creating-publication-quality-graphs

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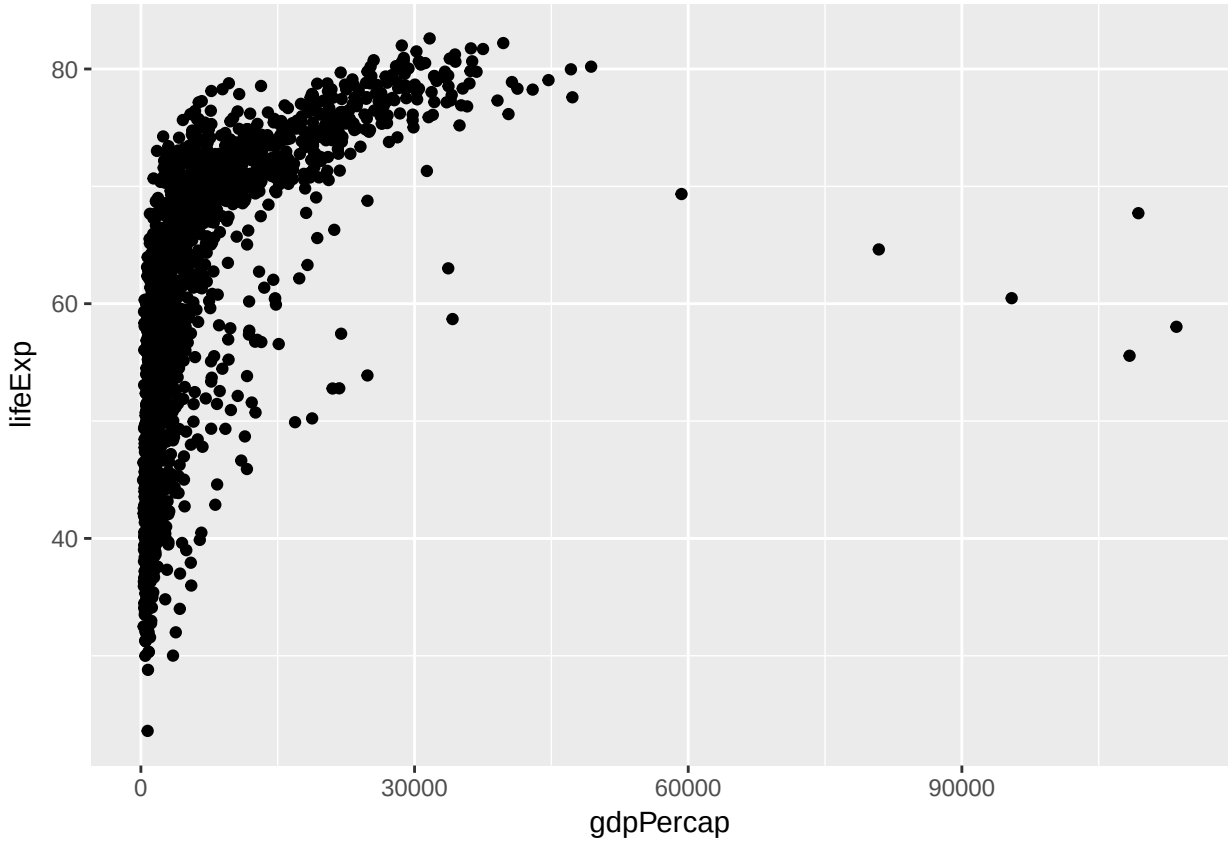
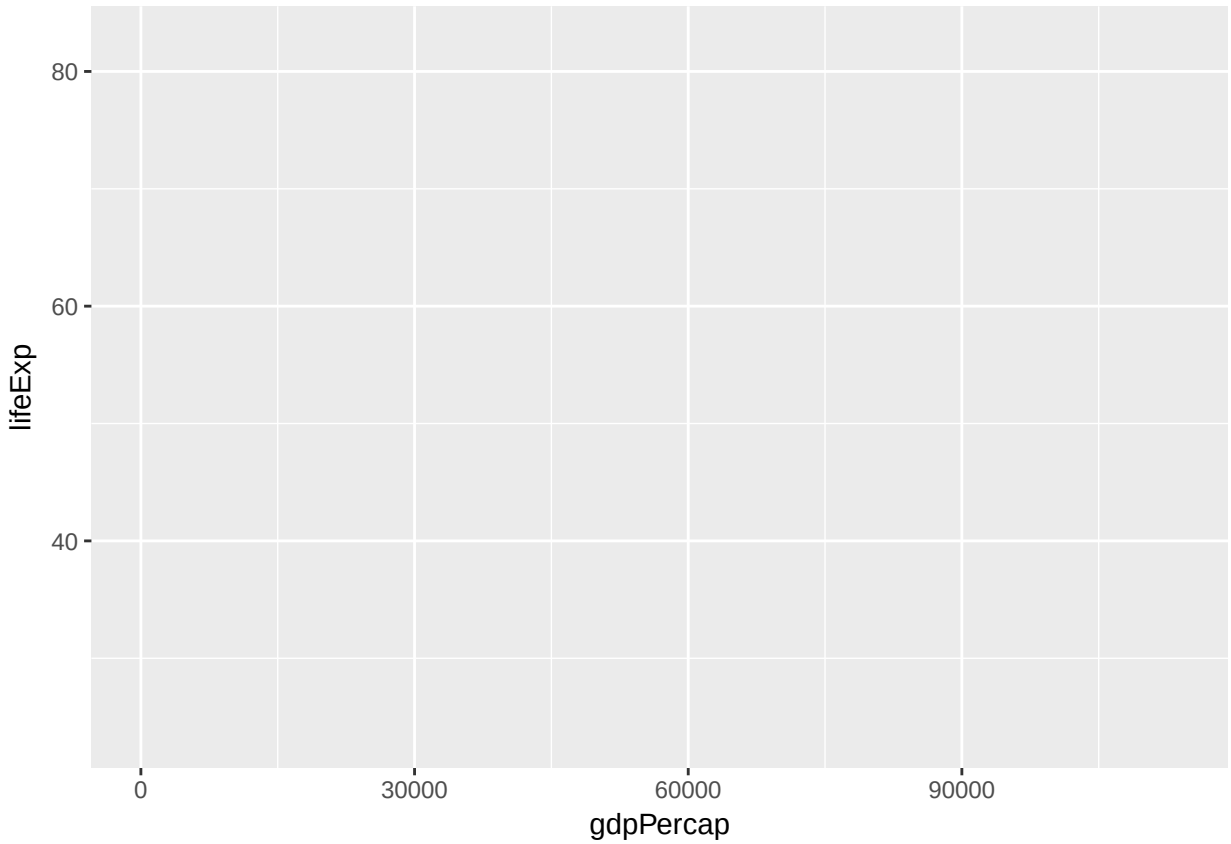
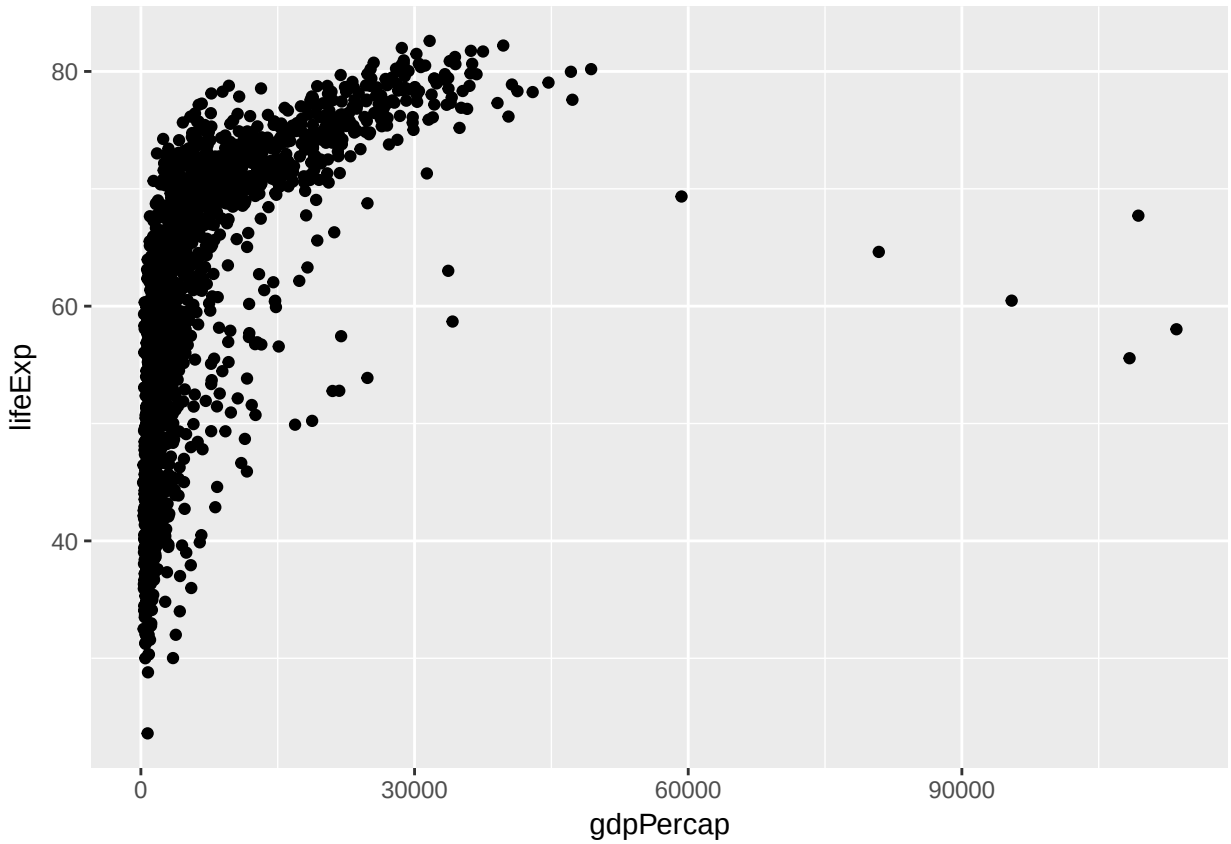
```
library("ggplot2")
gapminder <- read.csv("https://raw.githubusercontent.com/swcarpentry/r-novice-gapminder/gh-pages/_episo
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp)) +geom_point()
```



