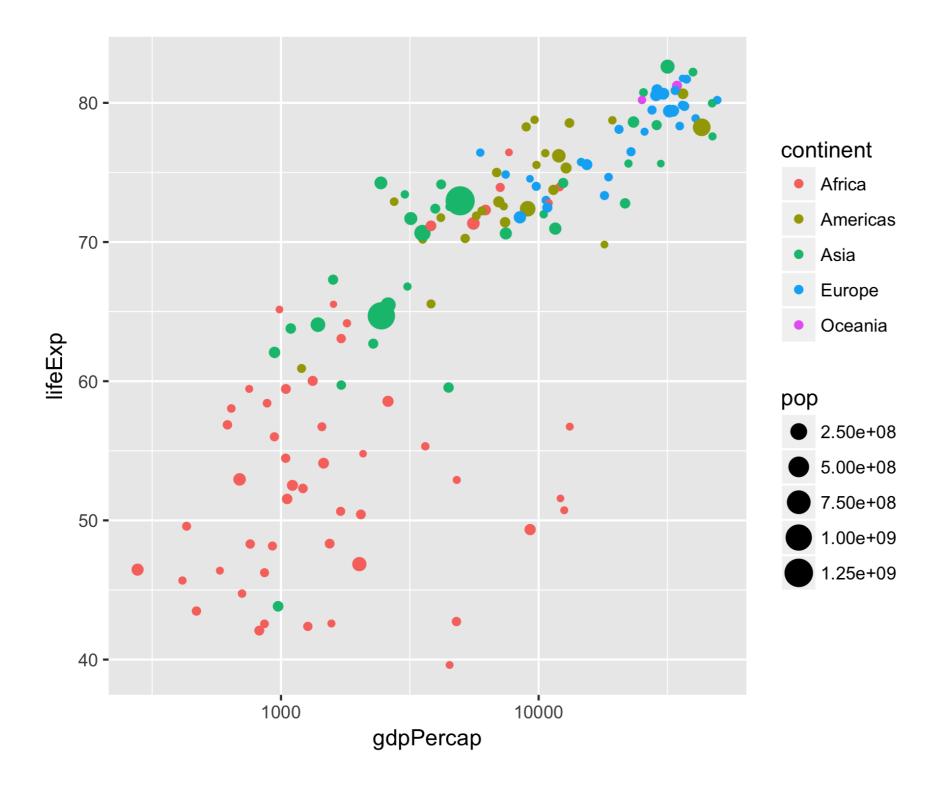
Visualizing with ggplot2

INTRODUCTION TO THE TIDYVERSE







Variable Assignment

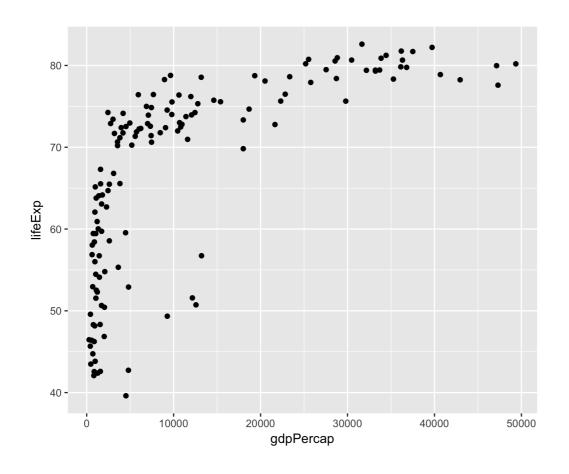
```
gapminder_2007 <- gapminder %>%
  filter(year == 2007)

gapminder_2007
```

```
# A tibble: 142 x 6
      country continent year lifeExp
                                              gdpPercap
       <fctr>
                              <dbl>
                                                   <dbl>
                 <fctr> <int>
                                        <int>
1 Afghanistan
                  Asia 2007 43.828
                                     31889923
                                                974.5803
      Albania
                       2007 76.423
                                      3600523
                                               5937.0295
                Europe
      Algeria
                       2007 72.301 33333216 6223.3675
                Africa
       Angola
                Africa 2007 42.731 12420476 4797.2313
    Argentina Americas 2007
                             75.320
                                     40301927 12779.3796
    Australia
                              81.235 20434176 34435.3674
               Oceania
                       2007
                Europe 2007 79.829
                                      8199783 36126.4927
      Austria
      Bahrain
                  Asia 2007 75.635
                                       708573 29796.0483
   Bangladesh
                              64.062 150448339 1391.2538
                  Asia
                       2007
      Belgium
                Europe 2007 79.441 10392226 33692.6051
     with 132 more rows
```



