Ramazan Karkin

150119512
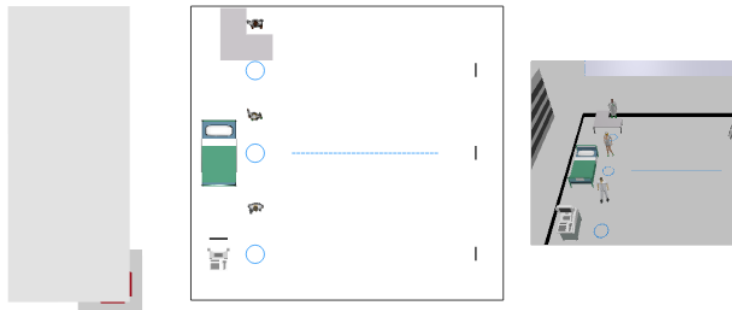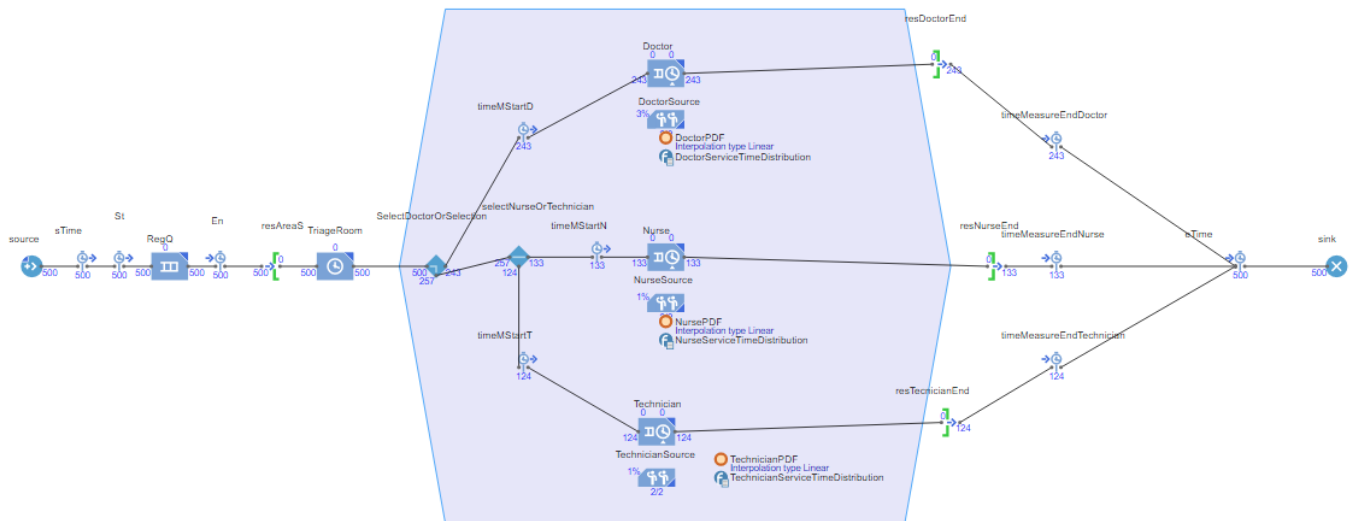
System: Hospital Emergency Room

Relations between Components of a System

Entities: Doctor, nurse, technician, patient

Attributes: Get treatment

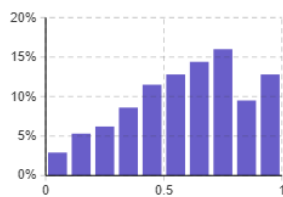**Events:** Reach doctor, nurse or technician

Model view:

State variables: Number of patients treated, number of waiting patient

Input variables: DoctorServiceVariable, NurseServiceVariable, TechnicianServiceVariable
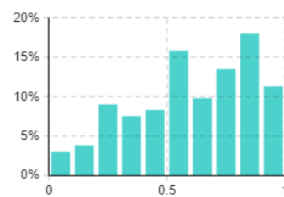
Output variables: I measure the length of Registration, waiting time in the registration, average patient treatment time for doctor, nurse and technician, passed system time in hospital emergency room.

Type of input parameters: DoctorServiceVariable, NurseServiceVariable, TechnicianServiceVariable are PDF type. randomVarDoctor, randomVarNurse, randomVarTechnician are Double random type.
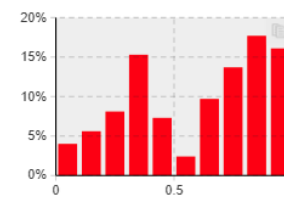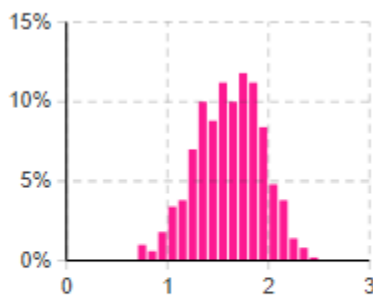
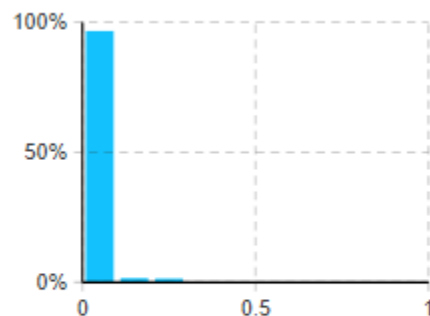**The Output of parameters:**

Doctor Service, model time units 0.59

Nurse Service, model time units 0.61

Technician Service, model time units 0.6

Passed System Time 1.61

Waiting time in Queue 0.01

Doctor Utilization 0.03 (48%)
Nurse Utilization 0.02 (28%)
Technician Utilization 0.02 (25%)