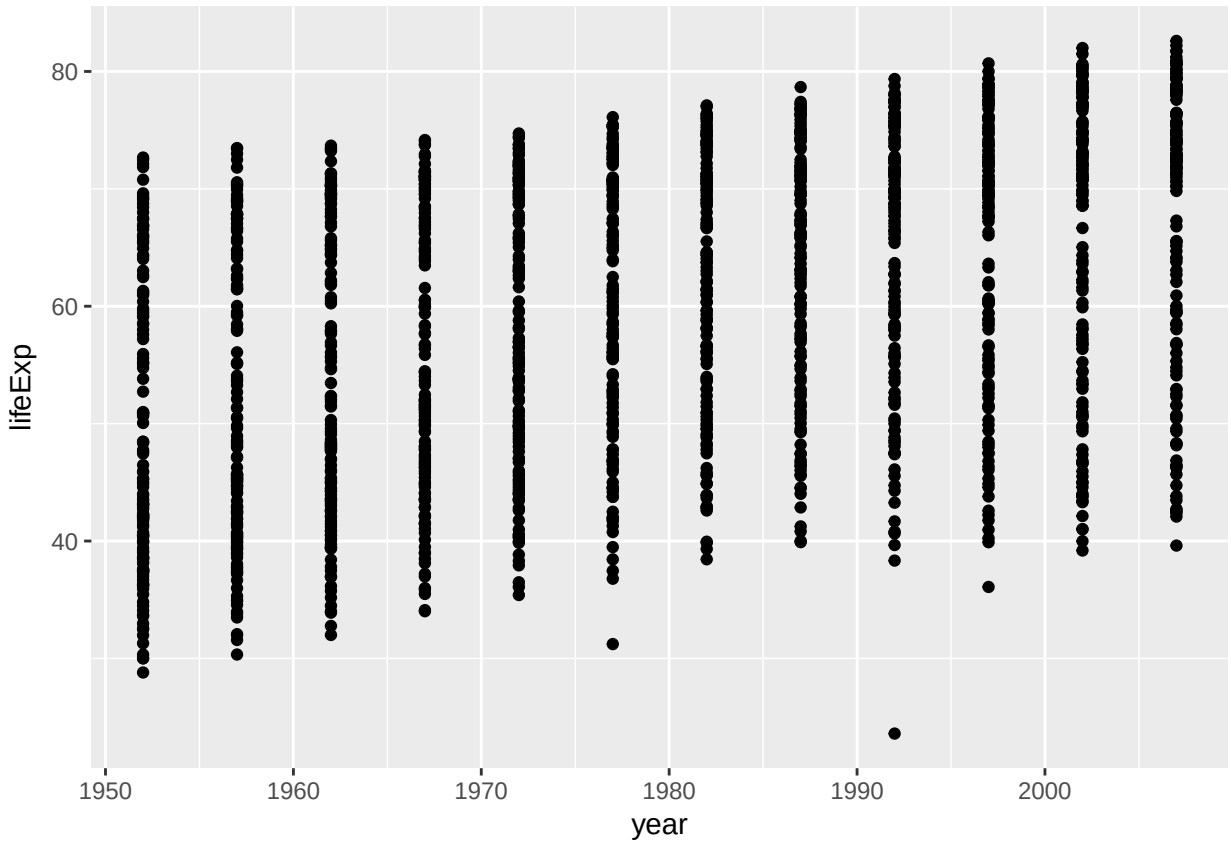

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp))
```



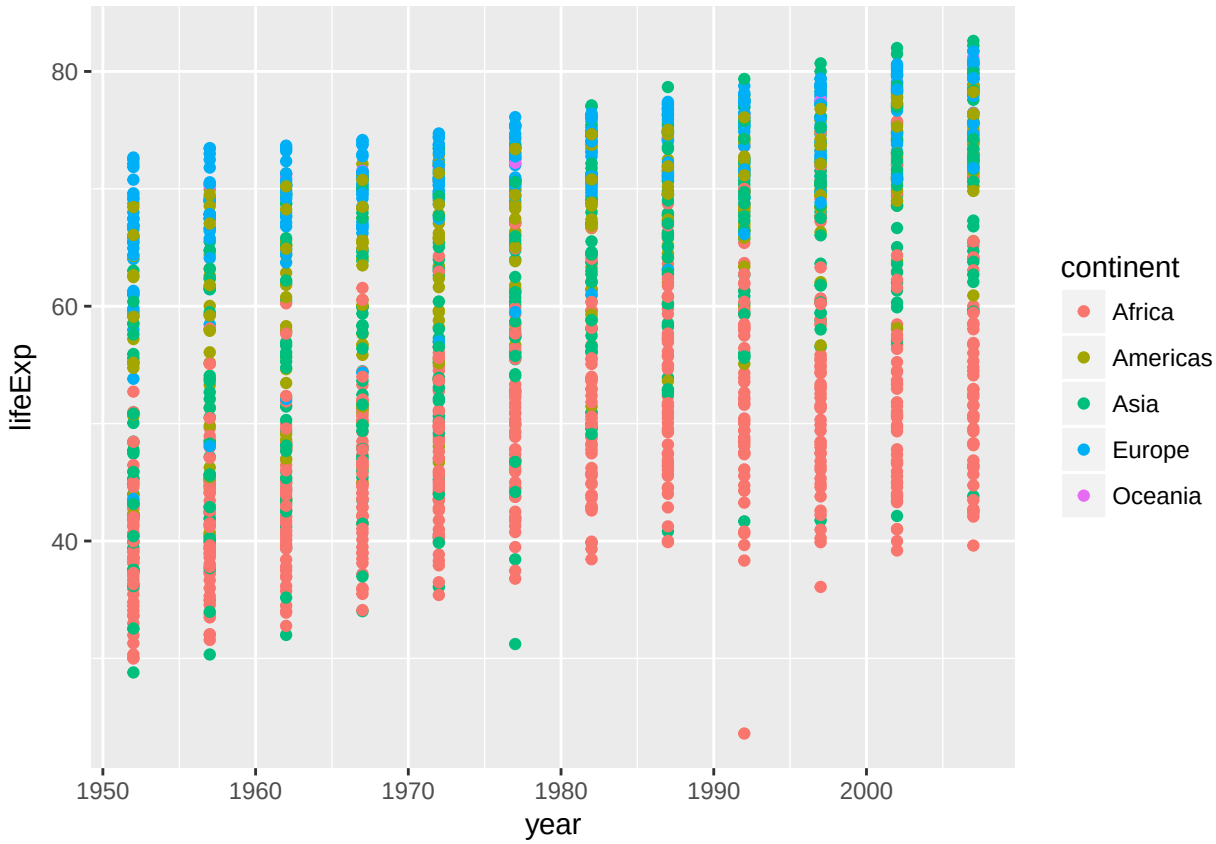

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp)) +
  geom_point()
```



