**Questions:**

1. Write a query in SQL to obtain the name of the physicians who are the head of each department.

SELECT physician.employeeid, physician.name as physician\_name, department.name as department\_name

FROM physician

INNER JOIN department ON physician.employeeid=department.head;

1. Write a query in SQL to count the number of patients who booked an appointment with at least one physician.

SELECT count( patient) AS Patients\_who\_have\_taken\_atleast\_one\_appointment

FROM appointment;

1. Write a query in SQL to obtain the name of the physician and the departments they are affiliated with.

SELECT physician.name as physician\_name,department.name as department\_name

FROM physician

inner join affiliated\_with on physician.employeeid=affiliated\_with.physician

inner join department on department.departmentid=affiliated\_with.department;

1. Write a query in SQL to count the number of available rooms.

SELECT unavailable, count(\*)

FROM room

where unavailable='f'

GROUP BY unavailable

1. Write a query in SQL to obtain the name of the physicians who are trained for a special treatment.

SELECT physician.name

FROM physician

inner join affiliated\_with on physician.employeeid=affiliated\_with.physician

inner join department on department.departmentid=affiliated\_with.department

where department.name='Psychiatry';

1. Write a query in SQL to obtain the name of the physicians with departments who are yet to be affiliated.

SELECT physician.name

FROM physician

inner join affiliated\_with on physician.employeeid=affiliated\_with.physician

inner join department on department.departmentid=affiliated\_with.department

where affiliated\_with.primaryaffiliation='f';

1. Write a query in SQL to obtain the name of the physicians who are not a specialized physician.

SELECT physician.name

FROM physician

inner join affiliated\_with on physician.employeeid=affiliated\_with.physician

inner join department on department.departmentid=affiliated\_with.department

where department.name='Surgery' or department.name=’Psychiatry’;

1. Write a query in SQL to find the name of the patients and the number of physicians they have taken appointments.

SELECT patient.name as Patient\_name,count(appointment.patient) as No\_of\_Appointments

FROM appointment

JOIN patient ON appointment.patient=patient.ssn

GROUP BY patient.name

HAVING count(appointment.patient)>=1;

1. Write a query in SQL to count the number of unique patients who got an appointment for examination room C.

SELECT count(patient)

FROM appointment

WHERE examinationroom='C';

1. Write a query in SQL to find the name of the nurses and the room scheduled, where they will assist the physicians.

SELECT nurse.name, room.roomnumber

FROM nurse

inner join on\_call on nurse.employeeid=on\_call.nurse

inner join room on room.blockcode=on\_call.blockcode;

1. Write a query in SQL to find the name of patients and their physicians who does not require any assistance of a nurse.

SELECT physician.name

FROM physician

inner join affiliated\_with on physician.employeeid=affiliated\_with.physician

inner join department on department.departmentid=affiliated\_with.department

where department.name='Surgery' or department.name=’Psychiatry’;

1. Write a query in SQL to obtain the name of the patients, their block, floor, and room number where they are admitted.

SELECT patient.name as patient\_name ,room.blockcode ,room.blockfloor ,room.roomnumber

FROM patient

join stay on stay.patient=patient.ssn

join room on room.roomnumber=stay.room

1. Write a query in SQL to find the name of the patients who took an advanced appointment, and also display their physicians and medication.

SELECT patient.name AS patient\_name,physician.name AS physician\_name, medication.name AS medication

FROM patient

JOIN prescribes ON prescribes.patient=patient.ssn

JOIN physician ON physician.employeeid=prescribes.physician

JOIN medication ON prescribes.medication=medication.code

WHERE prescribes.appointment IS NOT NULL;

1. Write a query in SQL to find the name and medication for those patients who did not take any appointment.

SELECT patient.name as patient\_name, medication.name as medication\_name

FROM patient

join prescribes on prescribes.patient=patient.ssn

join medication on medication.code=prescribes.medication

where prescribes.appointment IS NULL;

1. Write a SQL query to obtain the names of all the physicians performing a medical procedure but they are not certified to perform.
2. Write a query in SQL to obtain the names of all the physicians, their procedure, date when the procedure was carried out and name of the patient on which procedure have been carried out but those physicians are not certified for that procedure.
3. Write a query in SQL to Obtain the names of all patients who has been prescribed some medication by his/her physician who has carried out primary care and the name of that physician.

SELECT patient.name as patient\_name,physician.name as physician\_name

FROM patient

join prescribes on prescribes.patient=patient.ssn

join physician on physician.employeeid=prescribes.physician

join affiliated\_with on physician.employeeid=affiliated\_with.physician

where affiliated\_with.department='1';

1. Write a query in SQL to obtain the nurses and the block where they are booked for attending the patients on call.

SELECT nurse.name AS nurse\_name,on\_call.blockcode AS block

FROM nurse

JOIN on\_call ON on\_call.nurse=nurse.employeeid;

1. Write a query in SQL to make a report which will show -
   1. name of the patient,
   2. name of the physician who is treating him or her,
   3. name of the nurse who is attending him or her,
   4. which treatment is going on to the patient,
   5. the date of release,
   6. in which room the patient has admitted and which floor and block the room belongs to respectively.

SELECT patient.name AS patient\_name,physician.name AS physician\_name,nurse.name AS nurse\_name,

stay.end\_time AS discharge\_date,procedure.name as treatment,room.roomnumber AS room,

room.blockfloor AS floor,room.blockcode AS block

FROM undergoes

JOIN patient ON undergoes.patient=patient.ssn

JOIN physician ON physician.employeeid=undergoes.physician

FULL OUTER JOIN nurse ON nurse.employeeid=undergoes.assistingnurse

JOIN stay ON undergoes.patient=stay.patient

JOIN room ON stay.room=room.roomnumber

JOIN procedure on undergoes.procedure=procedure.code;

1. Write a query in SQL to obtain the names of all the nurses who have ever been on call for room 122.

SELECT nurse.name

FROM nurse

join on\_call on on\_call.nurse=nurse.employeeid

join room on room.blockfloor=on\_call.blockfloor

where on\_call.blockfloor = 1 and on\_call.blockcode=3;