Check-in 3

Maxim Dokukin

Remember, **follow the instructions below and use R Markdown to create a pdf document with your code and answers to the following questions on Gradescope.** You may find a template file by clicking “Code” in the top right corner of this page.

Use the following code to download the annual consumer price index data from the World Bank:

```
library(openxlsx)
library(tidyverse)
cpi <- read.xlsx("https://thedocs.worldbank.org/en/doc/1ad246272dbbc437c74323719506aa
0c-0350012021/original/Inflation-data.xlsx",
                 sheet = 5)
cpi <- cpi[1:203,]
head(cpi)
```

	Country.Code <chr>	IMF.Country.Code <dbl>	Country <chr>	Indicator.Type <chr>
1	ABW	314	Aruba	Inflation
2	AFG	512	Afghanistan	Inflation
3	AGO	614	Angola	Inflation
4	ALB	914	Albania	Inflation
5	ARE	466	United Arab Emirates	Inflation
6	ARG	213	Argentina	Inflation

6 rows | 1-5 of 60 columns

1. Create a line plot with Year on the x-axis and CPI on the y-axis, with different color lines for the US, Canada, and Mexico.

```
graph_data <- cpi |>
  pivot_longer(cols = `1970`:`2022`,
               names_to = "Year",
               values_to = "CPI") |>
  mutate(Year = as.numeric(Year)) |>
  filter(Country %in% c("United States", "Canada", "Mexico"))

ggplot(graph_data, mapping = aes(x = Year, y = CPI, color = Country)) +
  geom_line()
```