

Information System - Example

Policlinic

An administrative medical center provides n administrative management of patients performing consultations in a policlinic.

A patient has a unique number, name, address and telephone number. A patient is supervised by a general practitioner, also called family doctor, characterized by a serial number, name and phone number.

A patient can go to a policlinic for consultations with medical specialists. A consultation is carried out at on specific date a given policlinic by a specialist. Only consultations by appointment made on a date earlier than the consultation will be allowed.

A policlinic is characterized by a particular name, location and phone number. There are no two polyclinics with the same name in the same locality.

A policlinic groups several medical specialists. Nothing prevents that a single specialist doctor can give consultations in several policlinics. A medical specialist is not only characterized by a serial number and a name but also his specialties.

Management rules

1. A patient is characterized by:
 - Unique Number
 - Name
 - address
 - Phone Number
2. General practitioner is characterized by:
 1. Serial Number
 2. Name
 3. Phone Number
3. Each patient is supervised by a GP
4. A policlinic is characterized by:
 1. Name
 2. Address
 3. Phone Number
5. A specialist is characterized by:
 1. Serial Number
 2. Name
 3. Phone Number
6. Each specialist has one or more specialties
7. Each specialist can give consultations in one or more policlinics
8. Each policlinic groups several specialists
9. A patient can make an appointment for a consultation with specialist in a given policlinic, The specialist must work in this policlinic

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10. The appointment is for a date that is later than the date of appointment
11. If the consultation does not take place a new appointment must be made no matter what are reasons for the failure
12. Lists of appointment for every specialist are made at the beginning of the day.
13. In the end of every day two reports are made:
 1. A log of appointment made
 2. A log of consultations done

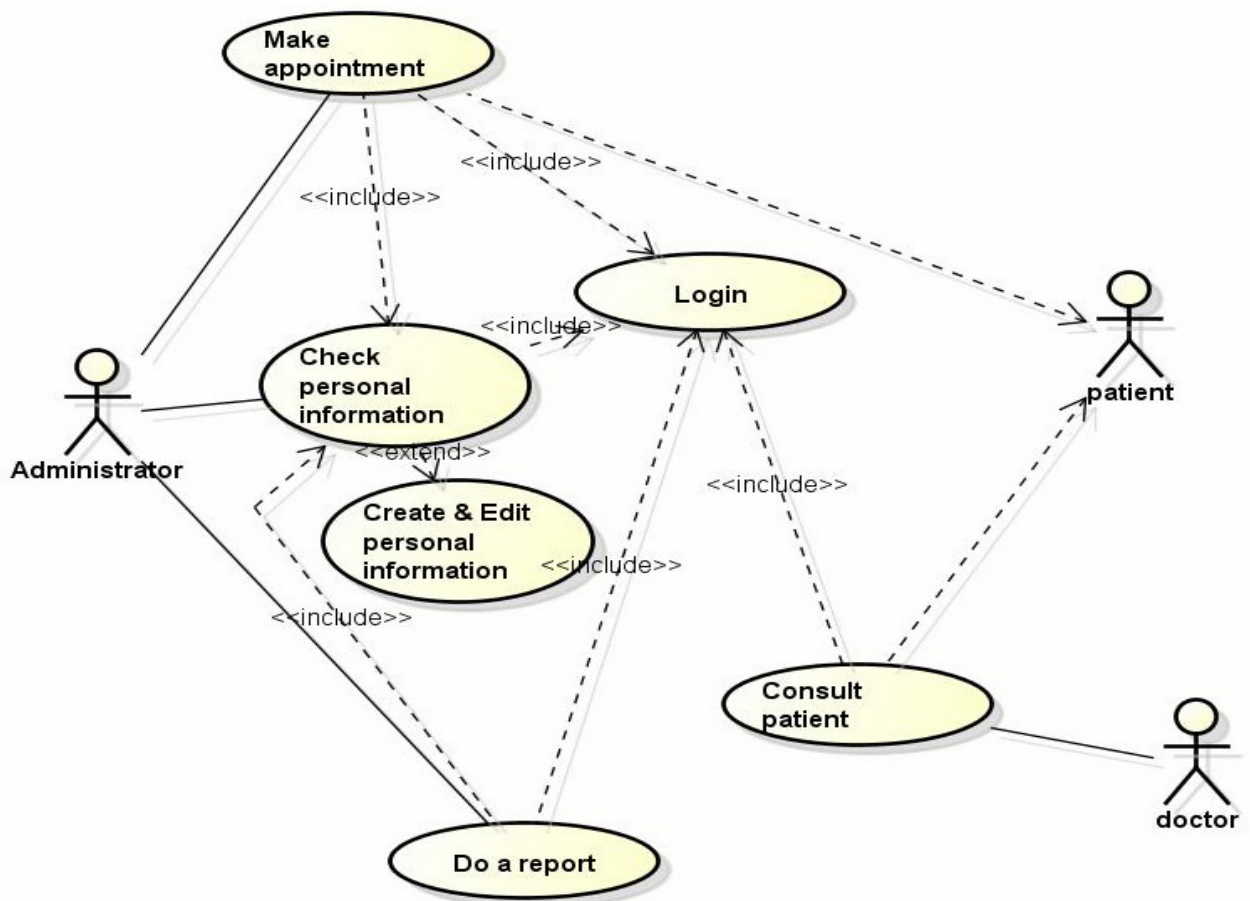
Organizational rules:

14. Only the administrator registers the appointments from 9 to 17 every work day.
15. Consultations not done on the day of appointment are canceled.

