STAT778 HOMEWORK #1

HW #1 due date: 02/21/2018 before class. Email me your C program with detailed comments and other supporting documents. Late HWS will not be accepted.

Write a C program to

1. read the data in HW1.dat. Note that there are 200 observations and column 1 and column 2 correspond to the failure/censoring time $Y \equiv \min\{T, C\}$ and the censoring indicator $\Delta = I(T \leq C)$, respectively. Here T is the failure time and C is the censoring time;

2. calculate the Kaplan-Meier estimator of the survival function of the failure time and the pointwise 95% confidence band (assuming independent censoring);

3. Output the results to a text file and then use R or SAS to plot the Kaplan-Meier survival curve and the 95% pointwise confidence band.