

Exercise 2.2: Line and Step Charts

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DSC640 - 12/27/2021

Plots Using Python

Load Data

```
In [1]: # Load libraries
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

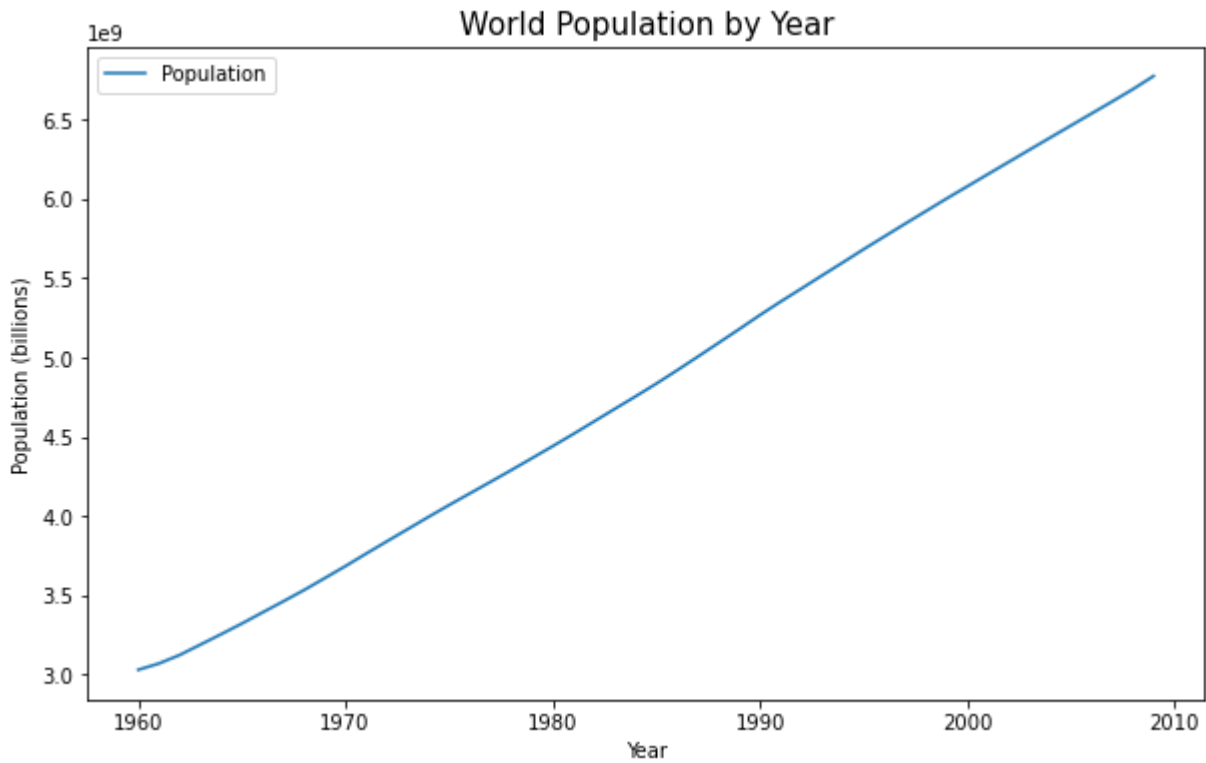
```
In [2]: # Load data
popDF = pd.read_excel('world-population.xlsm')
```

Line Chart

```
In [4]: # Set up Line chart
popDF.plot(kind='line', x='Year', y='Population', figsize=(10, 6),
           xlabel='Year', ylabel='Population (billions)')

