

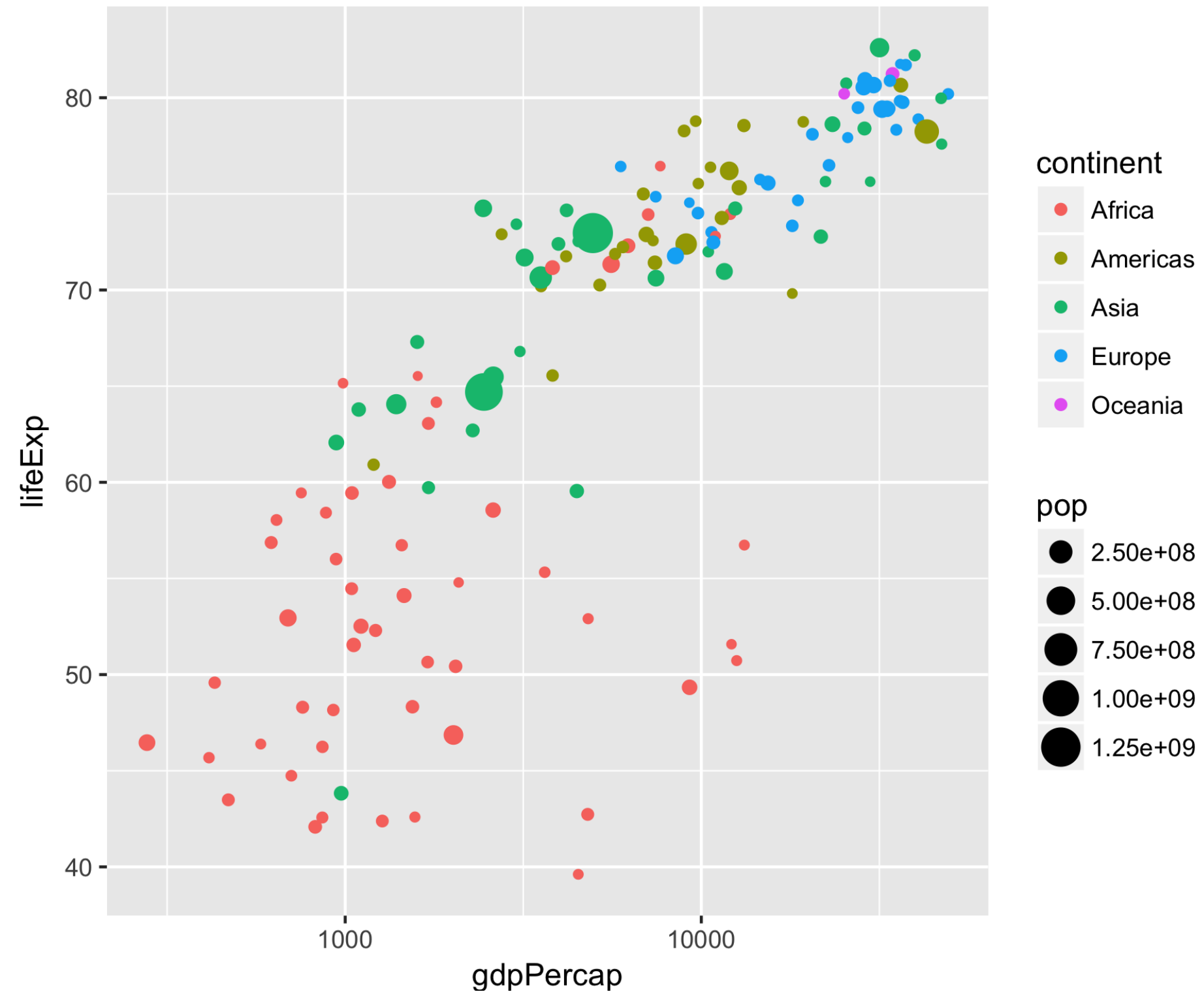
Line plots

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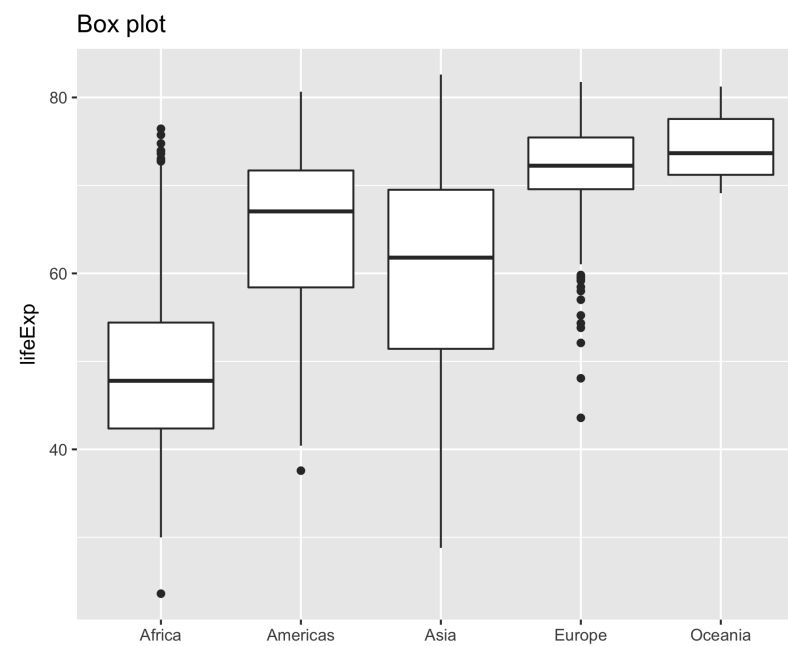
