## Project 11

Consider a system with one queue and two servers, one double as fast as the other. When both servers are idle, an incoming job is served by either of the two servers with a probability $p$. Otherwise, jobs go the first server that becomes idle.

Consider the following workload: job interarrival times are IID RVs (to be described later), and their service times are IID RV (to be described later).

Study the response time of the above system as the workload varies at least in the following scenarios:

- Constant interarrival times, constant service times
- Exponential distribution of the above RVs

In all cases, it is up to the team to calibrate the scenarios so that meaningful results are obtained.

Project deliverables:

a) Documentation (according to the standards set during the lectures)
b) Simulator code
c) Presentation (up to 10 slides maximum)