



Title: IUHospital

In this project, you will use a Database Management System to create and manipulate a very small database system for a hospital. Your task is to improve it to some extent and implement the design as well as some queries against it. In this project, you will use any database server you want (Oracle, MySQL, etc.)

Project Description: You need to develop a management information system to help users at the administration level of the hospital easily viewing/tracking various information about Patients who got visited or admitted to the hospital as well as information about Doctors, Nurses, and other staffs in different departments.

Data Model: We need to store information about employees (Doctors, Nurses, and other staffs), Patients, Departments, different medical services including different labs in each department, different tests in each lab, etc. A medical file will be created upon the first visit or admission of a patient which includes personal information as well as the details on every visit or admission of that patient. Other requirements are as follows.

- 1- Every department is administrated by a doctor.
- 2- Each department has many doctors (nurses), but every doctor (nurse) works for only one department.
- 3- Each patient is visited by a doctor upon admission.
- 4- Different tests might be scheduled for a patient.

Below are some tables in the schema of the database:

- 1- **Department**(deptID, deptName, deptAdmin, numberOfBeds)
- 2- **Employee**(EID, eName, eFamily, JobTitle, startDate, endDate, gender, dob, phone, email)
- 3- **Patient**(medicareID, firstName, lastName, gender, dob, phone, address)

In each relation, the underlined attribute is the primary key of that relation.

Note that Doctors and Nurses are special kinds of employees for which we need to record their specialties and their department. Also, the admission of the patient is important to record the date, assigned doctor, date and other necessary information. The visit of the patient needs to be stored in the data database.

Implementation requirement: Considering the following queries, first finalize the schema (by adding required relations and/or changing the above relations) and then implement your relations. Next, populate your relations with appropriate data. Make sure each table in the database has enough number of tuples so that each query gets a meaningful and reasonable size output. For this, you should store at least 10 employees, 15 patients, 10 admissions, and 20 visits.



Finally, implement the following queries in SQL. The queries are as follows.

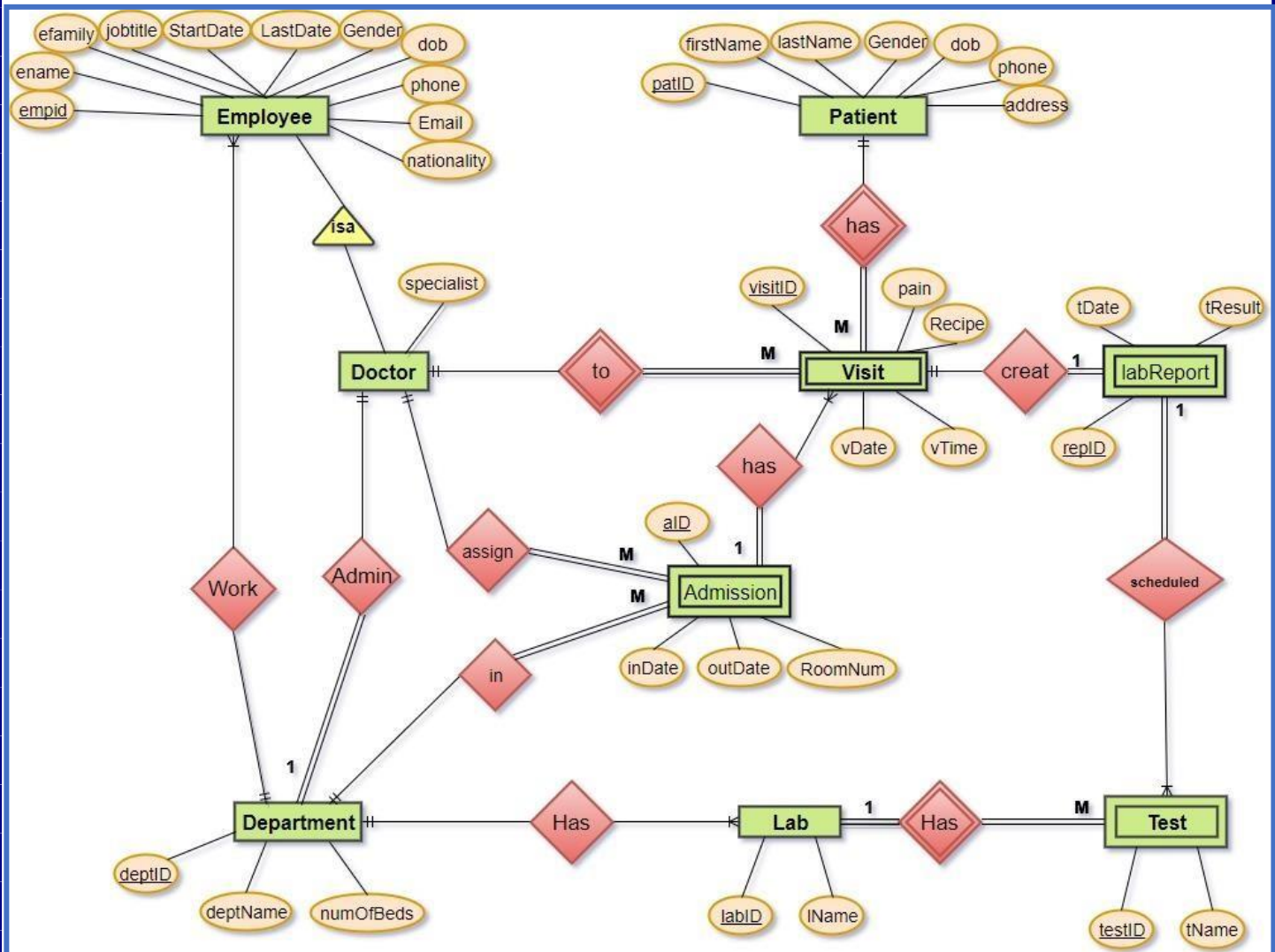
- 1- Given a medicareID (or IQAMA Number), list the medical report of that patient.
- 2- Find the patients whose names start with 'J', order by their firstName and lastName.
- 3- List information about all patients who have been admitted, grouped by their disease.
- 4- Find all the patients who have been admitted to the department of Neurology.
- 5- List the name and specialty of all the doctors who live in Madinah and worked or have been working for 1 year in this hospital.
- 6- Given a medicareID, compute the total number of visits for a person in this hospital.

