END3032 – SYSTEMS SIMULATION

THE BOMBAY RESTAURANT PROBLEM

Laboratory Practice #4

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22.04.2020

The Bombay Restaurant Problem

Customers arrive at the Bombay Restaurant with a rate of **6 per hour** according to the **exponential distribution**. First, they give their orders, then they go for the payment and finally they pick up their orders and leave the restaurant. Service times for these operations are given in Table 1. On the other hand, when customers arrive, if there are at least **six** people waiting inside, customers leave the restaurant and go to another one.

Make a simulation model and estimate the average number of customers served and lost per day. Run the simulation model for 100 days (800 hours).

Table 1. Service Times

Operation	Service Time (min)
Give the order	**Normal (5, 1)**
Pay for the order	**Normal (7, 2)**
Pick up the order	**Normal (10, 2)**