Assignment_3_4_Vayuvegula_Soma_Shekar_Python

In [1]:
```
#import libraries
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

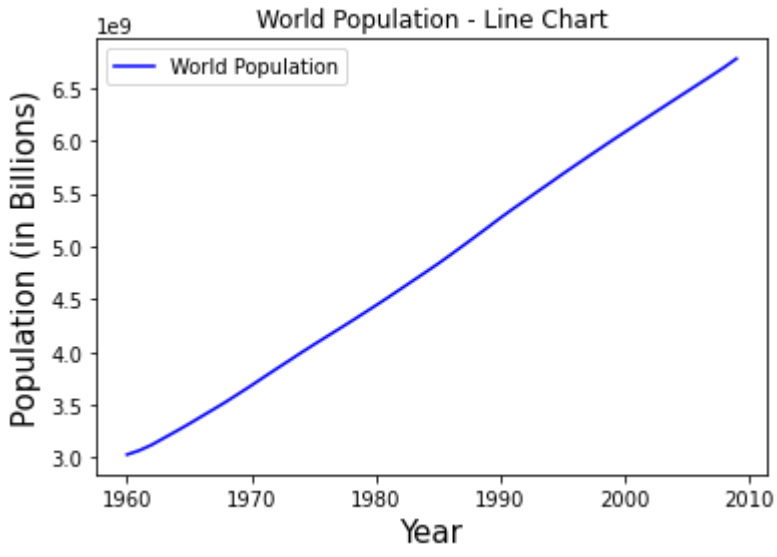
In [2]:
```
#Read excel
df_world = pd.read_excel("world-population.xlsm")
```

In [3]:
```
df_world.head()
```

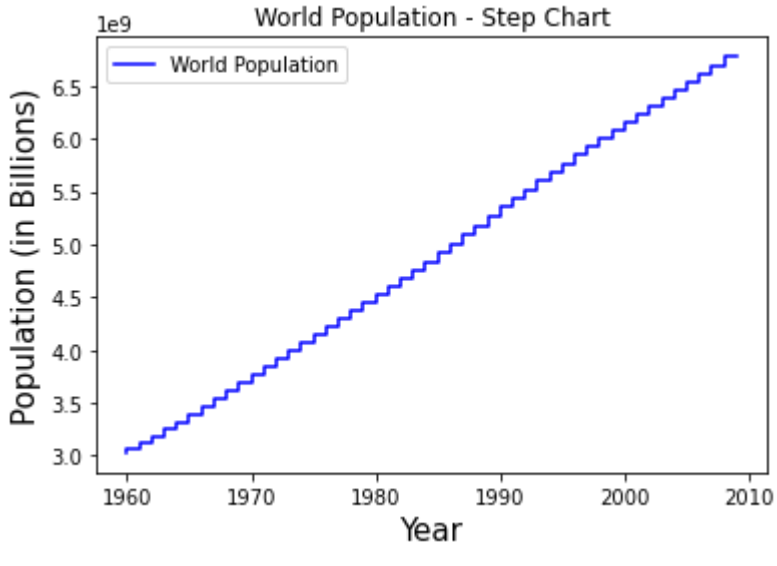
Out[3]:

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

In [4]:
```
#Line Chart
df_world.plot(x='Year',y='Population',kind='line',color='blue')
plt.legend(["World Population"])
plt.xlabel("Year",size=15)
plt.ylabel("Population (in Billions)",size=15)
plt.title("World Population - Line Chart")
plt.show()
plt.close()
```



In [6]:
```
#Step Chart