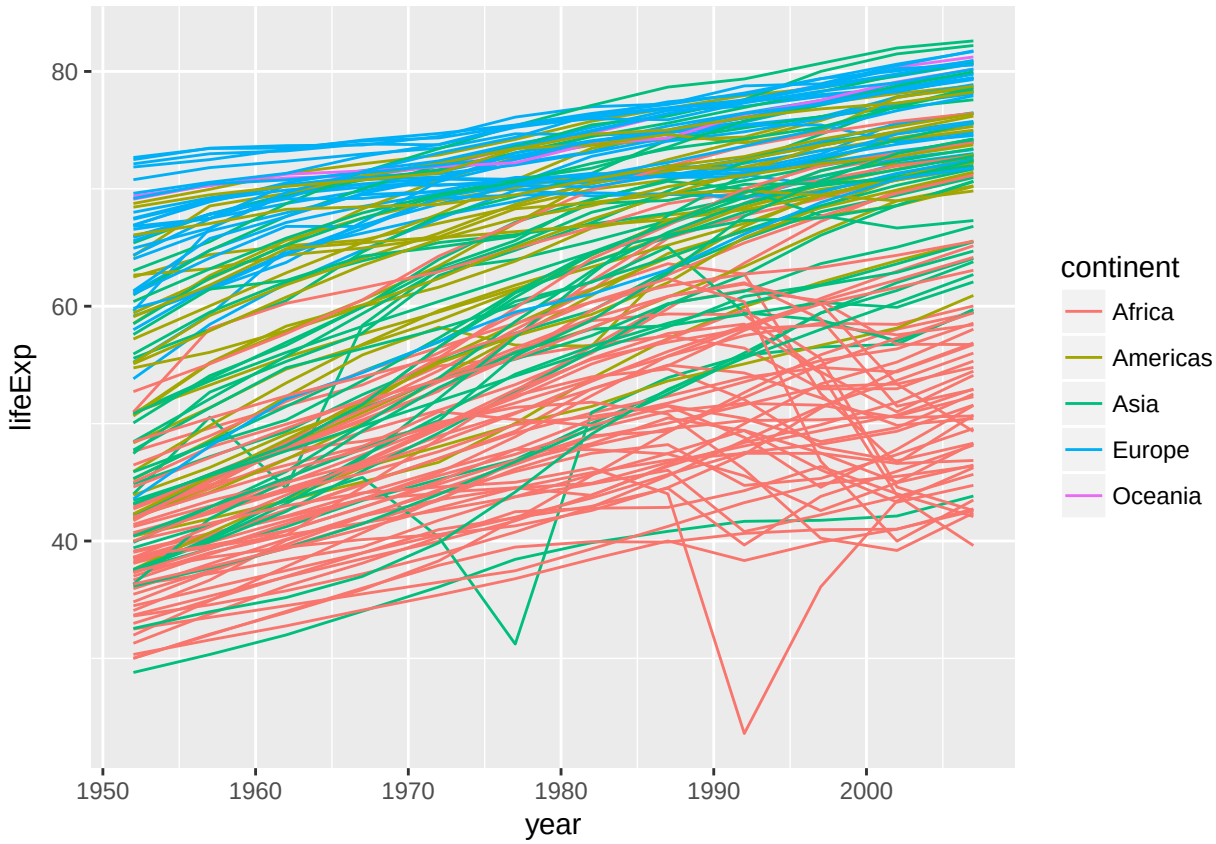

```
ggplot(data = gapminder, aes(x = year, y = lifeExp)) + geom_point()
```



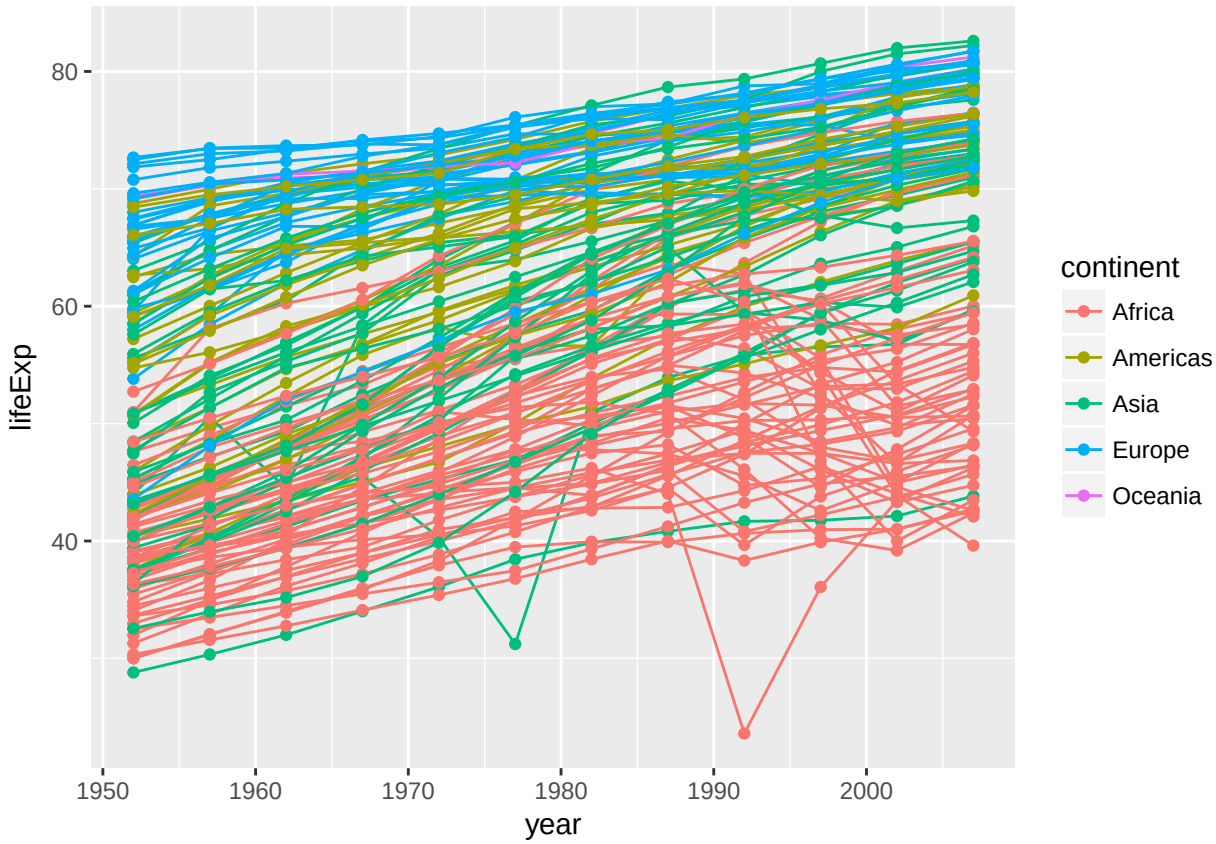

```
ggplot(data = gapminder, aes(x = year, y = lifeExp, color=continent)) +
  geom_point()
```



