hw03 Tasks 1-3

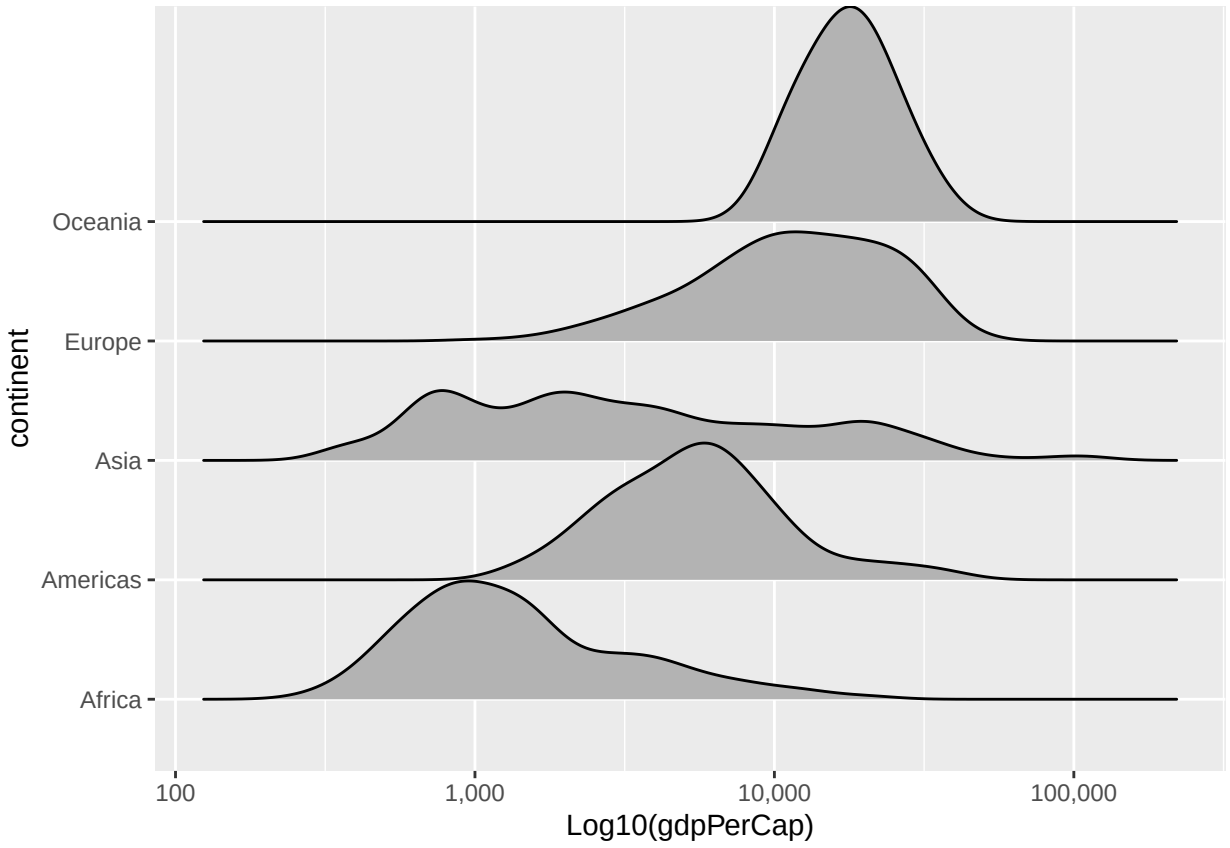
Task 1: Get the maximum and minimum of GDP per capita for all continents

```
gapminder %>%
  group_by(continent) %>% # group rows into chunks by continent
  summarise(min_gdpPercap = min(gdpPercap),
            max_gdpPercap = max(gdpPercap)) %>% # collapse the continent group by finding the maximum a
  as_tibble() %>% # convert data into a tibble
  knitr::kable()
```

continent	min_gdpPercap	max_gdpPercap
Africa	241.1659	21951.21
Americas	1201.6372	42951.65
Asia	331.0000	113523.13
Europe	973.5332	49357.19
Oceania	10039.5956	34435.37

