Final Project

Project Instructions

Project Requirements

Each team should apply and deliver the following, for their selected simulation idea:

1. Implementation

- Implement ALL of the following models into a package, for your selected project idea, with the following inputs and outputs of each model:

Model	Input through GUI	Output
Multi Server-Single Queuing System (at least 3 servers)	-Simulation Length	-Simulation table -Each server utilization -Average waiting time
Classical Inventory Simulation	-Simulation days count -Purchased quantity -Required prices	-Simulation table showing daily profit -Total profit
(M,N) Inventory Simulation	-Cycles count -Days count per cycle -Order condition -Order quantity	-Simulation table -Proportion of shortage condition occurred
Event Scheduling	-Simulation Length	-Simulation table

- The project must have a representative GUI for your selected idea and the GUI must allow:
  - Selecting a model to run
  - Enter all the required inputs (No static numbers allowed)
  - Shows the simulation and the calculated statistics
- The required values for the simulation variables should be randomly generated, not static nor inputs.

2. <u>Documentation</u>

- Document your selected idea, simulation model, statistical conclusion, explain and state each of the 12 simulation steps on your selected idea.
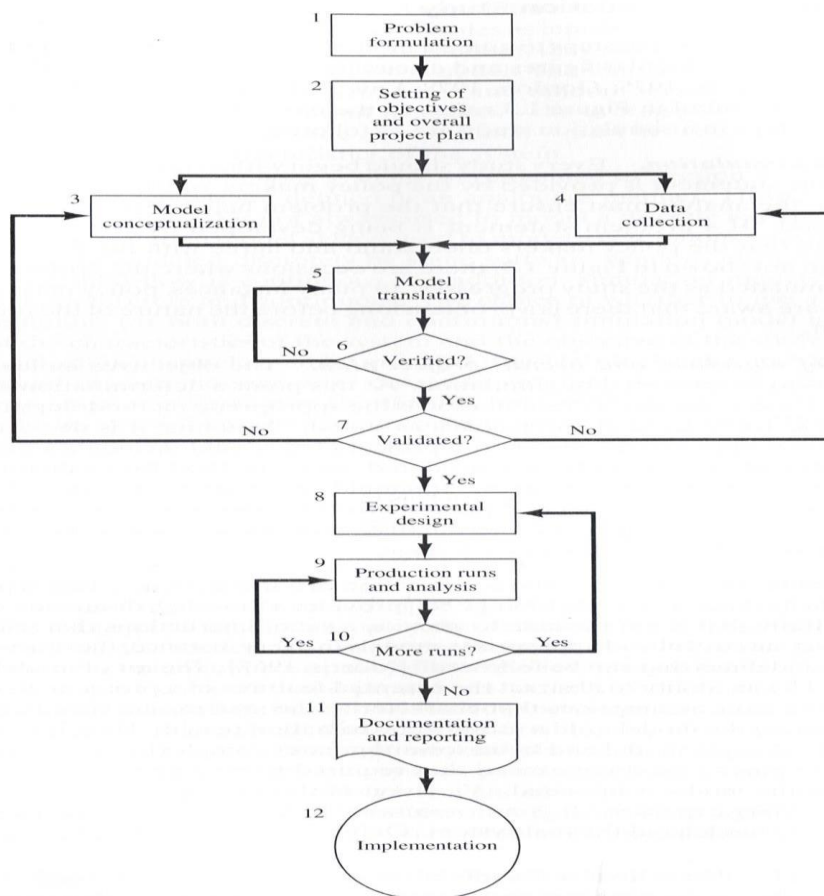

Figure 1.3. Steps in a simulation study.

3. <u>Presentation</u>