Lab02 - Assignment

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Assignment Description

Your task is to compare Employment to population ratio above age 15, since 1991 for two countries that you selected with a figure.

https://data.worldbank.org/ is a webside that you can obtain open source data about countries, economies and etc.

How to Download Data

- Go to https://data.worldbank.org/ website. Search for "Employment to population ratio, 15+, total (%) (modeled ILO estimate)".
- On the right side, you can download the data with file formats. Download the data with .csv format. The file contains the data for all the countries. You should select Select two countries (you can select any country that have data between 1991 and 2020).

Code

Clear workspace

```
clear
clc
```

Task 1: Import Data

Load the .csv data and select the data for two countries.

Country 1: **Turkey**

Country 2: Brazil

```
Turkey=readmatrix("API_SL.EMP.TOTL.SP.ZS_DS2_en_csv_v2_2056759.csv","Range",[248 36 248 65])
```

```
Turkey = 1×30
   51.8100   50.7200   46.9400   49.4000   49.3900   49.4800   48.1600   48.2700 ···
```

```
Brazil=readmatrix("API_SL.EMP.TOTL.SP.ZS_DS2_en_csv_v2_2056759.csv","Range",[33 36 33 65])
```

```
Brazil = 1×30
   58.1200   58.4900   59.1400   59.4000   59.6800   57.8800   57.9300   57.3200 ···
```

Task 2: Plot data for two countries between 1991 and 2020. You are free to use any line style or color. Don't forget to add legends in the figure!

```
t=1991:2020
```

```
t = 1×30
        1991        1992        1993        1994        1995        1996 ···
```

```
plot(t,Turkey,"red","LineWidth",4)
hold on
plot(t,Brazil,"yellow","LineWidth",4)
legend('Turkey','Brazil')
title("Employment to population ratio, 15+, total (%) (modeled ILO estimate)")
ylabel("Employment to population ratio")
xlabel("Years")
```

Task 3: Find max and mean values for those 2 countries

```
[maxTurkey,maxTurkeyIndex]=max(Turkey)
```

```
maxTurkey = 51.8100
maxTurkeyIndex = 1
```

```
meanTurkey=mean(Turkey)
```

```
meanTurkey = 45.3627
```

```
[maxBrazil,maxBrazilIndex]=max(Brazil)
```

```
maxBrazil = 60.8200
maxBrazilIndex = 18
```

```
meanBrazil=mean(Brazil)
```

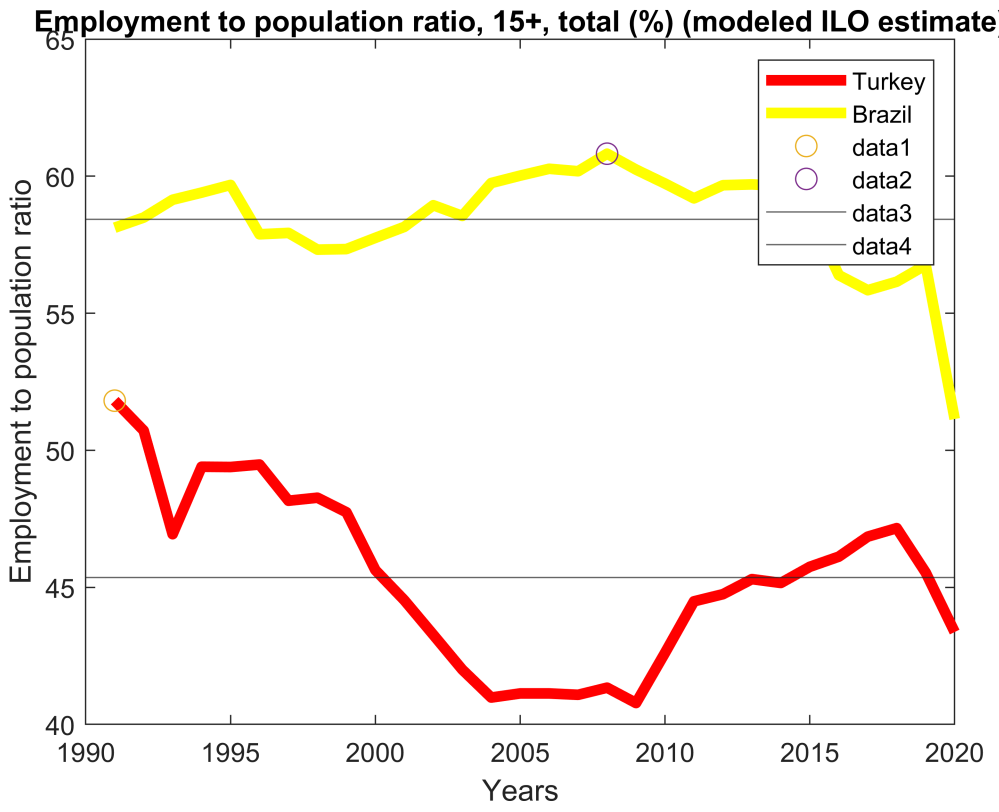
```
meanBrazil = 58.4277
```

Task 4: Mark max values for each country in the figure

```
plot(t(maxTurkeyIndex),maxTurkey,"o","MarkerSize",8)
plot(t(maxBrazilIndex),maxBrazil,"o","MarkerSize",8)
```

Task 5: Draw a line for each country that represents mean (average) of the employment data through x axis. (Matlab command is *yline*)

```
yline(meanTurkey)
yline(meanBrazil)
```



Finally, export this file as pdf by clicking Save->Export to PDF