Week 3&4 - Exercise 2.2

Name: Madhukar Ayachit

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Class: DSC-640

Assignment: Line Charts and Step Charts
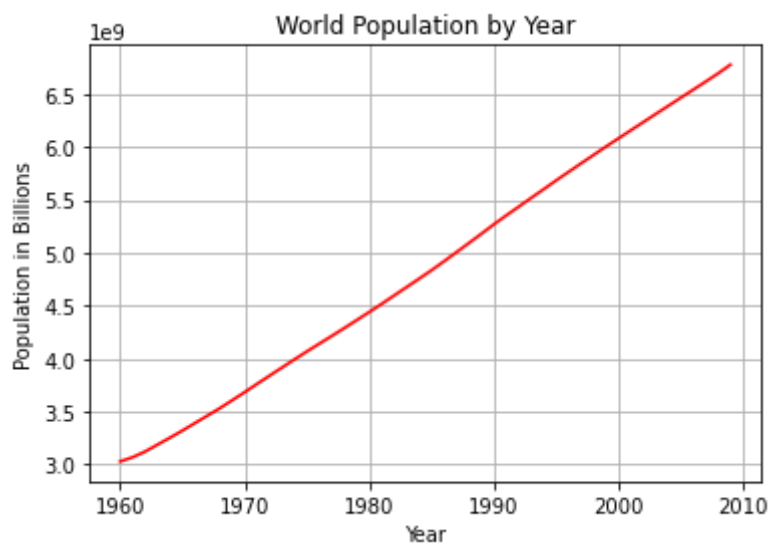
In [1]:
```python
#Load in libraries
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline
```

In [6]:
```python
population = pd.read_excel("Data/world-population.xls")
population.head()
```
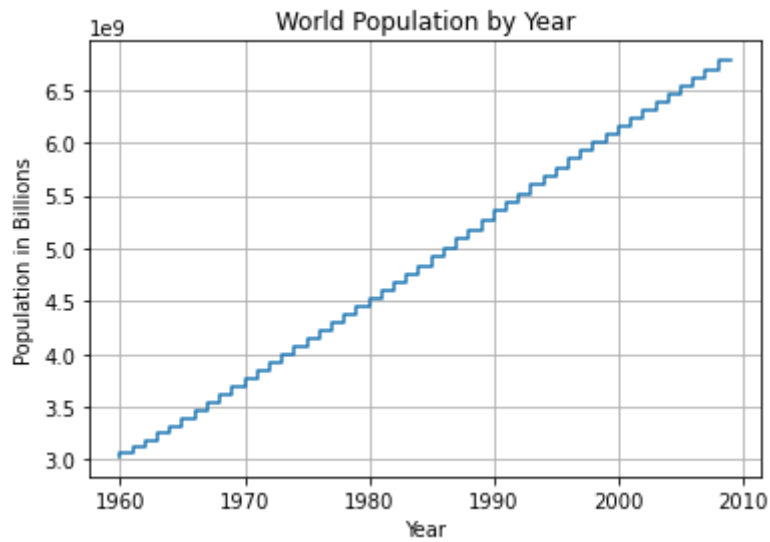
Out[6]:

	Year	Population
0	1960	3028654024
1	1961	3068356747
2	1962	3121963107
3	1963	3187471383
4	1964	3253112403

In [8]:
```python
#Line chart using matplotlib
plt.plot(population['Year'], population['Population'], color = 'red')
plt.xlabel('Year')
plt.ylabel('Population in Billions')
plt.title('World Population by Year')
plt.grid(True)
plt.show()
```

In [9]:
```python
#Step chart using world population data.
x = population['Year']
y = population['Population']

plt.step(x,y)
plt.xlabel('Year')
plt.ylabel('Population in Billions')
plt.title('World Population by Year')
plt.grid(True)
plt.show()
```


In [ ]:

