Global Temperature over the years

Data Visualization - Global Temperature over the years

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Data Source The data set we provided by: http://data.giss.nasa.gov/gistemp/

Introduction This assignment will give you a chance to explore the topics covered in week 2 of the course by visualizing some data as a chart. The data set we provided deals with world temperatures and comes from NASA: http://data.giss.nasa.gov/gistemp/. Alternatively you can use any data that you would like to explore. You are not required to use D3.js, but if you would like to, we have provided some helpful resources that will make it easier for you to create a visualization. You are welcome to use the additional resources, especially if you do not want to program to complete this project.

Goals The goal of this assignment is to give you some experience with handling and deciding how to visualize some data and for you to get a feel for the various aspects of the visualization

PROCESESS

1. **Load the Data**

library(ggplot2)

data <- read.csv("./ExcelFormattedGISTEMPData2CSV.csv",

header = TRUE,

sep = ",")

head(data)

```
##   Year Glob NHem SHem X24N.90N X24S.24N X90S.24S X64N.90N X44N.64N
## 1 1880  -19  -33   -5      -38      -16       -5      -89      -54
## 2 1881  -10  -18   -2      -27       -2       -5      -54      -40
## 3 1882   -9  -17   -1      -21      -10        4     -125      -20
## 4 1883  -19  -30   -8      -34      -22       -2      -28      -57
## 5 1884  -27  -42  -12      -56      -17      -11     -127      -58
## 6 1885  -31  -41  -21      -61      -17      -20     -119      -70
##   X24N.44N EQU.24N X24S.EQU X44S.24S X64S.44S X90S.64S
## 1      -22     -26       -5       -2       -8       39
## 2      -14      -5        2       -6       -3       37
## 3       -3     -12       -8        3        8       42
## 4      -20     -25      -19       -1        0       37
## 5      -41     -21      -14      -15       -5       40
## 6      -43     -11      -23      -27       -7       38
```

2. **Visualization**

lineChart <- ggplot(data, aes(x = Year))

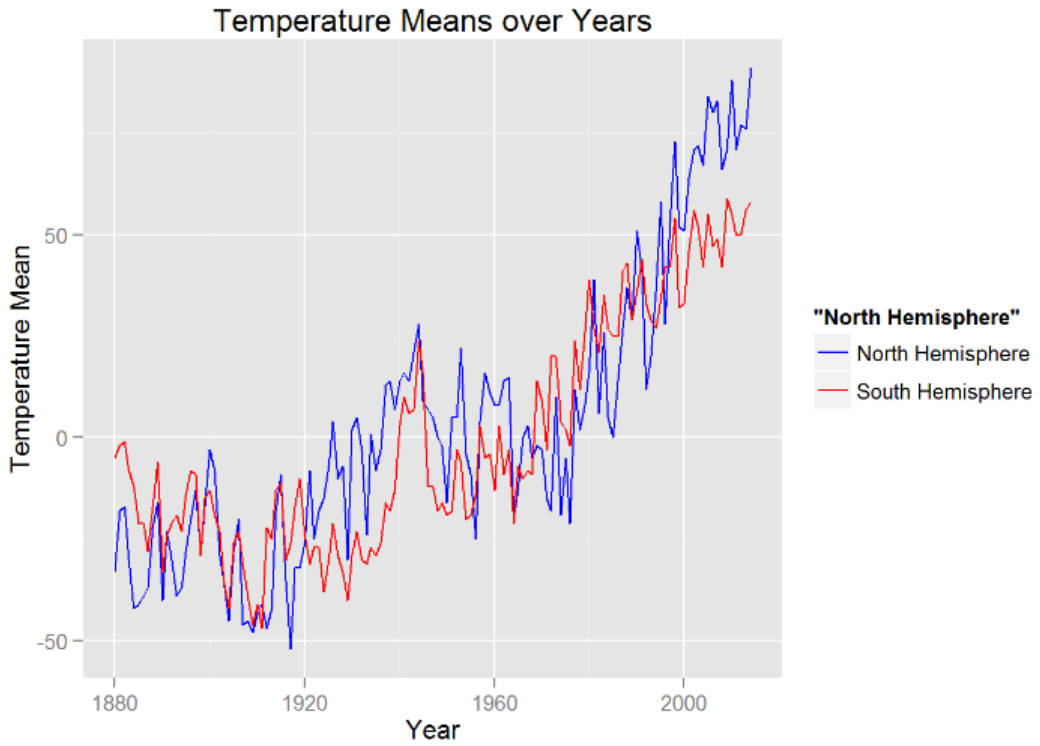
lineChart <- lineChart + geom_line(aes(y = NHem, colour = "North Hemisphere")) +

geom_line(aes(y = SHem, colour = "South Hemisphere")) +

scale_colour_manual(values=c("North Hemisphere"="blue","South Hemisphere"="red")) +

labs(title = "Temperature Means over Years", x = "Year", y = "Temperature Mean")

lineChart



Answers

1. What are your X and Y axes? A: My axe ‘X’ is the variable year, and ‘Y’ is the temperature mean

2. Did you use a subset of the data? If so, what was it? A: Yes, only the means of NHem and SHem were used

3. Are there any particular aspects of your visualization to which you would like to bring attention? A: Yes, there is a clear upward trend in the temperature levels over time

4. What do you think the data, and your visualization, shows? A: It tells a story of how the temperature levels has increased over time.