What you should hand in: You should print and submit a report that includes
(1) the E/R model for your database design together with reasonable assumption(s) made,
(2) list of all schemas, and their attributes with appropriate data type. Also identify the primary key for each schema together with the relationship between different schemas.
(3) The print out of tuples in each table, the SQL queries and the output of your queries against your database.

Note: Every document related to your project must be printed and properly bounded together with the identification of your name and IU student ID printed on the cover page.



ER-DIAGRAM:





CREATING TABLES:

Patient

<u>paaid</u>	pname	pfamily	gender	Dob date	phone
--------------	-------	---------	--------	----------	-------

employee

<u>eid</u>	jobtitle	ename	efamily	startdate	enddate	gender	dob	phone	email	nationality	did
------------	----------	-------	---------	-----------	---------	--------	-----	-------	-------	-------------	-----

foreign key (did) references department (diptid)

doctor

<u>eid</u>	specialist
------------	------------

foreign key (eid) references employee (empid)

department

<u>deptid</u>	deptname	numberofbeds	eid
---------------	----------	--------------	-----

foreign key (eid) references employee (eid)

lap

<u>lapid</u>	lname	did
--------------	-------	-----

foreign key (did) references department (diptid)

test

<u>tid</u>	tname	lid
------------	-------	-----

foreign key (lid) references lap (lapid)

visit

<u>visitid</u>	pid	vdate	vtime	disease	eid	rid	recipe
----------------	-----	-------	-------	---------	-----	-----	--------

foreign key (pid) references patient (patid)

foreign key (eid) references employee (empid)

foreign key (rid) references labreport (repid)



Labreport

<u>repid</u>	vid	tid	testdate	result
--------------	-----	-----	----------	--------

foreign key (tid)references test (testid)

foreign key (vid)references visit (visitid)

admission

<u>aid</u>	vid	pid	eid	inddate	outdate	roomnumber
------------	-----	-----	-----	---------	---------	------------

foreign key (eid)references employee (empid)

foreign key (vid)references visit (visitid)