Line charts and step charts

Code ▾

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```
# setting current working diirectory
setwd("/Users/madhukarayachit/DSC640")
```

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```
#Load in libraries

library(ggplot2)
library(scales)
```

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```
# load data
pop <- read_excel("Data/world-population.xls")
```
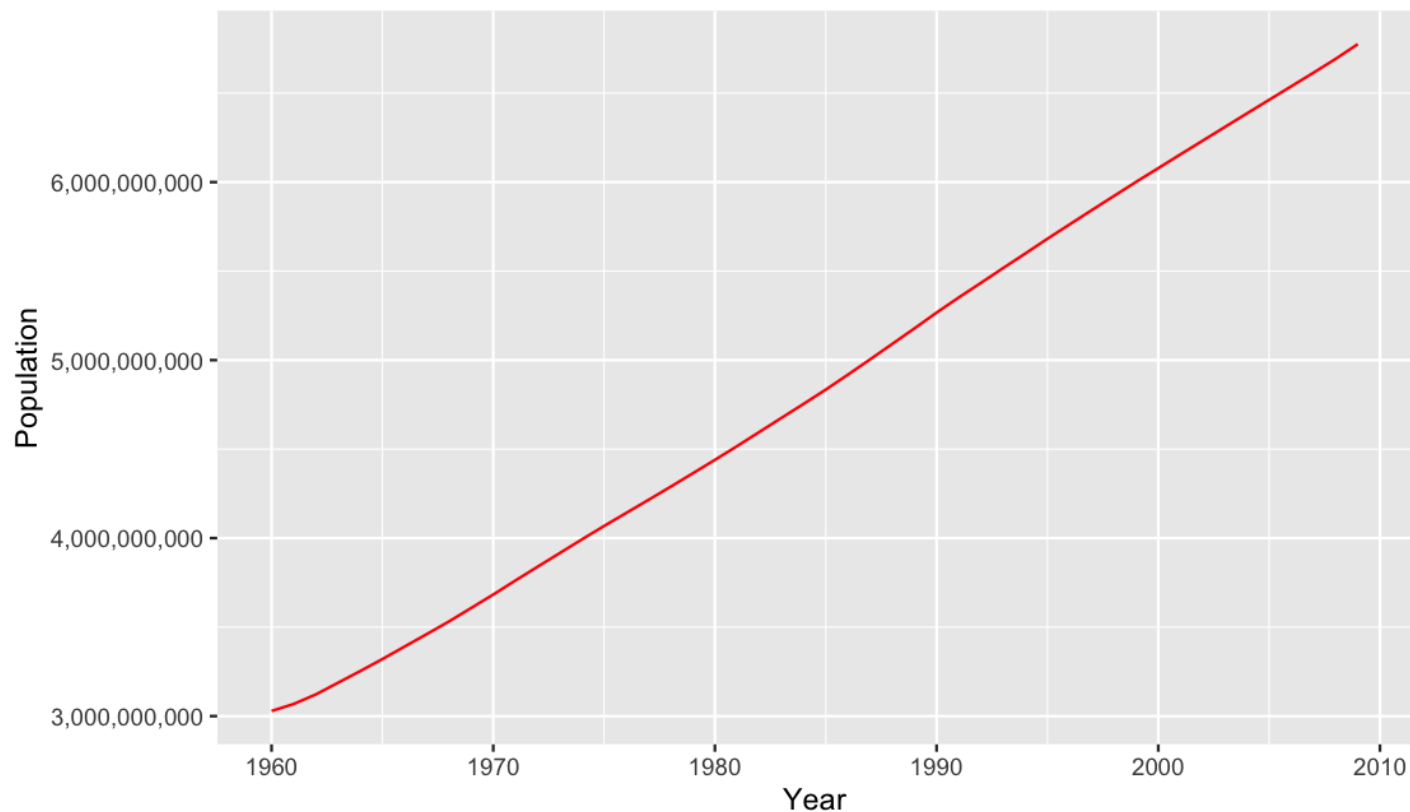
```
