

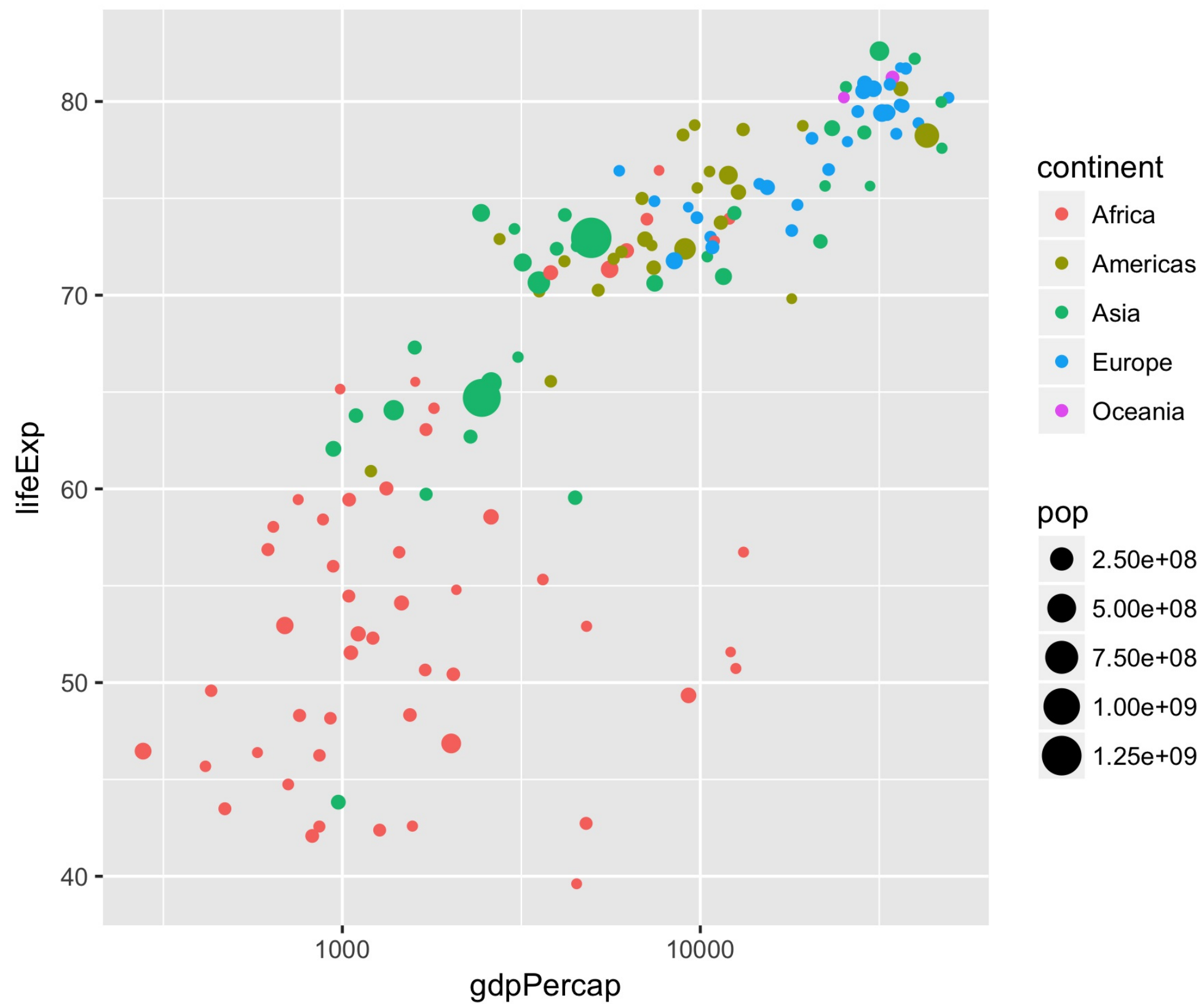


INTRODUCTION TO THE TIDYVERSE

Visualizing with ggplot2

David Robinson

Chief Data Scientist, DataCamp



Variable Assignment

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

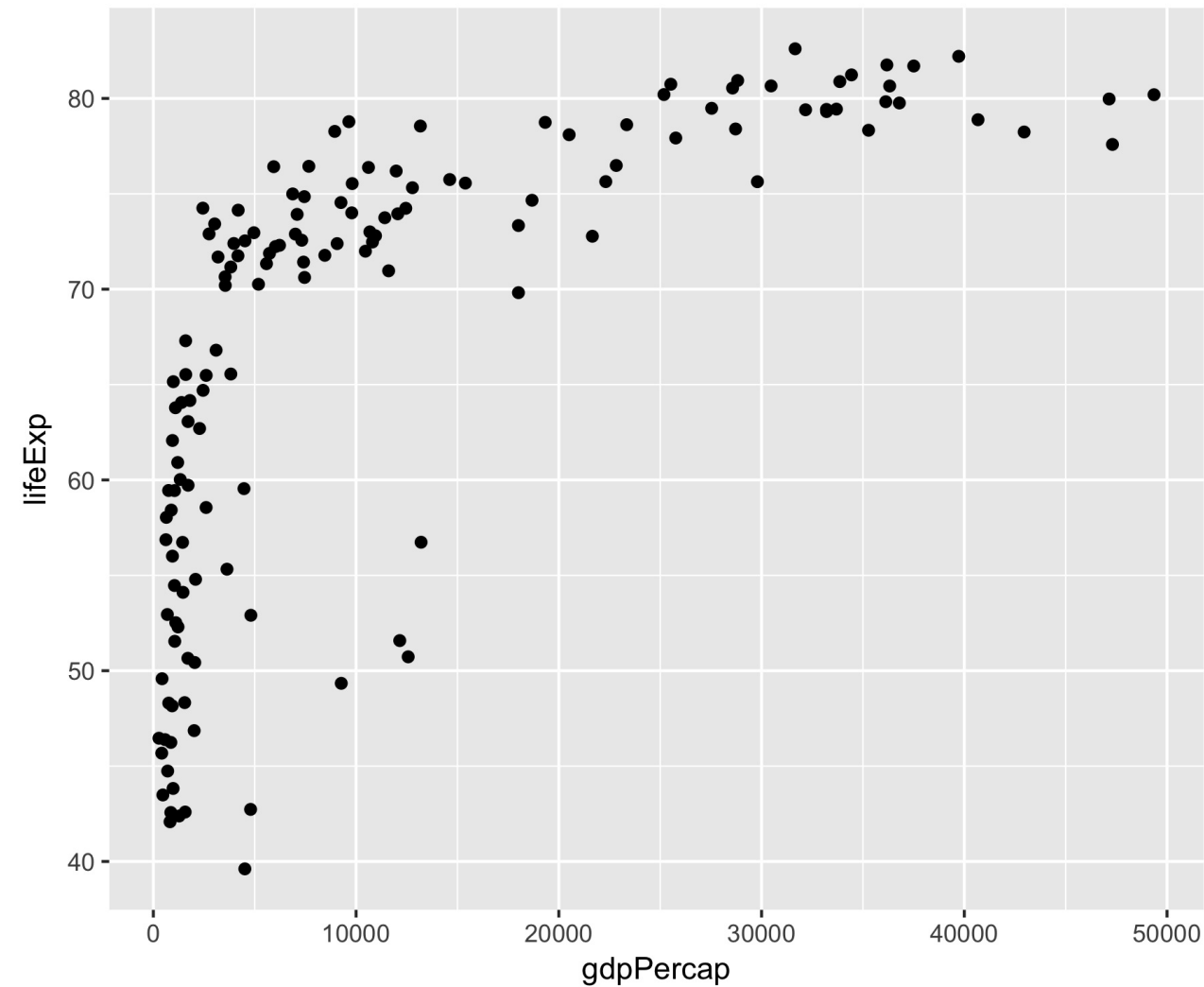
```
gapminder_2007
```

```
# A tibble: 142 x 6
```

| | country | continent | year | lifeExp | pop | gdpPercap |
|----|-------------|-----------|-------|---------|-----------|------------|
| | <fctr> | <fctr> | <int> | <dbl> | <int> | <dbl> |
| 1 | Afghanistan | Asia | 2007 | 43.828 | 31889923 | 974.5803 |
| 2 | Albania | Europe | 2007 | 76.423 | 3600523 | 5937.0295 |
| 3 | Algeria | Africa | 2007 | 72.301 | 33333216 | 6223.3675 |
| 4 | Angola | Africa | 2007 | 42.731 | 12420476 | 4797.2313 |
| 5 | Argentina | Americas | 2007 | 75.320 | 40301927 | 12779.3796 |
| 6 | Australia | Oceania | 2007 | 81.235 | 20434176 | 34435.3674 |
| 7 | Austria | Europe | 2007 | 79.829 | 8199783 | 36126.4927 |
| 8 | Bahrain | Asia | 2007 | 75.635 | 708573 | 29796.0483 |
| 9 | Bangladesh | Asia | 2007 | 64.062 | 150448339 | 1391.2538 |
| 10 | 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()
```



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Let's practice!



