Python- Excercises

In [8]:
```
import pandas as pd
import matplotlib.pyplot as plt
```

In [5]:
```
df=pd.read_excel('world-population.xlsm')
```

In [6]:
```
df
```

Out[6]:

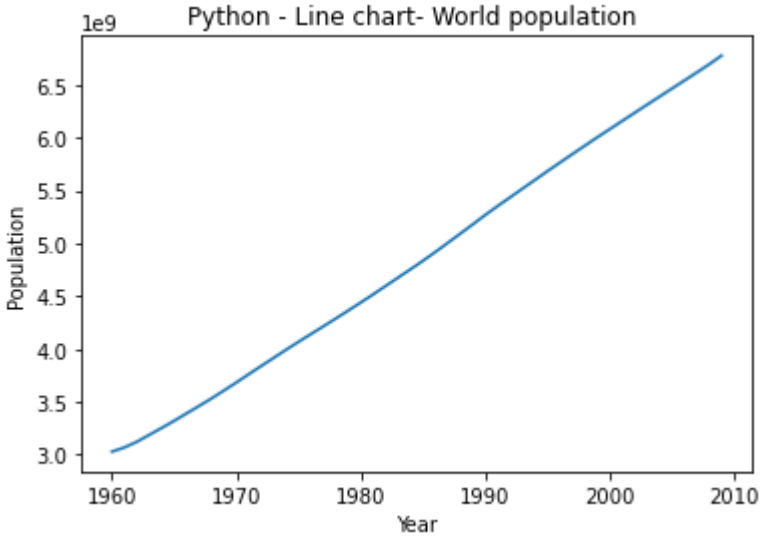
	Year	Population
0	1960	3028654024
1	1961	3068356747
2	1962	3121963107
3	1963	3187471383
4	1964	3253112403
5	1965	3320396924
6	1966	3390712300
7	1967	3460521851
8	1968	3531547287
9	1969	3606994959
10	1970	3682870688
11	1971	3761750672
12	1972	3839147707
13	1973	3915742695
14	1974	3992806090
15	1975	4068032705
16	1976	4141383058
17	1977	4214499013
18	1978	4288485981
19	1979	4363754326
20	1980	4439638086
21	1981	4516734312
22	1982	4595890494
23	1983	4675178812
24	1984	4753877875

	Year	Population
25	1985	4834206631
26	1986	4918126890
27	1987	5004006066
28	1988	5090899475
29	1989	5178059174
30	1990	5266783430
31	1991	5351836347
32	1992	5433823608
33	1993	5516863641
34	1994	5598658151
35	1995	5681689325
36	1996	5762235749
37	1997	5842585301
38	1998	5921799957
39	1999	6001269553
40	2000	6078274622
41	2001	6155652495
42	2002	6232413711
43	2003	6309266583
44	2004	6385778679
45	2005	6462054420
46	2006	6538196688
47	2007	6614396907
48	2008	6692030277
49	2009	6775235741

Python - Line Chart

In [12]:

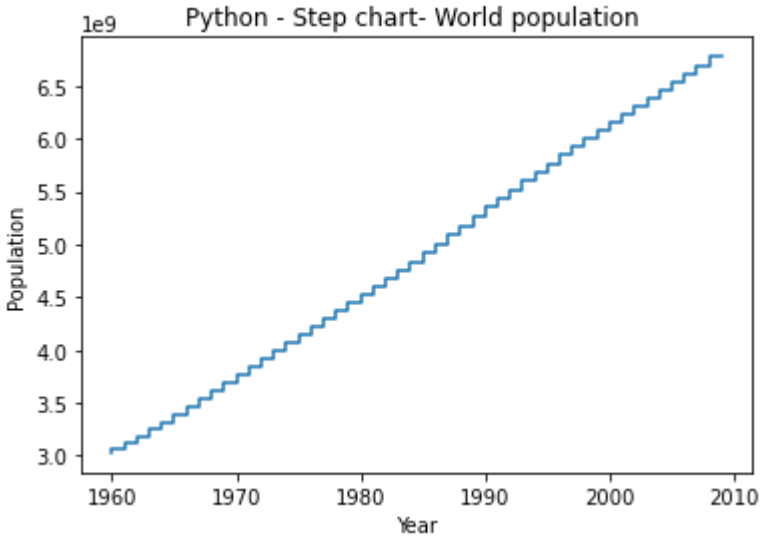
```
plt.plot(df['Year'],df['Population'])
plt.title('Python - Line chart- World population ')
plt.xlabel('Year')
plt.ylabel('Population')
plt.show()
```