Technical rules:

16. The DBMS used is MS Access

Use Case Diagram



Tasks

Name	Definition	Rules	Trigger	Frequency	Entry	Result
T1	Create a personal information	MR2,4,5	A new doctor	A few times a month	Personal data	Personal Record
T2	Make an appointment	MR9,10	A call from patient	Many times a day		Appointment record

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T3	Do a consultation	MR9,10	Appointment & Patient coming	Many times a day	Appointment record	Modified Appointment
T4	Do a list of appointments	MR9,12	Doctor coming	A few times a day	Appointments	List
T5	Do a log of appointments	MR13	In the evening	Every evening	Appointments	List
T6	Do a log of consultation	MR13	In the evening	Every evening	Appointments	List

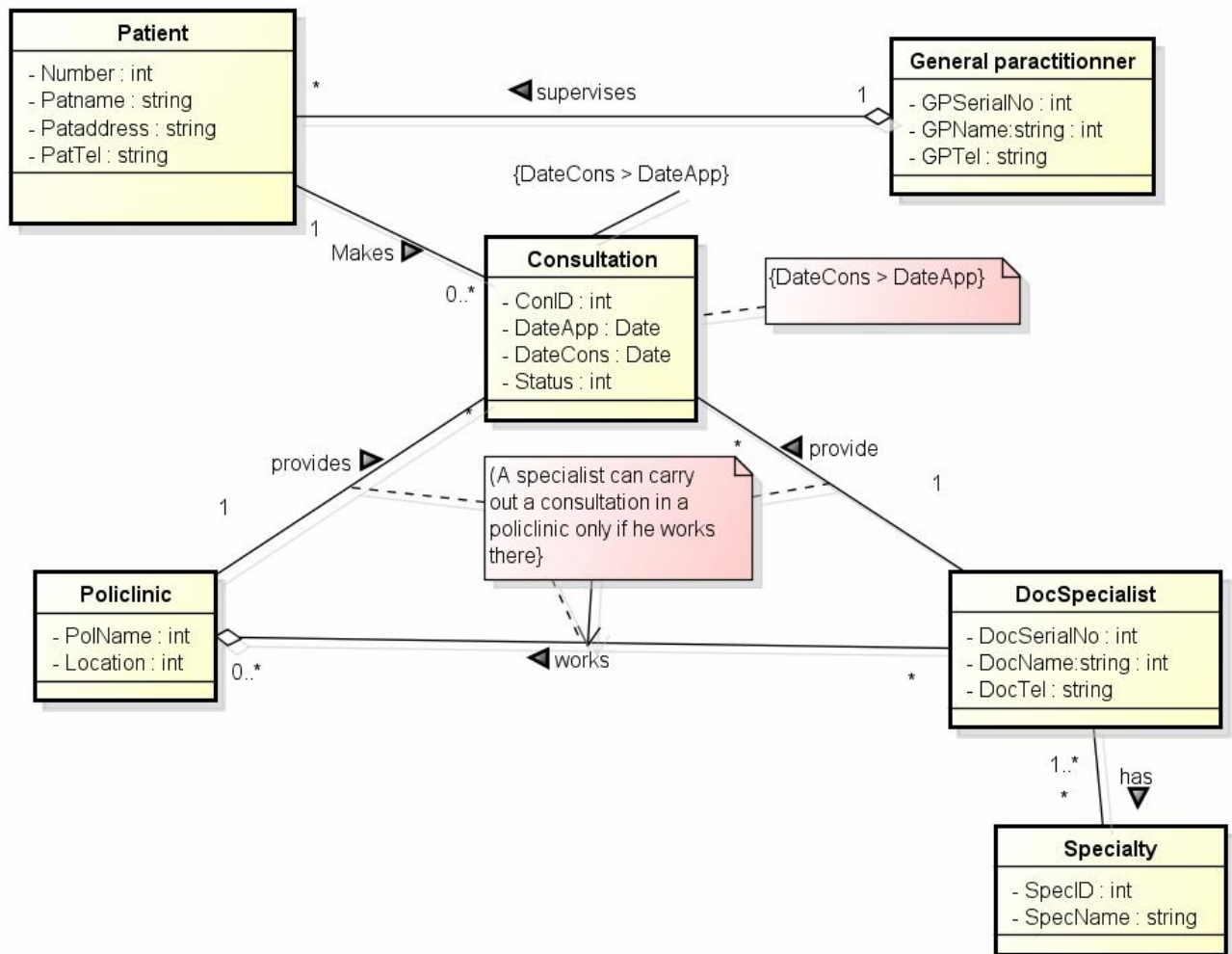
Dictionary

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Name	Definition	Struct	Size	Type	Constraints	Exemples	Rule
PatNo	Patient Number	N	10	elt	>0, Not Null	6704356457	1
PatName	Patient name	A	20	elt	Not Null	Mary Smith	1
PatAdress	Patient address	A	40	elt		London, 37 Baker Str	1
PatTel	Patient Phone Number	A	17	elt	Valid Phone Number	+322134564	1
GPSer	Serial Number of the GP	N	5	elt	>0, Not Null		2
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Data Model



Relational Model

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