

FIT2001 - Sem 2, 2020 SAMPLE Exam question 18 – Sample Solutions

Question 18. (Seminars 5, 6 and 9)

Makeuwell Medical Clinic - Description of partial functionality of the system used by Makeuwell medical clinic. Please use this description for the specified questions.

The Makeuwell medical clinic registers new patients by getting their name, address, email, phone and medicare no. Before registering the patient, the clinic checks that the patient is not already on the system by checking their medicare number. The patient is listed as either a private patient or a government patient. If the patient is a government patient, the government benefit type e.g. pensioner and the benefit number is noted. If they are a private patient, their health fund name and number are noted. The patient is emailed a welcome pack with information about the clinic and doctors at the end of registration, and they have to enter a password to confirm registration. Their email and password gives them access to the appointment system.

There are a number of doctors at the clinic and their name, general medical qualification and their range of specialties such as diabetics, women's health, etc. are displayed on the website. For each specialty they have done, they also list their qualification in that specialty.

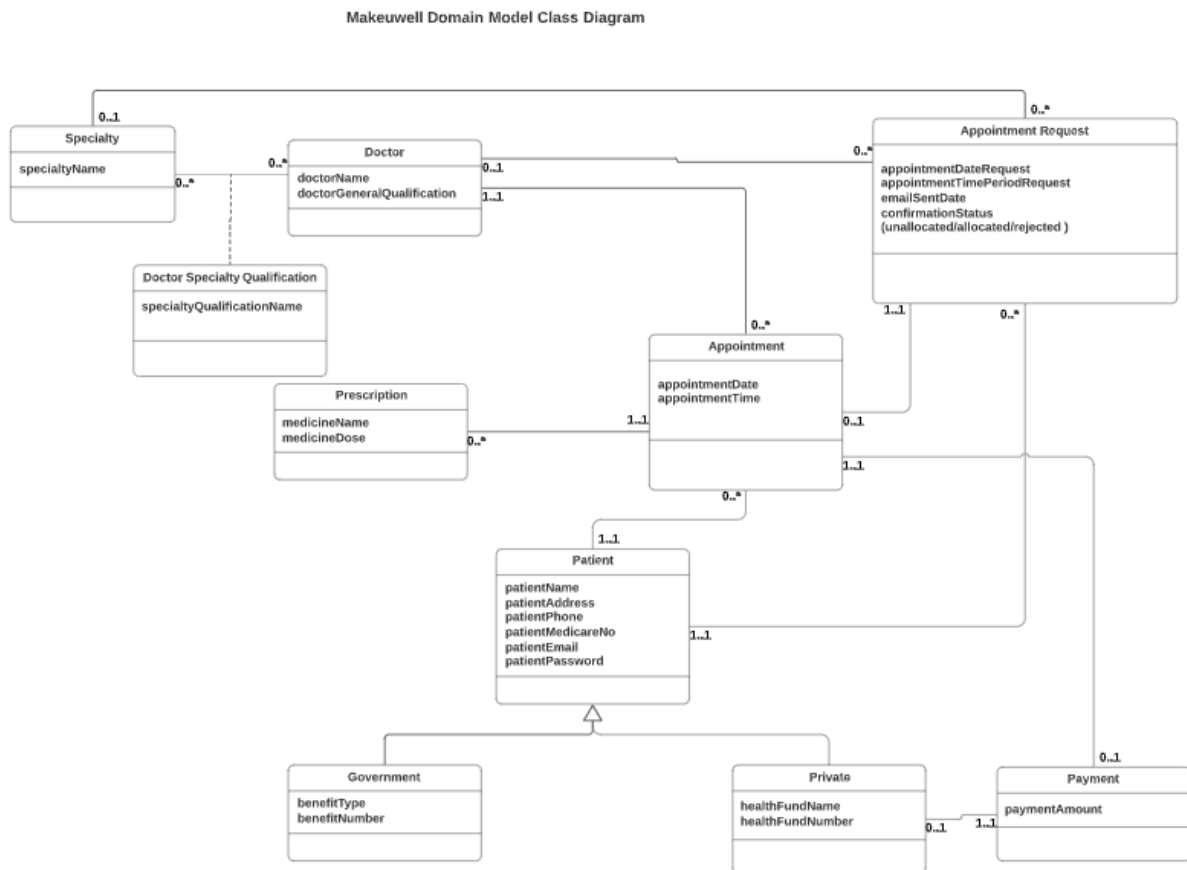
All appointment requests must be made via the clinic's website. The patient puts in an appointment request for a date and time period, and they can either request a specific doctor or they can select a speciality or they can request that the clinic allocates any doctor. The clinic then organises the appointment with a doctor and emails the appointment details (date, time, doctor name) to the patient. If the appointment request is not possible, they email the patient to let them know, and update the status of the appointment request.