Python- Step Chart

In [24]:

```
plt.step(df['Year'], df['Population'])
plt.title('Python - Step chart- World population ')
plt.xlabel('Year')
plt.ylabel('Population')
plt.show()
```



R-Excercises

In [1]:
```
# Import required packages
library('magrittr')
library("ggplot2")
library("dplyr")
library("xlsx")
```

```
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


java.home option:

JAVA_HOME environment variable: C:\Users\meena\anaconda3\Library\lib\jvm

Warning message in fun(libname, pkgname):
"Java home setting is INVALID, it will be ignored.
Please do NOT set it unless you want to override system settings."
```

In [2]:
```
file = paste(getwd(), '/world-population.xlsm', sep = '')
df = xlsx::read.xlsx(file, sheetIndex = 1, stringsAsFactors = FALSE)
```

In [3]:
```
df
```

A data.frame: 50 × 2

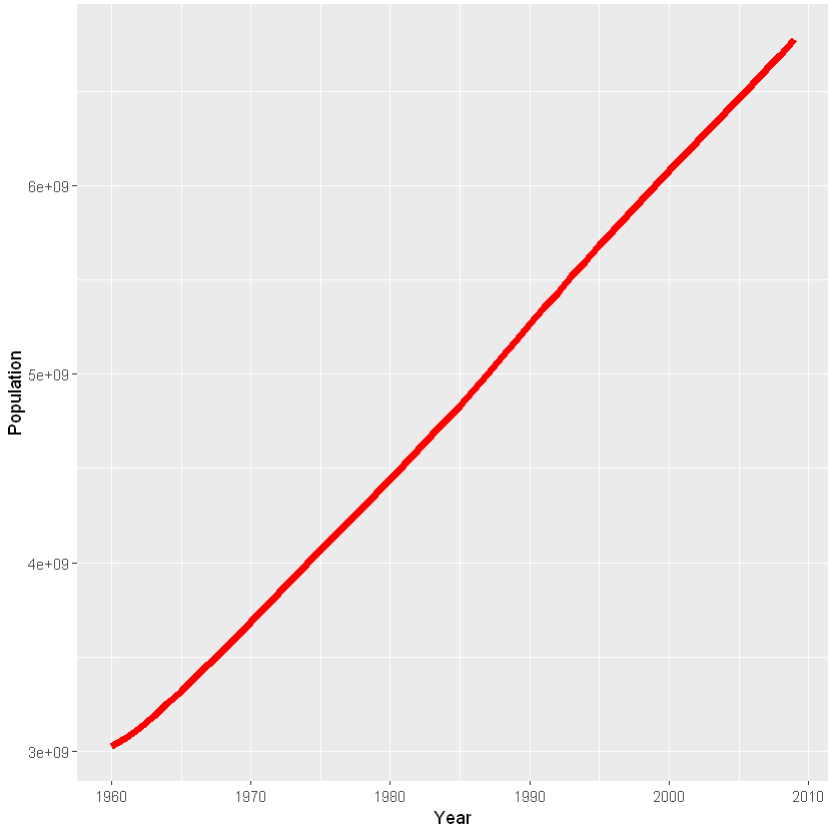
Year	Population
<dbl>	<dbl>
1960	3028654024
1961	3068356747
1962	3121963107
1963	3187471383
1964	3253112403
1965	3320396924
1966	3390712300
1967	3460521851
1968	3531547287