Visualizing with ggplot2



library(ggplot2)

ggplot(gapminder_2007, aes(x = gdpPerCap, y = lifeExp)) +
 geom_point()





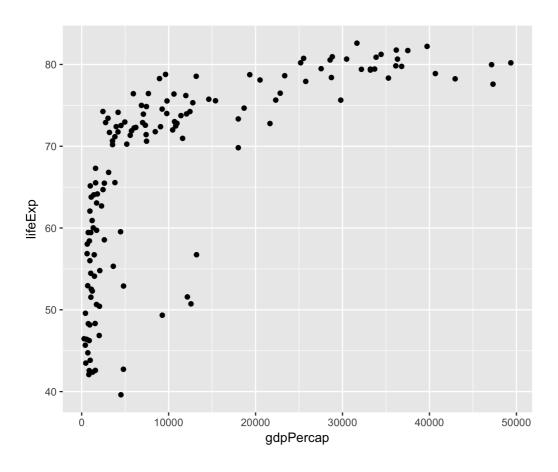
Log scales

INTRODUCTION TO THE TIDYVERSE





Scatter plot

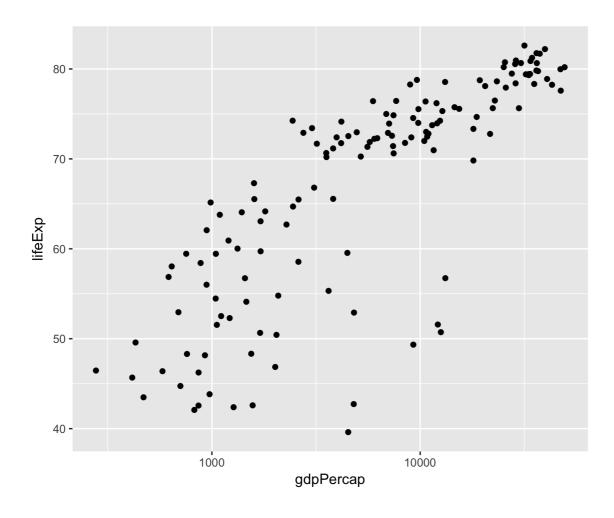


```
library(ggplot2)

ggplot(gapminder, aes(x = gdpPerCap, y = lifeExp)) +
   geom_point()
```



Log scale



```
ggplot(gapminder_2007, aes(x = gdpPercap, y = lifeExp)) +
  geom_point() +
  scale_x_log10()
```



