Lab 8

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```
library(tidyverse)
library(stringr)
```

Graphing youth unemployment data

1. Read the youth unemployment data in the file `API_ILO_country_YU.csv`, in the Lab8 folder on Canvas, into a data frame called `youthUI`.
2. Reshape the data on different years into key-value pairs with key `year` and value `Unemployment Rate`. Convert the `year` column to numeric.
3. Plot unemployment rates by year for each "country" in `youthUI`. Represent each time series by a line. Use an appropriate alpha level to manage overplotting.
4. Using a **regular expression**, extract the subset of "Countries" whose `Country Name` contains the string "(IDA & IBRD countries)" or "(IDA & IBRD)", and save in a data frame `youthDevel`. (No cheating by using `fixed()`. Hint: `(` is a special character string, so a character string representation of a regexp involving `(` would include "'\(".) Then, using a **regular expression**, remove the "(IDA & IBRD countries)" or "(IDA & IRBD)" from the country names. Notes: IDA stands for International Development Association. Countries that qualify for IDA loans are considered among the poorest developing countries in the world. IBRD stands for International Bank for Reconstruction and Developent. IBRD countries are considered middle-income developing countries.
5. Plot unemployment rates by year for each region in `youthDevel` with different colors for each region. Your plot should include both points and lines for each region. Then add a layer that plots the world-wide unemployment data from `youthUI` (`Country.Name==World`).