foreign key (did)references department (deptid)



```
create table patient(  
  patid int not null,  
  pname varchar(20)not null,  
  pfamily varchar(20)not null,  
  gender varchar(10)not null,  
  dob date,  
  phone numeric (10)not null ,  
  address varchar(50)not null,  
  primary key(pid));  
  
create table employee(  
  eid int not null primary key,  
  jobtitle varchar(20)not null,  
  ename varchar(20)not null,  
  efamily varchar(20)not null,  
  startdate date not null ,  
  enddate date ,  
  gender varchar(10)not null,  
  dob date not null,  
  phone numeric(10) not null,  
  email varchar(50)not null,  
  nationality varchar(20),  
  did int not null,  
  foreign key (did) references department(deptid)  
);  
  
create table doctor(  
  eid int not null,  
  specialist varchar(20) not null,  
  primary key (eid),  
  foreign key (eid) references employee(empid)  
);  
  
create table department(  
  deptid int not null primary key,  
  deptname varchar(50)not null,  
  numberofbeds int not null,  
  eid int not null ,  
  foreign key (eid) references employee(eid)  
);  
  
create table lab(  
  labid int not null primary key,  
  lname varchar(50) not null,  
  did int not null,  
  foreign key (did) references department(deptid));
```



```
create table test(  
tid int not null primary key,  
tname varchar(50) not null,  
lid int not null,  
foreign key (lid) references lab(labid));
```

```
create table visit(  
visitid int not null primary key,  
pid int not null,  
vdate date not null,  
vtime int not null,  
disease varchar(100) not null,  
eid int not null,  
rid int not null,  
recipe varchar(100) not null,  
foreign key (pid) references patient(patid),  
foreign key (eid) references employee(empid),  
foreign key (rid) references labreport(repid));
```

```
create table labreport(  
repid int not null primary key,  
vid int not null,  
tid int not null,  
testdate date not null,  
result varchar(100) not null,  
foreign key (tid) references test(testid),  
foreign key (vid) references visit(visitid)  
);
```

```
create table admission (  
aid int not null primary key,  
vid int not null,  
pid int not null,  
eid int not null,  
indate date not null,  
outdate date,  
roomnumber int not null,  
foreign key (eid) references employee(empid),  
foreign key (vid) references visit(visitid)  
foreign key (did) references department(deptid)  
);
```




INSERTING:

```
insert into patient values(1, 'Ali', 'AL_Ali', 'Male', '1-1-1990', 0569558124, 'Meccah');
insert into patient values(2, 'Mohamad', 'Ali', 'Male', '10-5-1995', 0569558994, 'Tabouk');
insert into patient values(3, 'Asem', 'Mahmoud', 'Male', '4-10-1997', 0569108124, 'Madinah');
insert into patient values(4, 'Hamza', 'Noor', 'Male', '1985-12-29', 0569551004, 'Najran');
insert into patient values(5, 'Saif', 'Omar', 'Male', '1980-8-16', 0569556584, 'Jazan');
insert into patient values(6, 'Sarah', 'Mohamad', 'Female', '2000-5-6', 0562112124, 'Dammam');
insert into patient values(7, 'Jomana', 'Alzain', 'Female', '2005-3-9', 0569558100, 'Dammam');
insert into patient values(8, 'Noor', 'Jaber', 'Female', '1974-1-20', 0506558144, 'Meccah');
insert into patient values(9, 'Asalah', 'Ahmad', 'Female', '1970-1-1', 0500058124, 'Madinah');
insert into patient values(10, 'Omar', 'Alhalabi', 'Male', '1993-12-12', 0501527124, 'Jeddah');
insert into patient values(11, 'Tareq', 'Zaqaria', 'Male', '1991-9-15', 0564758124, 'Ryiad');
insert into patient values(12, 'Obada', 'Qadah', 'Male', '1996-11-19', 0569555124, 'Jeddah');
insert into patient values(13, 'Heba', 'Alhelo', 'Male', '1997-12-29', 0512345124, 'Jazan');
insert into patient values(14, 'Mostafa', 'Alhaboob', 'Male', '1990-10-10', 0595158124, 'Meccah');
insert into patient values(15, 'Nasser', 'Sofi', 'Male', '1965-8-30', 0567778124, 'Ryiad');
insert into patient values(16, 'Noha', 'Abdo', 'Female', '1999-3-14', 0569558357, 'Najran');
insert into patient values(17, 'Samera', 'Saaeed', 'Female', '1970-2-20', 0578958124, 'Jeddah');
insert into patient values(18, 'Jameel', 'Natoor', 'Male', '1994-1-24', 0501158124, 'Madinah');
insert into patient values(19, 'Baraa', 'Nahas', 'Male', '2003-12-19', 0569666124, 'Tabouk');
insert into patient values(20, 'Esraa', 'Mostafa', 'Female', '1996-6-11', 0569661001, 'Dammam');

insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(1, 'Doctor', 'Ahmwd', 'Taleb', '2005-04-05', 'Male', '1987-1-25', '0598742354', 'Abcd@gmail.com', 'Lebanon', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(2, 'Doctor', 'yaman', 'heba', '2004-02-02', 'Male', '1988-3-24', '0546322323', 'yaman@gmail.com', 'syrian', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(3, 'Doctor', 'mustafa', 'Kht', '2005-08-02', 'Male', '1993-1-05', '056114251', 'kht@gmail.com', 'syria', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(4, 'Nurse', 'abdulmalic', 'alsmawi', '2007-09-25', 'Male', '1990-3-24', '0540727742', 'smawi@gmail.com', 'yemn', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(5, 'Nurse', 'muna', 'subhi', '2009-05-21', 'Female', '1995-3-24', '0551712232', 'muna@gmail.com', 'syrian', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(6, 'Pharmacist', 'saif', 'khan', '2010-08-04', 'Male', '1996-2-24', '054132145', 'sayf@gmail.com', 'saudi', 5);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(7, 'Pharmacist', 'rana', 'ahmwd', '2001-08-02', 'Female', '1980-3-24', '054125488', 'rana@gmail.com', 'egyption', 5);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(8, 'Cleaner', 'zohardee', 'waqas', '2006-08-02', 'Male', '1986-3-05', '0598745411', 'zzz@gmail.com', 'india', 5);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(9, 'Manager', 'waleed', 'ahmwd', '2001-08-02', 'Male', '1981-04-
```