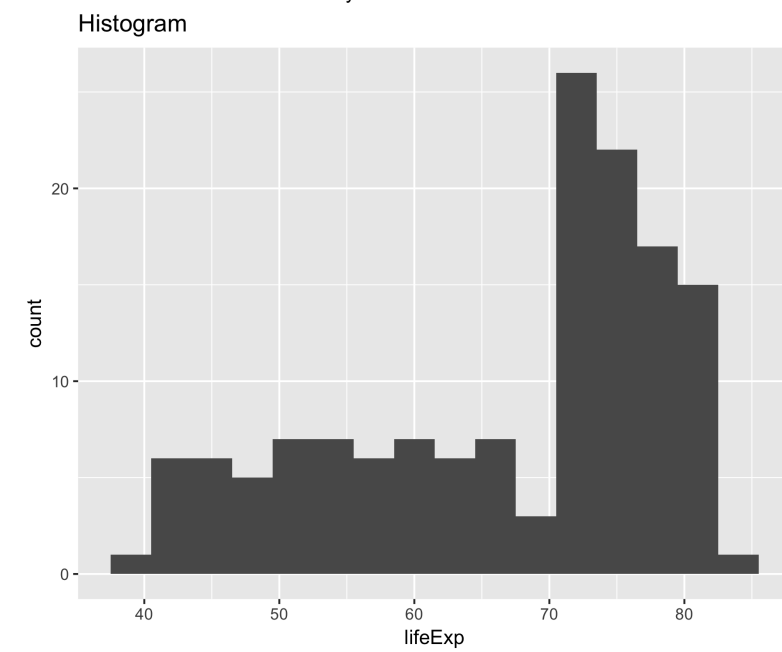
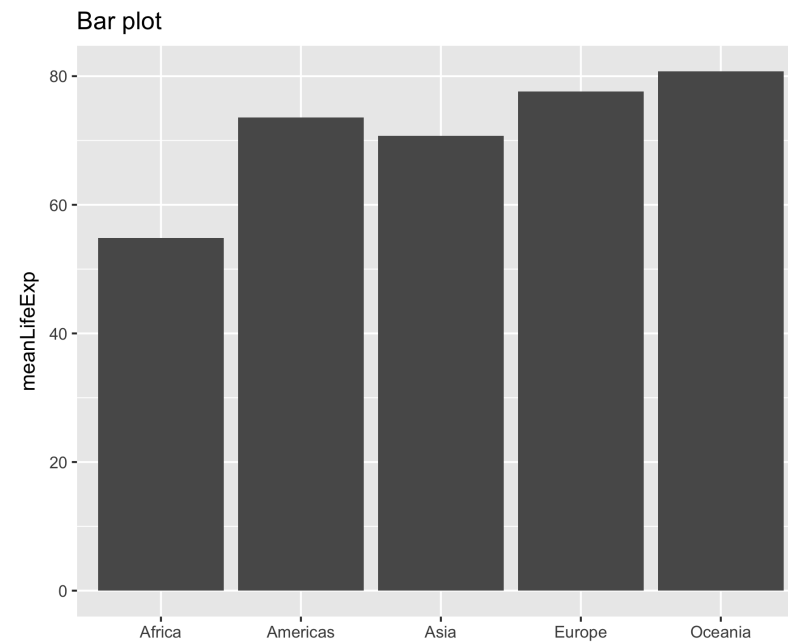
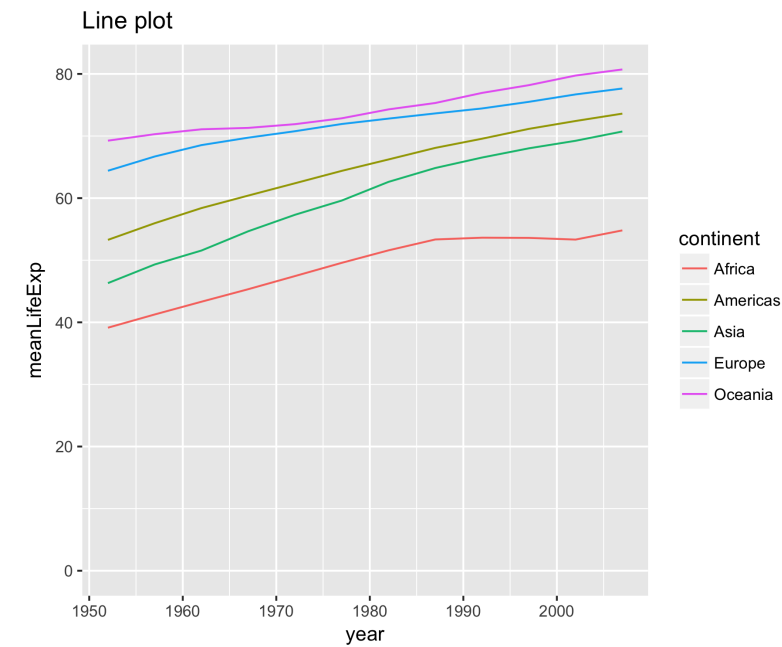


