

```
# Load required libraries
library(ggplot2)
# Load the dataset
data <- read.csv("C:/Users/Adity Tarway/Downloads/diabetes.csv")

# Perform linear regression
linear_model <- lm(BloodPressure ~ Age, data = data)

# Perform multiple regression
multiple_model <- lm(BloodPressure ~ Age + BMI, data = data)

# Perform polynomial regression
poly_model <- lm(BloodPressure ~ poly(Age, degree = 2), data = data)

# Evaluate model performance

summary(linear_model)
summary(multiple_model)
summary(poly_model)
```

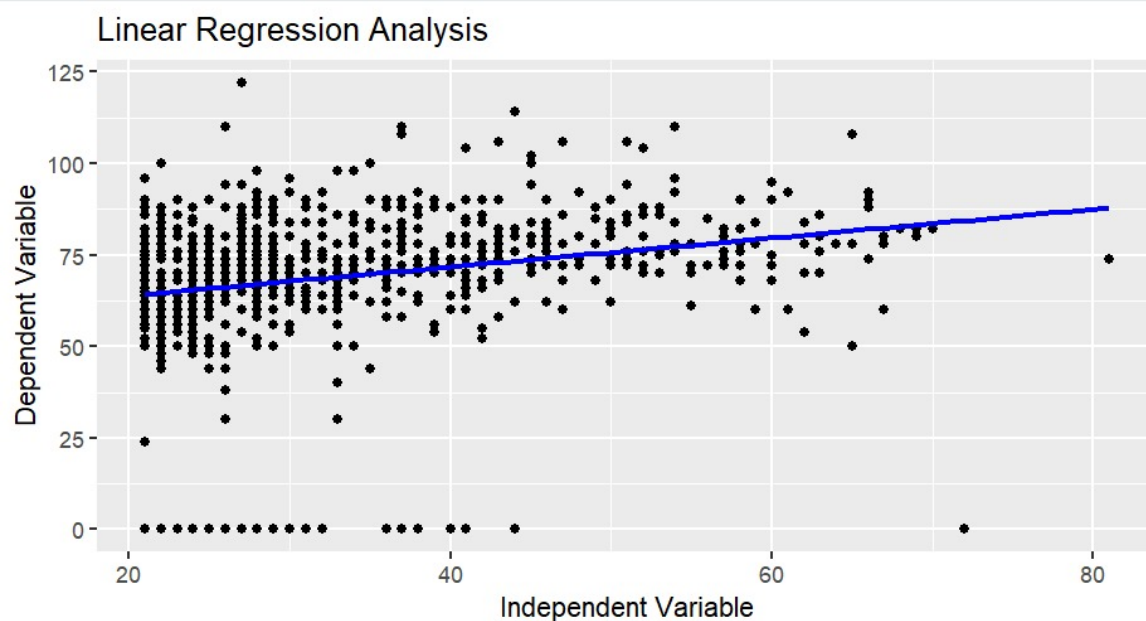
```
# Visualize regression results

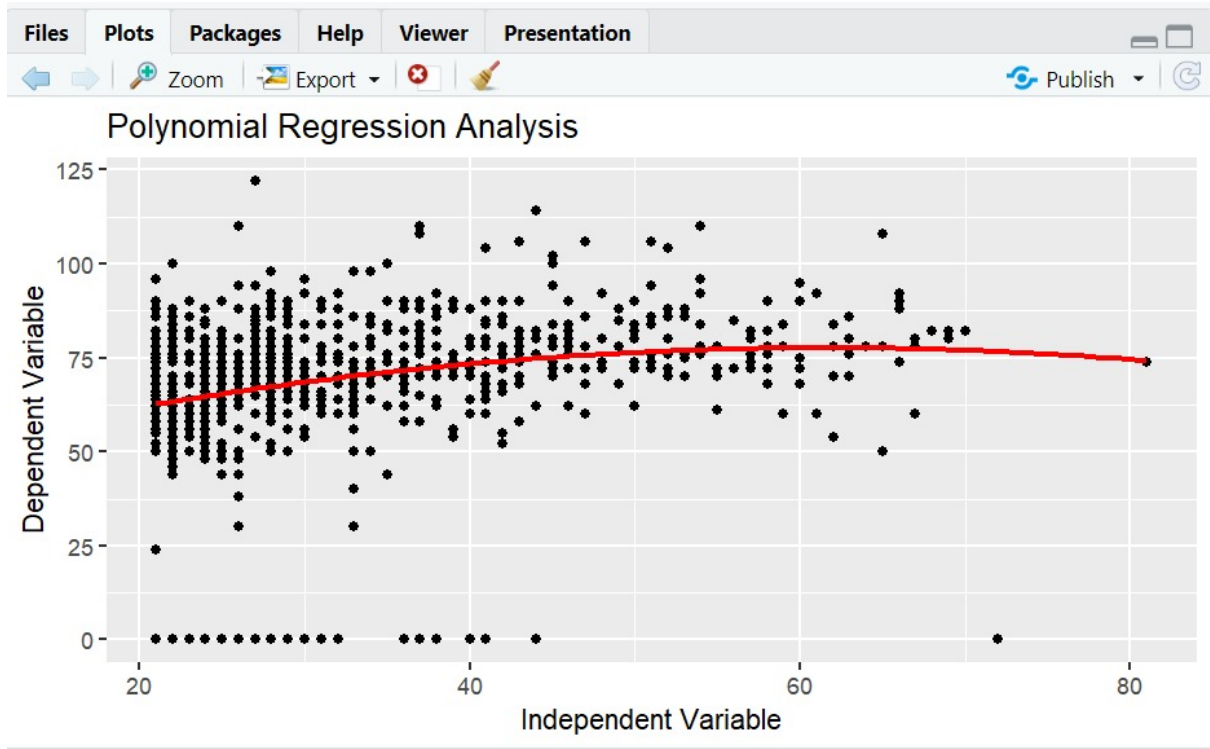
# Perform linear regression
linear_model <- lm(BloodPressure ~ Age, data = data)

# Perform polynomial regression
poly_model <- lm(BloodPressure ~ poly(Age, degree = 2), data = data)

# Visualize linear regression
ggplot(data, aes(x = Age, y = BloodPressure)) +
  geom_point() +
  geom_smooth(method = "lm", se = FALSE, color = "blue") +
  labs(title = "Linear Regression Analysis", x = "Independent Variable", y = "Dependent Variable")

# Visualize polynomial regression
ggplot(data, aes(x = Age, y = BloodPressure)) +
  geom_point() +
  geom_smooth(method = "lm", se = FALSE, color = "red", formula = y ~ poly(x, 2)) +
  labs(title = "Polynomial Regression Analysis", x = "Independent Variable", y = "Dependent Variable")
```





Data		
data	768 obs. of 9 variables	
linear_model	List of 12	
multiple_model	List of 12	
poly_model	List of 12	