

## Visualization of GDP and Life Expectancy of Countries

Initially, I have taken a data set of 5 countries' namely ANGOLA, BRAZIL, CAMEROON, DUBAI, ETHIOPIA.

And successfully loaded them to Rstudio.

The screenshot shows the RStudio interface with a data table loaded. The table has three columns: COUNTRY, LIFE EXPECTANCY, and GDP PER CAPITA. It contains 19 rows of data, all for the country of Angola. The Environment pane on the right shows a data object 'R' with 200 observations of 3 variables. The Files pane shows the project structure with files like .RData, .Rhistory, R SCATTERPLOT.docx, R.xls, Rplot 1.txt, rplot.txt, and week 3.

	COUNTRY	LIFE EXPECTANCY	GDP PER CAPITA
1	ANGOLA	63.00000	1302.0000
2	ANGOLA	44.78600	1277.0000
3	ANGOLA	57.00000	2025.0000
4	ANGOLA	64.00000	1259.9967
5	ANGOLA	57.00000	1245.0000
6	ANGOLA	71.85300	1290.0000
7	ANGOLA	62.00000	1304.0000
8	ANGOLA	64.48600	428.4246
9	ANGOLA	63.00000	842.8052
10	ANGOLA	67.00899	489.6820
11	ANGOLA	64.00000	963.0000
12	ANGOLA	77.00700	796.8166
13	ANGOLA	75.22800	578.4027
14	ANGOLA	63.00000	1290.0000
15	ANGOLA	58.00000	1291.0000
16	ANGOLA	62.63900	1302.0000
17	ANGOLA	75.19900	1928.0000
18	ANGOLA	65.58027	1302.0000
19	ANGOLA	63.00000	869.0393

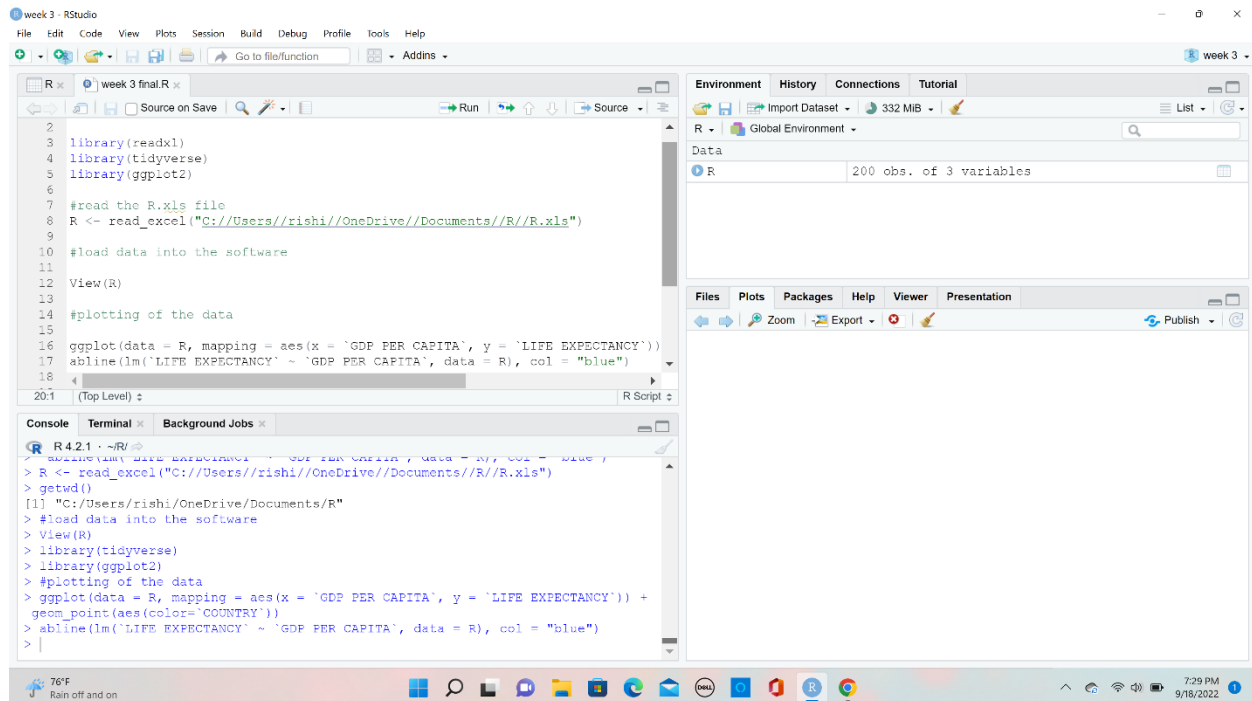
The screenshot shows the RStudio interface with R code in the script editor and output in the console. The code loads the tidyverse, readxl, and ggplot2 libraries. The console output shows the successful installation of these packages and the resulting conflicts between dplyr and tidyr functions.

```
1 #loading required libraries
2
3 library(readxl)
4 library(tidyverse)
5 library(ggplot2)
6
7
```