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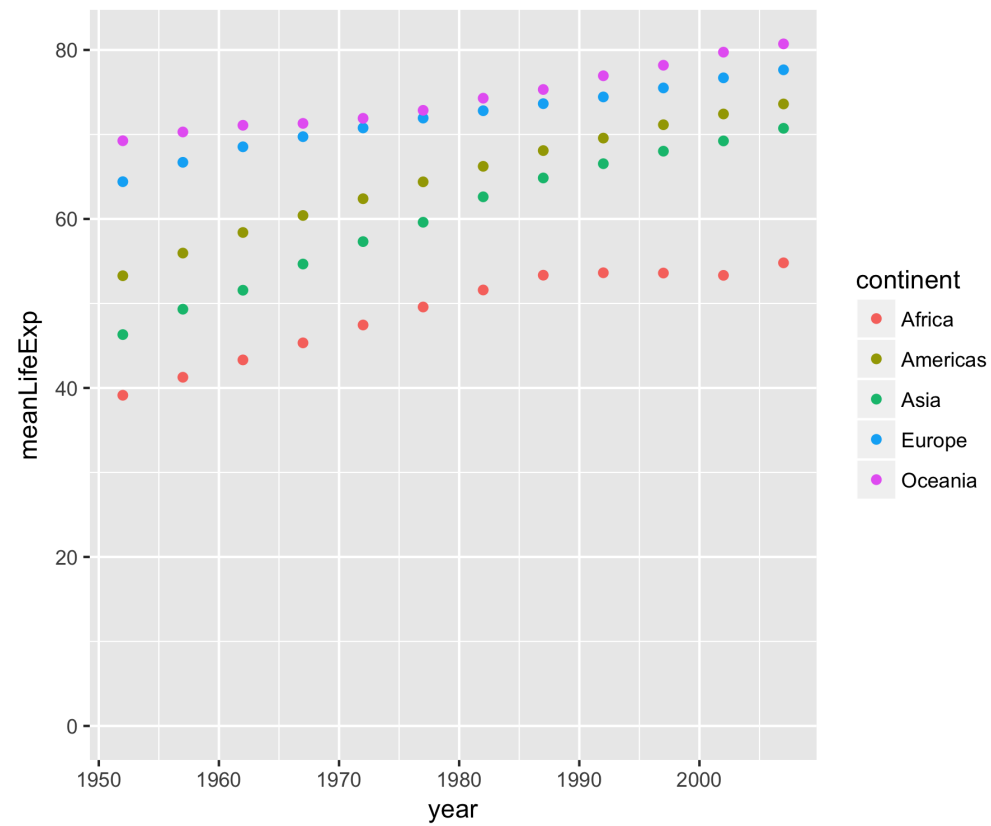
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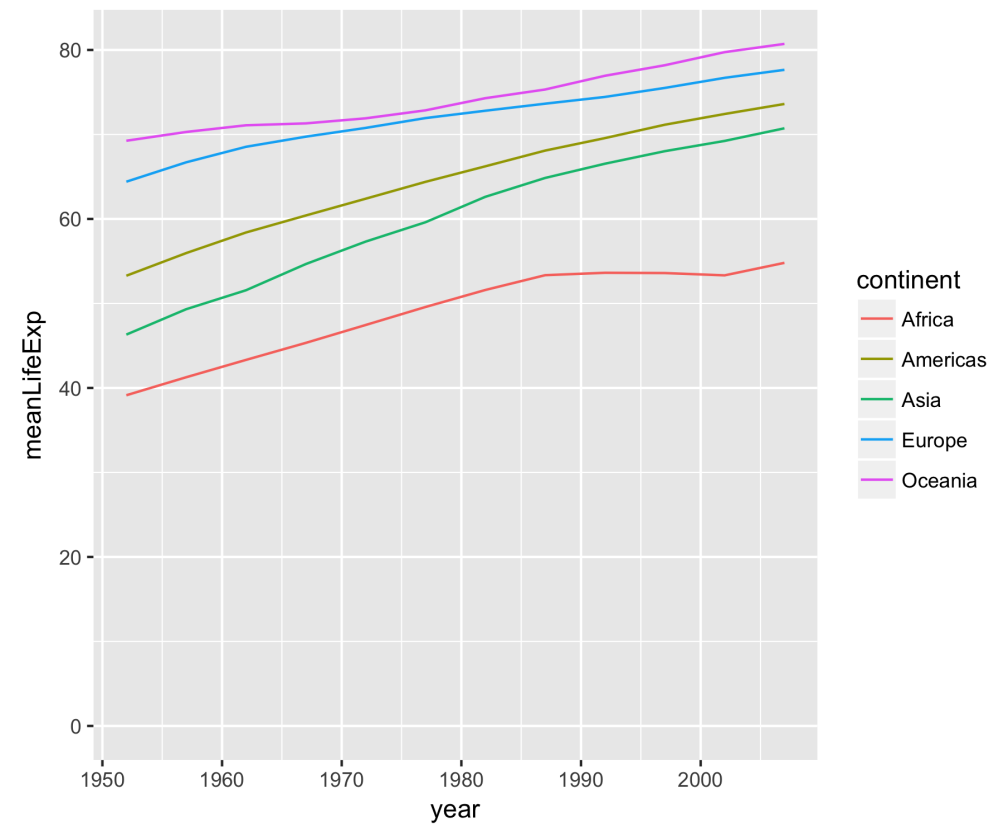
Types of plots



Scatter vs line plot

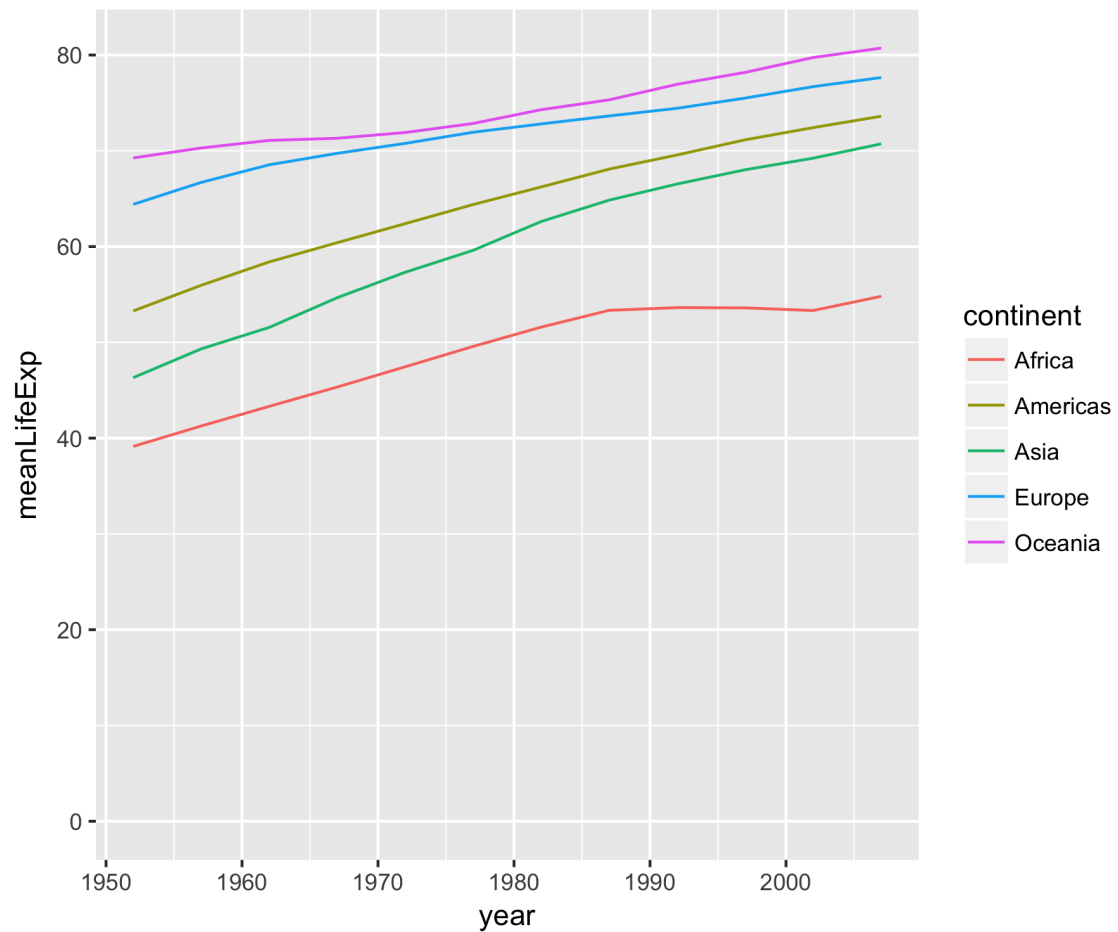


`geom_point()`



`geom_line()`

Line plot



```
ggplot(year_continent, aes(x = year, y = meanLifeExp, color = continent)) +  
  geom_line() +  
  expand_limits(y = 0)
```

Let's practice!