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24', '058984555', 'waleed@gmail.com', 'saudi', 5);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(10, 'Accountant', 'rami', 'khalid', '2015-07-08', 'Male', '1985-3-
04', '0596336555', 'rami@gmail.com', 'indian', 5);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(11, 'Doctor', 'shaza', 'asim', '2007-12-06', 'Female', '1993-3-
24', '051477852', 'shaza@gmail.com', 'jordanian', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(12, 'Doctor', 'samia', 'abdullah', '2017-09-02', 'Female', '1970-2-
20', '058799632', 'samia@gmail.com', 'egyptian', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(13, 'Doctor', 'rawa', 'kkaloon', '2002-09-18', 'Female', '1990-3-
24', '0547115222', 'rawa@gmail.com', 'saudi', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(14, 'Cleaner', 'baka', 'sawi', '2010-06-05', 'Male', '1978-3-24', '051121123', 'hhh@gmail.com', 'india', 5);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(15, 'Doctor', 'eiad', 'abdullah', '2016-03-02', 'Male', '1970-1-
20', '0533211455', 'eiad@gmail.com', 'Syrian', 1);
insert into employee values (16, 'Doctor', 'Hassan', 'Alghamdi', '2010-05-29', '2016-05-
07', 'Male', '1985-01-11', '0567854321', 'fadds@live.com', 'Syrian', 1);
insert into employee values (17, 'Doctor', 'Eshaq', 'AlBasirh', '2017-09-11', '2017-09-27', 'Male', '1978-
04-21', '0567852751', 'jhvsu@live.com', 'Sudani', 1);
insert into employee values (18, 'Doctor', 'Arwa', 'Muhammed', '2007-08-29', '2017-02-
03', 'Female', '1981-01-11', '056783209', 'fasfdjh@live.com', 'Sudani', 1);
insert into employee values (19, 'Nurse', 'Mahbbat', 'Komar', '2014-05-19', '2017-02-08', 'Female', '1989-
02-11', '0567809876', 'aswa87@live.com', 'Indian', 1);
insert into employee values (20, 'Nurse', 'Fada', 'Sofia', '2017-05-17', '2017-10-03', 'Female', '1983-08-
01', '0567850092', 'fajnv@live.com', 'Phileppen', 1);
insert into employee values (21, 'Cleaner', 'Ahmed', 'Yousef', '2011-02-20', '2015-10-07', 'Male', '1992-
07-01', '0567854897', 'dav43@live.com', 'Pakistani', 1);
insert into
employee(eid, jobtitle, ename, efamily, startdate, gender, dob, phone, email, nationality, deptid) values
(22, 'Pharmacist', 'Faisal', 'hani', '2000-03-02', 'Male', '1985-3-
20', '0535211455', 'faisal@gmail.com', 'Saudi', 5);

