



INF3710 –Fichiers et Bases de données

Hiver 2019

TP No. [1]

Groupe [1]

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Soumis à : Moodle

[02/05/2019]

Traduction du modèle conceptuel en modèle relationnel

Patient (PatientNo, Name, Address, PhoneNo, DoB)

Primary Key : PatientNo

Doctor (DoctorId, Name, DoB, Address, PhoneNo, Salary)

Primary Key : DoctorId

Appointment (ApptNo, PatientNo, DoctorId, Date, Time)

Primary Key : ApptNo

Foreign Key : PatientNo References Patient(PatientNo)

Foreign Key : DoctorId References Doctor(DoctorId)

Medical (DoctorId, OvertimeRate)

Primary Key : DoctorId

Foreign Key : DoctorId References Doctor(DoctorId)

Specialist (DoctorId, FieldArea)

Primary Key : DoctorId

Foreign Key : DoctorId References Doctor(DoctorId)

Bill (BillNo, DoctorId, Total)

Primary Key : BillNo

Foreign Key : DoctorId References Doctor(DoctorId)

Payment (PaymentNo, PatientNo, Details, Method)

Primary Key : PaymentNo

Foreign Key : PatientNo References Patient(PatientNo)

Paybill (PaymentNo, BillNo)

Primary Key : (PaymentNo, BillNo)

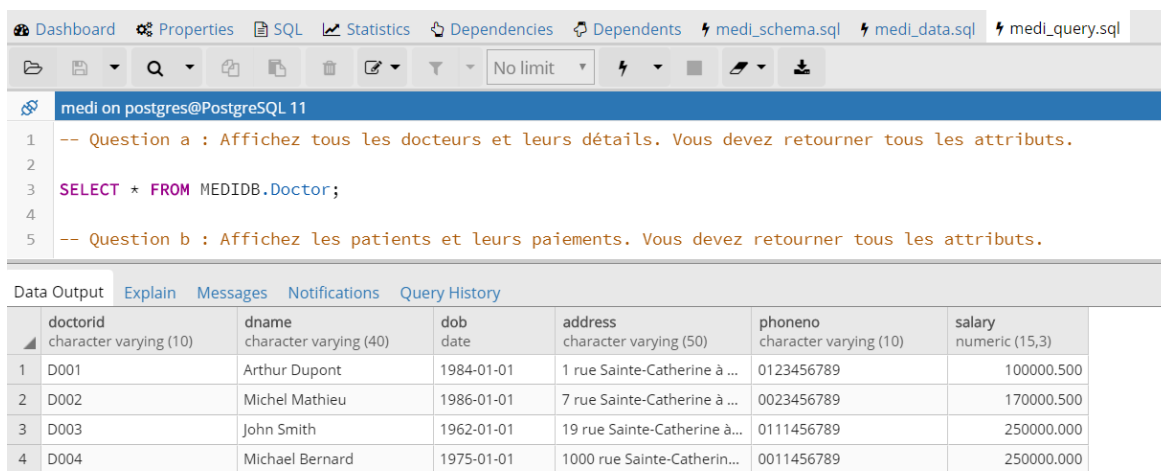
Foreign Key : PaymentNo References Payment(PaymentNo)

Foreign Key : BillNo References Bill(BillNo)

Code des requêtes et capture d'écran de leurs résultats

-- Question a : Affichez tous les docteurs et leurs détails. Vous devez retourner tous les attributs.

```
SELECT * FROM MEDIDB.Doctor;
```

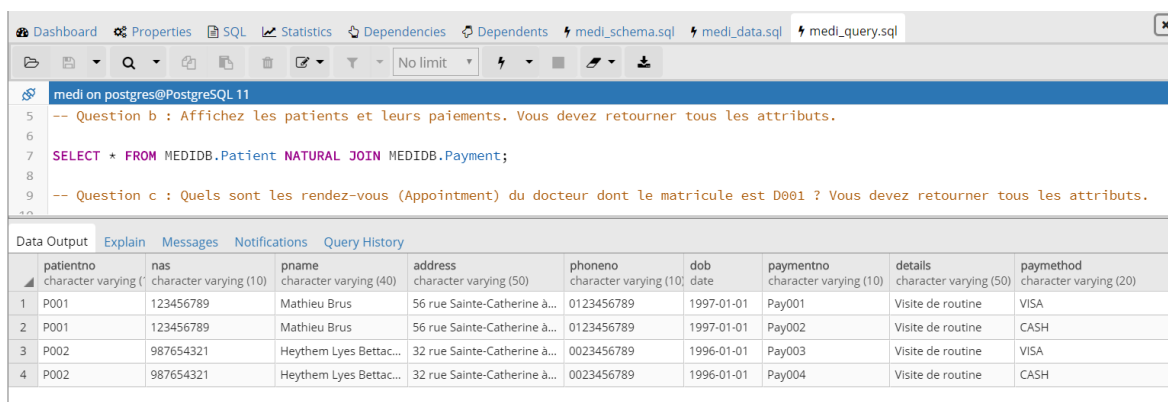


The screenshot shows a PostgreSQL IDE interface. The top menu bar includes Dashboard, Properties, SQL, Statistics, Dependencies, and Dependents. The main editor displays a query for Question a: `SELECT * FROM MEDIDB.Doctor;`. Below the editor, the 'Data Output' tab shows the results of the query as a table with 7 columns: doctorid, dname, dob, address, phoneno, and salary. The results list 4 doctors.

