

Applied Discrete Modelling

GSPNs & CTMCs - Examples



Example: The Hairdresser

One person is at a beauty salon

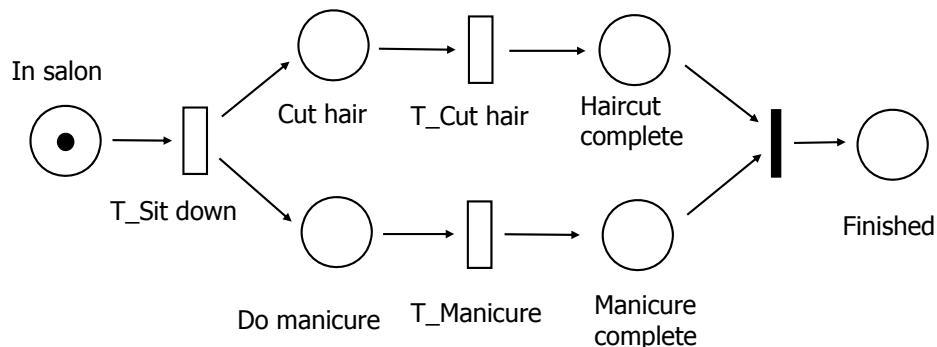
It takes a certain amount of time to be seated

Then the manicure and haircut can start

Both can happen at the same time and can have different durations

Only if both manicure and haircut are done, is the visit at the salon finished

Example: The Hairdresser



Example: The Bar

3 people are sitting in a bar

The time until one of them orders their next drink is exponentially distributed

If the barman is free, he can attend to the request

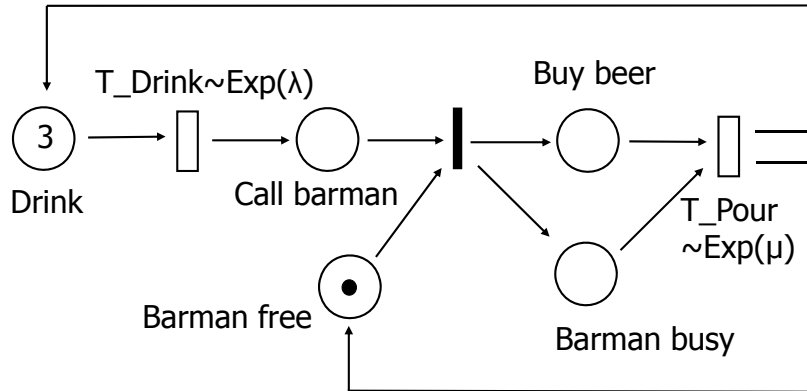
Preparing the drink and serving it takes an exponentially distributed amount of time

After that the customer is happy again, and the barman free

Example: The Bar

P (no customer is waiting)

Average number of waiting customers?



Example: The Bank

Utilization of Server 1 / 2?

Throughput of the Bank

