

IE 381 – Modeling and Discrete Simulation Course

*Marmara University, Istanbul, Turkey
October 19, 2013*

Homework 1

Considering the Example 2.5 described in the lecture and given in the textbook, simulate a single-server queue system. Example 2.5 was named as “Grocery Checkout” in the textbook. Use the same terminology given in the example. Analyze the system simulating the arrival and service of the customers. Measure the performance of the system.

Deliveries:

- a) The model designed in Micro Saint Sharp.
- b) Outputs for the following performance measures:
 - Customer’s average waiting time.
 - Proportion of time that the server is idle.

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

Due date is October 28, 2013, until 17:00.

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

Mujdat Soyturk, Ph.D.
Asst.Prof.