	doctorid character varying (10)	dname character varying (40)	dob date	address character varying (50)	phoneno character varying (10)	salary numeric (15,3)
1	D001	Arthur Dupont	1984-01-01	1 rue Sainte-Catherine à ...	0123456789	100000.500
2	D002	Michel Mathieu	1986-01-01	7 rue Sainte-Catherine à ...	0023456789	170000.500
3	D003	John Smith	1962-01-01	19 rue Sainte-Catherine à...	0111456789	250000.000
4	D004	Michael Bernard	1975-01-01	1000 rue Sainte-Catherin...	0011456789	250000.000

-- Question b : Affichez les patients et leurs paiements. Vous devez retourner tous les attributs.

```
SELECT * FROM MEDIDB.Patient NATURAL JOIN MEDIDB.Payment;
```

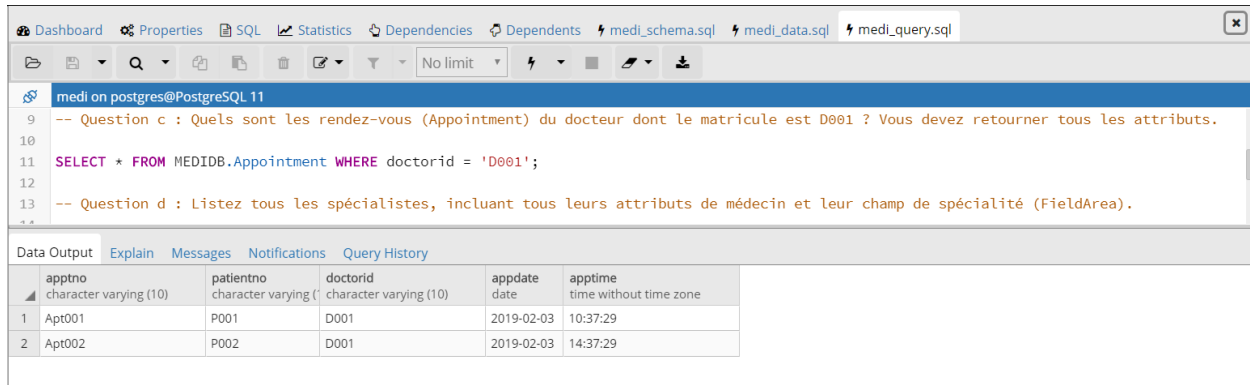


The screenshot shows a PostgreSQL IDE interface. The main editor displays a query for Question b: `SELECT * FROM MEDIDB.Patient NATURAL JOIN MEDIDB.Payment;`. Below the editor, the 'Data Output' tab shows the results of the query as a table with 10 columns: patientno, nas, pname, address, phoneno, dob, paymentno, details, and paymethod. The results list 4 patient-payment records.

	patientno character varying (10)	nas character varying (10)	pname character varying (40)	address character varying (50)	phoneno character varying (10)	dob date	paymentno character varying (10)	details character varying (50)	paymethod character varying (20)
1	P001	123456789	Mathieu Brus	56 rue Sainte-Catherine à...	0123456789	1997-01-01	Pay001	Visite de routine	VISA
2	P001	123456789	Mathieu Brus	56 rue Sainte-Catherine à...	0123456789	1997-01-01	Pay002	Visite de routine	CASH
3	P002	987654321	Heythem Lyes Bettac...	32 rue Sainte-Catherine à...	0023456789	1996-01-01	Pay003	Visite de routine	VISA
4	P002	987654321	Heythem Lyes Bettac...	32 rue Sainte-Catherine à...	0023456789	1996-01-01	Pay004	Visite de routine	CASH

-- Question c : Quels sont les rendez-vous (Appointment) du docteur dont le matricule est D001 ? Vous devez retourner tous les attributs.

```
SELECT * FROM MEDIDB.Appointment WHERE doctorid = 'D001';
```