Error in read_excel("Data/world-population.xls") :
  could not find function "read_excel"
```

Add a new chunk by clicking the *Insert Chunk* button on the toolbar or by pressing *Cmd+Option+I*.
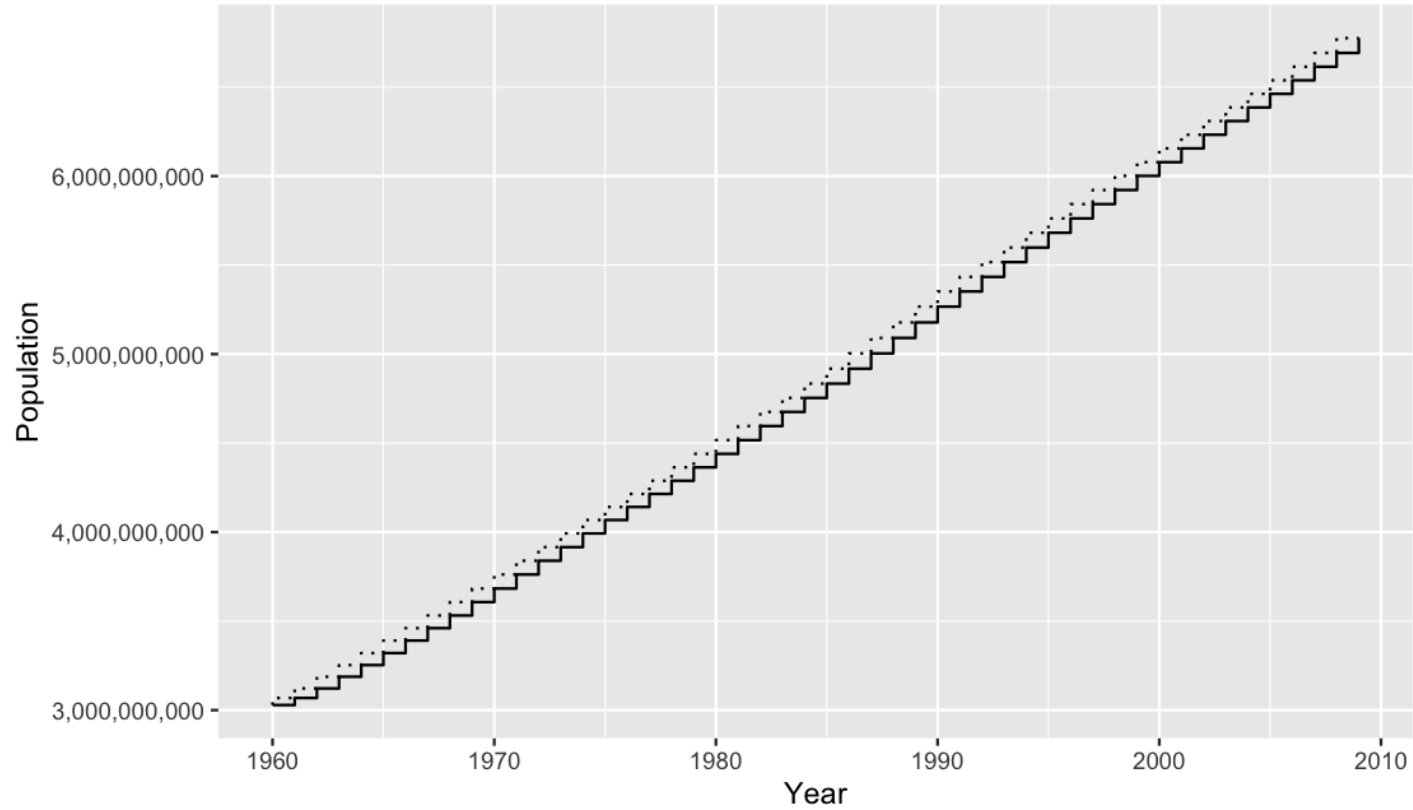
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```
#Create line chart
ggplot(pop, aes(x = Year, y = Population))+
  geom_line(color = 'red')+
  labs(title = "World Population by Year", x = "Year", y = "Population")+
  scale_y_continuous(label=comma)
```

