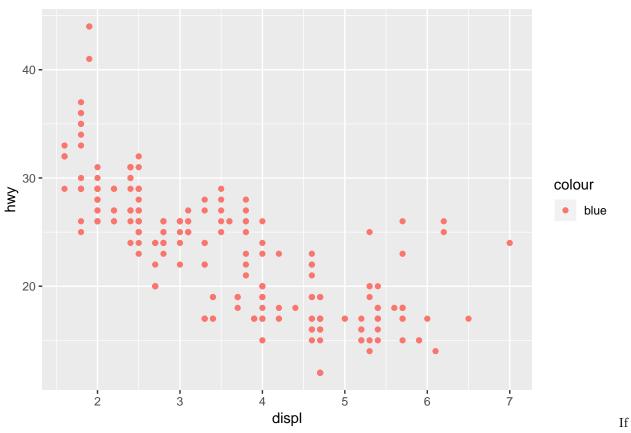
r4ds Ex 3.3.1

MW

2019/05/14

3.3.1

1



color="blue" is in aes, then data are regarded to have categorical "blue".

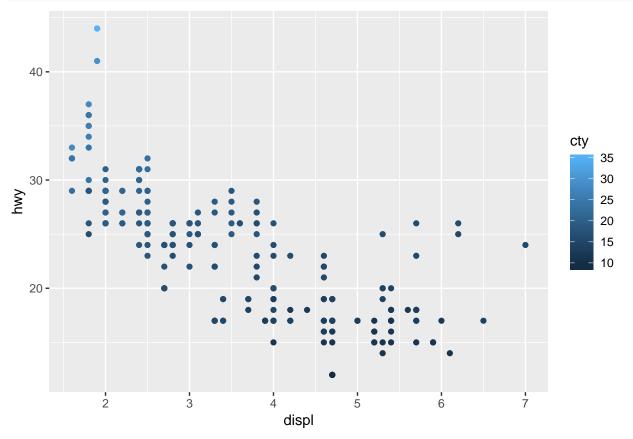
 $\mathbf{2}$

3

e.g., I selected displ, hwy, and cty as well sample code.

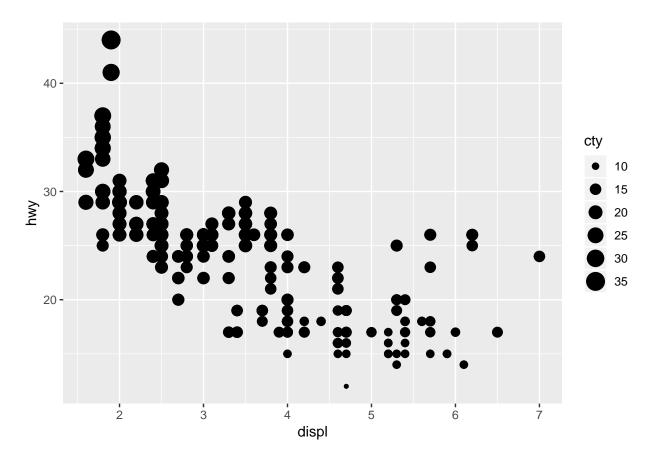
${\bf color}$

```
ggplot(mpg, aes(x=displ, y=hwy, color=cty)) +
geom_point()
```



size

```
ggplot(mpg, aes(x=displ, y=hwy, size=cty)) +
geom_point()
```

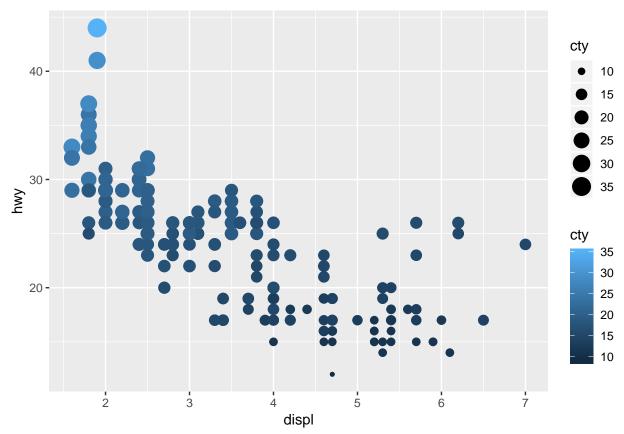


shape

```
ggplot(mpg, aes(x=displ, y=hwy, shape=cty)) +
  geom_point()
## error: A continuous variable can not be mapped to shape
```

4

```
ggplot(mpg, aes(x=displ, y=hwy, color=cty, size=cty)) +
geom_point()
```



You can run multiple aes but it is ineffective.

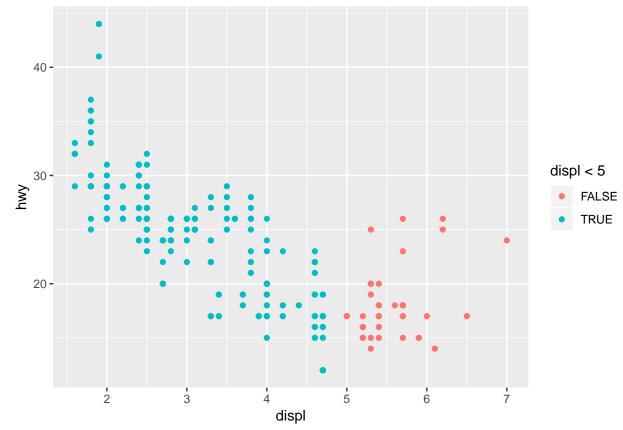
5

```
vignette("ggplot2-specs")
```

Vignette file explain followings; ...the size of the stroke is controlled by stroke..

6

```
ggplot(mpg, aes(x=displ, y=hwy, color=displ<5)) +
  geom_point()</pre>
```



You can run above code, like color=displ<5. The variables are divided to TRUE or FALSE.