

IE381/3081 – Modeling and Discrete Simulation Course

Marmara University, Istanbul, Turkey

September 29, 2018

Homework 1

“A system is defined as a group of objects that are joined together in some regular interaction or interdependence toward the accomplishment of some purpose [1].” “To model a system, it is necessary to understand the concept of a system and the system boundary [1]. In order to understand and analyze the system, we need to define the system components, as we have described in the class. For the following systems, please give entities, attributes, activities, events, and state variables.

- a) Bank
- b) Hospital blood bank
- c) Fire service station
- d) Airport
- e) (A system that you will determine)
- f) (A system that you will determine)

In your work, please consider that a complete system components may not be defined at the moment, but the main and key components should be defined and included. The others furthermore can be added if needed.

Deliveries:

The following deliveries will be submitted via personal **Turnitin** account.

- a) A **report** answering the questions given above.

If you have not have a **Turnitin** account yet, you will soon receive an email having your account credentials.

This is an individual homework for students. Group study, collaboration, and cooperation are not allowed.

Due date is October 08, 2018.

Ask any unclear matter to the lecturer. Good luck...

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Associate Professor

References:

[1] Banks, Carson, Nelson, Nicol, Discrete-Event System Simulation, 5th Edition, Pearson 2010.