plt.figure()
year_list=df_world['Year'].to_list()
pop_list=df_world['Population'].to_list()
plt.plot(year_list,pop_list,drawstyle='steps',linestyle='-',alpha=1,color='blue')
plt.legend(["World Population"])
plt.xlabel("Year",size=15)
plt.ylabel("Population (in Billions)",size=15)
plt.title("World Population - Step Chart")
plt.show()
plt.close()
```



In [ ]:

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Soma Shekar Vayuvegula

01/07/2023

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
df<-read_excel("world-population.xlsm")
print(df)
```

```
## # A tibble: 50 x 2
##     Year Population
##    <dbl>      <dbl>
##  1  1960 3028654024
##  2  1961 3068356747
##  3  1962 3121963107
##  4  1963 3187471383
##  5  1964 3253112403
##  6  1965 3320396924
##  7  1966 3390712300
##  8  1967 3460521851
##  9  1968 3531547287
## 10  1969 3606994959
## # ... with 40 more rows
```

```
print(is.data.frame(df))
```

```
## [1] TRUE
```

```
print(ncol(df))
```

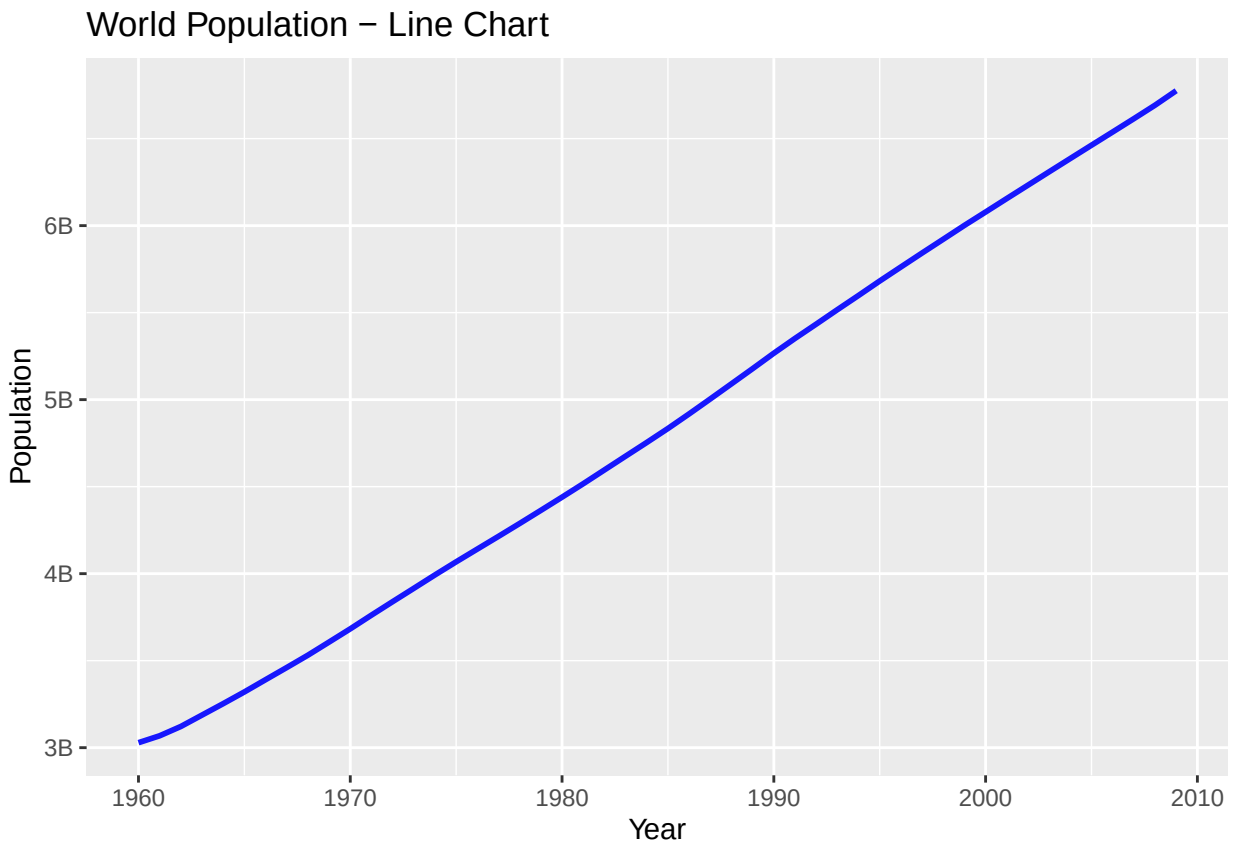
```
## [1] 2
```

```
print(nrow(df))
```

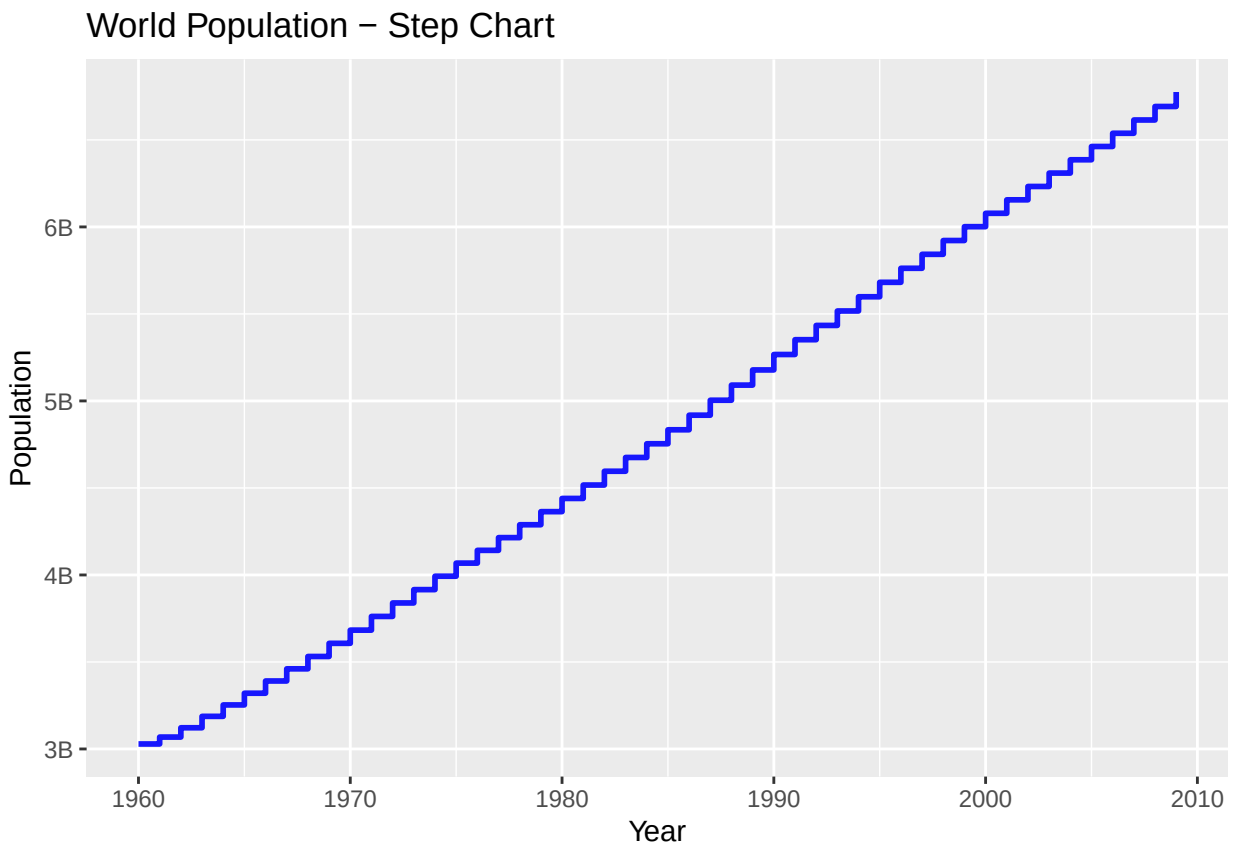
```
## [1] 50
```

```
options(scipen=999)
ggplot(df, aes(x=Year, y=Population)) +
  geom_line( color="blue", size=1, alpha=0.9, linetype=1) +
  scale_y_continuous(labels = scales::label_number_si()) +
  ggtitle("World Population - Line Chart")
```

