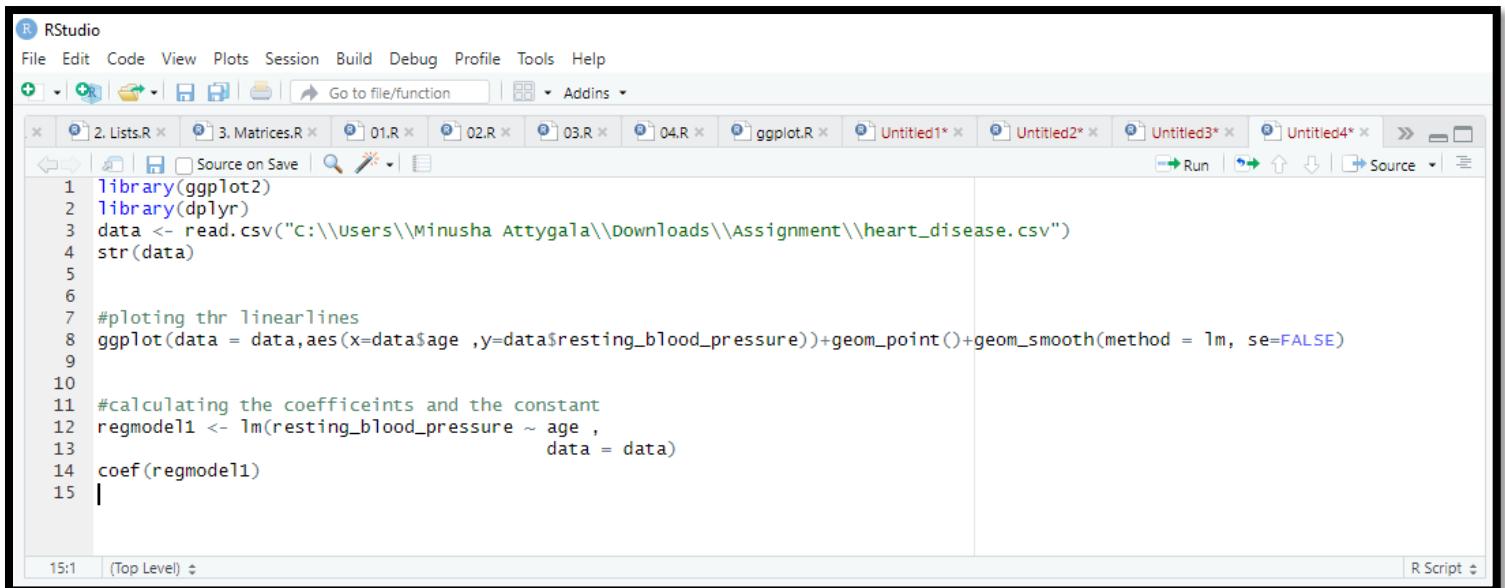


Linear Regression Analysis

- Code



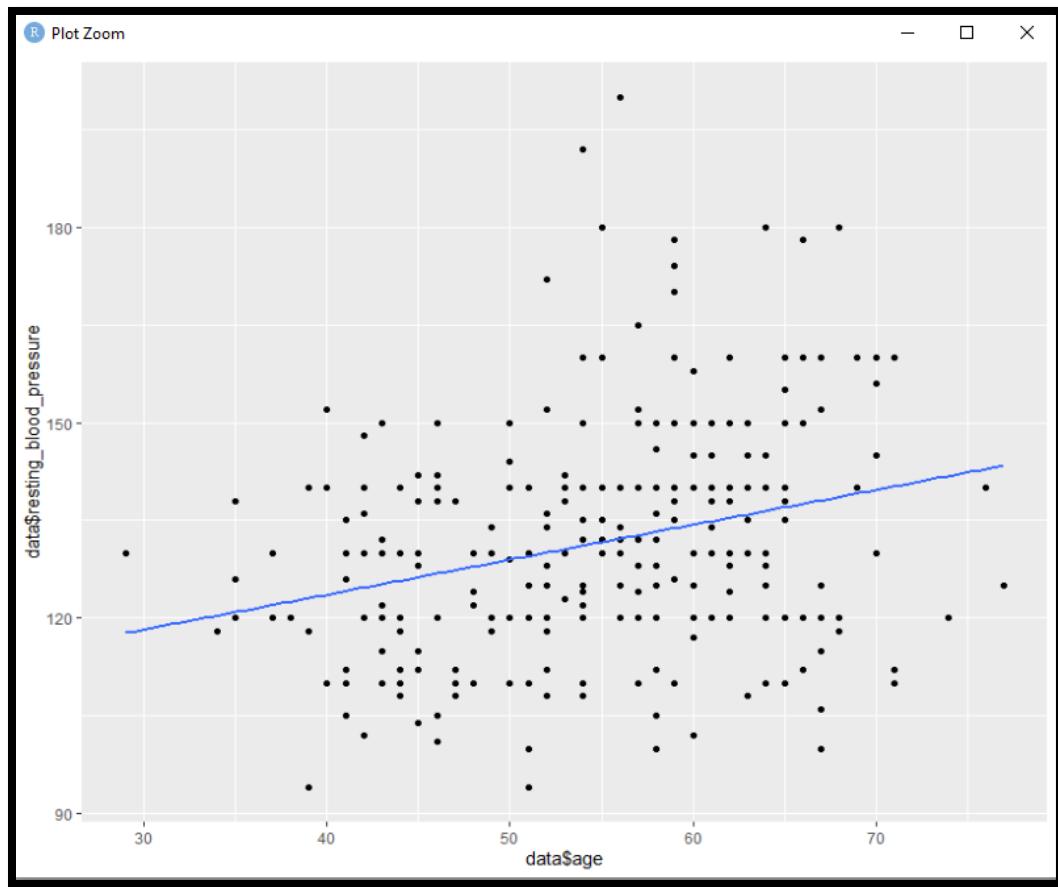
The screenshot shows the RStudio interface with the following details:

- File Menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Toolbar:** Includes icons for file operations like Open, Save, Print, and Run.
- Code Editor:** Displays R code for reading a CSV file, plotting a scatter plot with a smooth line, and fitting a linear regression model to predict resting blood pressure based on age.
- Run Buttons:** Run, Stop, Start, and Refresh buttons.
- Source Buttons:** Source, Save, and Add buttons.
- Status Bar:** Shows "15:1 (Top Level) R Script".

```
> #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.