**Lab: Continuous time Markov chains**

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MOOC: Understanding queues

Python simulations

Week IV: Continuous time Markov chains

In this lab, we focus on the simulation of continuous time Markov chains. In the lab of week 2 we have simulated a M/M/1 queue. This week, we are going to study a M/M/1/K queue to illustrate the effect of a finite buffer length. We will compute the loss probability in this model and observe the influence of the load ρ when the capacity K is large.

The notebook containing the lab of week 4 is available here: [notebook](https://prod-edxapp.edx-cdn.org/assets/courseware/v1/0d41aa0d2854bb8d06098a844a7076f9/asset-v1:IMTx+CS101+1T2018+type@asset+block/Week4_Lab_Continuous_Time_Markov_Chains.ipynb)

The pdf version of the lab of week 4 is available here: [pdf version of the notebook](https://prod-edxapp.edx-cdn.org/assets/courseware/v1/19c85a599214756f9e04f847dad67b89/asset-v1:IMTx+CS101+1T2018+type@asset+block/Week4_Lab_Continuous_Time_Markov_Chains.pdf)