# Set up chart title
plt.title("World Population by Year", fontsize = 15)
```

```
Out[4]: Text(0.5, 1.0, 'World Population by Year')
```

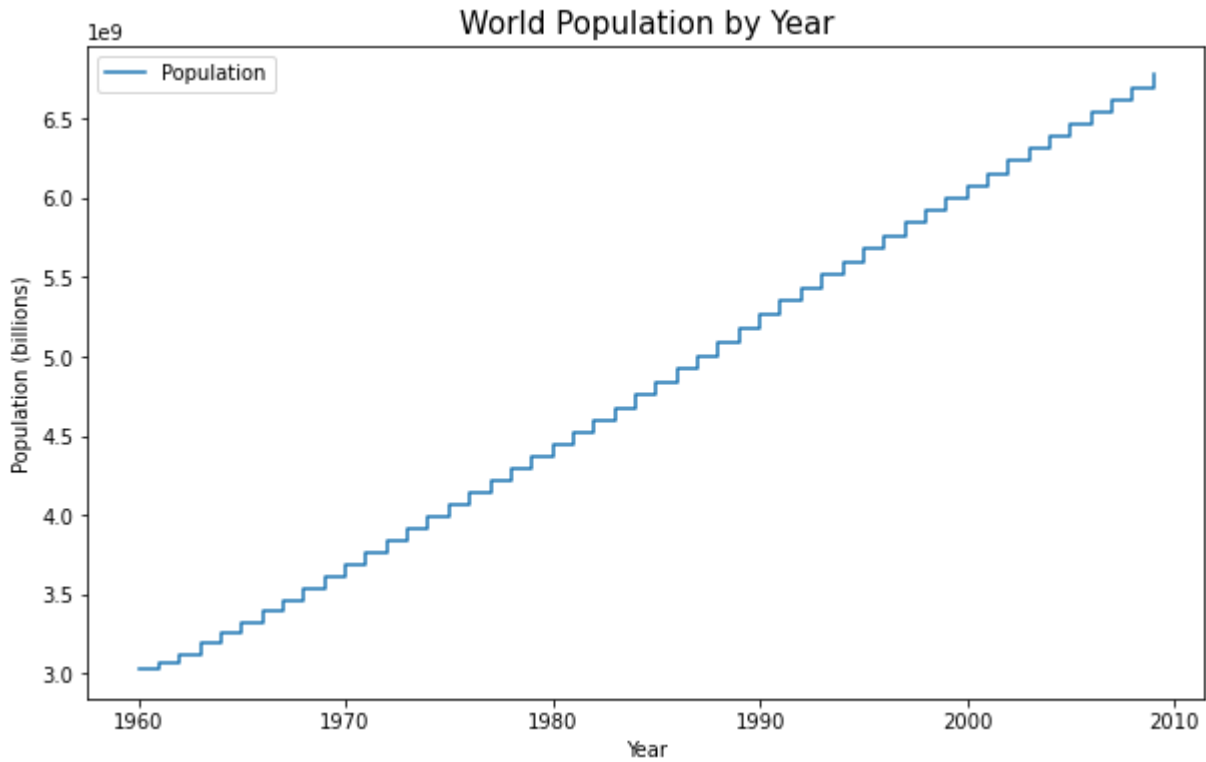


Step Chart

```
In [11]: # Set up step chart
popDF.plot(kind='line', drawstyle='steps-post', x='Year', y='Population', figsize=(10, 6),
          xlabel='Year', ylabel='Population (billions)')

# Set up chart title
plt.title("World Population by Year", fontsize = 15)
```

Out[11]: Text(0.5, 1.0, 'World Population by Year')



In []:

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Plots Using R

```
knitr::opts_chunk$set(echo = TRUE)