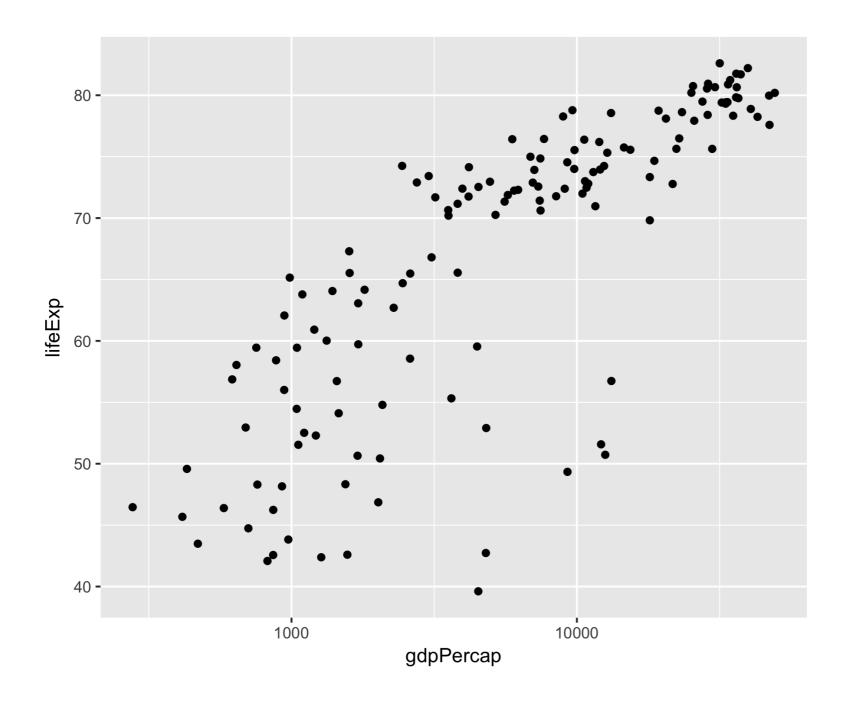
Additional aesthetics

INTRODUCTION TO THE TIDYVERSE





Scatter plots





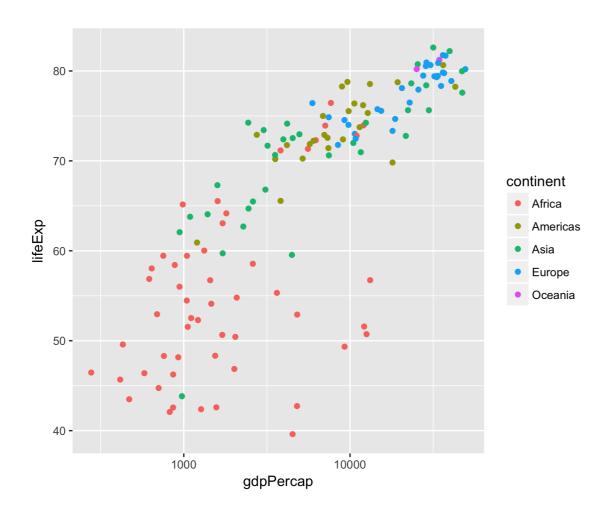
Additional variables

gapminder_2007

```
# A tibble: 142 x 6
       country continent year lifeExp
                                                  gdpPercap
                                             pop
                                 <dbl>
                                           <dbl>
                                                      <dbl>
        <fctr>
                  <fctr> <int>
 1 Afghanistan
                         2007 43.828
                                        31889923
                                                   974.5803
                    Asia
       Albania
                          2007
                               76.423
                                         3600523
                                                  5937.0295
                  Europe
       Algeria
                         2007
                               72.301
                                        33333216
                                                  6223.3675
 3
                  Africa
        Angola
 4
                  Africa
                         2007
                               42.731
                                        12420476
                                                  4797.2313
                               75.320
 5
     Argentina
                Americas
                         2007
                                        40301927 12779.3796
     Australia
 6
                 Oceania (1997)
                          2007
                                81.235
                                        20434176 34435.3674
      Austria
                          2007
                               79.829
                                         8199783 36126.4927
                  Europe
       Bahrain
                               75.635
                          2007
                                          708573 29796.0483
                    Asia
 8
    Bangladesh
                                64.062 150448339
                          2007
                    Asia
                                                  1391.2538
       Belgium
10
                  Europe
                          2007
                               79.441
                                       10392226 33692.6051
     with 132 more rows
```

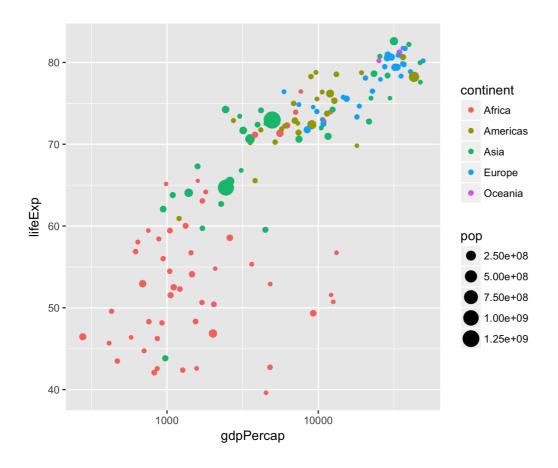


The color aesthetic



```
ggplot(gapminder_2007, aes(x = gdpPercap, y = lifeExp, color = continent)) +
  geom_point() +
  scale_x_log10()
```