Year	Population
<dbl>	<dbl>
1969	3606994959
1970	3682870688
1971	3761750672
1972	3839147707
1973	3915742695
1974	3992806090
1975	4068032705
1976	4141383058
1977	4214499013
1978	4288485981
1979	4363754326
1980	4439638086
1981	4516734312
1982	4595890494
1983	4675178812
1984	4753877875
1985	4834206631
1986	4918126890
1987	5004006066
1988	5090899475
1989	5178059174
1990	5266783430
1991	5351836347
1992	5433823608
1993	5516863641
1994	5598658151
1995	5681689325
1996	5762235749
1997	5842585301
1998	5921799957
1999	6001269553
2000	6078274622

Year	Population
<dbl>	<dbl>
2001	6155652495
2002	6232413711
2003	6309266583
2004	6385778679
2005	6462054420
2006	6538196688
2007	6614396907
2008	6692030277
2009	6775235741

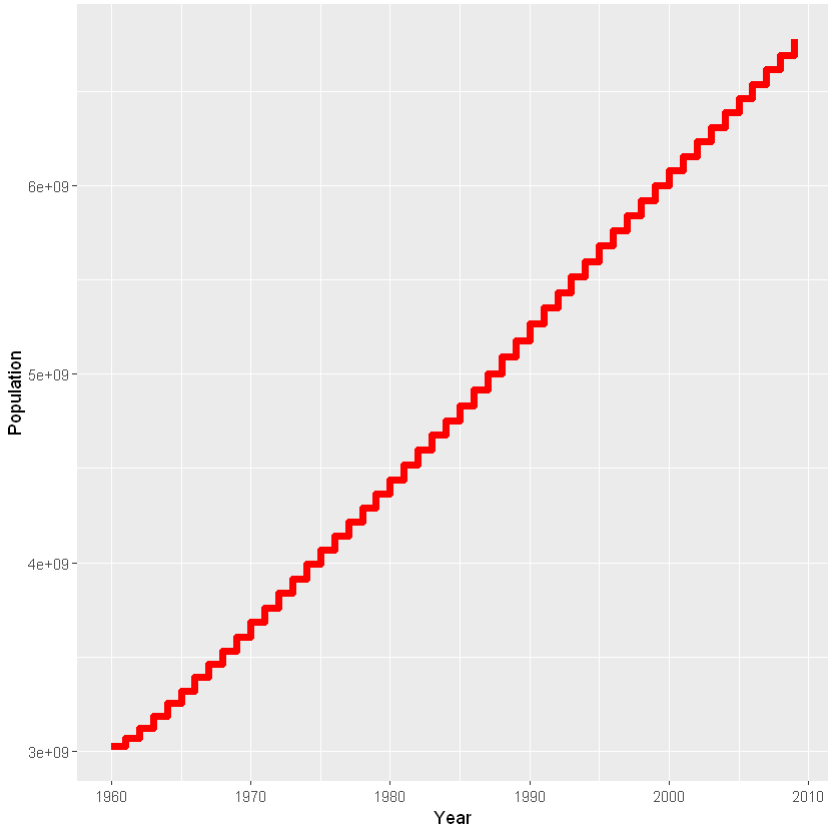
R - Line Chart

In [8]:
```
ggplot2::ggplot(data=df, ggplot2::aes(x=Year, y=Population)) + ggplot2::geom_line(linet
```