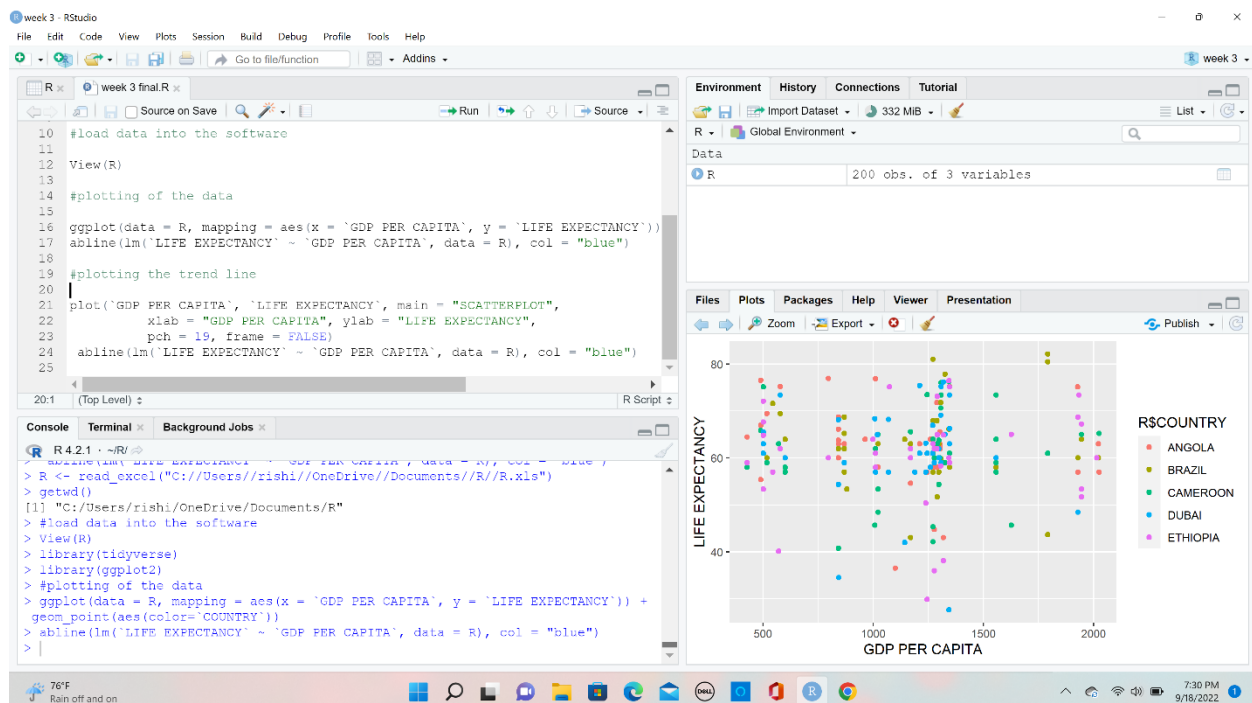
Console output:

```
R 4.2.1 ~R/
library(tidyverse)
Attaching packages:
  tidyr 1.2.0, readr 2.1.2, purrr 0.3.4, dplyr 1.0.10, stringr 1.4.1, forcats 0.5.2
Conflicts:
  dplyr::filter() masks stats::filter()
  dplyr::lag() masks stats::lag()
> library(ggplot2)
> data(R)
Warning message:
In data(R) : data set 'R' not found
~data(R) not found
```

