**WARNING: this assignment contains 2 exercises**

**Performance indices of an M/M/1/6 queue**

Consider an M/M/1/6 system, with arrival rate $\lambda = 0.9\ j/s$, and average service D = 1 s.

Determine:

- Compute the average utilization
- Compute the probability of having 4 jobs in the system
- Compute the average number of jobs in the system
- Compute the throughput and the drop rate
- Compute the average response time and the average time spend in the queue
- Compare the previous results with the ones of an M/M/1 system

**Performance indices of an M/M/2/6 queue**

Consider now an M/M/2/6 system, with $\lambda = 1.8\ j/s$, and average service D = 1 s. Determine the same quantities required from the previous exercise