World Population by Year

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```
# Create Step chart
x<-pop$Year
y<-pop$Population
ggplot()+
  geom_step(data = pop, mapping= aes(x=x, y=y))+
  geom_step(mapping=aes(x=x, y=y), direction="vh", linetype=3)+
  labs(title = "World Population by Year", x = "Year", y = "Population")+
  scale_y_continuous(label=comma)
```
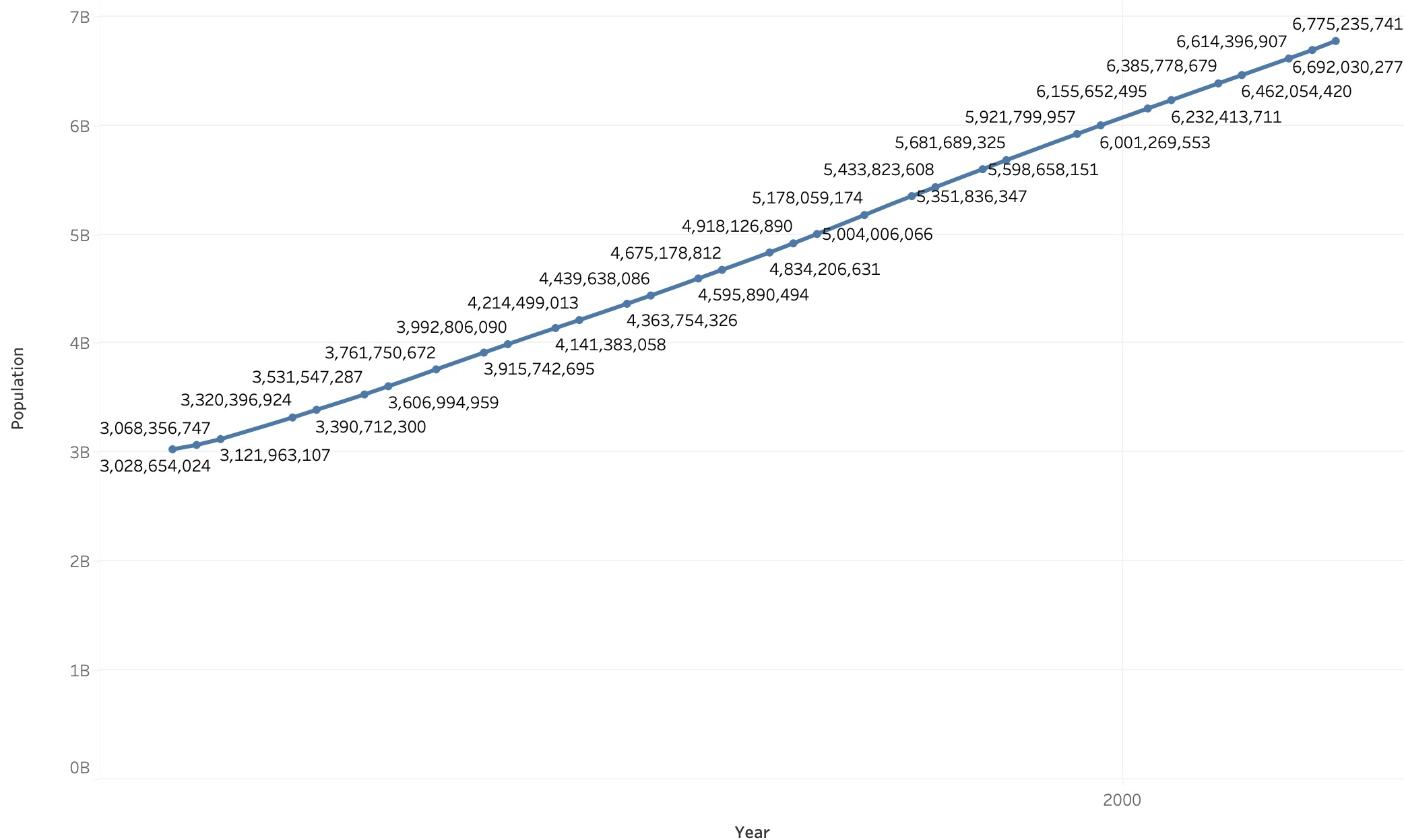
World Population by Year
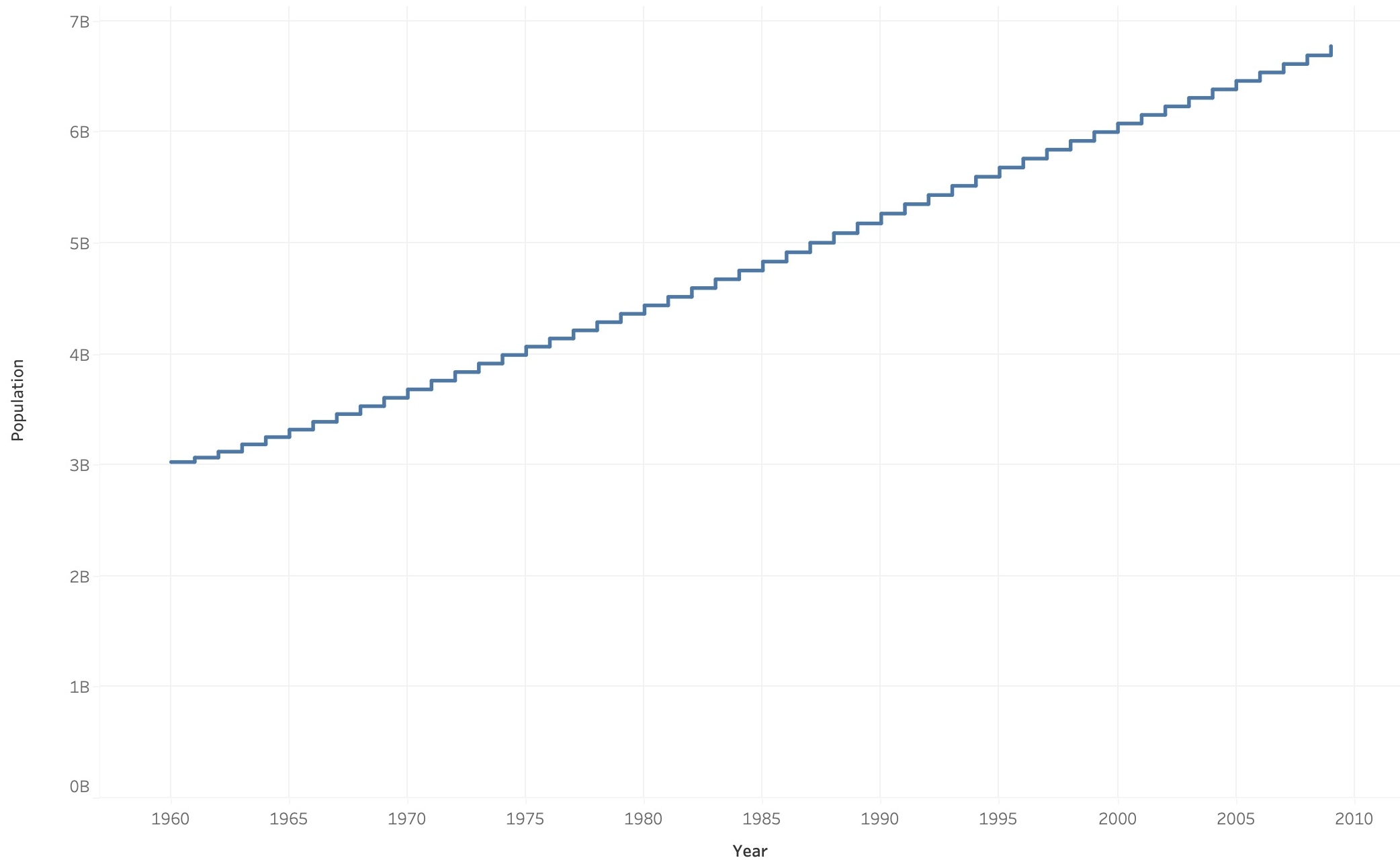
Ayachit_Madhukar_Week_3_4