insert into doctor values (1, 'Orthopedist');
insert into doctor values (2, 'Surgeon');
insert into doctor values (3, 'Cardiologist');
insert into doctor values (11, 'Internists');
insert into doctor values (12, 'Neurologist');
insert into doctor values (13, 'Dentist');
insert into doctor values (15, 'Emergency_Doctor');
insert into doctor values (16, 'Hematologist');
insert into doctor values (17, 'Pediatrician');
insert into doctor values (18, 'Audiologist');

insert into department values (1, 'Bones&Surgery ', 30, 1);
insert into department values (2, 'Laboratories', 10, 1);
insert into department values (3, 'Heart&Abdomen', 30, 1);
insert into department values (4, 'neurology', 20, 1);
insert into department (deptid, deptname) values (5, 'HR');

```



```
insert into lab values (1, 'Ray', 2);
insert into lab values (2, 'bacteria', 2);
insert into lab values (3, 'viruses', 2);

insert into test values (1, 'X-ray', 1);
insert into test values (2, 'sonar', 1);
insert into test values (3, 'megnetic resonance ray', 1);
insert into test values (4, 'blood', 3);
insert into test values (5, 'urine', 2);

insert into visit(vid,pid,vdate,vtime,disease,eid,recipe) values (1,1,'2016-10-15','04:30:00','headacke',15,'panadol')
insert into visit (vid,pid,vdate,vtime,disease,eid,rid,recipe)values (2,2,'2015-02-03','02:30:00','anemia',16,1,'vitamins')
insert into visit values (vid,pid,vdate,vtime,disease,eid,rid,recipe)(3,3,'2015-08-15','03:30:00','diarrhea',11,2,'syrup')
insert into visit values(vid,pid,vdate,vtime,disease,eid,recipe) (4,4,'2015-05-09','04:30:00','dental caries',13,'signal')
insert into visit values (vid,pid,vdate,vtime,disease,eid,rid,recipe)(5,5,'2016-07-03','05:30:00','osteoporosis',1,3,'drink milk')
insert into visit values(vid,pid,vdate,vtime,disease,eid,rid,recipe) (6,6,'2017-05-02','06:30:00','appendix',2,4,'surgery')
insert into visit values (vid,pid,vdate,vtime,disease,eid,rid,recipe)(7,7,'2017-05-15','07:30:00','scleerosis',12,5,'massage')
insert into visit values (vid,pid,vdate,vtime,disease,eid,recipe)(8,8,'2016-02-04','08:30:00','flu',15,'kl500')
insert into visit(vid,pid,vdate,vtime,disease,eid,recipe) values (9,4,'2017-11-15','09:30:00','headacke',15,'aw2')
insert into visit values (vid,pid,vdate,vtime,disease,eid,recipe)(10,8,'2017-6-04','10:30:00','flu',15,'rer22')
insert into visit values (vid,pid,vdate,vtime,disease,eid,recipe)(11,8,'2017-08-04','04:00:00','flu',15,'snv600')
insert into visit values (vid,pid,vdate,vtime,disease,eid,recipe)(12,1,'2016-11-04','05:00:00','flu',15,'soo33')
insert into visit values(13,9,'2016-05-04','04:30:00','fever',15,6,'aspirin');
insert into visit values(14,10,'2015-08-20','3:20:00','surgery',2,7,'surgery');
insert into visit values(15,11,'2017-05-25','2:25:00','food poisoning',11,8,'RBM201');
insert into visit values(16,12,'2016-02-02','8:25:00','broken bones',1,9,'ssdh2');
insert into visit values(17,13,'2015-01-01','7:10:00','obstetrics',3,10,'surgery');
insert into visit values(18,14,'2017-05-02','5:55:00','surgery',1,11,'surgery');
insert into visit values(19,15,'2014-08-13','6:10:00','obstetrics',3,12,'hh2');
insert into visit values(20,16,'2016-01-01','2:25:00','obstetratics',3,13,'hh2');
insert into visit values(21,17,'2015-12-01','1:22:00','nerves',12,14,'fdd26');
insert into visit values(22,17,'2017-01-13','3:25:00','accdent',2,15,'awee55');