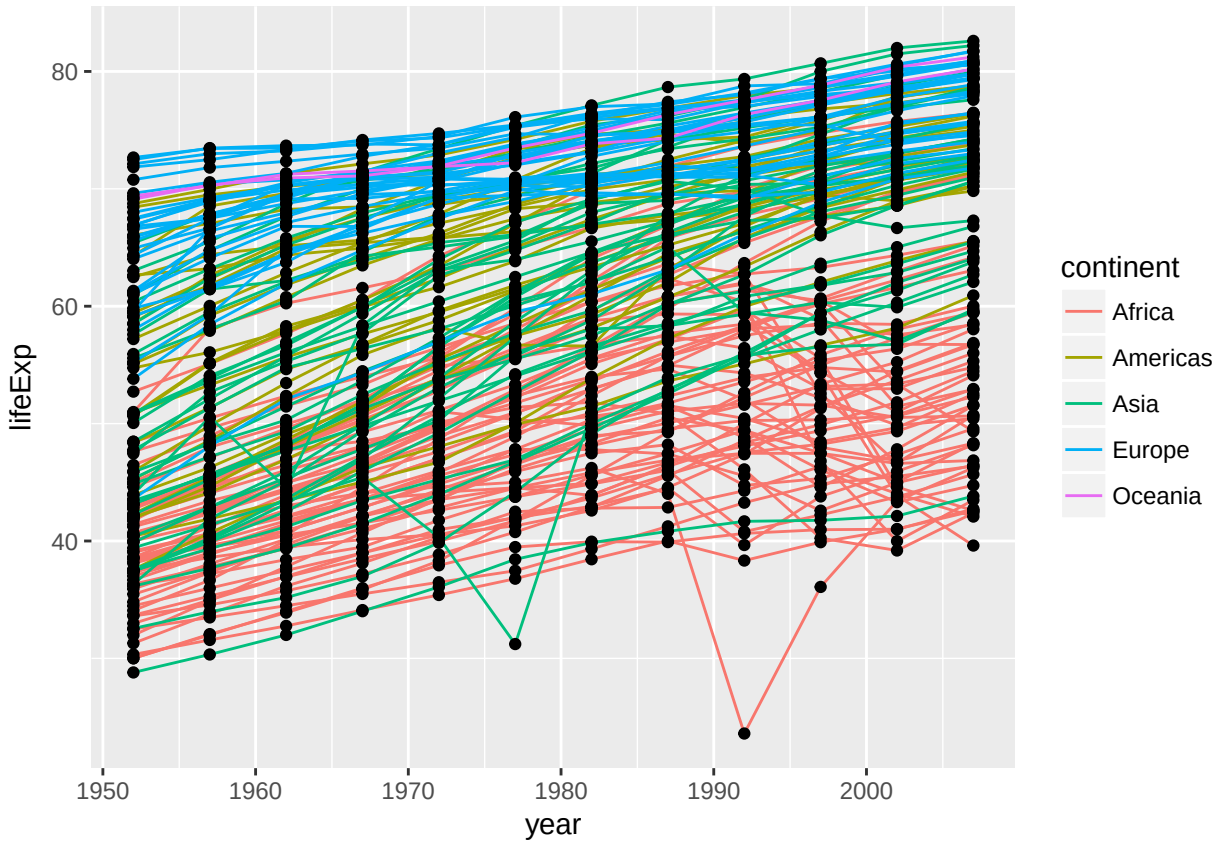

```
ggplot(data = gapminder, aes(x=year, y=lifeExp, by=country, color=continent)) +
  geom_line()
```



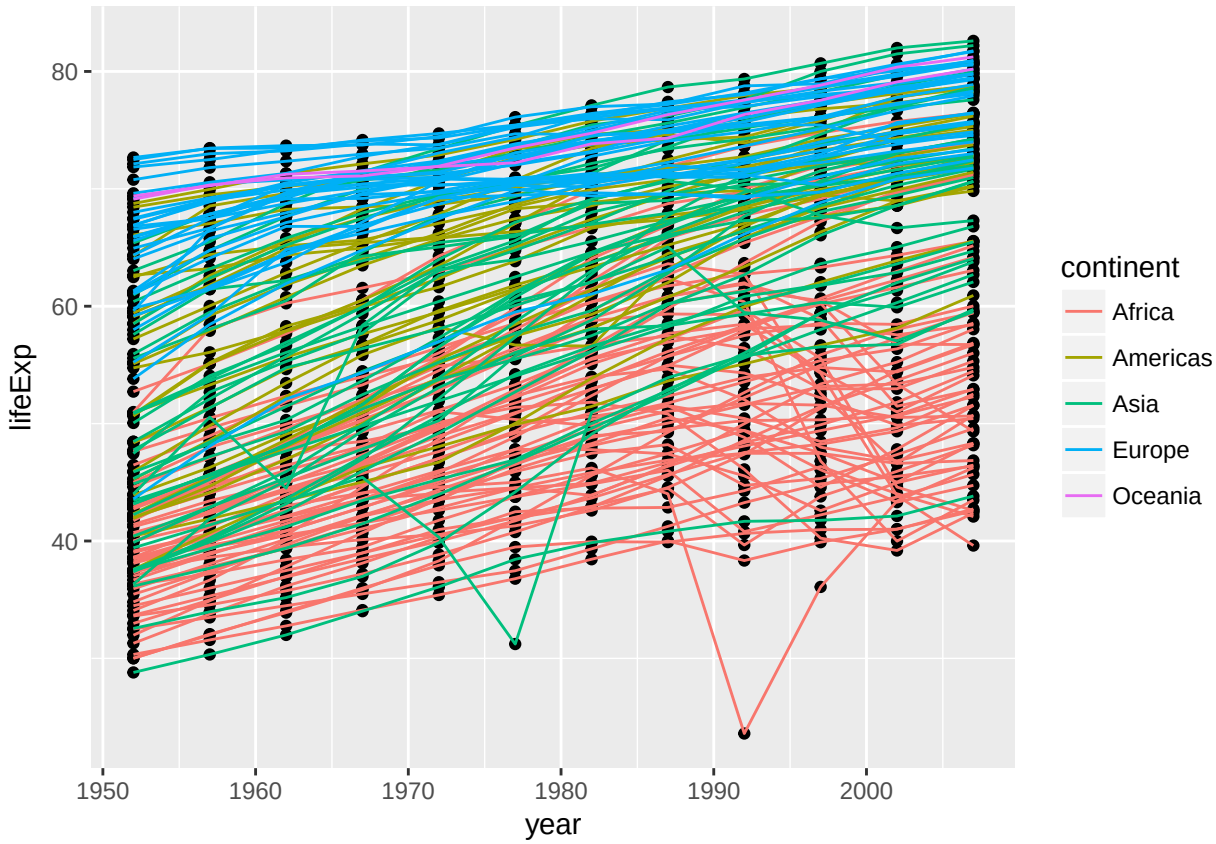

```
ggplot(data = gapminder, aes(x=year, y=lifeExp, by=country, color=continent)) +
  geom_line() + geom_point()
```



