STAT 451 - Visualizing Data - Autumn 2025

Lab 9: Dash

Create a new Dash application.

Read the data using code:

```
df <- read.csv(
  file = 'https://gist.githubusercontent.com/chriddyp/
cb5392c35661370d95f300086accea51/raw/
8e0768211f6b747c0db42a9ce9a0937dafcbd8b2/indicators.csv',
  stringsAsFactor = FALSE
)
```

Write code to include widgets:

- A dropdown selector to choose the indicator for the x axis (among all values taken by `Indicator.Name`),
- A dropdown selector to choose the indicator for the y axis (among all values taken by `Indicator.Name`),
- Radio buttons to choose linear or log scale for the x axis,
- Radio buttons to choose linear or log scale for the y axis,
- A slider to choose the year.

Filter the data to keep only the values for the year and the indicators selected. You may use the following code:

```
data_by_indicator <- df %>%
    dplyr::filter(Year==years[year_value + 1],
                  Indicator.Name %in% c(xaxis_column_name,
                                        yaxis_column_name))  %>%
    droplevels() %>%
    split(., .$Indicator.Name)
```

```
filtered_df <- merge(data_by_indicator[[1]],
                     data_by_indicator[[2]],
                     by = "Country.Name") %>%
  dplyr::transmute(x=Value.x, y=Value.y, text=Country.Name) %>%
  na.omit() %>%
  as.list()
```

Add code to plot the filtered data using the scales selected.