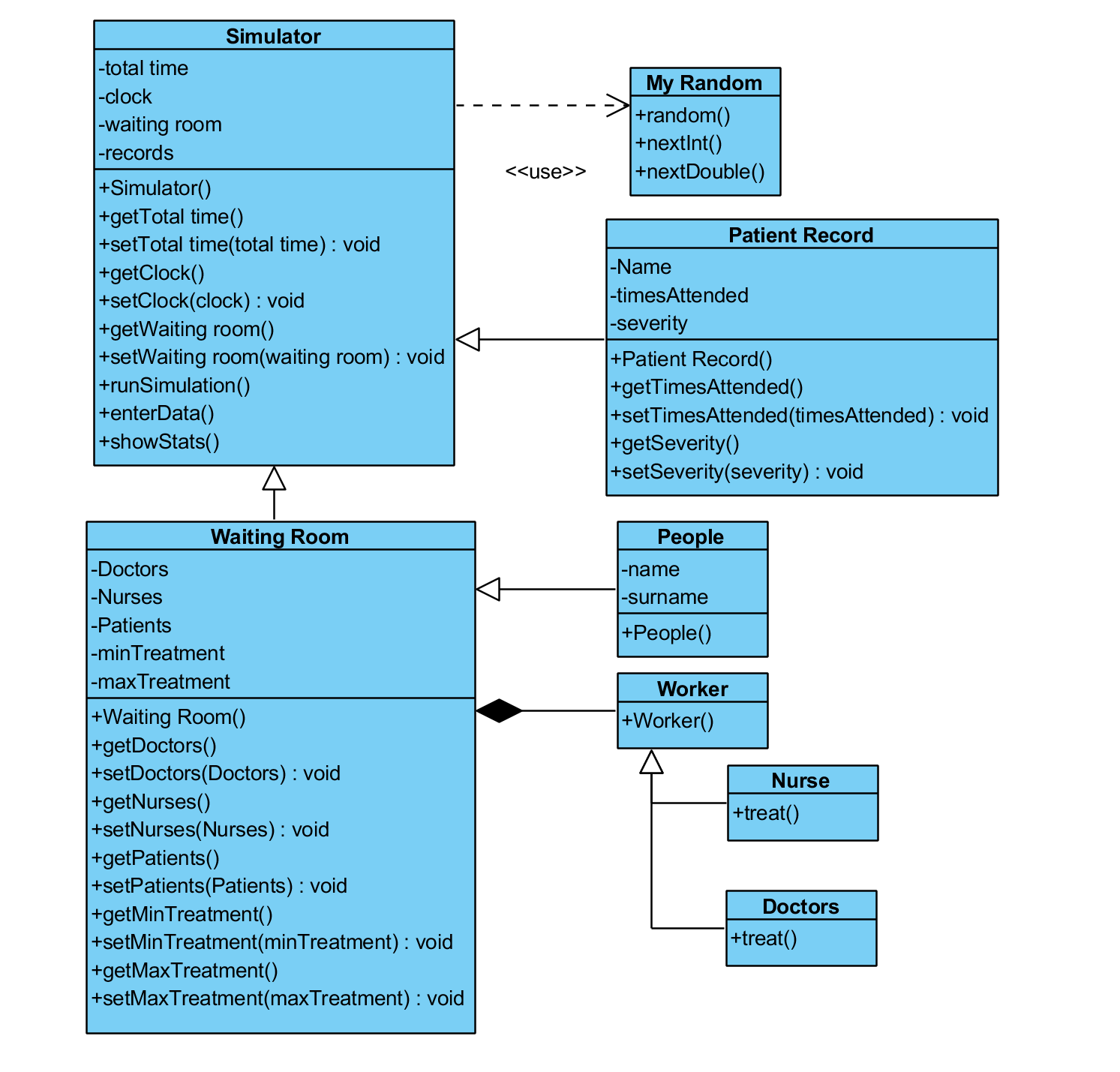
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**Simulation project UML and specifications**

The simulation selected is the hospital simulation. Basically, a person from 273 Ville gets randomly selected according to the rate of persons per minute. They get assigned an number according to the severity of the illness, then an array holding doctors and nurses will be in charge of their treatment, which will vary according to the user input.

**Requirements and specifications:**

The base class will be called simulator, which will be update according to the internal clock of the program. Here the waiting room class is located, which will be in charge of assigned ill people a doctor or nurse. Then, it will proceed to create a register object, which will hold all the patients treated. The requirements are that the user will be allowed to input the number of doctors and nurses, the time of the simulation and the arrival rate.  
 The main will run the function simulation, where the internal clock will be incremented in one by one. This way, some random number generators can be used to select the patients, the times and the kind of illness. The other class will serve the purpose of providing the simulator the information needed and containing the queue of patients. I was also possibly thinking of using a hash table for the patients so they can be ordered in terms of the severity of their problem.

**UML:**

**Use cases:**

For now, the test cases I can think of, will be for the patient record class, to make sure that its registering the information correctly. On the other hand the tester could be used to check how the treatment works, to see if the queue of patients gets emptied.

**Pseudo-code:**