# Set Working Directory
setwd("C:/Users/micha/OneDrive/Documents/GitHub/DSC640/Weeks3-4/")

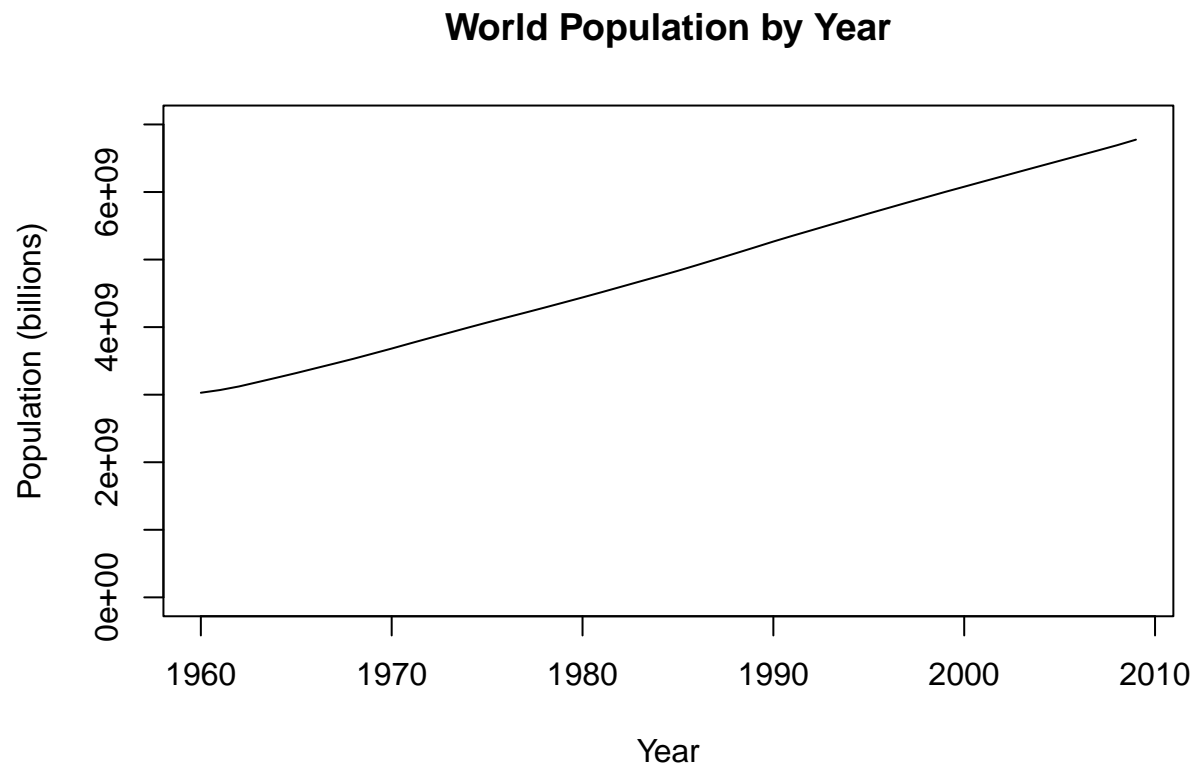
# Load libraries
library('readxl')
```

Load Data

```
# Load Data
popDF <- read_excel("world-population.xlsm")
```

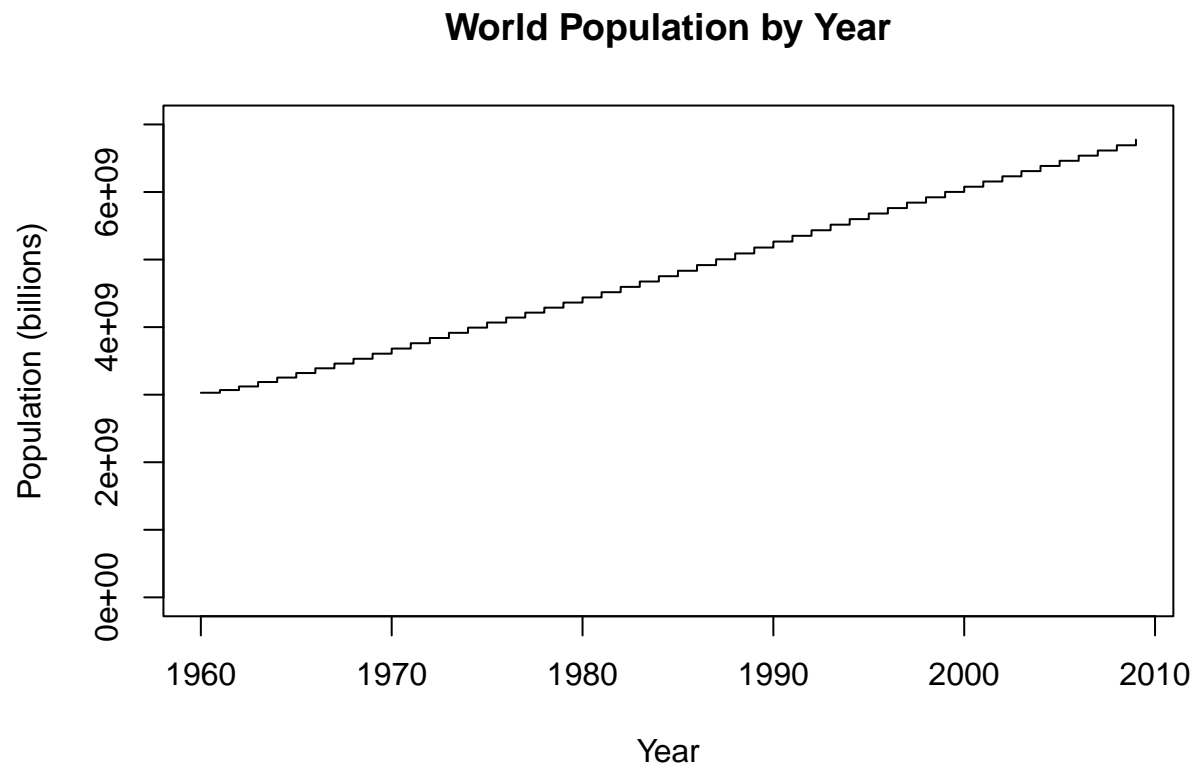
Line Chart

