

Week_3_Line_Chart_Step_Chart

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```
## Warning: package 'ggplot2' was built under R version 4.0.5

## Warning: package 'dplyr' was built under R version 4.0.5

##
## 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

## Warning: package 'gapminder' was built under R version 4.0.5

## Warning: package 'readxl' was built under R version 4.0.5

## Warning: package 'tidyverse' was built under R version 4.0.5

## -- Attaching packages ----- tidyverse 1.3.1 --

## v tibble  3.1.0    v purrr   0.3.4
## v tidyr   1.1.3    v stringr 1.4.0
## v readr   1.4.0    v forcats 0.5.1

## Warning: package 'tidyr' was built under R version 4.0.5

## Warning: package 'readr' was built under R version 4.0.5

## Warning: package 'forcats' was built under R version 4.0.5

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()

## Warning: package 'reshape2' was built under R version 4.0.5
```

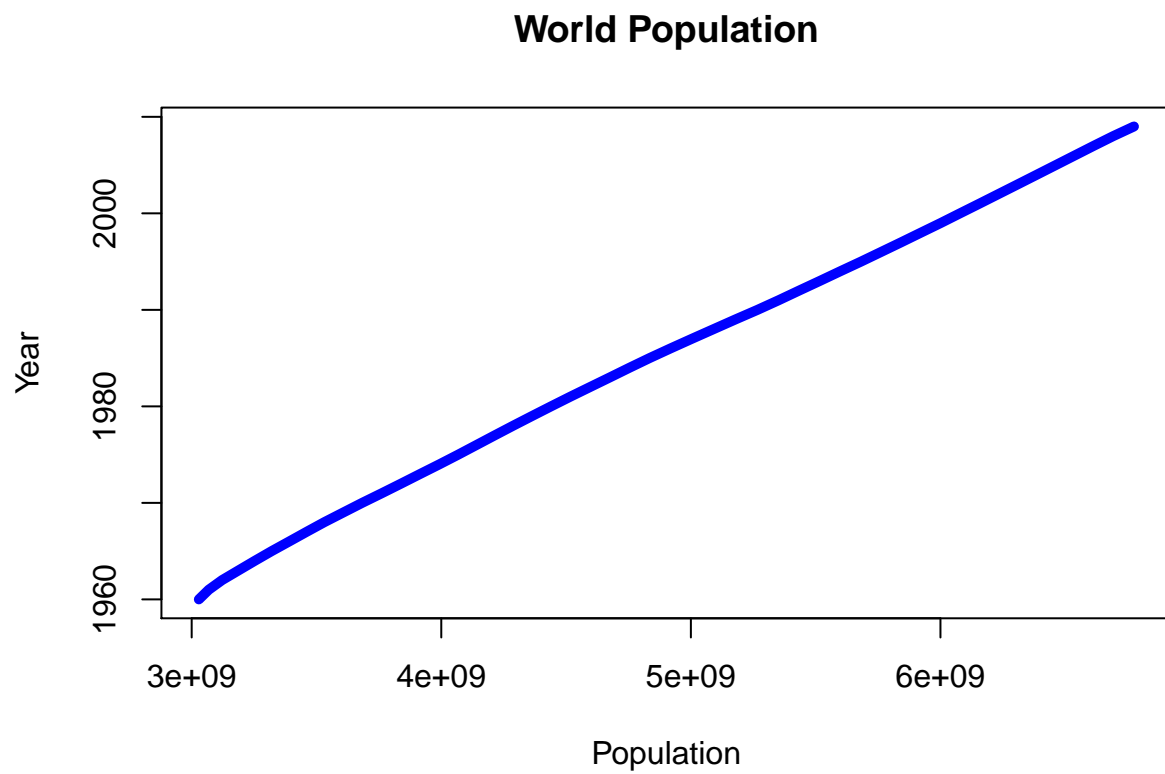
```
##
## Attaching package: 'reshape2'

