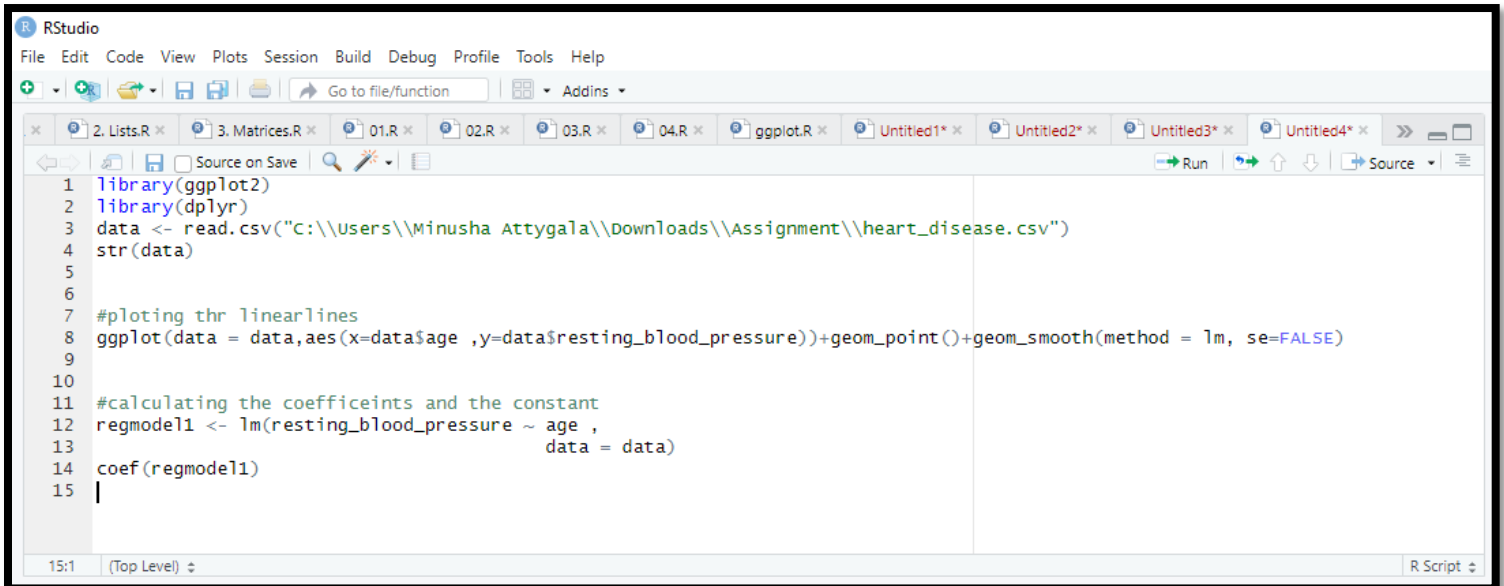


# Linear Regression Analysis

- Code

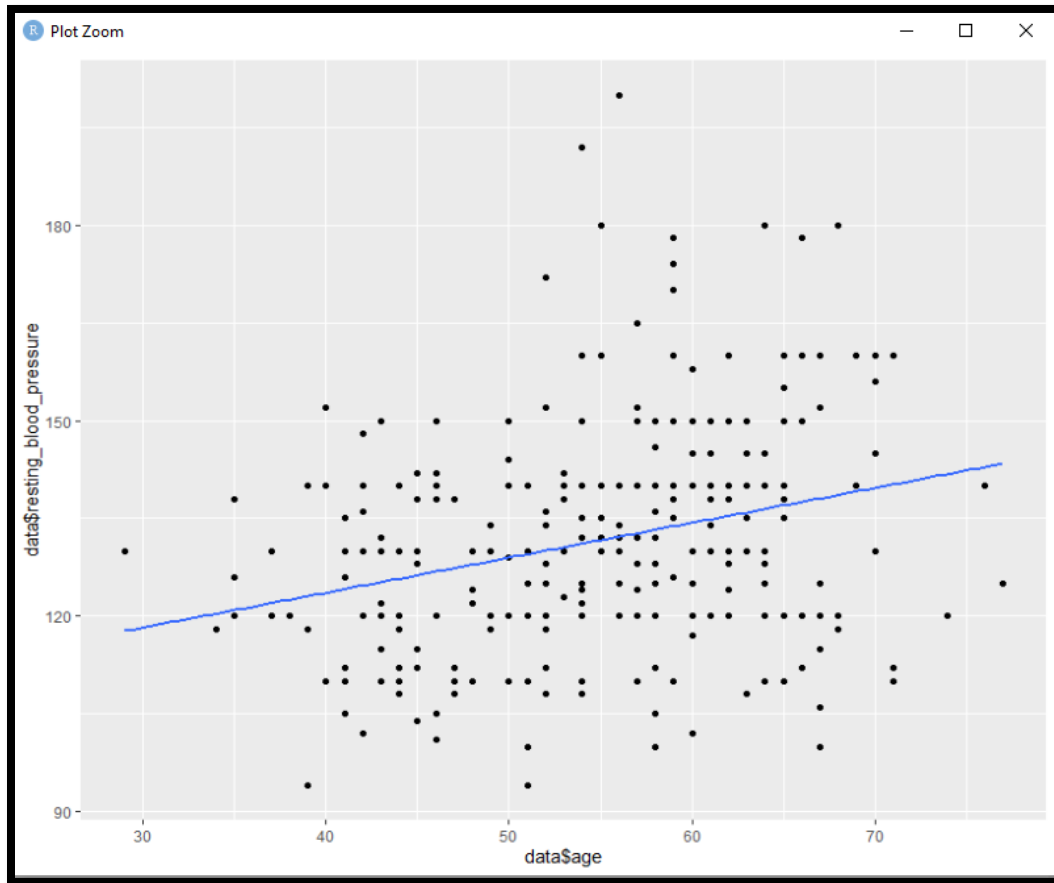


```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
2. Lists.R 3. Matrices.R 01.R 02.R 03.R 04.R ggplot.R Untitled1* Untitled2* Untitled3* Untitled4*
Source on Save
1 library(ggplot2)
2 library(dplyr)
3 data <- read.csv("C:\\Users\\Minusha Attygala\\downloads\\Assignment\\heart_disease.csv")
4 str(data)
5
6
7 #plotting thr linearlines
8 ggplot(data = data,aes(x=data$age ,y=data$resting_blood_pressure))+geom_point()+geom_smooth(method = lm, se=FALSE)
9
10
11 #calculating the coefficeints and the constant
12 regmodel1 <- lm(resting_blood_pressure ~ age ,
13                  data = data)
14 coef(regmodel1)
15 |
```

```
> #calculating the coefficeints and the constant
> regmodel1 <- lm(resting_blood_pressure ~ age ,
+                  data = data)
> coef(regmodel1)
(Intercept)      age
102.1998345    0.5354184
```

- \* The linear regression model suggests that there is a positive relationship between age and resting blood pressure. For every one-year increase in age, the model predicts an increase of approximately 0.5354 units in resting blood pressure, assuming all other factors remain constant.

- Plot



- \* The line slopes upwards from left to right, it suggests a positive correlation between age and resting blood pressure, meaning that older individuals tend to have higher resting blood pressure.