```
## Warning: `label_number_si()` was deprecated in scales 1.2.0.
## Please use the `scale_cut` argument of `label_number()` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```




```
ggplot(df, aes(x=Year, y=Population)) +
  geom_step(color="blue", size=1, alpha=0.9)+
  scale_y_continuous(labels = scales::label_number_si()) +
  ggtitle("World Population - Step Chart")
```


World Population − Step Chart
Population
6B
5B
4B
3B
1960
1970
1980
1990
2000
2010
Year

Assignment_3_4_Vayuvegula_Soma_Shekar_Tableau

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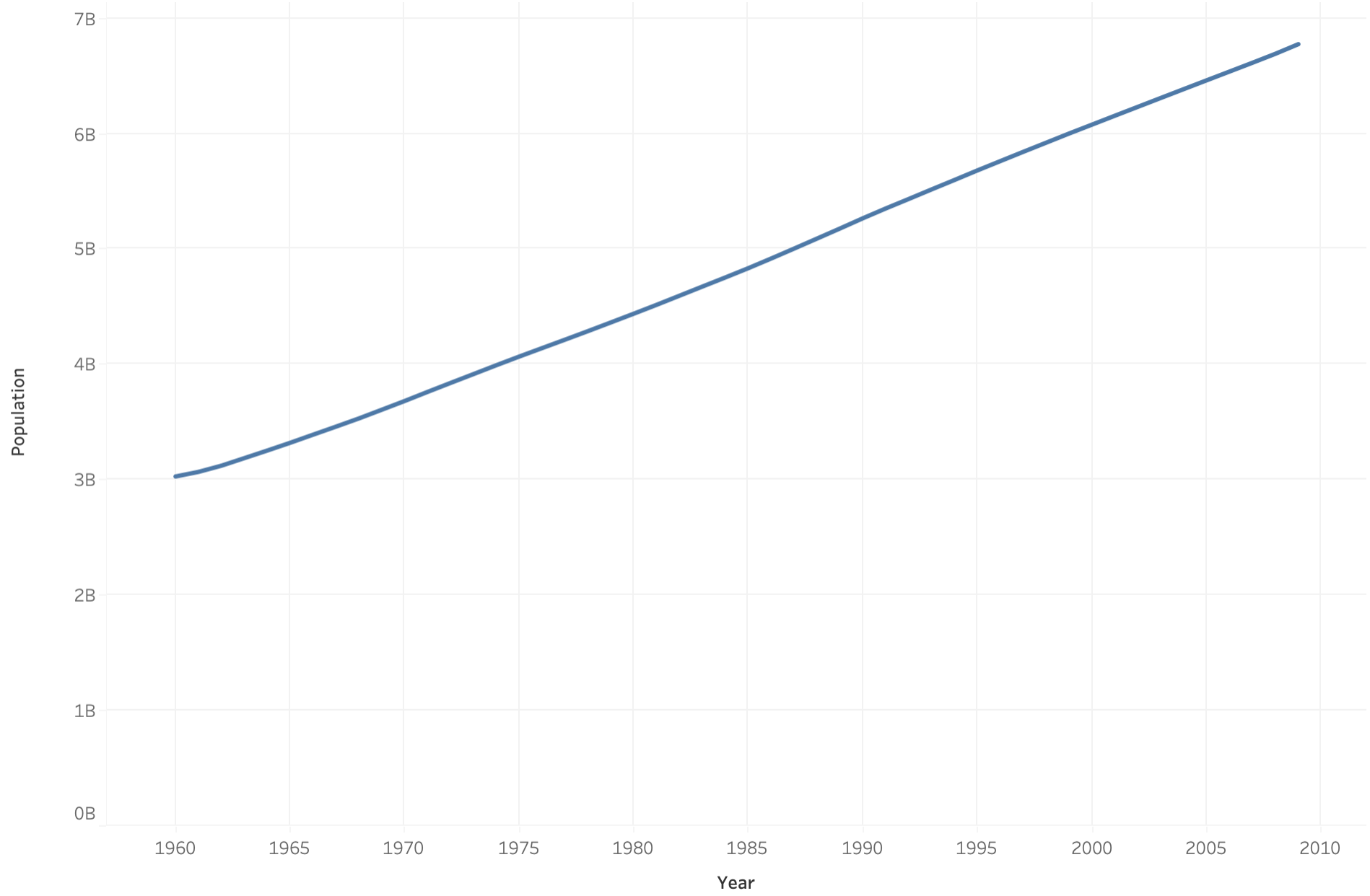
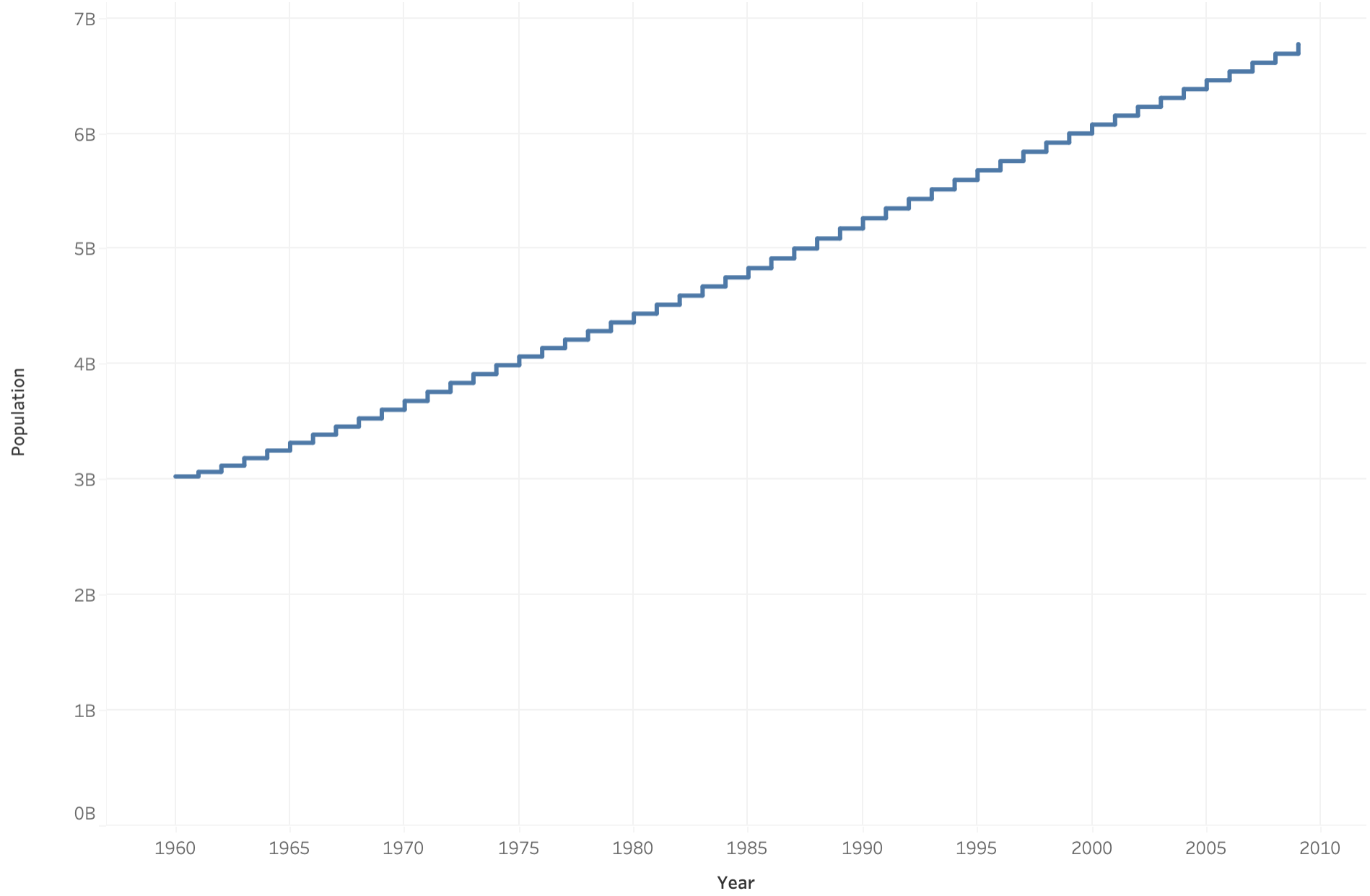
World Population - Line Chart



The trend of sum of Population for Year.

World Population - Step Chart



The trend of sum of Population for Year.