PBIO 6940 Assignment: M13_Memory. Submit your work in an R notebook or script file using the assignment tool in Brightspace.

1. 13E3. Rewrite the following model as a multilevel model.

   $$y_i \sim Normal(mu_i, sigma)$$
   $$mu_i = alphagroup[i] + beta * x_i$$
   $$alphagroup[i] \sim Normal(0,5)$$
   $$beta \sim Normal(0,1)$$
   $$sigma \sim Exponential(1)$$

2. 13M1. Revisit the Reed frog survival data, data(reedfrogs), and add the predation and size treatment variables to the varying intercepts model. Consider models with either main effect alone, both main effects, as well as a model including both and their interaction. Instead of focusing on inferences about these two predictor variables, focus on the inferred variation across tanks. Explain why it changes as it does across models.