After the patient attends their appointment, they pay the fee if they are a private patient. Government patients do not have to pay a fee as their fees are paid by the government. The doctor records the date, medicine name and dose of any medicines they have prescribed associated with the appointment. Before they can note the prescription they must check that the medicare no. is valid with the Government medicare system

Use the Makeuwell system description for the following questions:

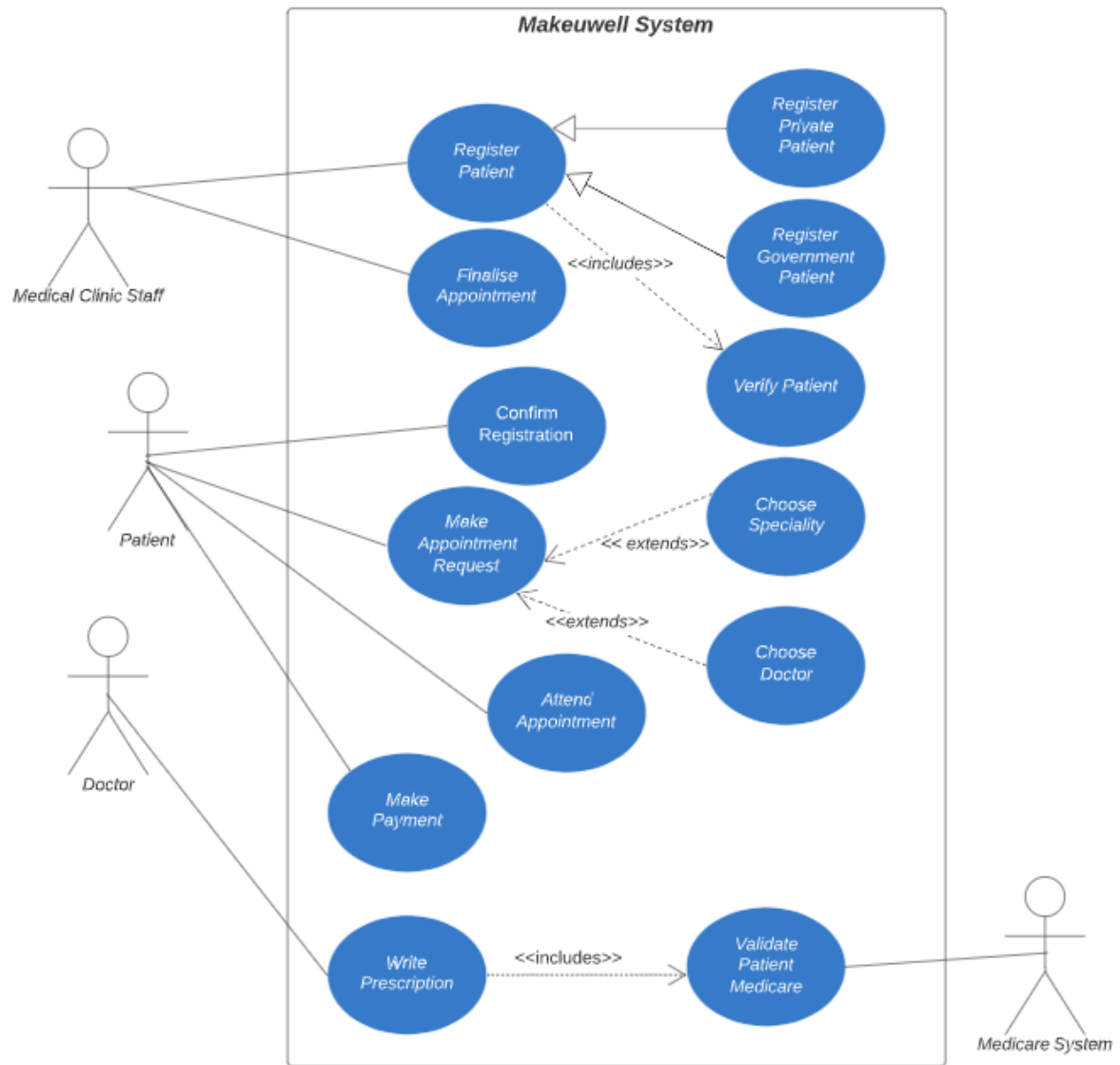
Please refer to the video detailing how the diagrams were developed.

- A. Develop a Domain Model Class diagram for the Makeuwell medical clinic. The model should include all relevant domain classes and the attributes for each class, relationships and relationship multiplicities (including cardinality).



Note that the diagram is purely based on the description given, it is fine to make assumptions – just make a note of them.

B. Develop a Use Case diagram for the Makeuwell medical clinic.



- C. Develop a First-cut sequence diagram for the 'Register patient' use case for the Makeuwell medical clinic.

