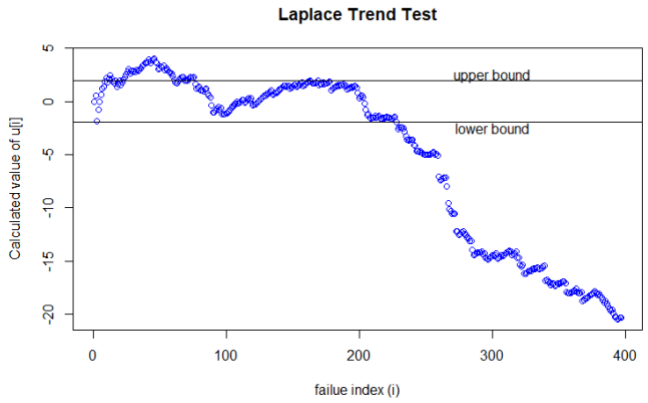
Homework 5, ECE 590 & CS320 Toward More Reliable Software

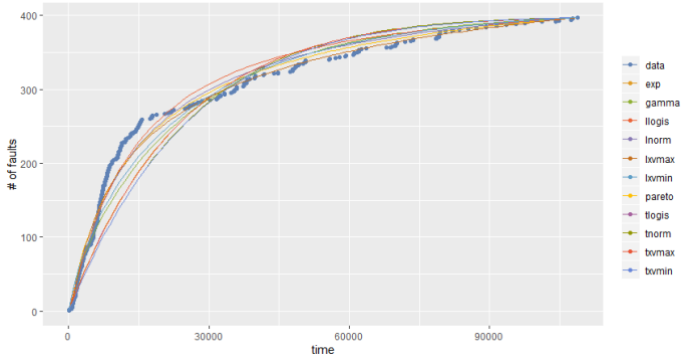
Due Date: 2/13/2024 by 11:59 pm
Learn and apply R to carry out *Laplace Trend Test* and *SRGMs model fitting* on both given dataset (data1.csv and data2.csv) and record the results as well as the source code in one document:

1. The *Laplace Trend Test* results. This can be shown in the format of a graph, as shown below. In the graph, the upper-bound and lower-bound, corresponding to 0.025 and 0.975 quantile of a standard normal distribution, should be given. You may use R's plot() function here.



2. The SRGMs fitting results collected from Rsrat, including the estimated parameter values and the fitted curves. Plot original *m(t)* and fitted *m(t)* curves. Also plot λ(t) curves with the fitted parameters for all the models.

   Please first read the examples provided in
   https://github.com/SwReliab/Rsrat
   Then, fit the data with some/all types of models they provide.



Note:

1. Please search and learn how to import a csv file in R and extract the data from it.
2. To install Rsrat, you might need to install "Rtools" on your computer.