



## **INF3710 –Fichiers et Bases de données**

**Hiver 2019**

**TP No. 2**

**Groupe 2**

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**Soumis à : Julien Bergeron**

**12 février 2019**

## **Modèle relationnel**

**Patient** (Patientno, Name, num\_address, street\_address, postalCode\_adress, PhoneNo, Dob)

Primary key PatientNo

**Appointment** (Apptno, Date, Time, Patientno, Doctorid)

Primary key Apptno

Foreign key Patientno references Patient(Patientno)

Foreign key Doctorid references Doctor(Doctorid)

**Doctor** ( Doctorid, Name, Dob, street\_address, num\_address, postalCode\_adress, Phoneno, Salary)

Primary key Doctorid

**MedicalDoctor** ( Doctorid, Name, Dob, street\_address, num\_address, postalCode\_adress, Phoneno, Salary)

Primary key Doctorid

Foreign key Doctorid references Doctor(Doctorid)

**SpecialistDoctor** ( Doctorid, Name, Dob, street\_address, num\_address, postalCode\_adress, Phoneno, Salary)

Primary key Doctorid

Foreign key Doctorid references Doctor(Doctorid)

**Payment** ( Paymentno, Details, Method, Patientno)

Primary key Paymentno

Foreign key Patientno references Patient(Patientno)

**Bill** (Billno, Total, Doctorid)

Primary key Billno

Foreign key Doctorid references Doctor(Doctorid)

## PayBill (Paymentno, Billno)

Primary key Paymentno, Billno

Foreign key Paymentno references Payment(Paymentno)

Foreign key Billno references Bill(Billno)

### Explications:

- L'attribut address étant composé, on ne garde que ses constituents simples que nous avons défini comme étant le nom de la rue, le numéro de l'adresse, le nom de la ville ainsi que le code postal.
- Patient a une relation 1..\* avec Appointment et Payment qui eux ont une relation 1..1 avec Patient. Ainsi, on définit Patientno de Patient comme foreign key pour Appointment et Payment. Nous avons suivi le même principe pour Doctor et Appointment/Bill.
- Payment et Bill ont une relation 1..\* entre eux, nous avons donc créé une table pour la relation Pay-Bill dont la clé primaire est composée des clés primaires de Payment et Bill.
- Malgré la relation de généralisation, nous avons gardé la table pour Doctor parce qu'elle a encore des relations avec d'autres éléments, soient Appointment et Bill.
- Puisque nous gardons la class parent Doctor, nous avons référencé comme foreign key le Doctorid dans les classes enfants MedicalDoctor et SpecialistDoctor.

### Captures d'écrans

#### 4. a)

	doctorid character varying (10)	doctorname character varying (20)	addressnumber character varying (10)	street character varying (50)	postalcode character varying (6)	phonenumber character varying (10)	dob character varying (8)	salary numeric (9,3)
1	D002	Mario	213	Die street	J5E1A9	7825492648	19800327	777777.777
2	D001	Nightingale	384	Die street	j8h0i7	1234567890	27390810	666666.666
3	D003	Pablo Escobar	2783	Coke Boulevard	111111	8462930175	09800625	999999.999

#### b)

	patientno character varying (10)	patientname character varying (30)	addressnumber character varying (10)	street character varying (50)	postalcode character varying (6)	phonenumber character varying (10)	dob character varying (8)
1	63289	littlemac	38423	locker room street	k8j7h9	82935629	19500101
2	239259	BigMac	6302	locker room road	k9g3h8	5149119111	18590713

nas character varying (9)	paymentno character varying (10)	details character varying (100)	paymentmethod character varying (10)	patientno character varying (10)
999999999	8389389	Poor with no health insuran...	Visa	63289
000000001	98237	bourgeois	Mastercard	239259

c)

	<b>apptno</b> character varying (10)	<b>apptdate</b> date	<b>apptime</b> time without time zone	<b>patientno</b> character varying (10)	<b>doctorid</b> character varying (10)
1	2828492	2019-07-18	13:23:44	63289	D001
2	739361	2020-07-13	13:23:44	239259	D001

d)

	<b>doctorid</b> character varying (10)	<b>doctormame</b> character varying (20)	<b>addressnumber</b> character varying (10)	<b>street</b> character varying (50)	<b>postalcode</b> character varying (6)	<b>phonenumber</b> character varying (10)	<b>dob</b> character varying (8)
1	D001	Nightingale	384	Die street	j8h0i7	1234567890	27390810
2	D003	Pablo Escobar	2783	Coke Boulevard	l1i1i1	8462930175	09800625

<b>salary</b> numeric (9,3)	<b>doctorid</b> character varying (10)	<b>fieldarea</b> character varying (10)
666666.666	D001	Oncology
999999.999	D003	Nose Job

e)

	<b>patientname</b> character varying (30)	<b>dob</b> character varying (8)
1	littlemac	19500101
2	BigMac	18590713