Statistical Inference Course Project Part 2

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```r
# loading the required libraries
library(ggplot2)
library(dplyr)
```

Basic Inferential Data Analysis

1. Overview

In this analysis, the ToothGrowth data will be analyzed, which can be found in the R `datasets` package.

2. Loading the Dataset and performing EDA

The ToothGrowth data set has to be loaded from the `datasets` package in R.

```r
# loading the datasets package
library(datasets)

# loading the ToothGrowth data set
data("ToothGrowth")
```

Next, a plot will be created showing the trends in toothgrowth with respect to each supplement

```r
# creating a point plot of the variation of teeth growth with respect to each dose level
# of a supplement, and fitting a linear line over those points;
# the 'theme_bw()' function will add a light background with gray grid lines
# to the plot
qplot(x = dose, y = len, data = ToothGrowth, color = supp, geom = "point",
      main = "Tooth Growth with each Dose Level of a Supplement",
      xlab = "Dose Level", ylab = "Growth in Tooth Length") +
geom_smooth(method = "lm") + theme_bw()
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Tooth Growth with each Dose Level of a Supplement