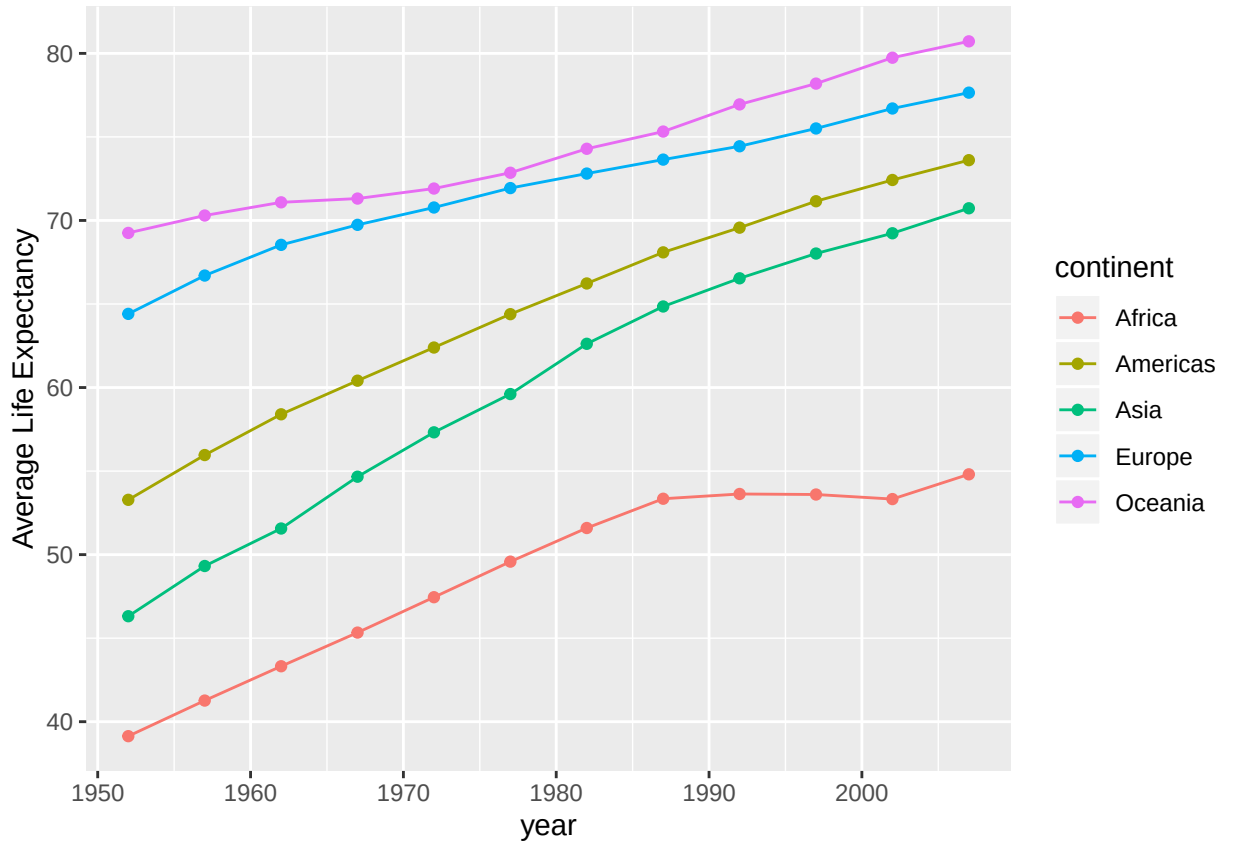
Task 2: Look at the spread of GDP per capita within the continents

```
gapminder %>%
  ggplot(aes(gdpPercap, continent)) + # specify x and y aesthetics
  scale_x_log10(label = scales::comma_format()) + # log transform x axis and convert x labels in comma
  ggridges::geom_density_ridges() + # add ridges layer to plot
  xlab("Log10(gdpPerCap)") # modify x axis label
```



Task 3: Changes in life expectancy over time on different continents

```
gapminder %>%
  group_by(continent, year) %>% # group rows into chunks by continent and year
  summarise(average_lifeExp = mean(lifeExp)) %>% # collapse the groups by averaging the life expectanci
  ggplot(aes(year, average_lifeExp, color = continent)) + # specify the x and y aesthetics
  geom_point() + # create points for each data point
  geom_line() + # connect the data points via a line
  ylab("Average Life Expectancy") # modify the y axis label
```




```
gapminder %>%
  ggplot(aes(year, lifeExp, color = continent, group = country)) + # specifiy x, y, color, and group ae
  facet_wrap(~continent, nrow = 1) + # create multiple panels
  geom_point(alpha = 0.5) + # create data points with 50% transparency
  geom_line(alpha = 0.5) + # connect the data points via a line with 50% transparency
  theme(legend.position = "bottom") # move the legend to the bottom of the plot
```