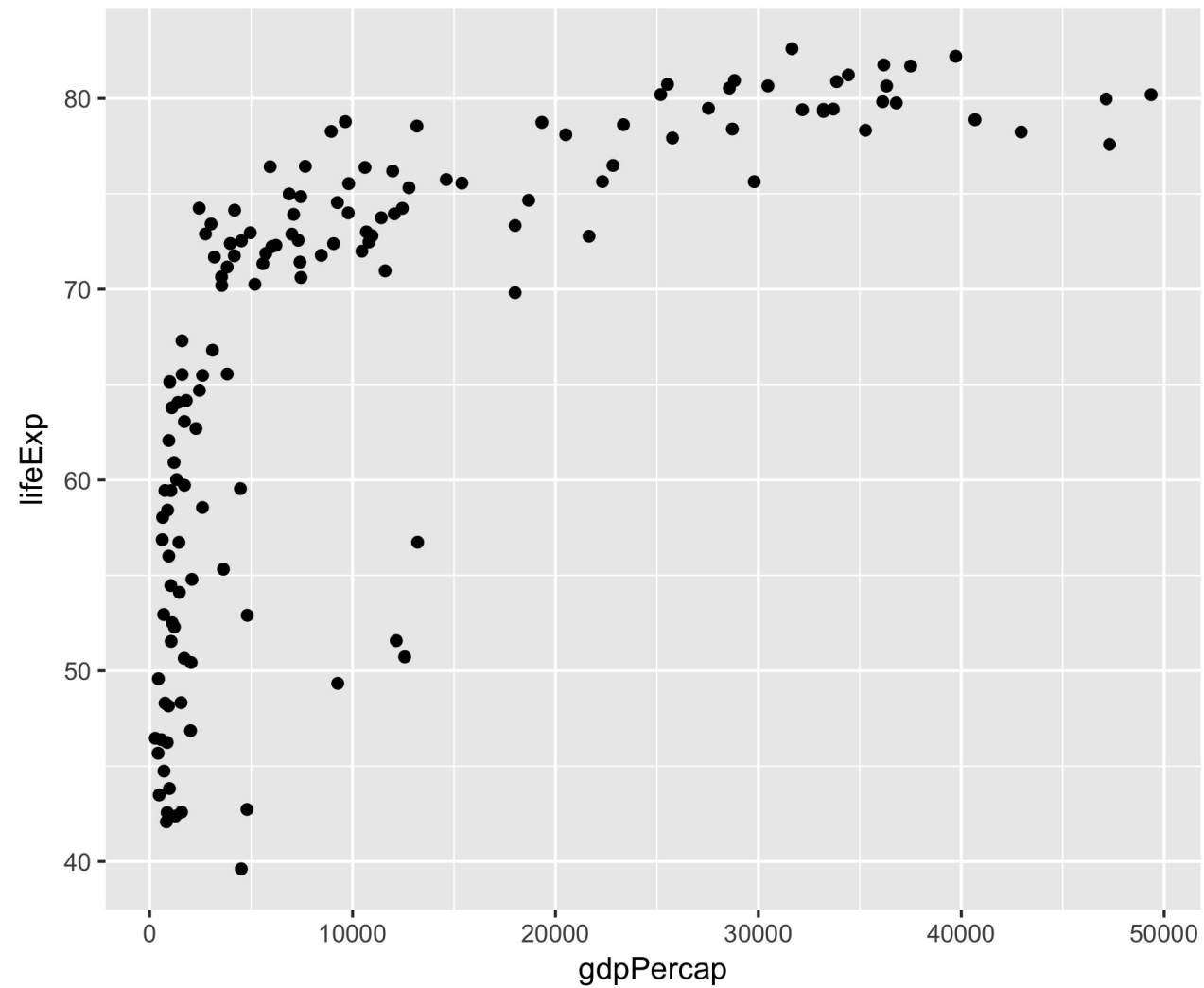
INTRODUCTION TO THE TIDYVERSE

Log scales

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Scatter plot

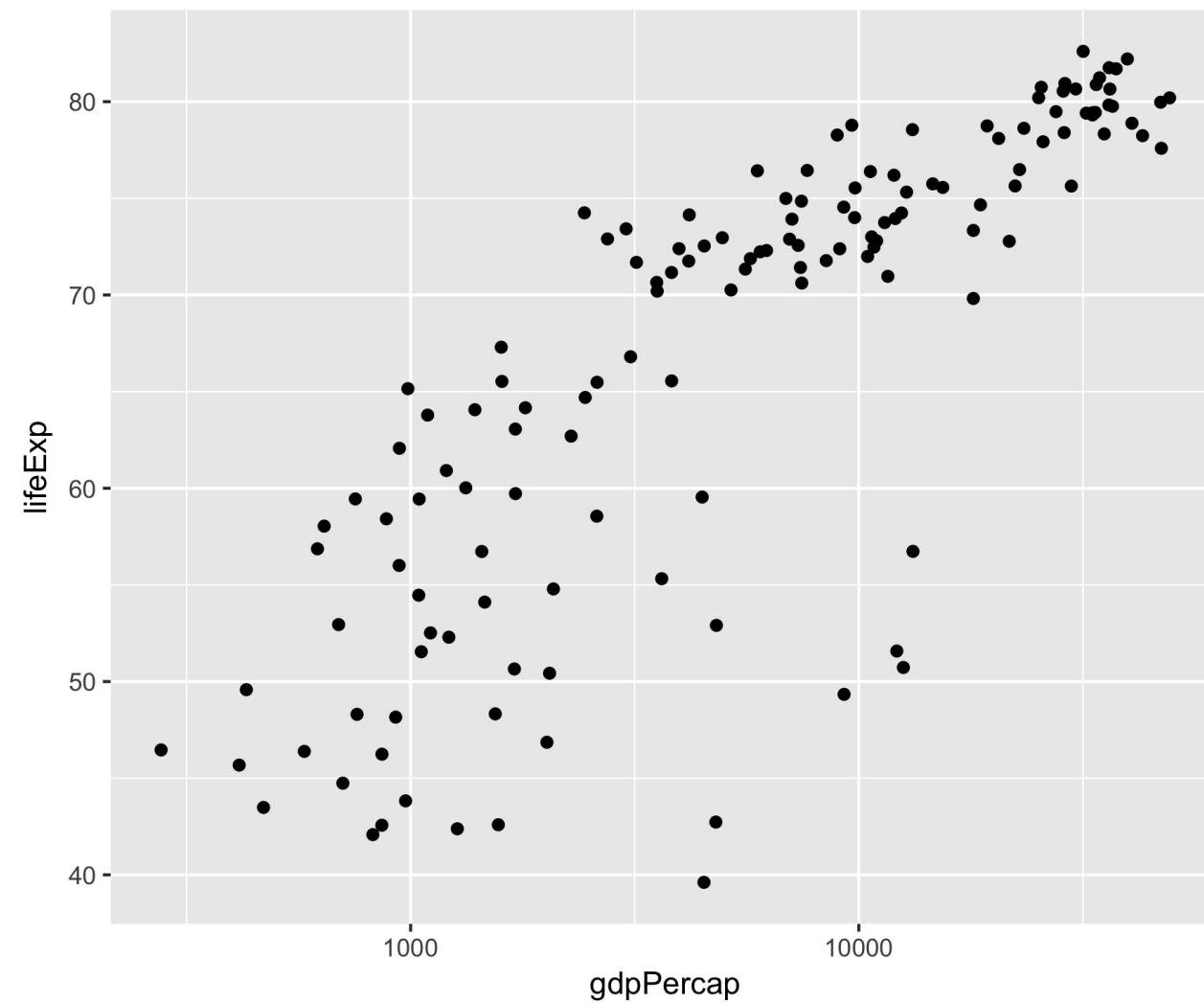


```
library(ggplot2)
```

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



Log scale



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