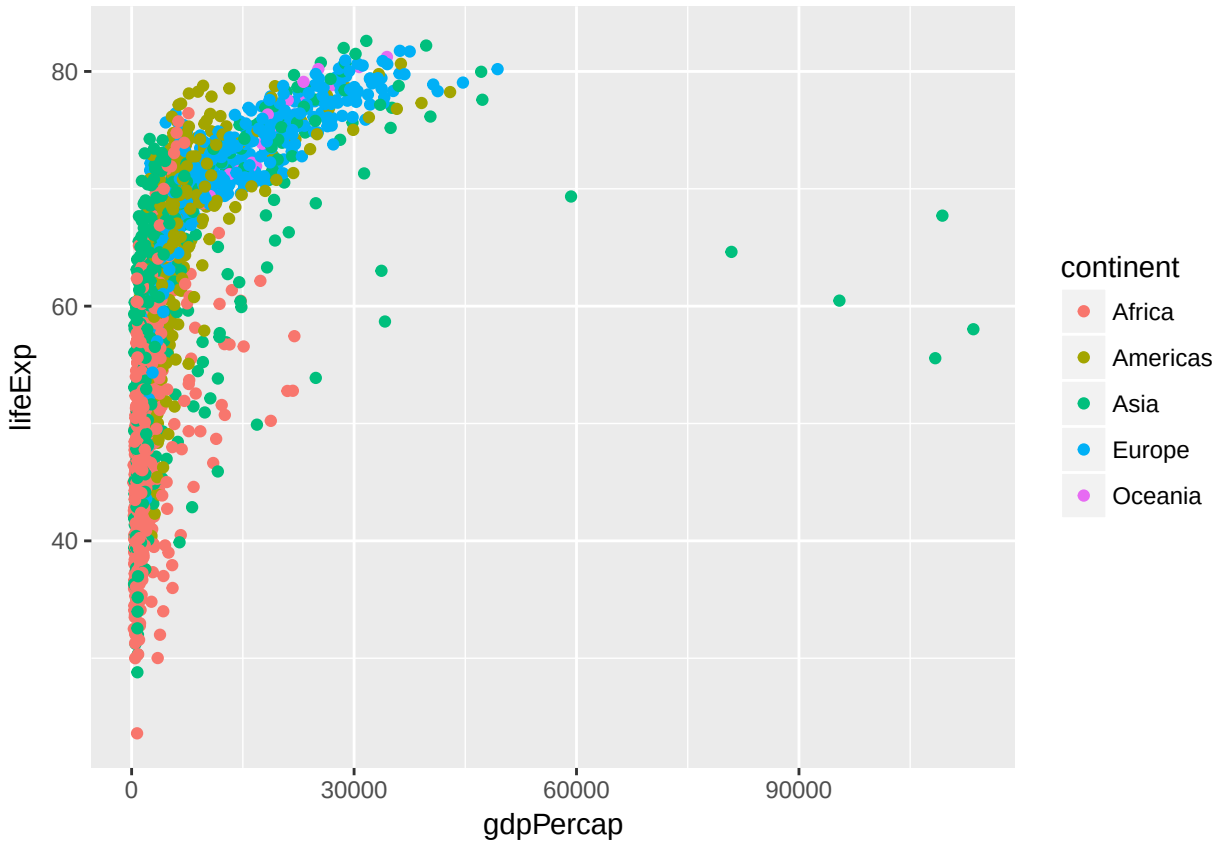

```
ggplot(data = gapminder, aes(x=year, y=lifeExp, by=country)) +
  geom_line(aes(color=continent)) + geom_point()
```



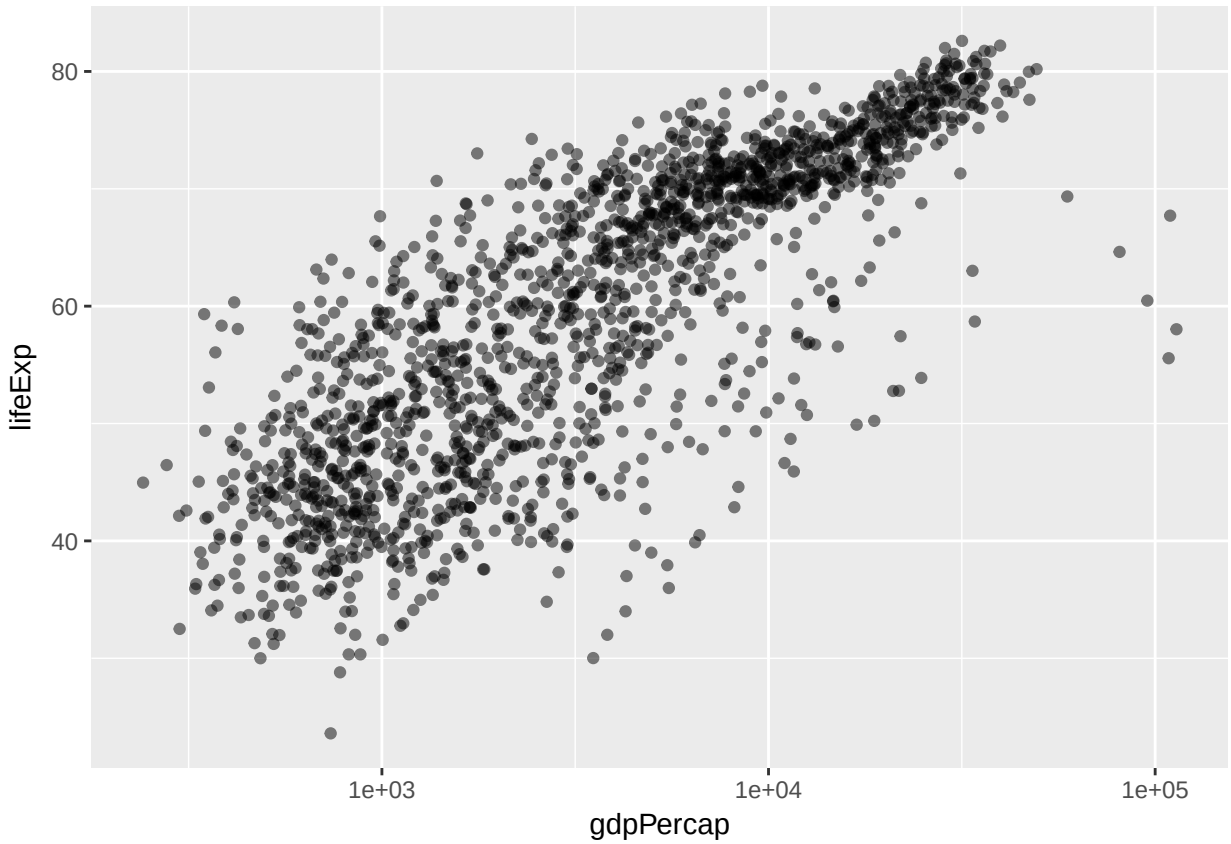

```
ggplot(data = gapminder, aes(x=year, y=lifeExp, by=country)) +
 geom_point() + geom_line(aes(color=continent))
```