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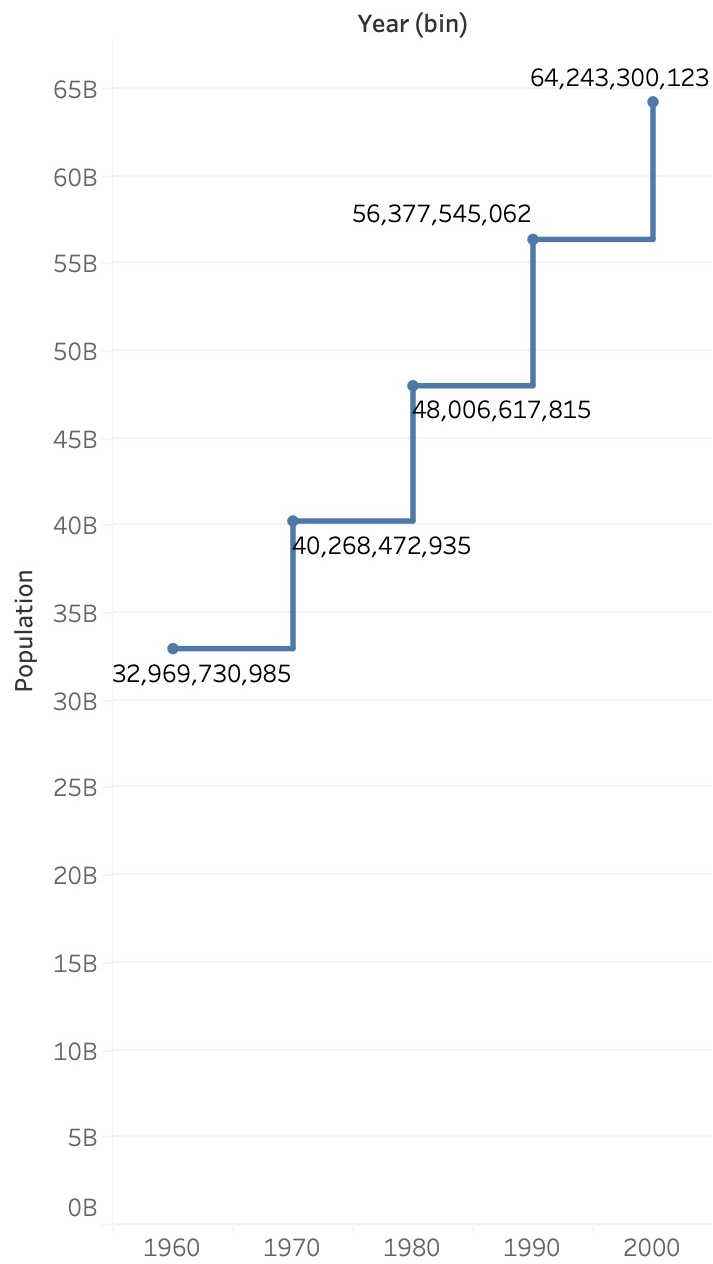
Year Vs Population

The trend of sum of Population for Year.

Step Chart

The trend of sum of Population for Year.

Bin 5

The trend of sum of Population for Year (bin).