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Let's practice!



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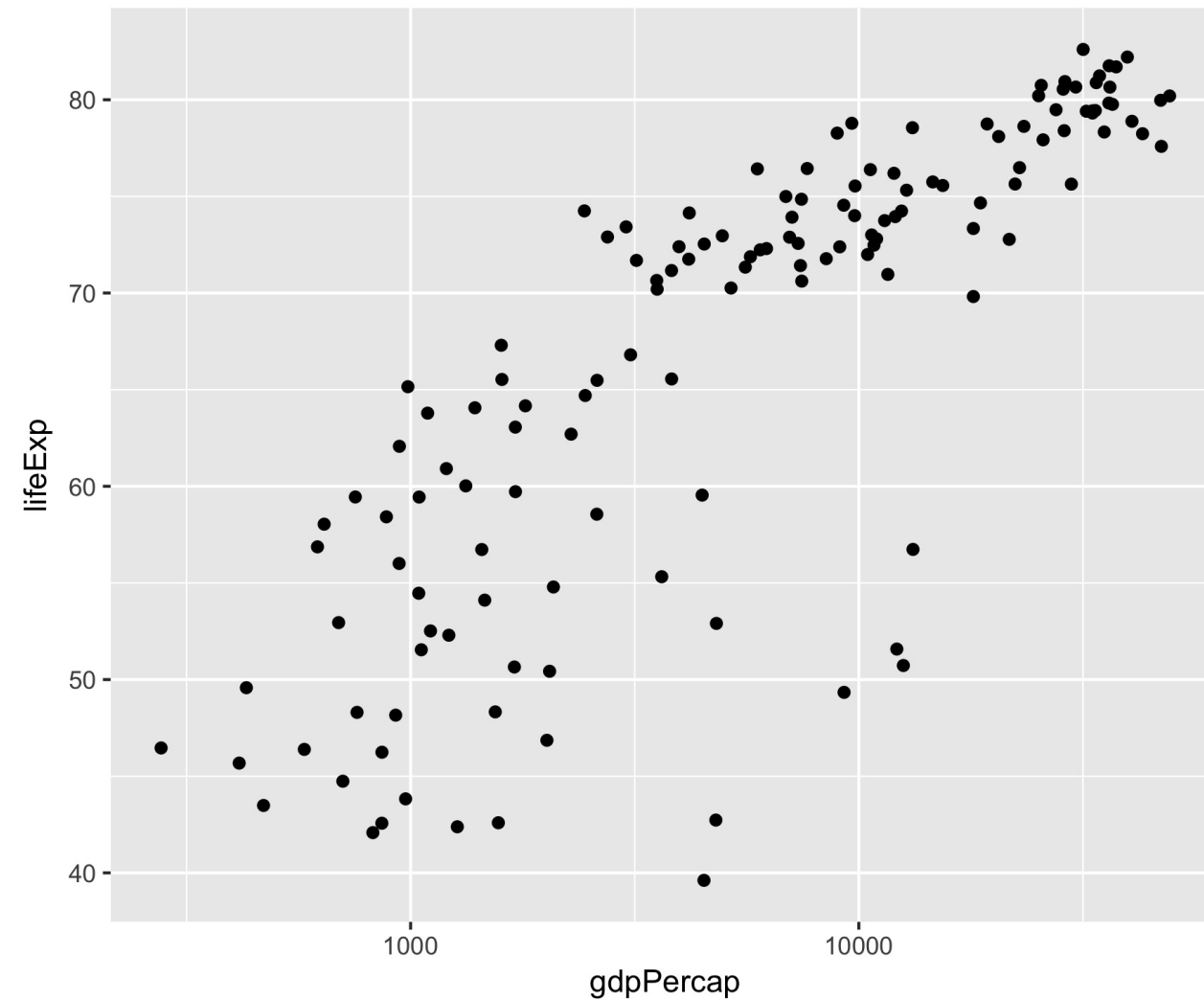
Additional aesthetics

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Scatter plots





Additional variables

```
gapminder_2007
```

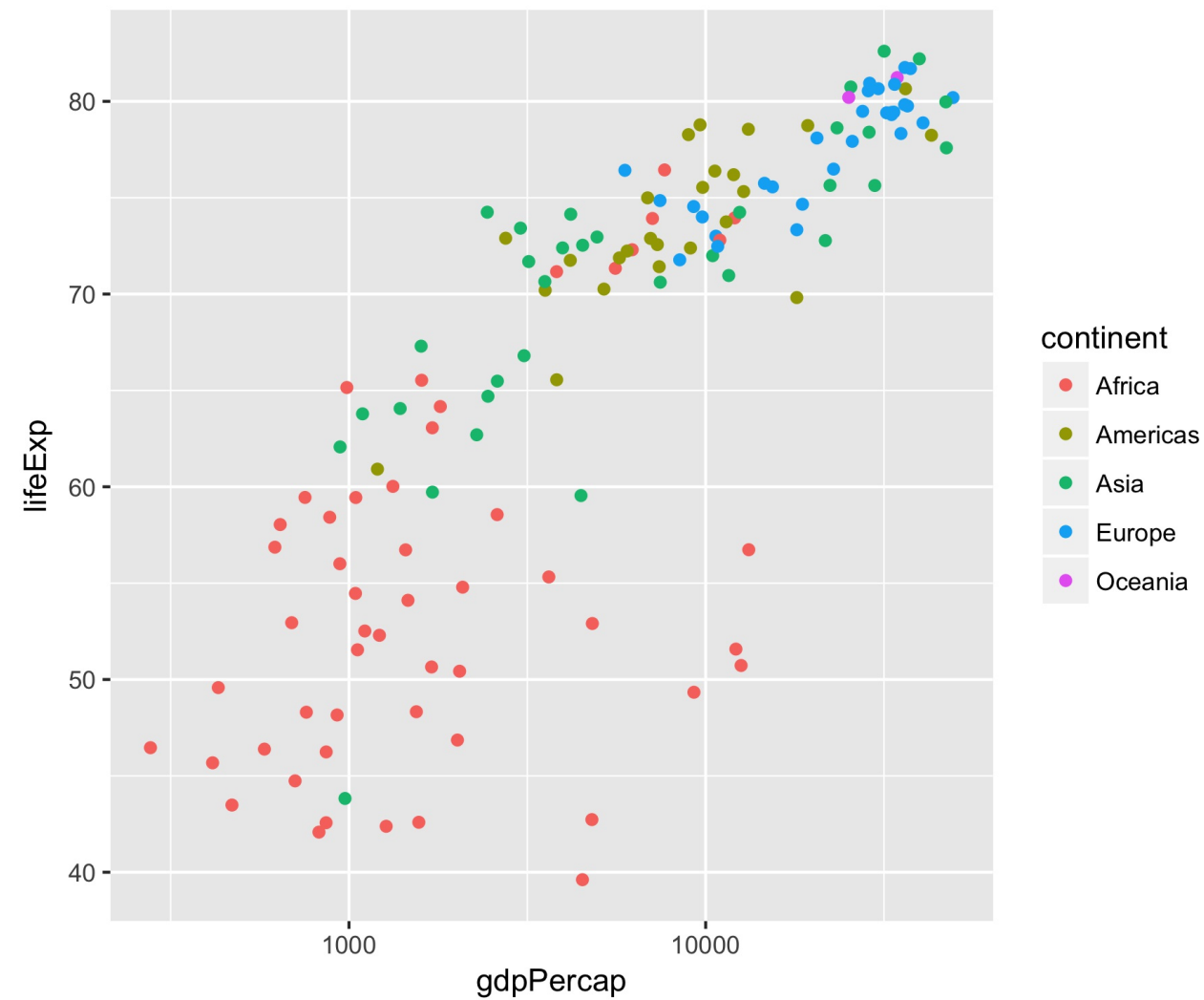
