IE 324 SIMULATION
SPRING 2023 HOMEWORK 2

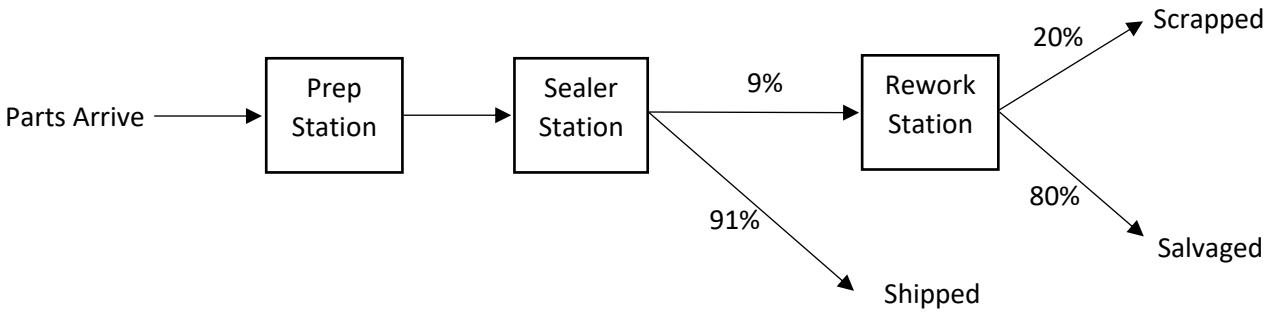
Procedure:

- You may do this homework with your project group. If so, you must have all members' names on the files submitted.
- This homework is based on the Model 4-1 of Kelton et al. You may get help from your book as you build it.
- You should use Arena version 14.5 (No other version will be accepted.)
- This homework should be submitted by **April 2 at 23:59** via Moodle. You should submit the **model file (.doe)** and **the statistics**.
- The grading will be based on effort.

A SIMPLER ELECTRONIC TEST AND ASSEMBLY SYSTEM

Consider an electronic test and assembly system where arriving parts are cast metal cases that have already been machined to accept the electronic parts. These parts arrive with an exponential distribution with mean of 5 minutes.

- Upon arrival parts enter the "Prep Area" where the process takes a triangular distribution with (1,4,8) minutes.
- After the prep, the parts are sent to the "Sealer Machine" where the process takes a triangular distribution with (1,3,4) minutes. 91% of the parts are produced successfully and hence shipped after the sealing process.
- After the sealing process 9% of the parts turn out to be defective and hence sent to a "Rework" station where operators attempt to salvage these parts. The time spent in the "Rework" station is exponentially distributed with mean of 45 minutes.
- After the rework 80% of the parts can be salvaged and the remaining are scrapped.



Run the model for 32 hours and submit the doe file and the pdf of the statistics reported.