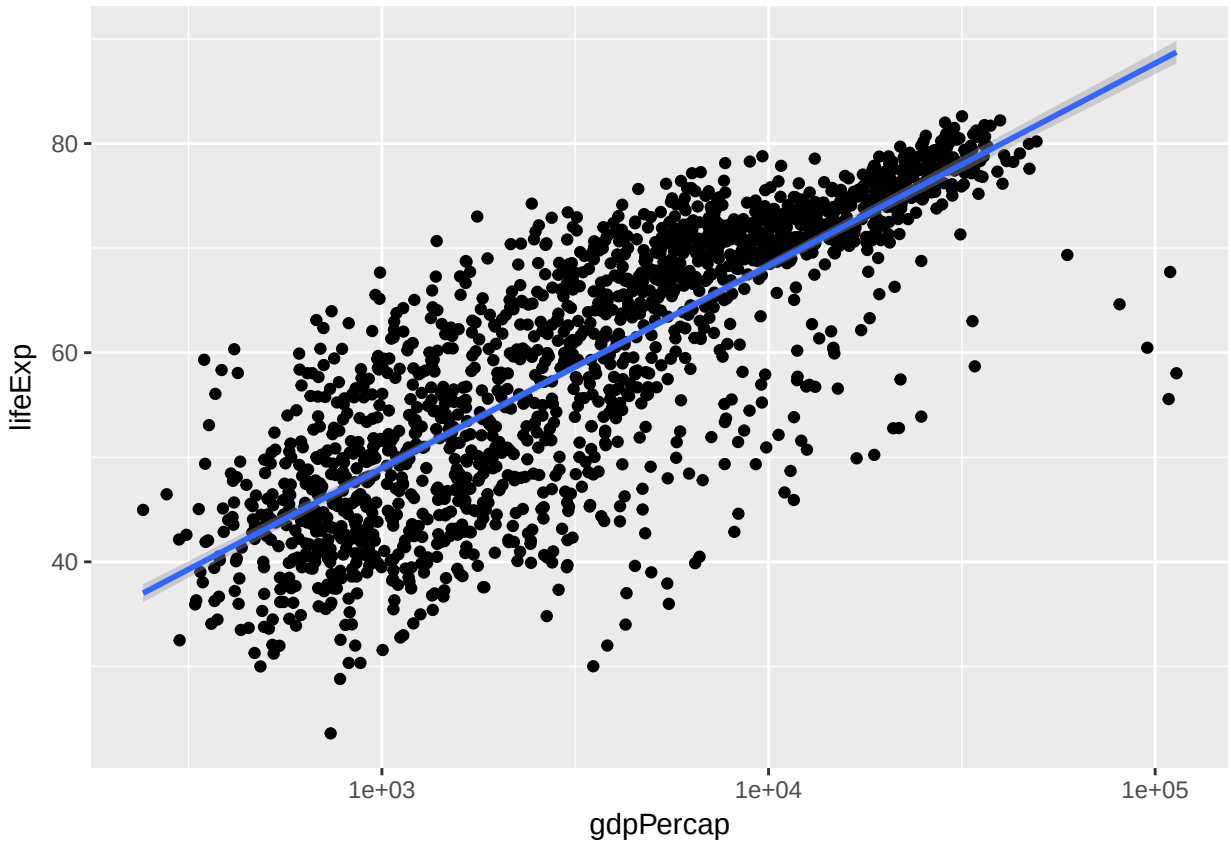

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp, color=continent)) +
  geom_point()
```



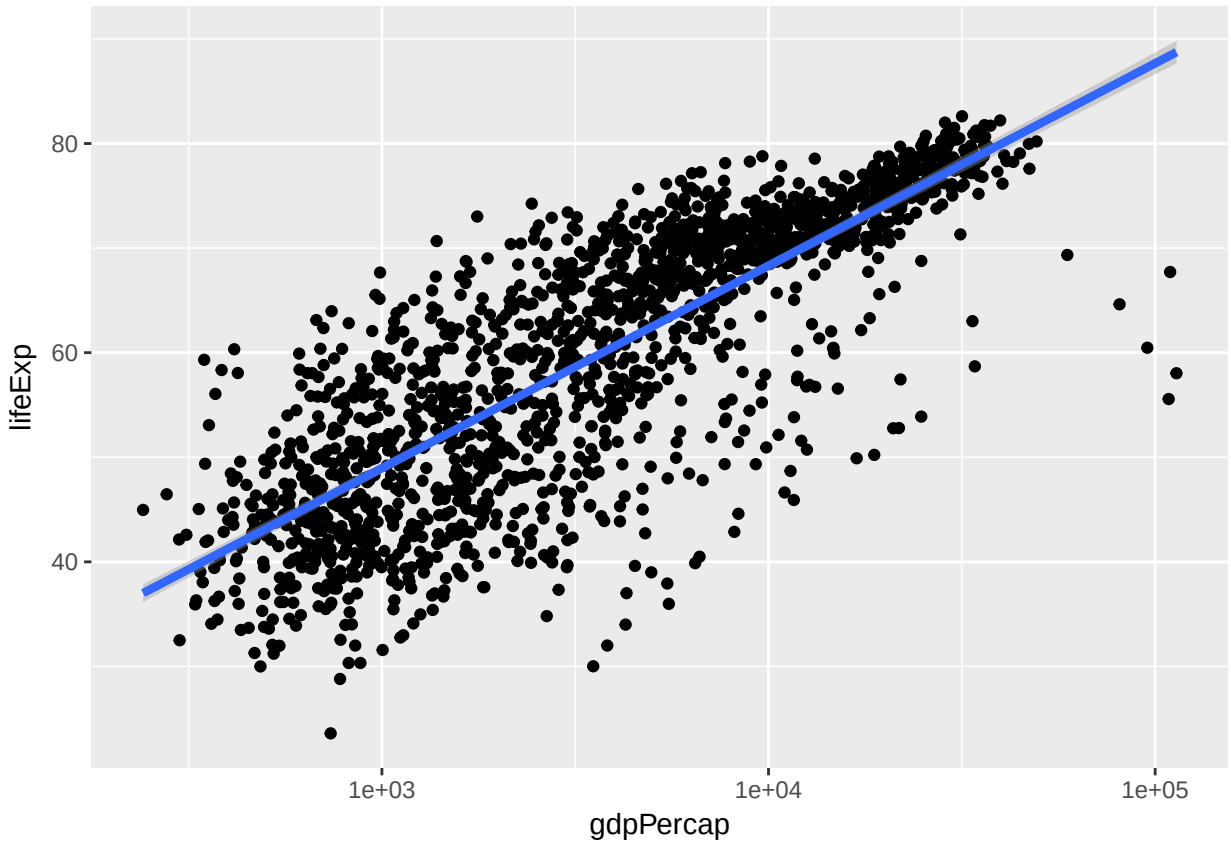

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp)) +
  geom_point(alpha = 0.5) + scale_x_log10()
```



