

SMiB
Homework/Labwork 1
(due March 11th, 2025 EOD)

Problem 1. The researcher wants to understand the effect of BMI on the probability of infection (or complication - choose one) for patients undergoing a surgery. Based on the attached dataset, please create a model that will examine this relationship (you should create the best model, not just the one containing the BMI attribute). Provide the appropriate estimates, confidence intervals (e.g., in a table), and meaningful plots (think of a plot that will emphasize your findings). Also try to explain your conclusion in words understandable to a non-mathematician.

Problem 2. Based on the attached dataset (the same one as in Problem 1), please model the duration of the hospital stay for patients undergoing a surgery. Provide the appropriate estimates, confidence intervals (e.g., in a table), and meaningful plots (think of a plot that will emphasize your findings). Also try to explain your conclusions in words understandable to a non-mathematician.

Important !!! Do not use alternative outcomes as attributes. Only attributes known at the time of the hospital admission should be used as predictors.