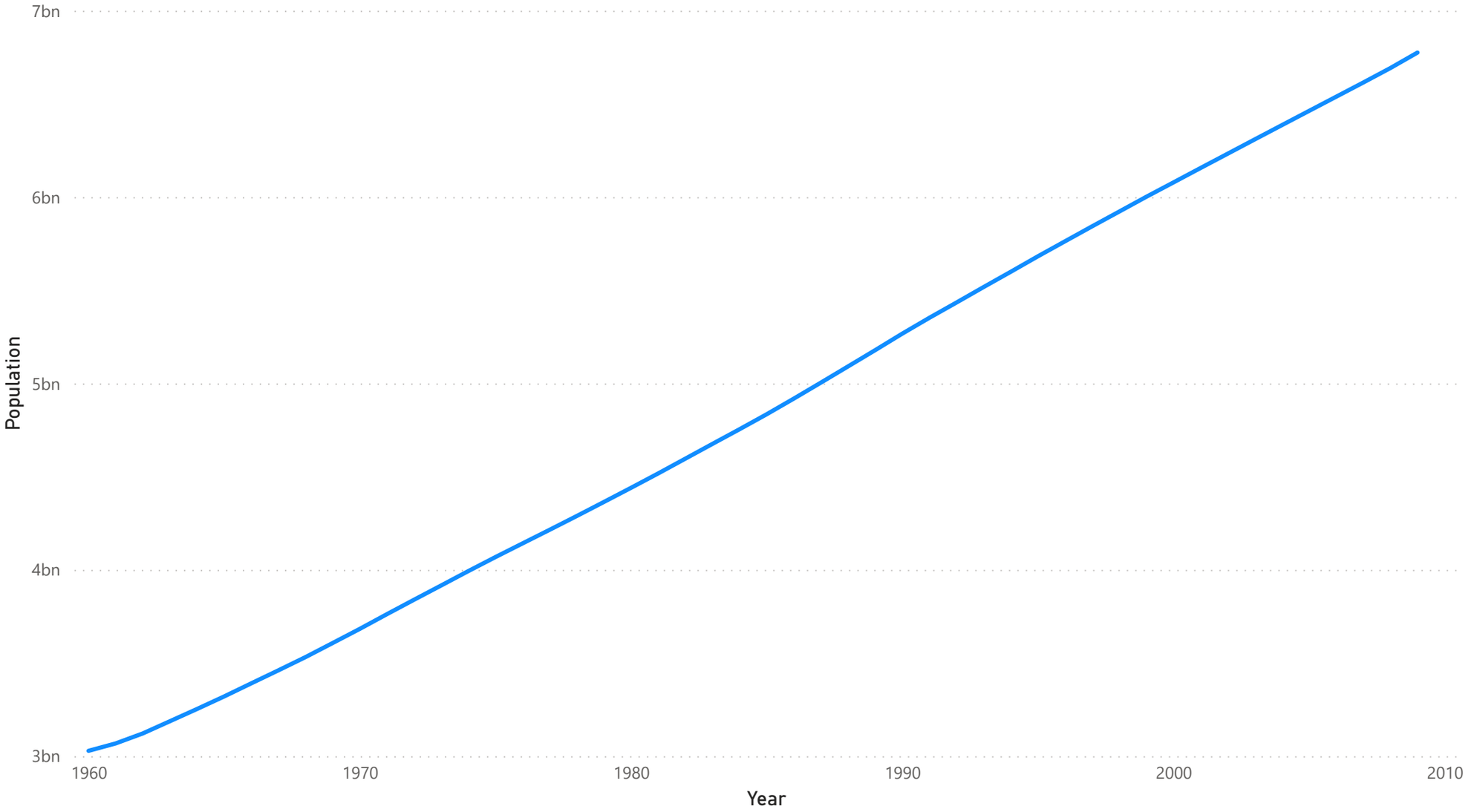


R - Step Chart

In [9]:
```
ggplot2::ggplot(data=df, ggplot2::aes(x=Year, y=Population)) + ggplot2::geom_step(linet
```


6e+09
5e+09
4e+09
3e+09
Population
1960
1970
1980
1990
2000
2010
Year

Power BI - Line Chart



Power BI - Step Chart