World of Robots

Master 1 Génie Physiologique et Informatique

Lab 4.6 : Critical Analysis

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WoR step 3 critical analysis :

Modelling :

The modeling is adequate. Indeed, the robot we created allows:

- Check whether a medication is contraindicated for the patient (asthmatic and pregnant).
- Give the patient a list of the medication to be taken with the daily dosage
- Update the number of drugs available in stock when they are delivered to the patient
- Indicate when to pick up new drugs from the pharmacy when stock is empty
- To update the stock once new drugs are purchased

Limitations and solutions :

- The posology needs to be associated with a duration for a better management of the patient prescription. For this, we could create a type listed for the days of the week and each time we deliver a drug to the patient, the day passes to the next.
- We could also find a way to find out when a box is about to be finished in order to anticipate in advance when to go to the pharmacy to buy new boxes. When there is only one left in the stock, the rest of the medication left in the last can should be calculated after the daily intake.
- A person is limited to a prescription which would make the operation more efficient. For this, the number of prescriptions per person should be increased

Class diagram :

When looking back at our first class diagram made in exercise 1, we can see that we weren't far from the ideal solution. We first proposed 4 classes : Robot, Patient, Prescription and Drug where Prescription links the patient with the drugs. This turned out to be inaccurate as the robot is supposed to manage the prescriptions, thus placing it between Patient and Drug. Like this, the robot is able to manage a specific drug for a patient.

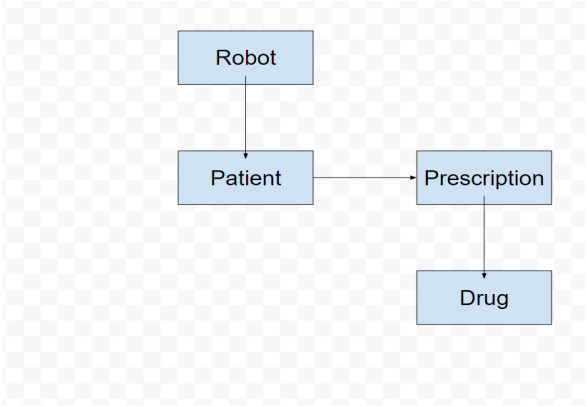

Image 1 : Our first class diagram

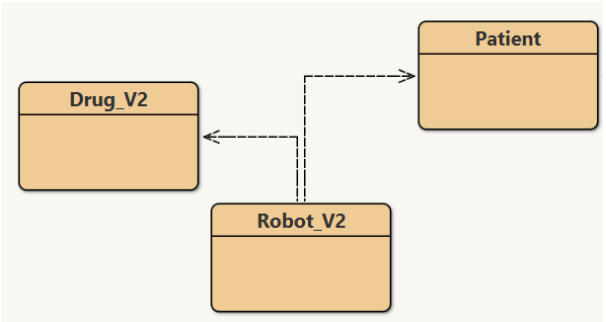

Image 2 : Our class diagram now