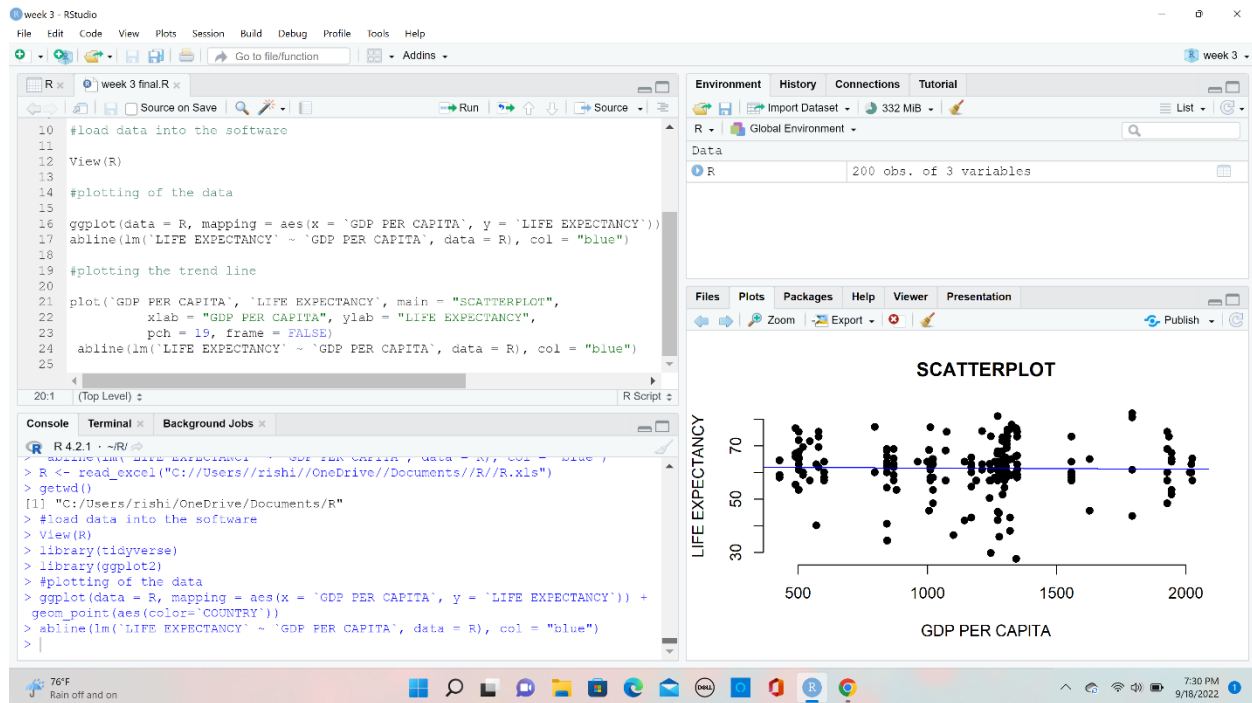
after loading of data, I installed the required packages for the scattershot.



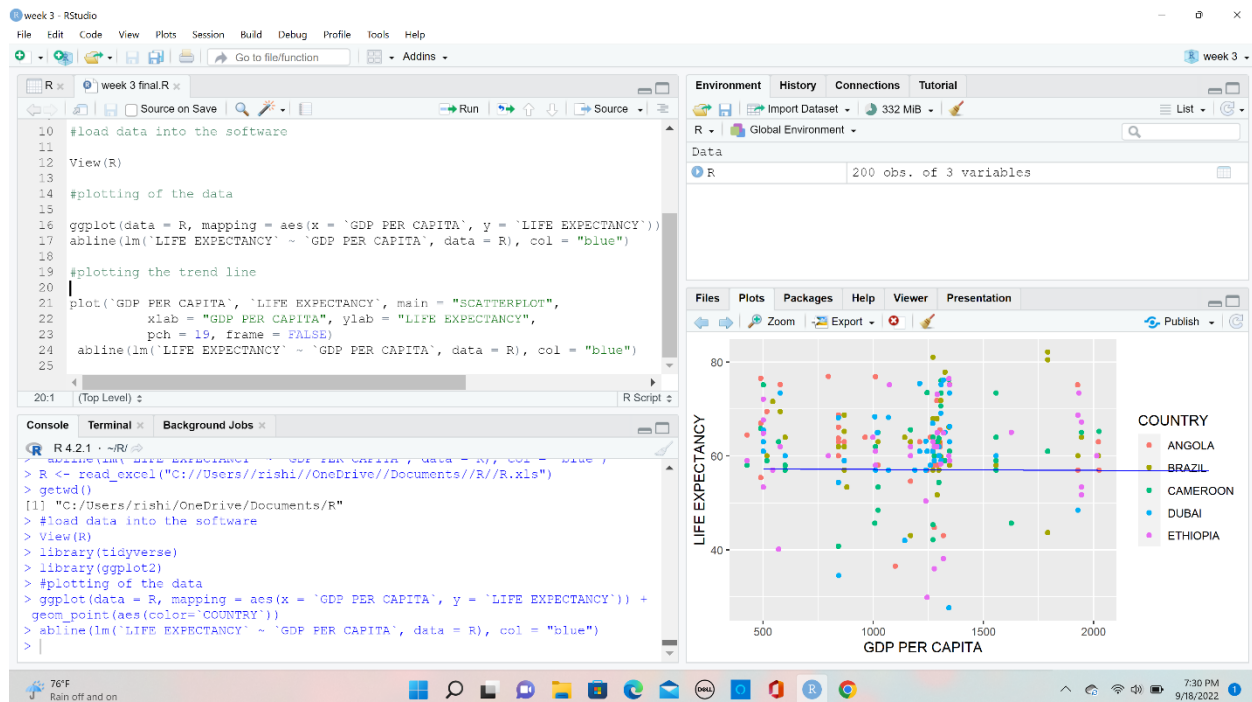
After that created a path to “R” by using “Set Work Directory” in session. Now that all the base work is set written commands in R to load data and set a plot.