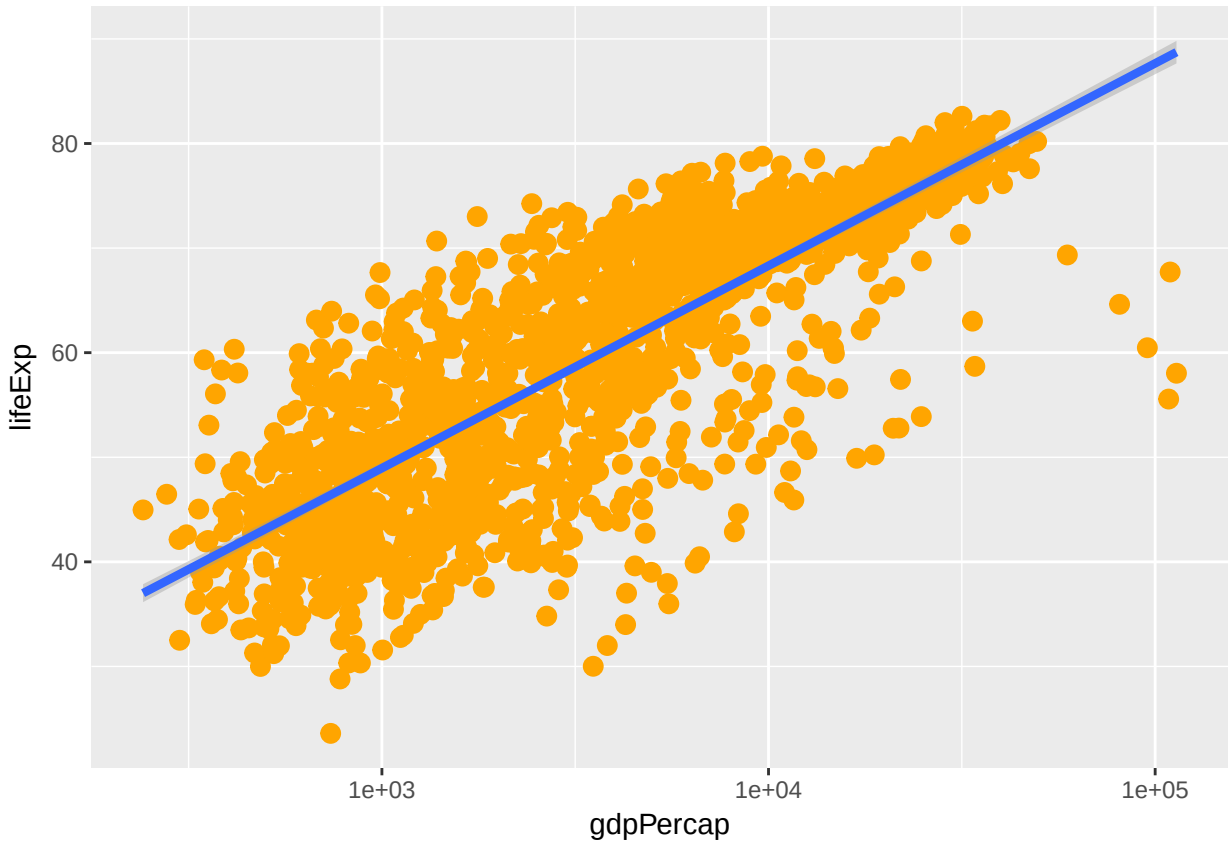

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp)) +
  geom_point() + scale_x_log10() + geom_smooth(method="lm")
```



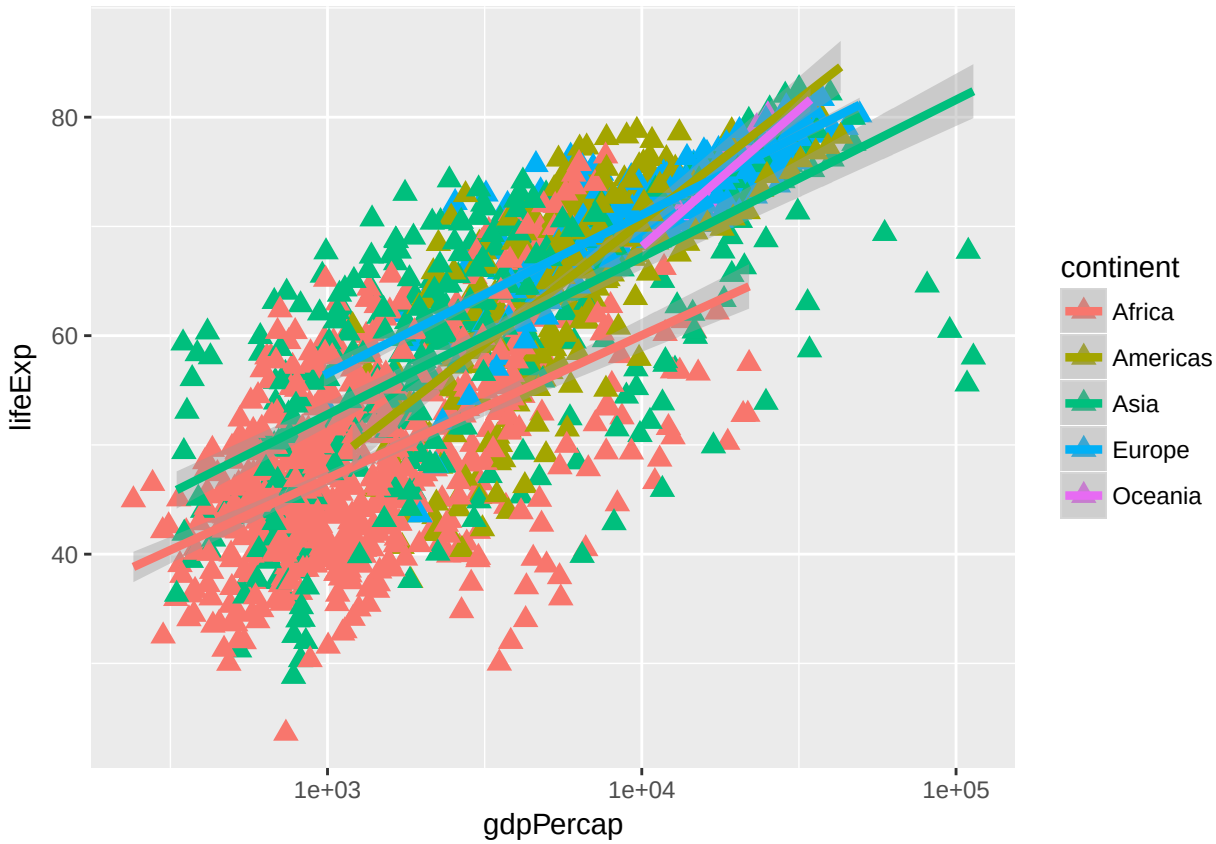

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp)) +
  geom_point() + scale_x_log10() + geom_smooth(method="lm", size=1.5)
```



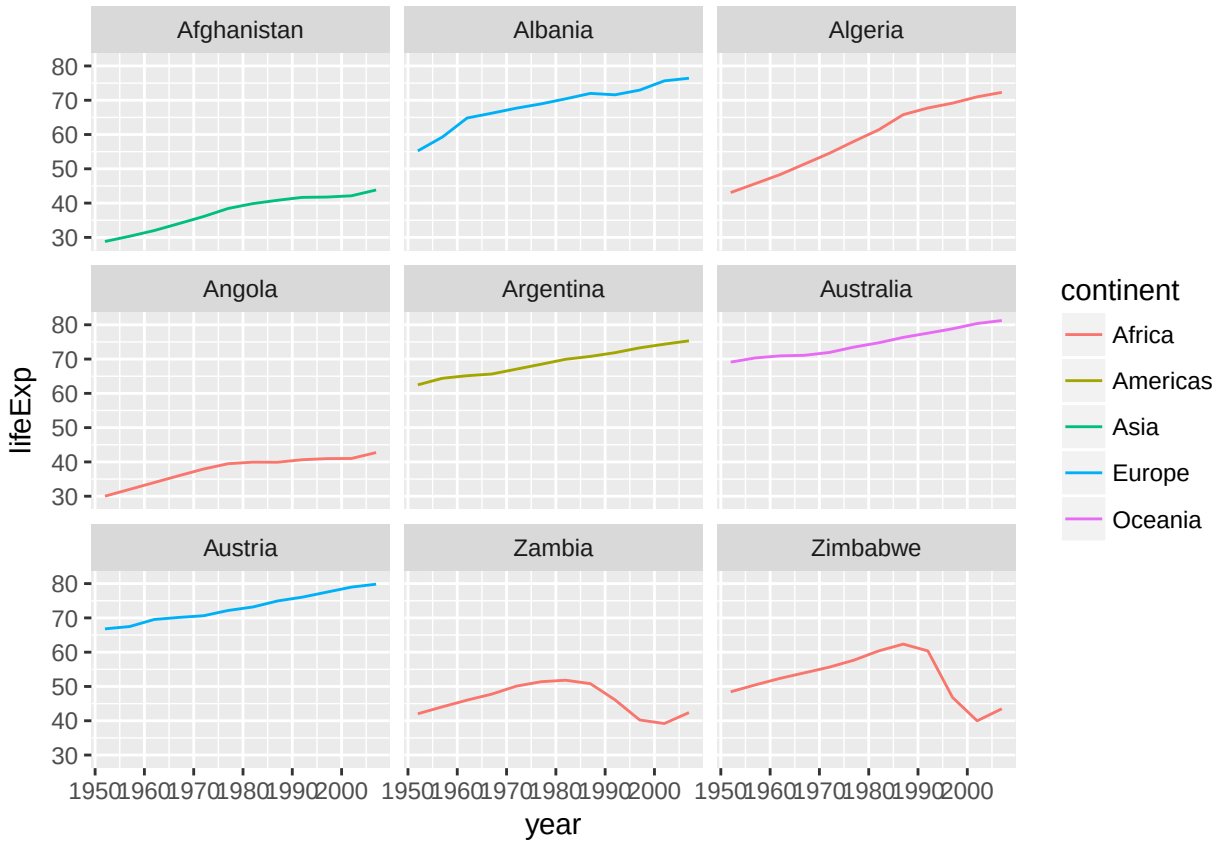

```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp)) +
 geom_point(size=3, color="orange") + scale_x_log10() +
 geom_smooth(method="lm", size=1.5)
```




```
ggplot(data = gapminder, aes(x = gdpPercap, y = lifeExp, color = continent)) +
geom_point(size=3, pch=17) + scale_x_log10() +
geom_smooth(method="lm", size=1.5)
```