## The following object is masked from 'package:tidyr':
##
##     smiths

## [1] TRUE

## [1] 3

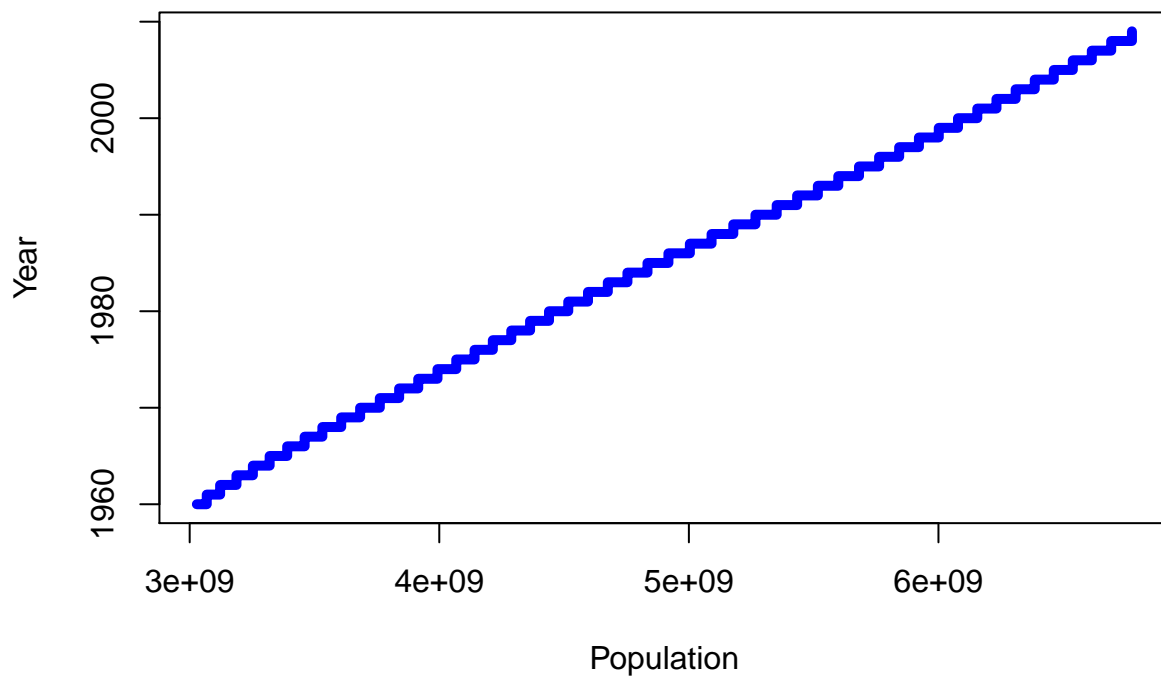
## [1] 50
```



```
## png
## 3

## pdf
## 2
```

World Population



png
3

pdf
2

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

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The text.latex.preview rcparam was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The mathtext.fallback_to_cm rcparam was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle: Support for setting the 'mathtext.fallback_to_cm' rcParam is deprecated since 3.3 and will be removed two minor releases later; use 'mathtext.fallback : 'cm' instead.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The validate_bool_maybe_none function was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The savefig.jpeg_quality rcparam was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The keymap.all_axes rcparam was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The animation.avconv_path rcparam was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

In C:\Users\vasan\anaconda3\lib\site-packages\matplotlib\mpl-data\stylelib_classic_test.mplstyle:
The animation.avconv_args rcparam was deprecated in Matplotlib 3.3 and will be removed two minor releases later.

```
In [4]: df=pd.read_csv("world-population.csv")
```

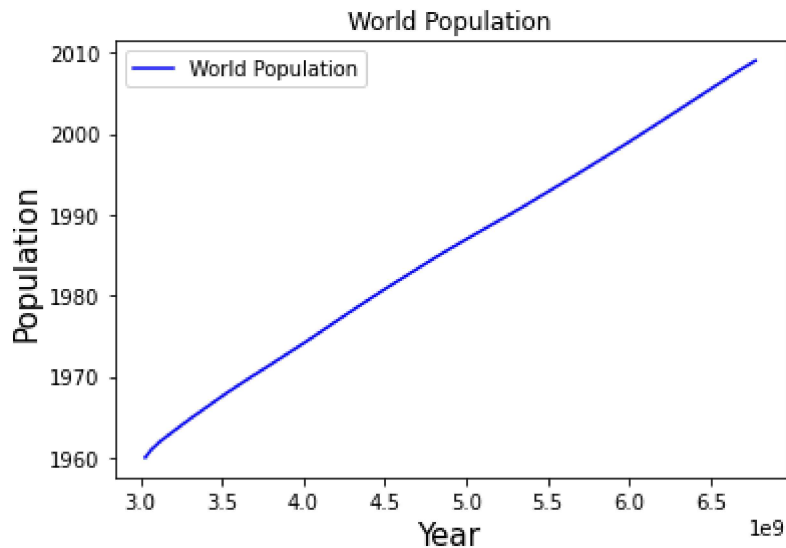
```
In [5]: df.head()
```