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Bar plots

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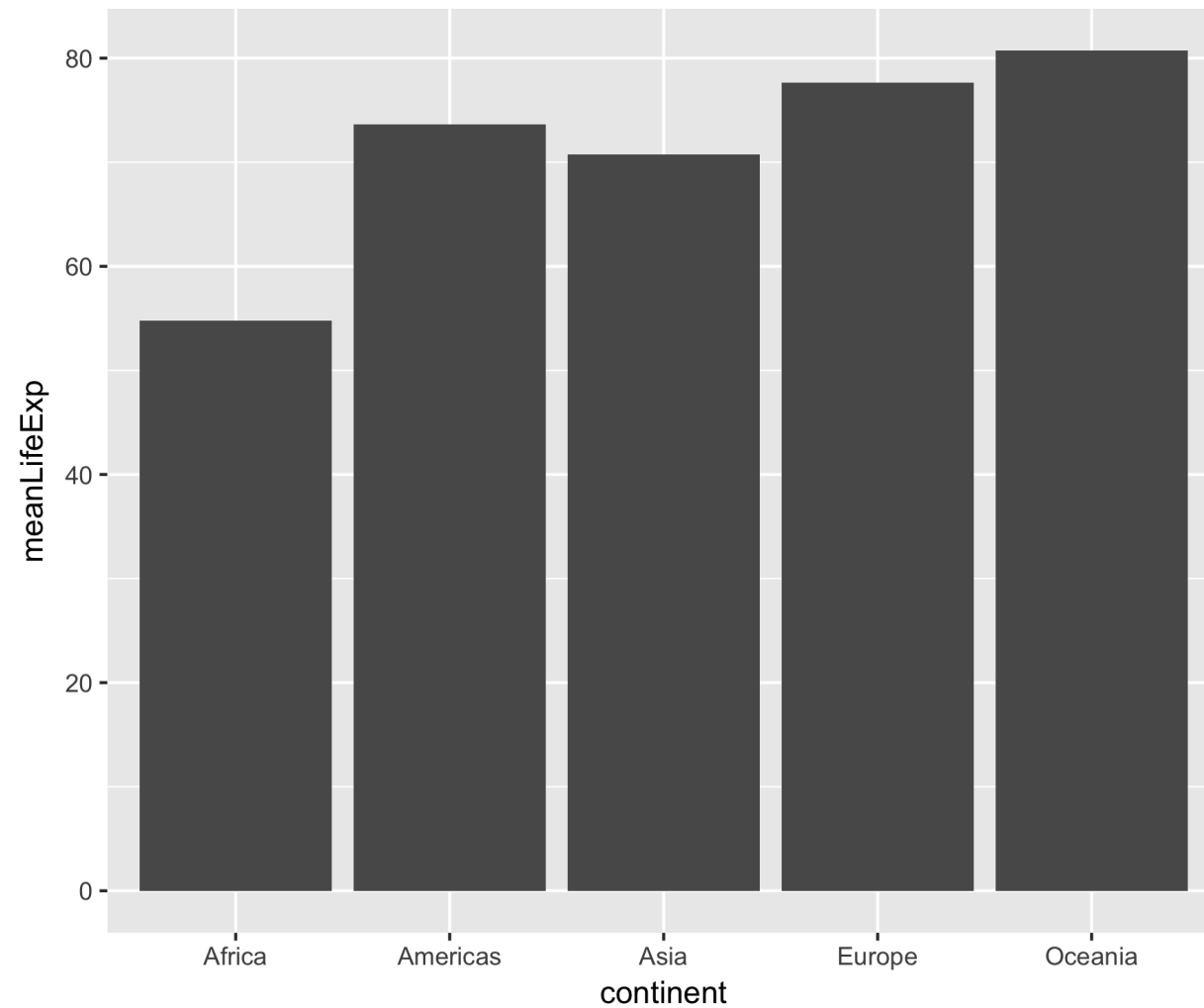
Summarizing by continent

```
by_continent <- gapminder %>%  
  filter(year == 2007) %>%  
  group_by(continent) %>%  
  summarize(meanLifeExp = mean(lifeExp))
```

```
by_continent
```

```
# A tibble: 5 x 2  
  continent meanLifeExp  
  <fctr>      <dbl>  
1 Africa      54.80604  
2 Americas    73.60812  
3 Asia        70.72848  
4 Europe      77.64860  
5 Oceania     80.71950
```


Bar plot



```
ggplot(by_continent, aes(x = continent, y = meanLifeExp)) +  
  geom_col()
```

Let's practice!