```
# Plot a line chart  
plot(popDF$Year, popDF$Population, type = 'l', ylim = c(0, 7e9),  
      xlab = 'Year', ylab = 'Population (billions)',  
      main = "World Population by Year")
```



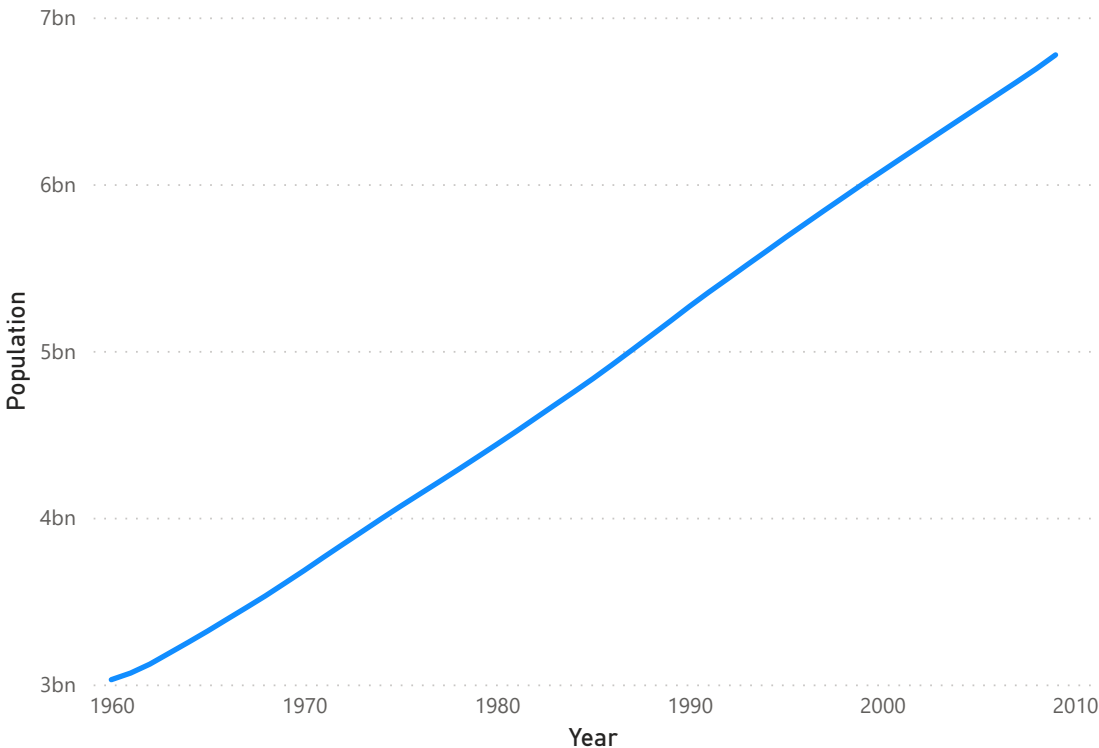
Step Chart

```
# Plot a step chart  
plot(popDF$Year, popDF$Population, type = 's', ylim = c(0, 7e9),  
      xlab = 'Year', ylab = 'Population (billions)',  
      main = "World Population by Year")
```



Power BI - Line Chart

World Population by Year



Power BI - Step Chart

World Population by Year