insert into labreport values (1,2,4,'2015-02-03','passive');
insert into labreport values (2,3,5,'2015-08-15','warm');
insert into labreport values (3,5,5,'2016-07-03','gggg');
insert into labreport values (4,6,4,'2017-05-02','passive');
insert into labreport values (5,7,3,'2017-05-15','gggg');
insert into labreport values (5,7,3,'2017-05-15','aaa');
insert into labreport values (6,13,4,'2016-05-4','xxx');
insert into labreport values (7,14,4,'2015-08-20','passive');
insert into labreport values (8,15,5,'2017-05-25','passive');
insert into labreport values (9,16,1,'2016-02-02','passive');
insert into labreport values (10,17,4,'2015-01-01','passive');
insert into labreport values (11,18,4,'2017-05-02','passive');
insert into labreport values (12,19,3,'2014-08-13','passive');
```

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```
insert into labreport values (13,20,3,'2016-01-01','passive');
insert into labreport values (14,21,3,'2015-12-01','passive');
insert into labreport values (15,22,1,'2016-01-13','passive');

insert into admission values (1,6,1,'2016-07-03','2016-07-06',4);
insert into admission values (2,6,1,'2017-05-03','2017-05-10',2);
insert into admission values (3,14,15,'2015-08-20','2015-08-23',1);
insert into admission values (4,15,11,'2017-05-25','2017-05-27',9);
insert into admission values (5,16,1,'2016-02-02','2016-02-22',7);
insert into admission values (6,17,3,'2015-01-01','2015-01-15',8);
insert into admission values (7,18,1,'2017-05-02','2017-05-20',1);
insert into admission values (8,19,3,'2014-08-13','2014-08-17',3);
insert into admission values (9,20,3,'2016-01-01','2016-01-12',6);
insert into admission values (10,21,12,'2015-12-01','2015-12-17',10);
insert into admission values (11,22,2,'2016-01-13','2016-01-18',2);
```



THE QUERIES :

1-Given a medicareID (or IQAMA Number), list the medical report of that patient.

```
select patid,visitid,vdate,vtime,disease,ename,tname,result,recipe
from patient,visit,labreport,test,employee
where patient.patid=visit.pid and visit.rid=repid and testid=labreport.tid and
visit.eid=empid;
```

SQLQuery1.sql - DE...TI\AL_SaMaWi (56))*

```
select patid,visitid,vdate,vtime,disease,ename,tname,result,recipe
from patient,visit,labreport,test,employee
where patient.patid=visit.pid and visit.rid=repid and testid=labreport.tid and visit.eid=empid;
```

100 %

Results Messages

	patid	visitid	vdate	vtime	disease	ename	tname	result	recipe
1	2	2	2015-02-03	02:30:00	anemia	Hassan	blood	passive	vitamins
2	3	3	2015-08-15	03:30:00	diarrhea	shaza	urine	warm	syrup
3	5	5	2016-07-03	05:30:00	osteoporosis	Ahmwd	urine	gggg	drink milk
4	6	6	2017-05-02	06:30:00	appendix	yaman	blood	passive	surgery
5	7	7	2017-05-15	07:30:00	sclerosis	samia	magnetic resonance ray	gggg	massage
6	9	13	2016-05-04	04:30:00	fever	eiad	blood	xxx	aspirin
7	10	14	2015-08-20	3:20:00	surgery	yaman	blood	passive	surgery
8	11	15	2017-05-25	2:25:00	food poisoning	shaza	urine	passive	RBM201
9	12	16	2016-02-02	8:25:00	broken bones	Ahmwd	X-ray	passive	ssdh2
10	13	17	2015-01-01	7:10:00	obstetrics	mustafa	blood	passive	surgery
11	14	18	2017-05-02	5:55:00	surgery	Ahmwd	blood	passive	surgery
12	15	19	2014-08-13	6:10:00	Appendix	mustafa	magnetic resonance ray	passive	hh2
13	16	20	2016-01-01	2:25:00	Appendix	mustafa	magnetic resonance ray	passive	hh2
14	17	21	2015-12-01	1:22:00	nerves	samia	magnetic resonance ray	passive	fdd26
15	17	22	2017-01-13	3:25:00	accident	yaman	X-ray	passive	awee55