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Histograms

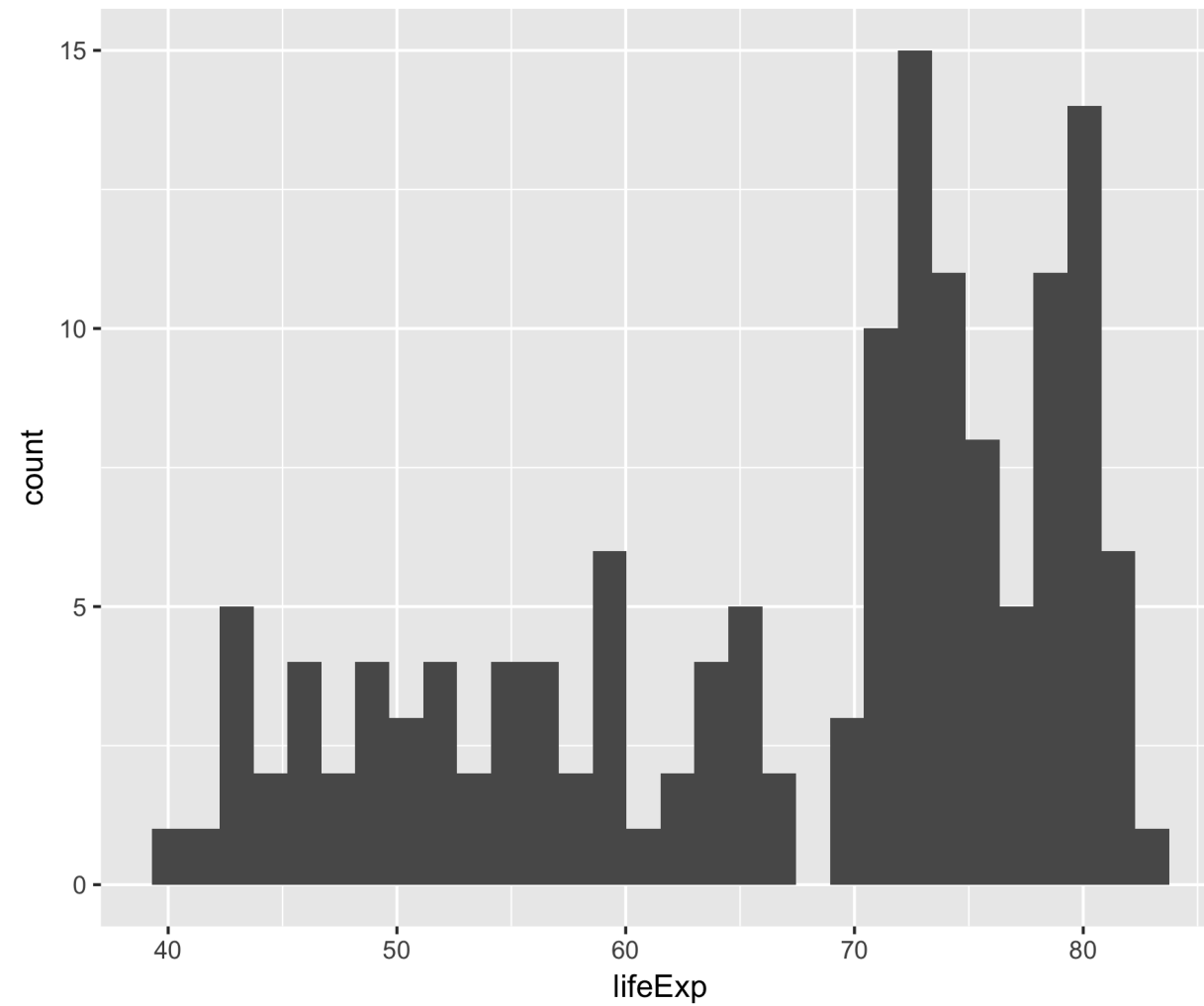
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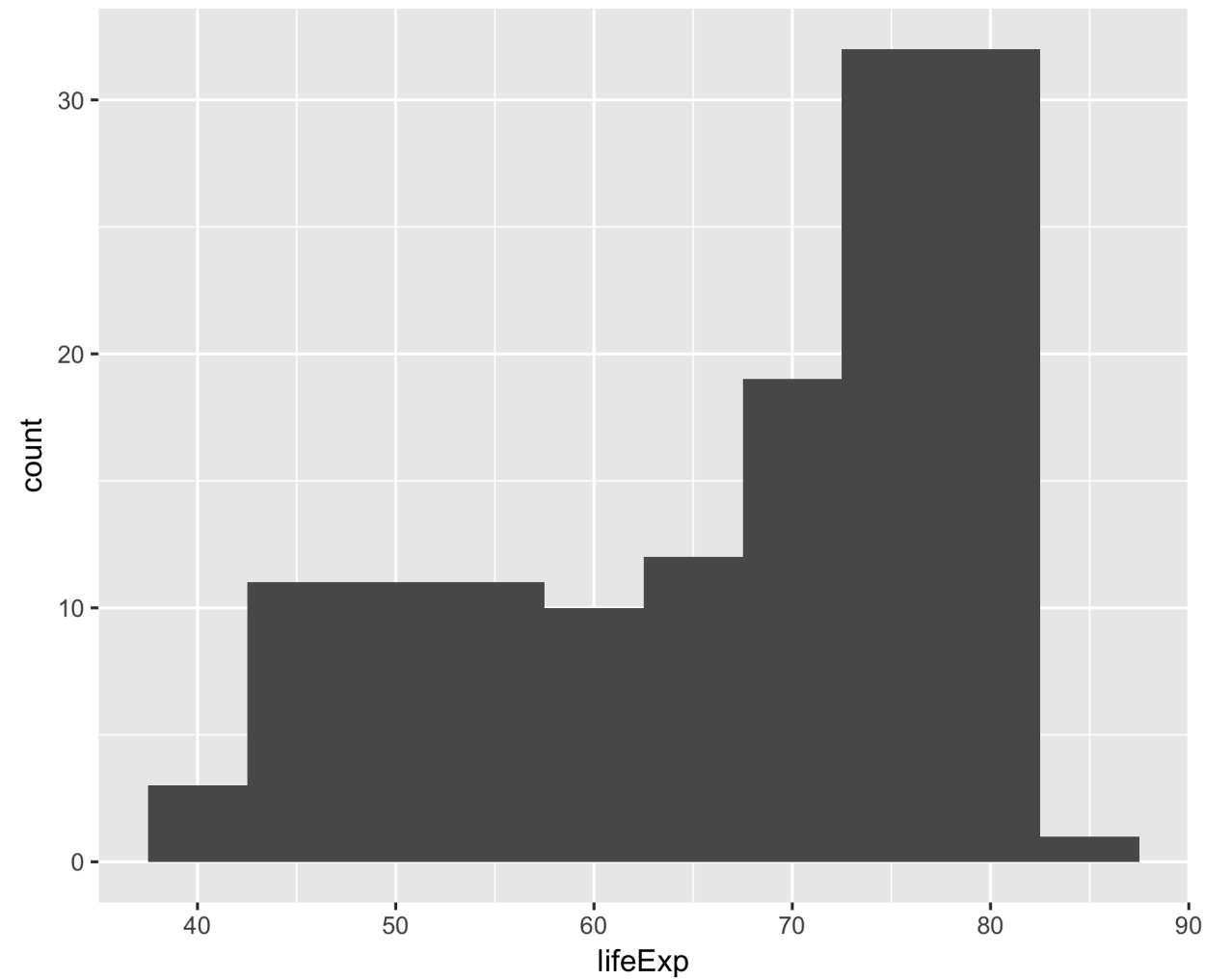
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Histogram



```
ggplot(gapminder_2007, aes(x = lifeExp)) +  
  geom_histogram()
```

Adjusting bin width



```
ggplot(gapminder_2007, aes(x = lifeExp)) +  
  geom_histogram(binwidth = 5)
```

Log x-axis

```
scale_x_log10()
```

Let's practice!

