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**Table Statements**

CREATE TABLE doctors

(

d\_id int,

d\_name varchar(50),

d\_gender varchar(1),

d\_age int,

d\_specialization varchar(50),

d\_years\_of\_experience int,

d\_contact varchar(12),

d\_street varchar(50),

d\_city varchar(30),

primary key (d\_id)

);

CREATE TABLE patients

(

p\_id int,

p\_name varchar(50),

p\_gender varchar(1),

p\_age int,

p\_disease varchar(60),

p\_contact varchar(12),

p\_street varchar(50),

p\_city varchar(30),

primary key (p\_id)

);

CREATE TABLE nurses

(

n\_id int,

n\_name varchar(50),

n\_specialization varchar(50),

n\_shift int,

n\_street varchar(50),

n\_city varchar(30),

primary key (n\_id)

);

CREATE TABLE p\_assignment

(

p\_id int,

d\_id int,

primary key (p\_id, d\_id)

);

CREATE TABLE n\_assists

(

n\_id int,

d\_id int,

primary key (n\_id, d\_id)

);

CREATE TABLE tests

(

t\_id int,

t\_name varchar(10),

p\_id int,

d\_id int,

i\_id int,

t\_date varchar(10),

t\_result varchar(10),

primary key (t\_id)

);

CREATE TABLE instruments

(

i\_id int,

i\_name varchar(15),

i\_manufacturer varchar(50),

primary key (i\_id)

);

**Queries**

SELECT D.d\_name

FROM p\_assignment PA, doctors D

WHERE PA.p\_id = (SELECT p\_id

FROM patients

WHERE p\_name = 'RICHARD MILLER')AND

D.d\_id = PA.d\_id;

SELECT P.p\_id, P.p\_name, P.p\_disease, T.t\_id, T.t\_result

FROM tests T, patients P

WHERE P.p\_id = T.p\_id AND

P.p\_disease LIKE '\*Cancer\*';

SELECT \*

FROM instruments

WHERE i\_manufacturer LIKE 'S\*';

SELECT \*

FROM doctors

WHERE d\_years\_of\_experience = (SELECT MAX(d\_years\_of\_experience) FROM doctors);

SELECT p\_name

FROM patients

WHERE p\_street = (SELECT d\_street FROM doctors WHERE d\_name = 'JAMES SMITH') AND

p\_city = (SELECT d\_city FROM doctors WHERE d\_name = 'JAMES SMITH');

SELECT N.n\_name, COUNT(A.n\_id) AS NumAssists

FROM n\_assists A, nurses N

WHERE N.n\_id = A.n\_id

GROUP BY A.n\_id, N.n\_name

HAVING COUNT(A.n\_id) > 1;

SELECT D.d\_name, COUNT(A.d\_id) AS NurseCount

FROM n\_assists A, doctors D

WHERE D.d\_id = A.d\_id

GROUP BY D.d\_name

ORDER BY COUNT(A.d\_id);

SELECT \*

FROM nurses

WHERE n\_id NOT IN (SELECT n\_id FROM n\_assists);

UPDATE doctors

SET d\_years\_of\_experience = d\_years\_of\_experience + 5

WHERE d\_gender = 'f';

DELETE FROM tests

WHERE t\_result = 'Negative';

**Missing or Incompletes Pieces**

1. My answer to question 5 does not work as asked. The query above only returns patients that live on the same street/city as James Smith, but they are not necessarily his patients. I have a query that I believe does work, but MS Access will not accept it and returns “At most one record can be returned by this subquery.” I not quite sure how to work around this at the moment, but I do believe by query will work. I have proved it below:

SELECT p\_name

FROM patients

WHERE p\_id = (SELECT p\_id FROM p\_assignment WHERE d\_id = (SELECT d\_id FROM doctors

WHERE d\_name = 'JAMES SMITH')) AND

p\_street = (SELECT d\_street FROM doctors WHERE d\_name = 'JAMES SMITH') AND

p\_city = (SELECT d\_city FROM doctors WHERE d\_name = 'JAMES SMITH');

1. As a word of warning I am providing an unmodified version of the original database just to show my queries work.
2. Create table statements, both in this document and in the MS Access file, have not insert calls; unsure if I need to provide those as we imported the data directly.