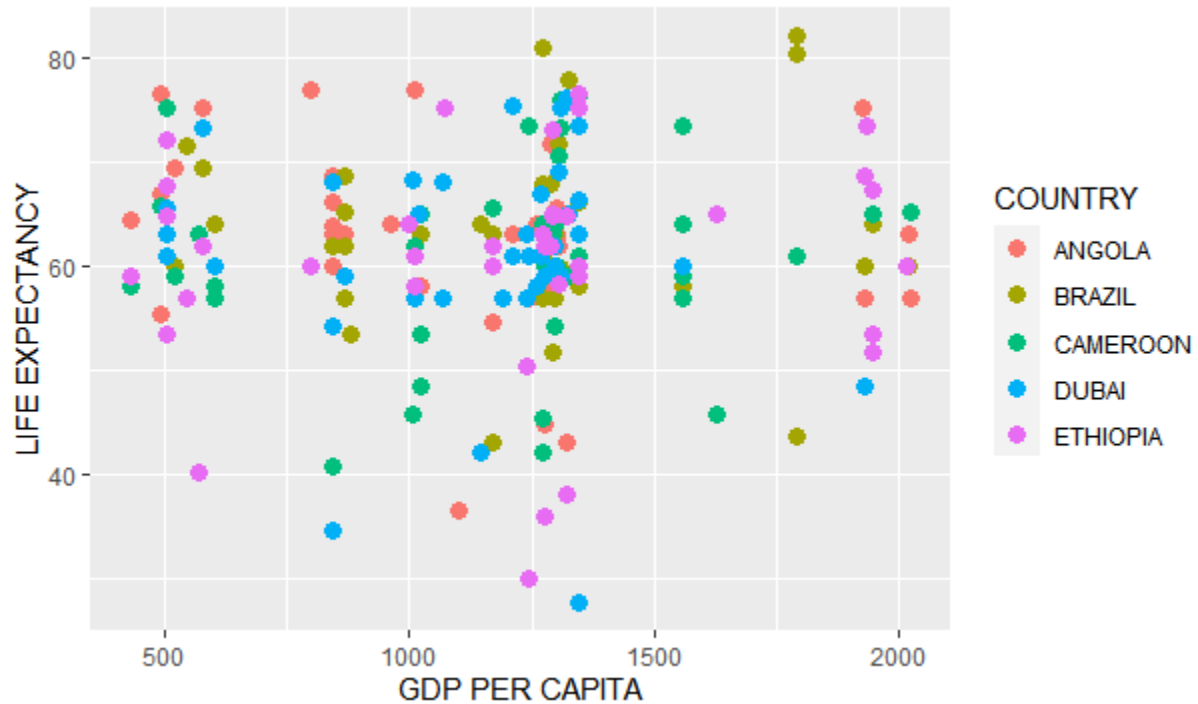
I began plotting the data using ggplot, geom\_point, and aesthetics.



#plotting the trend line.



Life Expectancy vs GDP per Capita summary



The scatterplot above shows the distribution of life expectancy against GDP per capita in five countries. Here, we are trying to find how GDP per capita has affected Life Expectancy in those countries. As shown by the figure, most life expectancy lies between 60 to 70 years. Very few people in these countries are dying at the age of below 40 years and above 80 years. Brazil has the highest life expectancy of about between 43 years and 84 years. Dubai has the lowest point in life expectancy of about 7 years.

There is a significance increase in life expectancy as GDP per capita is increasing. This shows that the death rates have gone down and people are living for more years as a result of good life standards. The contrary is true for low GDP per capita. The lowest GDP per capita was about 450 while the highest in these countries is 2000.