```
# A tibble: 142 x 6
```

| | country | continent | year | lifeExp | pop | gdpPercap |
|----|-------------|-----------|-------|---------|-----------|------------|
| | <fctr> | <fctr> | <int> | <dbl> | <dbl> | <dbl> |
| 1 | Afghanistan | Asia | 2007 | 43.828 | 31889923 | 974.5803 |
| 2 | Albania | Europe | 2007 | 76.423 | 3600523 | 5937.0295 |
| 3 | Algeria | Africa | 2007 | 72.301 | 33333216 | 6223.3675 |
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| 8 | Bahrain | Asia | 2007 | 75.635 | 708573 | 29796.0483 |
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| 10 | Belgium | Europe | 2007 | 79.441 | 10392226 | 33692.6051 |

```
# ... with 132 more rows
```

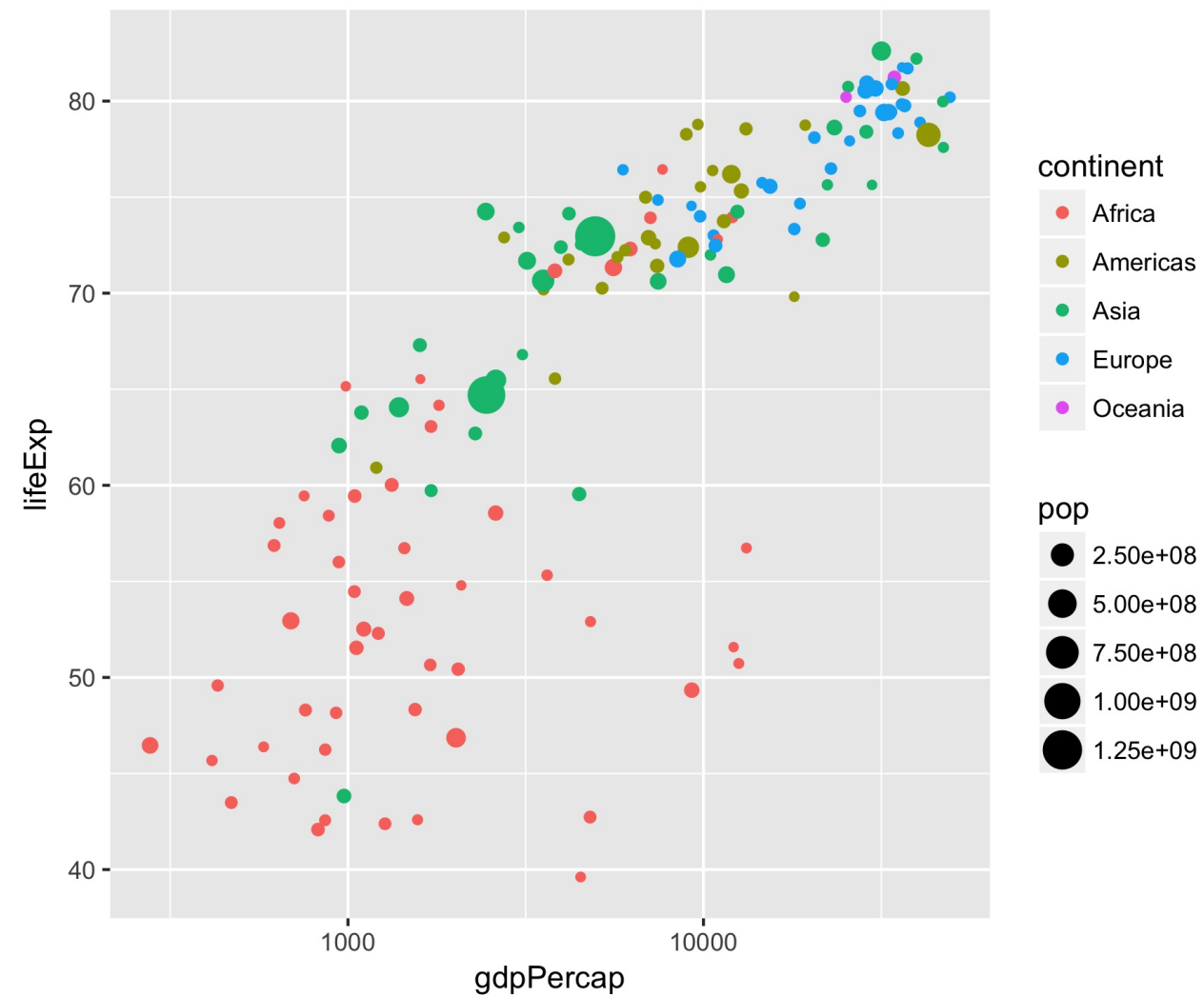