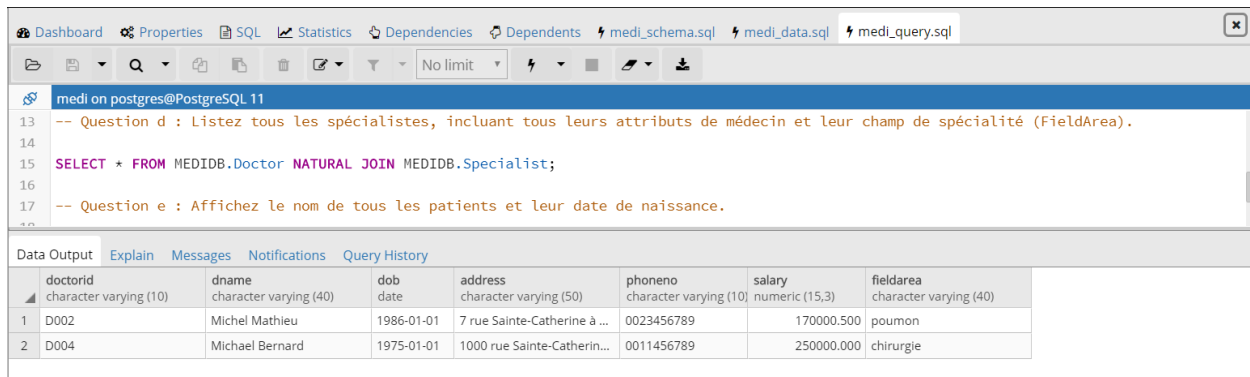


The screenshot shows a PostgreSQL IDE window with a query editor and a data output table. The query editor contains two SQL queries. The first query, labeled 'Question c', is: `SELECT * FROM MEDIDB.Appointment WHERE doctorid = 'D001';`. The second query, labeled 'Question d', is: `SELECT * FROM MEDIDB.Doctor NATURAL JOIN MEDIDB.Specialist;`. The data output table shows the results of the first query.

	apptno character varying (10)	patientno character varying (10)	doctorid character varying (10)	apptime date	apptime time without time zone
1	Apt001	P001	D001	2019-02-03	10:37:29
2	Apt002	P002	D001	2019-02-03	14:37:29

-- Question d : Listez tous les spécialistes, incluant tous leurs attributs de médecin et leur champ de spécialité (FieldArea).

```
SELECT * FROM MEDIDB.Doctor NATURAL JOIN MEDIDB.Specialist;
```

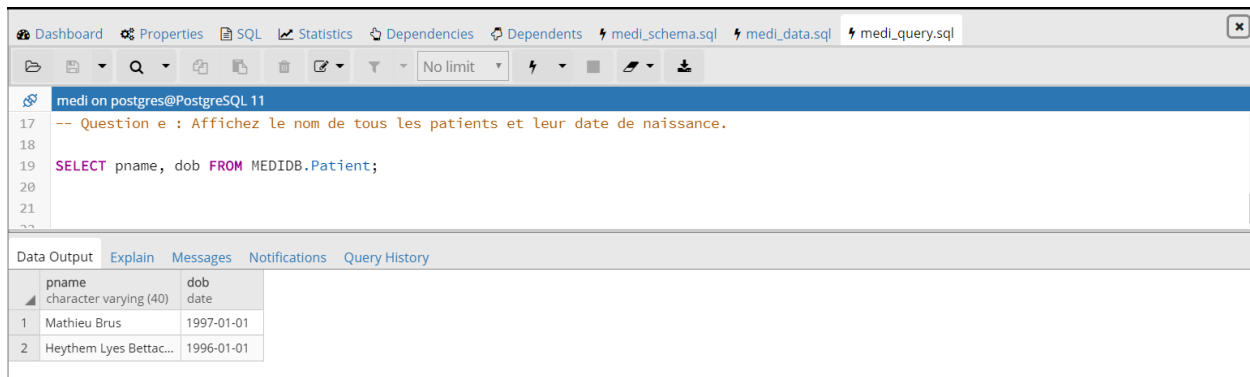


The screenshot shows a PostgreSQL IDE window with a query editor and a data output table. The query editor contains two SQL queries. The first query, labeled 'Question d', is: `SELECT * FROM MEDIDB.Doctor NATURAL JOIN MEDIDB.Specialist;`. The second query, labeled 'Question e', is: `SELECT pname, dob FROM MEDIDB.Patient;`. The data output table shows the results of the first query.

	doctorid character varying (10)	dname character varying (40)	dob date	address character varying (50)	phoneno character varying (10)	salary numeric (15,3)	fieldarea character varying (40)
1	D002	Michel Mathieu	1986-01-01	7 rue Sainte-Catherine à ...	0023456789	170000.500	poumon
2	D004	Michael Bernard	1975-01-01	1000 rue Sainte-Catherin...	0011456789	250000.000	chirurgie

-- Question e : Affichez le nom de tous les patients et leur date de naissance.

```
SELECT pname, dob FROM MEDIDB.Patient;
```



The screenshot shows a PostgreSQL IDE window with a query editor and a data output table. The query editor contains a SQL query labeled 'Question e': `SELECT pname, dob FROM MEDIDB.Patient;`. The data output table shows the results of the query.

	pname character varying (40)	dob date
1	Mathieu Brus	1997-01-01
2	Heythem Lyes Bettac...	1996-01-01