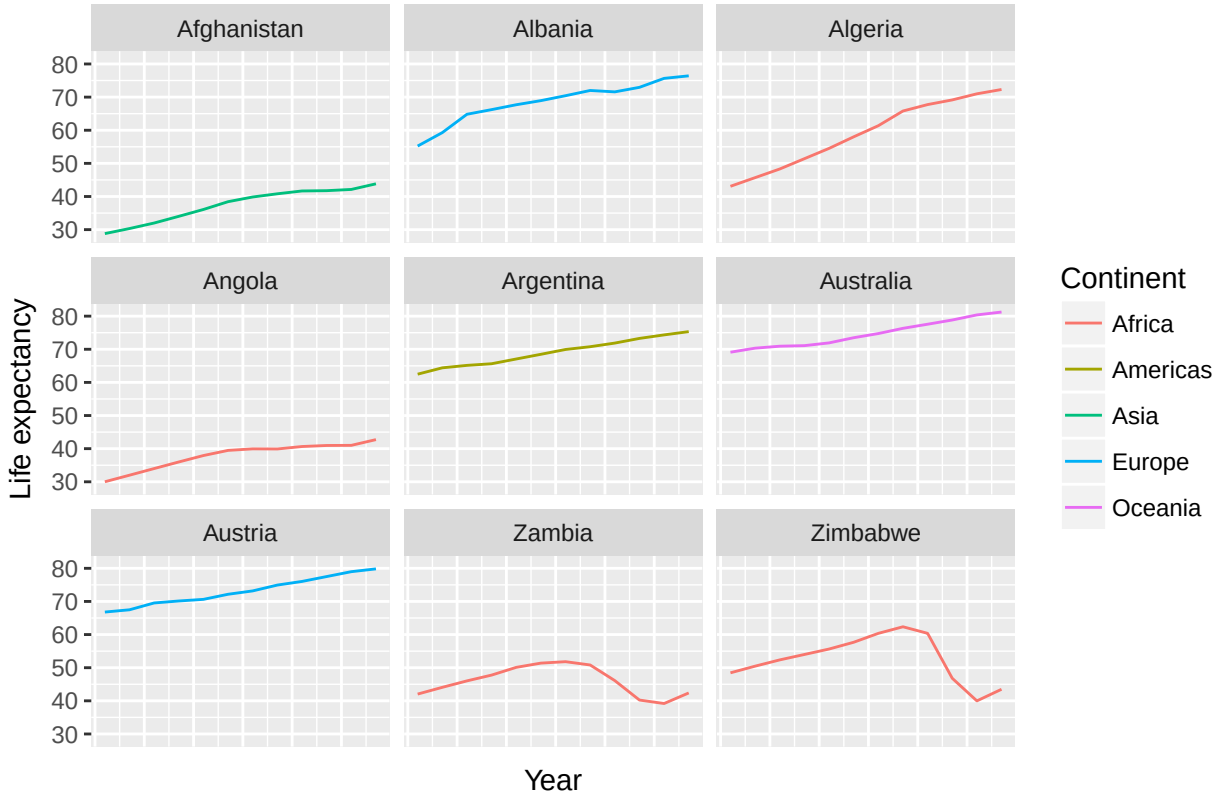



```
starts.with <- substr(gapminder$country, start = 1, stop = 1)
az.countries <- gapminder[starts.with %in% c("A", "Z"), ]
ggplot(data = az.countries, aes(x = year, y = lifeExp, color=continent)) +
  geom_line() + facet_wrap( ~ country)
```

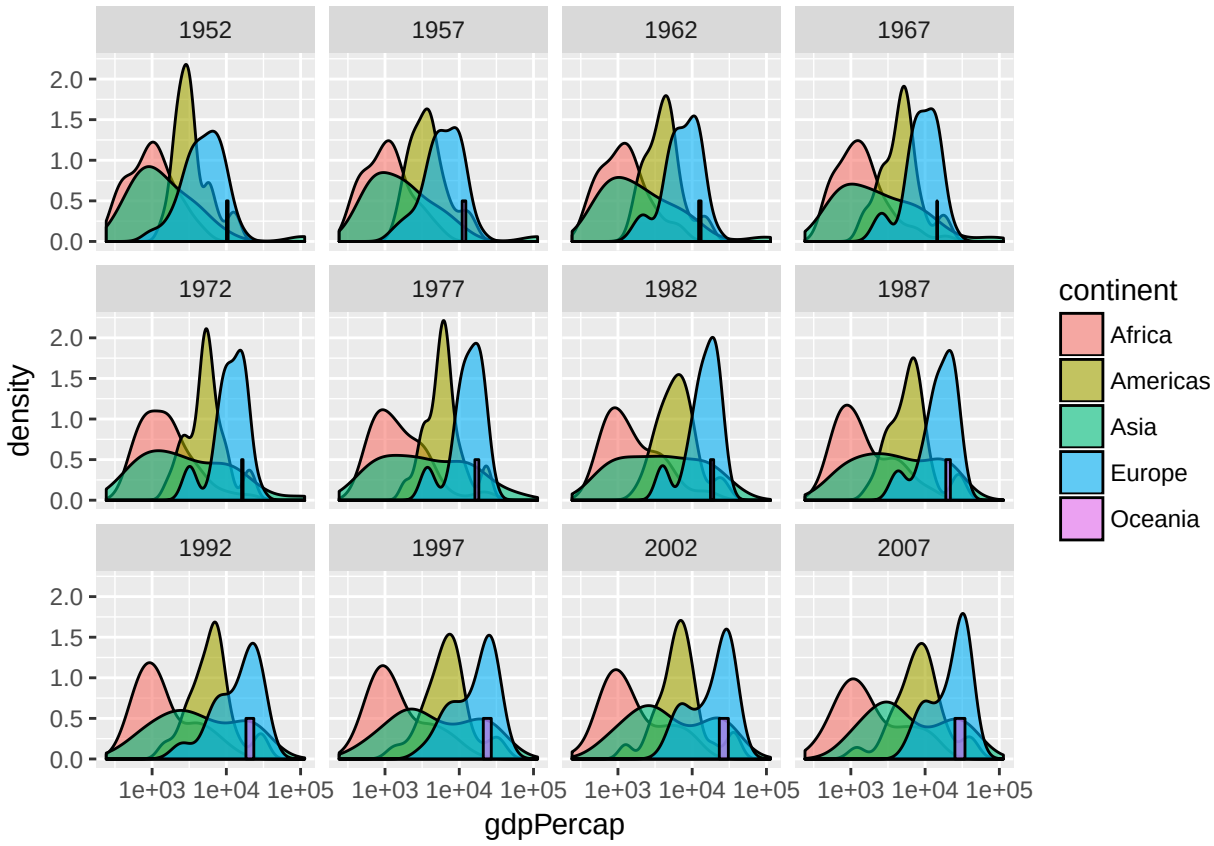



```
ggplot(data = az.countries, aes(x = year, y = lifeExp, color=continent)) +
  geom_line() + facet_wrap( ~ country) +
  xlab("Year") + ylab("Life expectancy") + ggtitle("Figure 1") +
  scale_colour_discrete(name="Continent") +
  theme(axis.text.x=element_blank(), axis.ticks.x=element_blank())
```

Figure 1




```
ggplot(data = gapminder, aes(x = gdpPercap, fill=continent)) +
 geom_density(alpha=0.6) + facet_wrap( ~ year) + scale_x_log10()
```


1952
1957
1962
1967
1972
1977
1982
1987
1992
1997
2002
2007
density
2.0
1.5
1.0
0.5
0.0
1e+03
1e+04
1e+05
gdpPercap
continent
Africa
Americas
Asia
Europe
Oceania