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Box plots

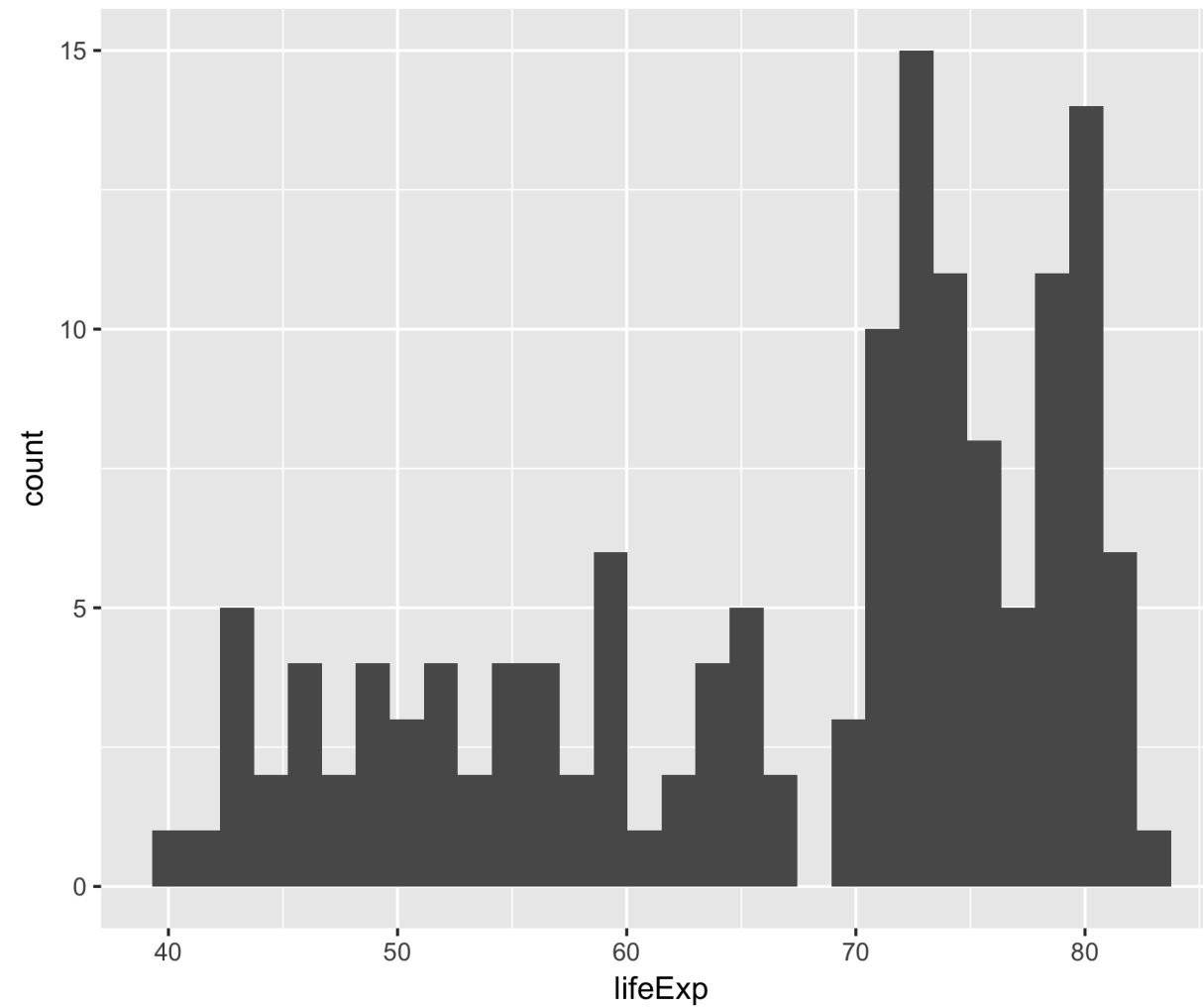
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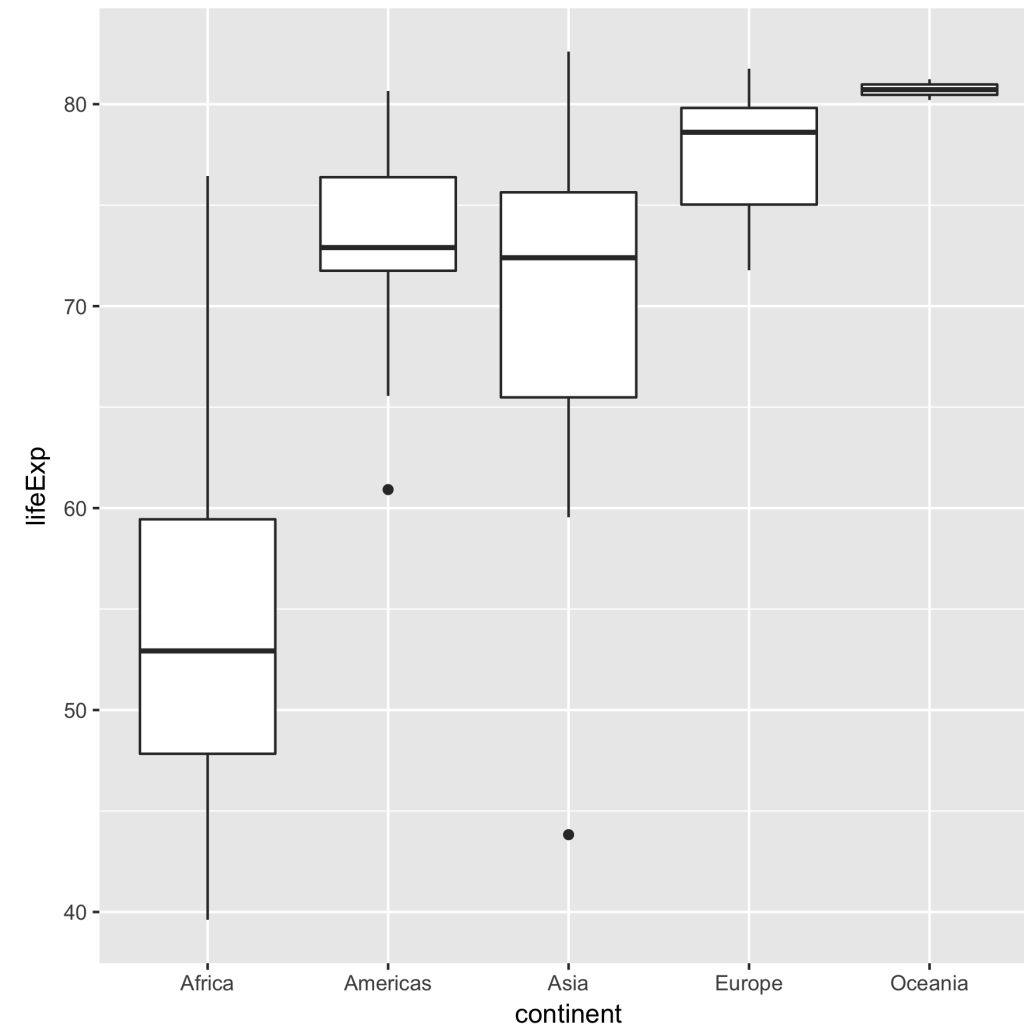
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Histograms



