Task 3

Write an R function RegrMixed that calculates regression coefficients with repeated measures using mixed model with a random effect (or more precisely mixed error-component model containing both fixed effects and a random effect).

- Inputs and outputs for the function RegrMixed are same as in RegrMean function from Task 2. Report data only for Fixed Terms.
- If the source df has just one column for the response (one column with the KEYWORD) then use RegrMean function from the Task 2
- Assume that the response data is normally distributed
- Assume the repeated measures has one random effect
- Use Linear Mixed Model. Recommended R package is lm4 function lmer
- Estimate the parameters using maximum likelihood (not restricted maximum likelihood, REML = FALSE)
- For the p-values use Anova() function from R package "car" ("Anova" with capital "A")
- If some outputs that exist in RegrMean function from Task 2 can not be obtained in the Linear Mixed Model then just return empty values.

Feel free using any number of functions to construct the solution. Feel free to create any classes you need. Try minimizing use of extra libraries. Do not use global variables. Please comment your code as much as possible.