The color aesthetic



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

The size aesthetic



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

Aesthetics

| Aesthetic | Variable |
|-----------|-----------|
| x | gdpPerCap |
| y | lifeExp |
| color | continent |
| size | pop |



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Let's practice!

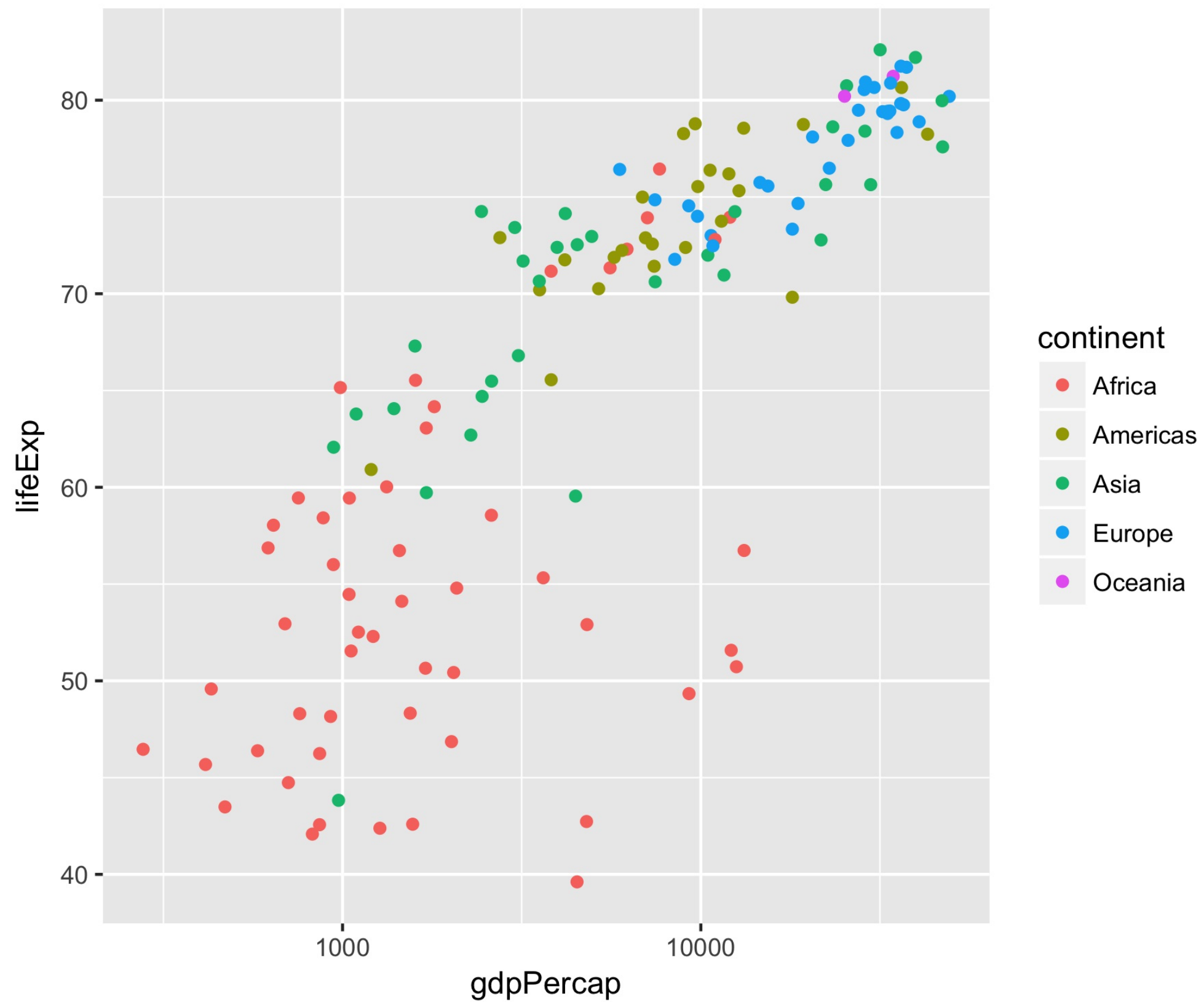


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Faceting

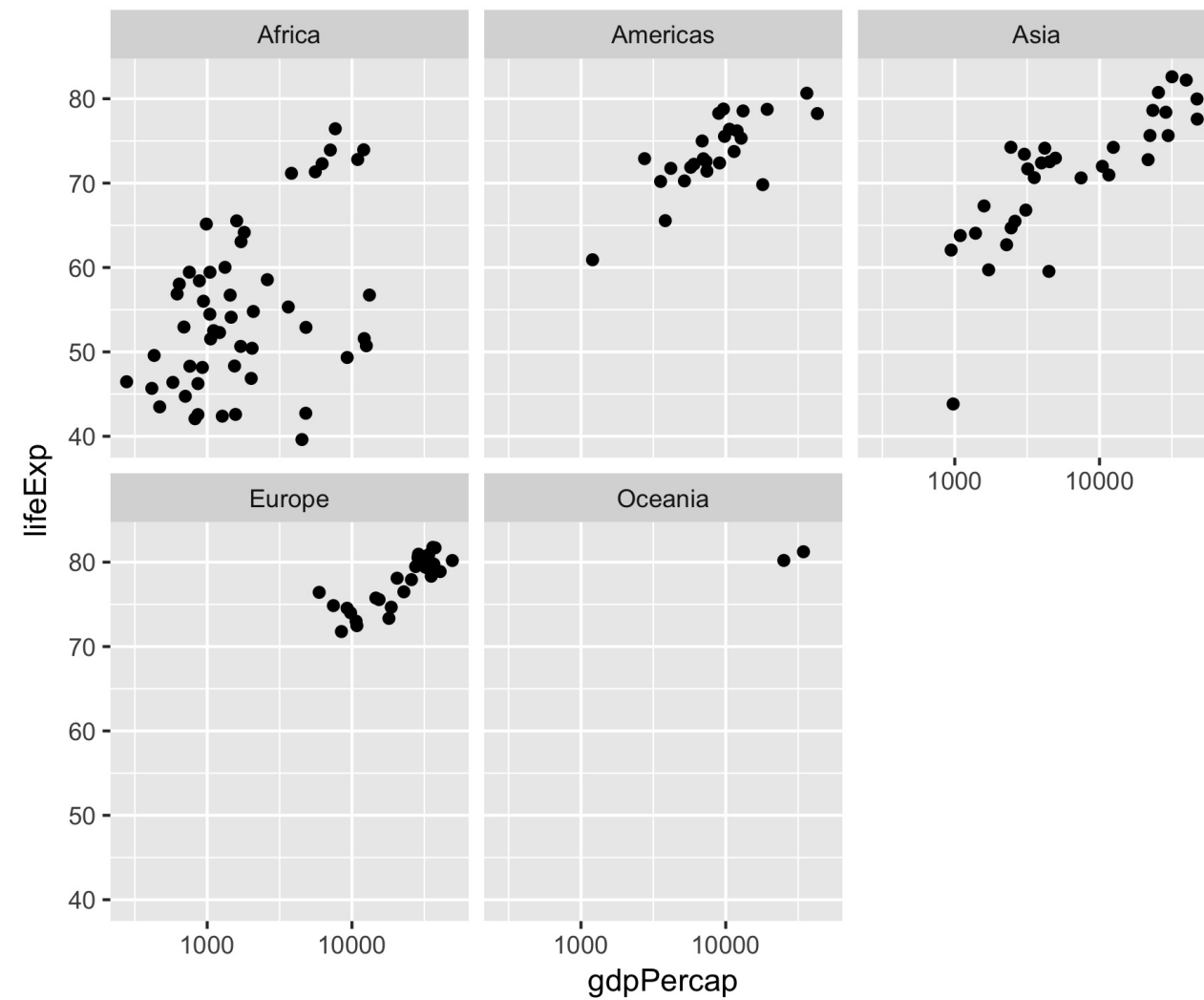
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Faceting



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





INTRODUCTION TO THE TIDYVERSE

Let's practice!