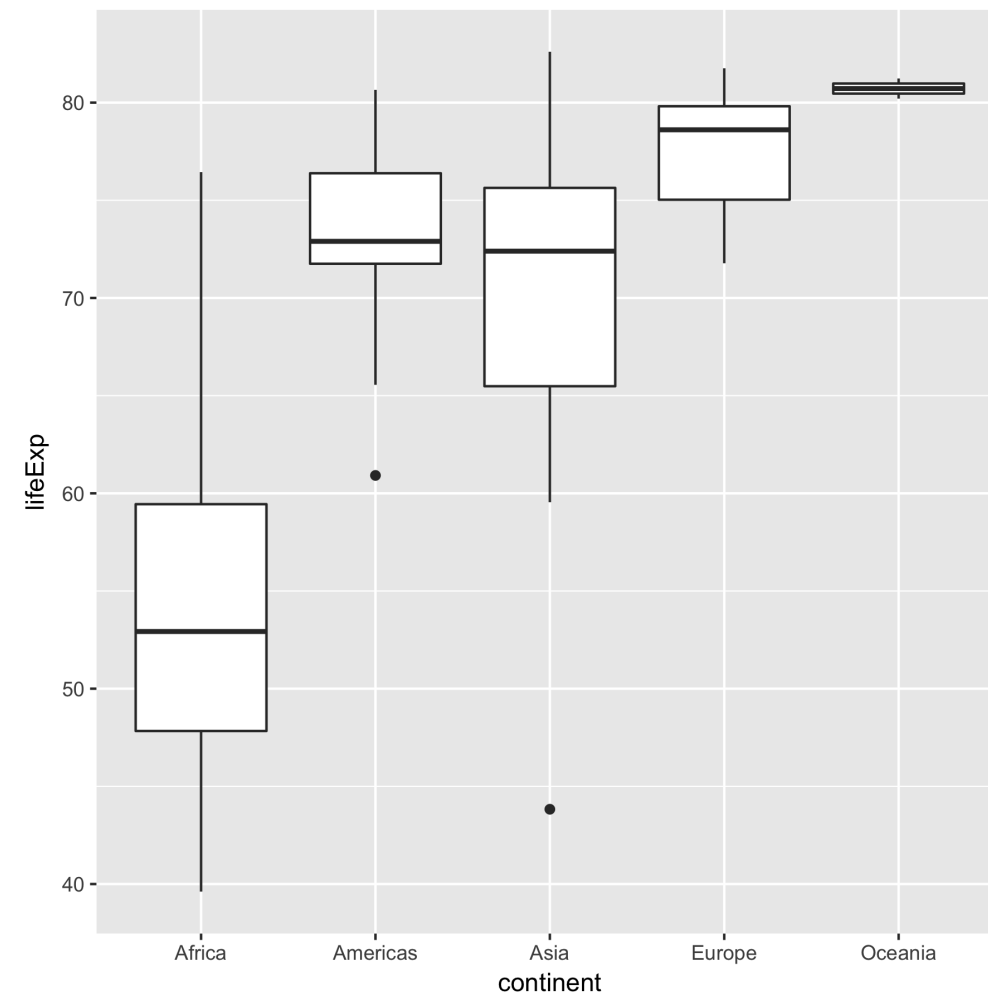
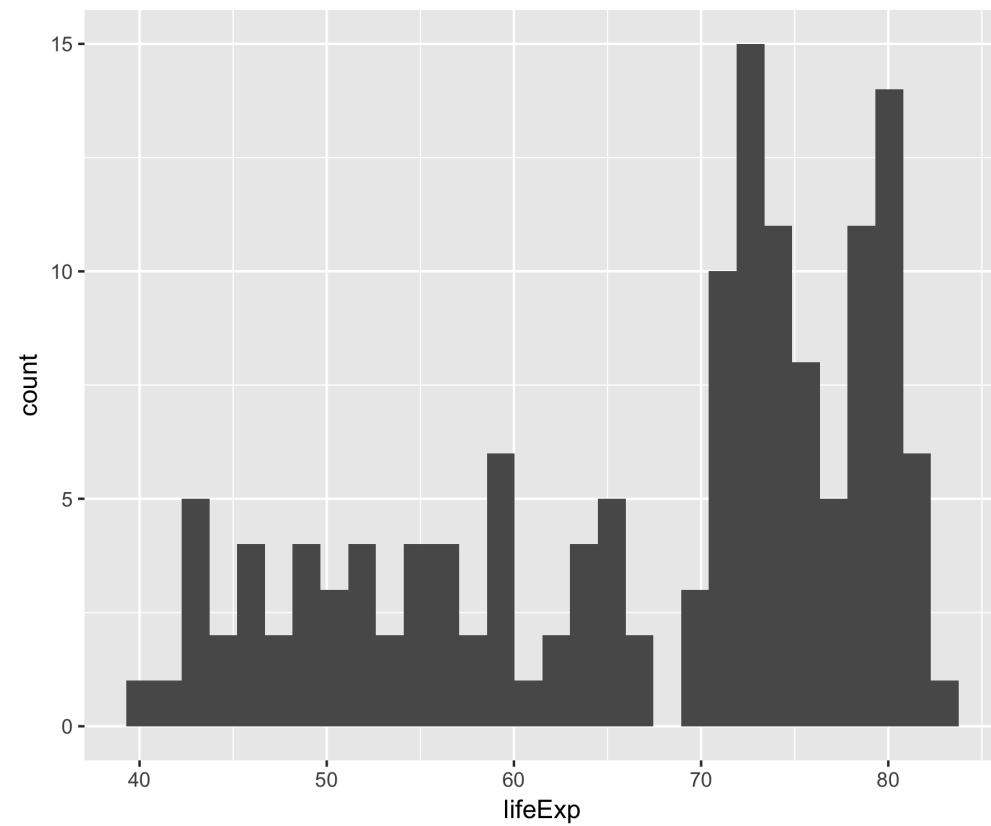
```
ggplot(gapminder_2007, aes(x = lifeExp)) +  
  geom_histogram()
```