The size aesthestic



Aesthetics

Aesthetic	Variable
X	gdpPerCap
У	lifeExp
color	continent
size	pop

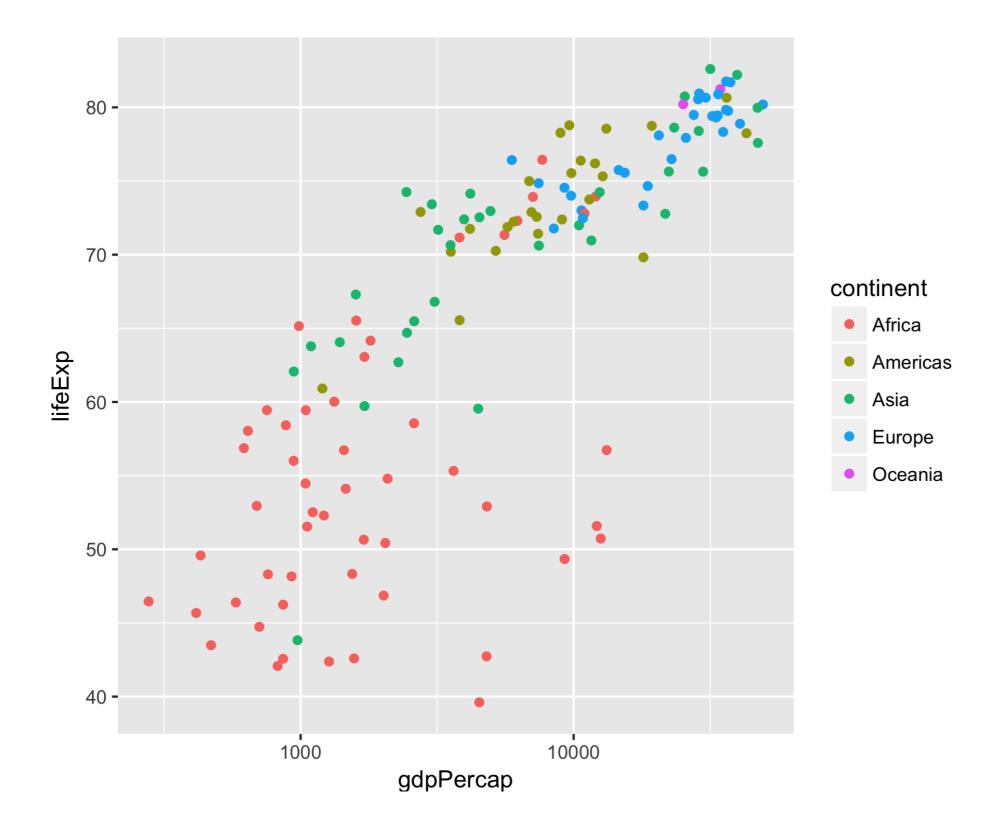


Faceting

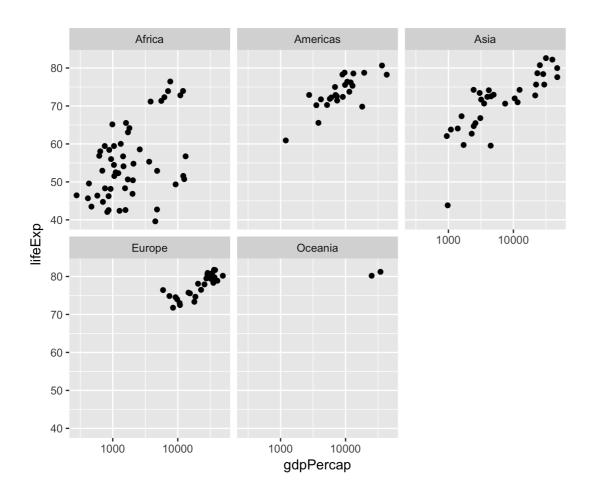
INTRODUCTION TO THE TIDYVERSE







Faceting



```
ggplot(gapminder_2007, aes(x = gdpPercap, y = lifeExp)) +
  geom_point() +
  scale_x_log10() +
  facet_wrap(~ continent)
```