2 - Find the patients whose names start with 'J', order by their firstName and lastName.

```
select *from patient where pname like 'j%'  
order by pname,pfamily;
```

SQLQuery1.sql - DE...T\AL_SaMaWi (56))* X

```
select *from patient where pname like 'j%'  
order by pname,pfamily;
```

100 % <

Results Messages

	patid	pname	pfamily	gender	dob	phone	address
1	18	Jameel	Natoor	Male	1994-01-24	501158124	Madinah
2	7	Jumana	Alzain	Female	2005-03-09	569558100	Dammam



3-List information about all patients who have been admitted, grouped by their disease.

```
select patid,pname,pfamily,gender,dob,phone,address,disease from patient,visit
where patid=visit.pid and patid in(
    select pid from visit where visitid in(
        select vid from admission)) ;
```

SQLQuery1.sql - DE...T\AL_SaMaWi (56))* X

```
select patid,pname,pfamily,gender,dob,phone,address,disease from patient,visit
where patid=visit.pid and patid in(
    select pid from visit where visitid in(
        select vid from admission)) ;
```

100 %



Results



Messages

	patid	pname	pfamily	gender	dob	phone	address	disease
1	5	Saif	Omar	Male	1980-08-16	569556584	Jazan	osteoporosis
2	6	Sarah	Mohamad	Female	2000-05-06	562112124	Dammam	appendix
3	10	Omar	Alhalabi	Male	1993-12-12	501527124	Jeddah	surgery
4	11	Tareq	Zaqaria	Male	1991-09-15	564758124	Ryiad	food poisoning
5	12	Obada	Qadah	Male	1996-11-19	569555124	Jeddah	broken bones
6	13	Heba	Alhelo	Male	1997-12-29	512345124	Jazan	obstetrics
7	14	Mostafa	ALhaboob	Male	1990-10-10	595158124	Meccah	surgery
8	15	Nasser	Sofi	Male	1965-08-30	567778124	Ryiad	Appendix
9	16	Noha	Abdo	Female	1999-03-14	569558357	Najran	Appendix
10	17	Samera	Saaeed	Female	1970-02-20	578958124	Jeddah	nerves
11	17	Samera	Saaeed	Female	1970-02-20	578958124	Jeddah	accdent



4-Find all the patients who have been admitted to the department of Neurology.

```
select *from patient where patid in(  
    select pid from visit where visitid in(  
        select vid from admission where did in(  
            select deptid from department where deptname = 'Neurology'  
        )) );
```

SQLQuery1.sql - DE...T\AL_SaMaWi (56)* X

```
select *from patient where patid in(  
    select pid from visit where visitid in(  
        select vid from admission where did in(  
            select deptid from department where deptname = 'Neurology'  
        )) );
```

100 % <

Results Messages

	patid	pname	pfamily	gender	dob	phone	address
1	17	Samera	Saaeed	Female	1970-02-20	578958124	Jeddah

5-List the name and specialty of all the doctors who live in Madinah and worked or have been working for 1 year in this hospital.

```
select ename,efamily,specialist from employee,doctor  
where empid=eid and nationality='saudi';
```

SQLQuery1.sql - DE...T\AL_SaMaWi (56)* X

```
select ename,efamily ,specialist from employee,doctor  
where empid=eid and nationality='saudi';
```

100 % <

Results Messages

	ename	efamily	specialist
1	rawa	kkaloon	Dentist



6-Given a medicareID, compute the total number of visits for a person in this hospital.

```
select patid,pname,count(visitid)as numberOfVisit from patient,visit  
where patid=visit.pid group by patid , pname;
```

SQLQuery1.sql - DE...TI\AL_SaMaWi (56))* X

```
select patid,pname,count(visitid)as numberOfVisit from patient,visit  
where patid=visit.pid group by patid , pname;
```

100 %

Results Messages

	patid	pname	numberOfVisit
1	1	Ali	2
2	2	Mohamad	1
3	3	Asem	1
4	4	Hamza	2
5	5	Saif	1
6	6	Sarah	1
7	7	Jumana	1
8	8	Noor	3
9	9	Asalah	1
10	10	Omar	1
11	11	Tareq	1
12	12	Obada	1
13	13	Heba	1
14	14	Mostafa	1
15	15	Nasser	1
16	16	Noha	1
17	17	Samera	2