Box plots



```
ggplot(gapminder_2007, aes(x = continent, y = lifeExp)) +  
  geom_boxplot()
```

Histogram vs box plot



Let's practice!

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Conclusion

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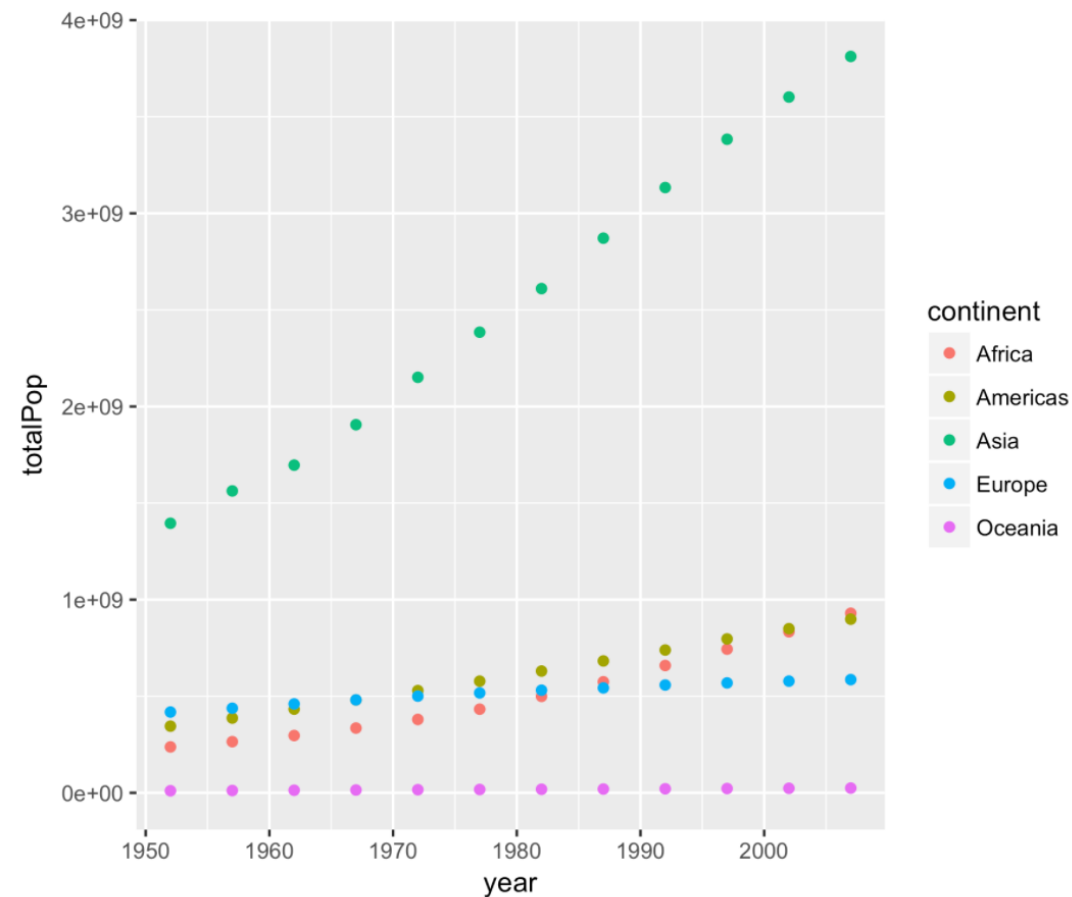


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Transforming and visualizing data with R

```
ggplot(by_year_continent, aes(x = year, y = totalPop, color = continent)) +  
  geom_point() +  
  expand_limits(y = 0)
```




Next steps: Data visualization

- Data visualization with `ggplot2`



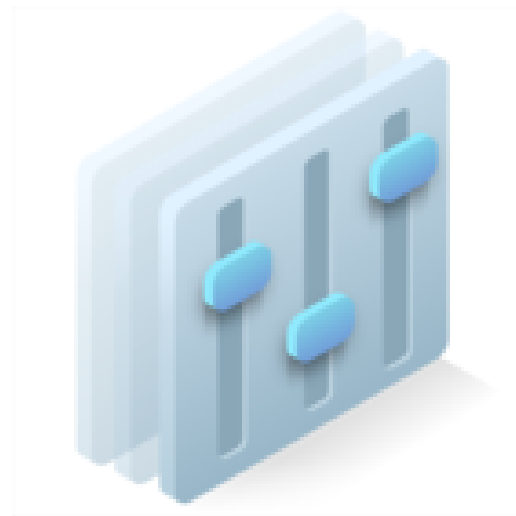
Data Visualization
with R



🕒 20 hours | 📖 5 courses

Next steps: Data manipulation

- Data manipulation with `dplyr`



Data Manipulation with R



🕒 16 hours | 📖 4 courses

Next steps: Importing and cleaning data

- Importing and cleaning data



Importing & Cleaning Data with R



🕒 14 hours | 📖 4 courses

Next steps: Practice!

- [Exploratory Data Analysis in R: Case Study](#)



Enjoy your data science journey!

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