```
Out[5]:
```

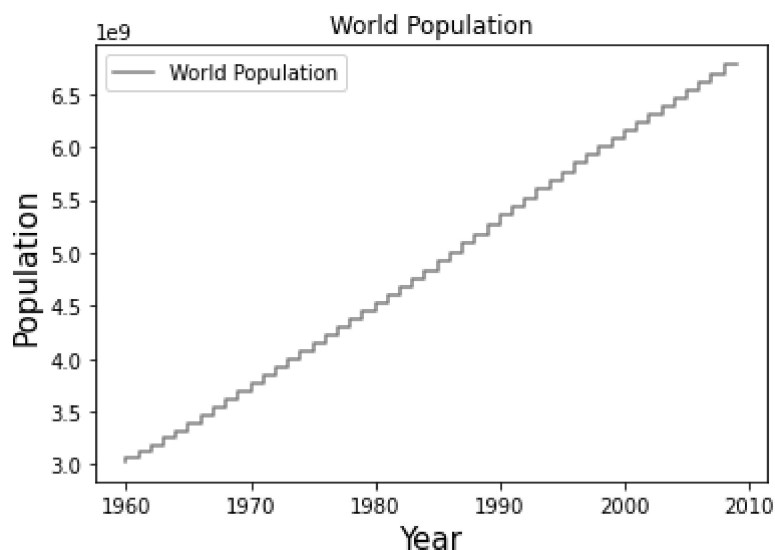
	Year	Population
0	1960	3028654024
1	1961	3068356747
2	1962	3121963107
3	1963	3187471383
4	1964	3253112403

```
In [7]: # Sorting
df_sorting=df.sort_values('Year',ascending=True)
```

```
In [13]: #Line Chart
df_sorting.plot(x='Population',y='Year',kind='line',color='blue')
plt.legend(["World Population"])
plt.xlabel("Year",size=15)
plt.ylabel("Population",size=15)
plt.title("World Population")
plt.savefig("World_Population_Line_Chart_Python.png")
plt.show()
plt.close()
```

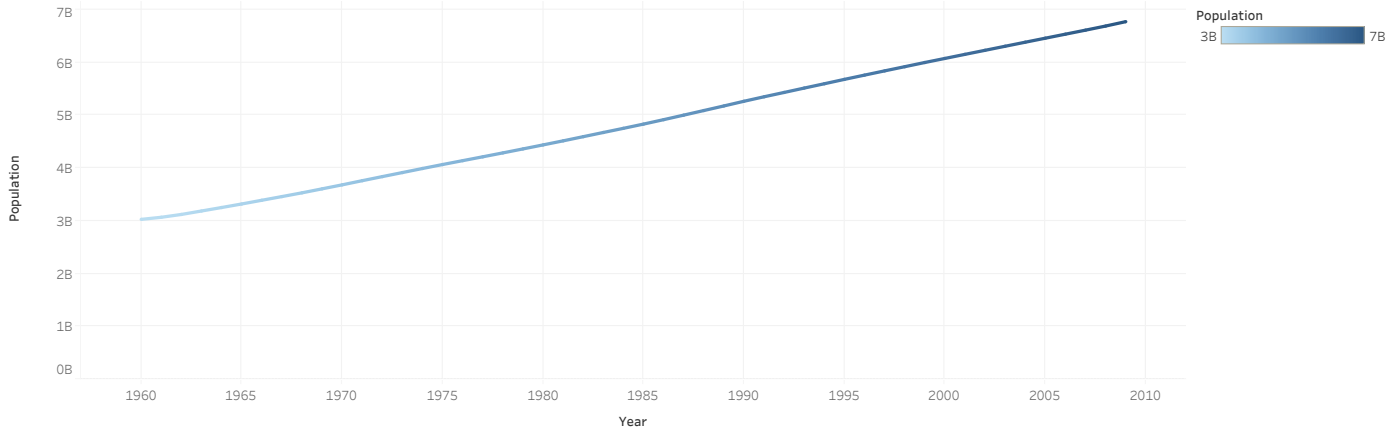


