LME using other study data

```r
library("readxl")
library(lme4)
```

```
## Loading required package: Matrix
```

```r
df <- read_excel("data.xlsx", sheet = 1)
df$t <- as.factor(df$t)
# Assuming your data frame is called 'df'
# 'id' is the subject identifier
# 't' is the time point
# 'Total_Hair_Density' is the outcome variable

# Fit the linear mixed-effects model
model <- lmer(Total_Hair_Density ~ t + (1|id), data = df)

# Summarize the model
summary(model)
```

```
## Linear mixed model fit by REML ['lmerMod']
## Formula: Total_Hair_Density ~ t + (1 | id)
##    Data: df
##
## REML criterion at convergence: 422.7
##
## Scaled residuals:
##      Min      1Q   Median       3Q      Max
## -2.34735 -0.46585  0.01538  0.38820  1.81394
##
## Random effects:
##  Groups   Name        Variance Std.Dev.
##  id       (Intercept) 100.309  10.015
##  Residual               7.228   2.689
## Number of obs: 66, groups:  id, 33
##
## Fixed effects:
##             Estimate Std. Error t value
## (Intercept)  94.1242     1.8052   52.14
## t5           30.8879     0.6619   46.67
##
## Correlation of Fixed Effects:
##    (Intr)
## t5 -0.183
```