```
In [14]: #Step Charts
plt.figure()
year_list=df_sorting['Year'].to_list()
pop_list=df_sorting['Population'].to_list()
plt.plot(year_list,pop_list,drawstyle='steps',linestyle='-',alpha=1,color='grey')
plt.legend(["World Population"])
plt.xlabel("Year",size=15)
plt.ylabel("Population",size=15)
plt.title("World Population")
plt.savefig("World_Population_Step_Chart_Python.png")
plt.show()
plt.close()
```



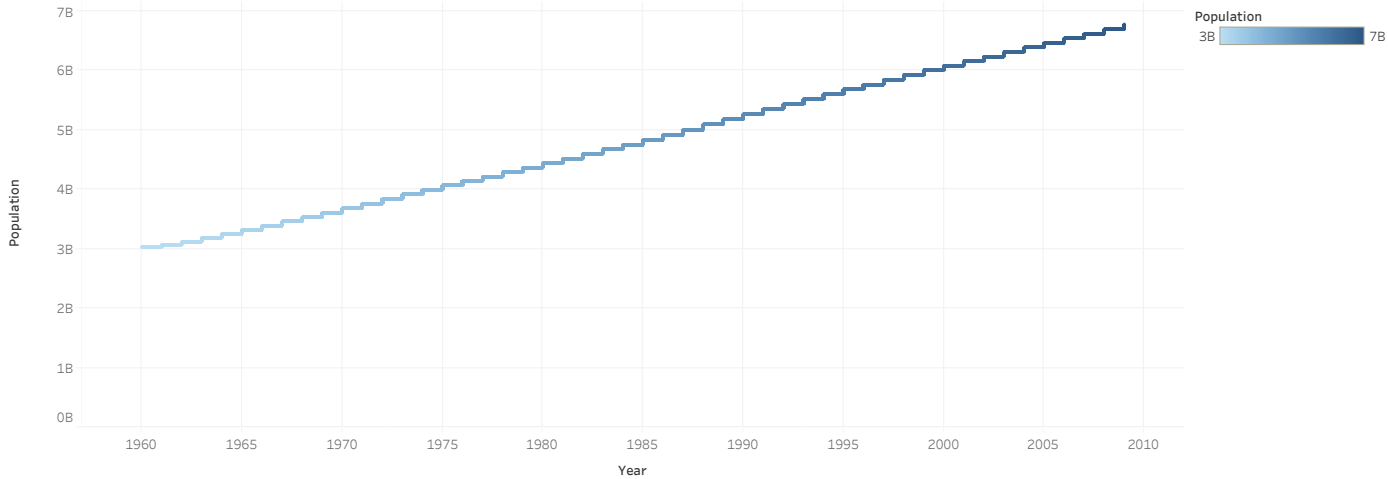
In []:

Line Chart



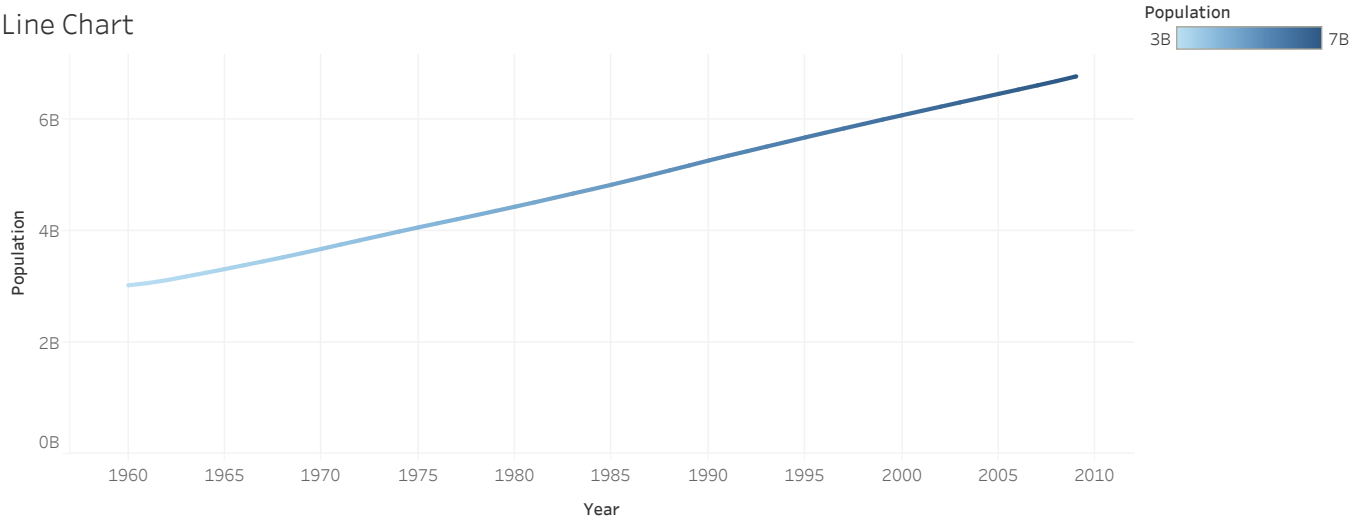
The trend of sum of Population for Year. Color shows sum of Population.

Step Chart



The trend of sum of Population for Year. Color shows sum of Population.

Line Chart



Step Chart

