

## Queries:

1)List all doctors with their names and specialties:

```
SELECT D.doctor_name, S.speciality_name
FROM Doctor_ D
JOIN DfS DS ON D.doctor_id = DS.doctor_id
JOIN SPECIALITY S ON DS.speciality_id = S.speciality_id;
```

2)Retrieve the medical records for a specific patient:

```
SELECT *
FROM MEDICAL_RECORD
WHERE patient_id = <patient_id>;
```

3)Get the list of appointments for a specific doctor on a given date:

```
SELECT A.date, A.time, P.patient_name
FROM APPOINTMENT_ A
JOIN Patient_ P ON A.patient_id = P.patient_id
WHERE A.doctor_id = <doctor_id> AND A.date = '<date>';
```

4)Find all patients who have stayed in a specific room:

```
SELECT P.patient_name, S.date, S.time
FROM STAY S
JOIN Patient_ P ON S.patient_id = P.patient_id
WHERE S.room_id = <room_id>;
```

5) Retrieve the details of a specific doctor:

```
SELECT *
FROM Doctor_
WHERE doctor_id = <doctor_id>;
```

6)Get the number of appointments scheduled for each doctor:

```
SELECT D.doctor_name, COUNT(A.appointment_id) AS appointment_count
FROM Doctor_ D
LEFT JOIN APPOINTMENT_ A ON D.doctor_id = A.doctor_id
GROUP BY D.doctor_name;
```

7)Find the total number of medical records in the system:

```
SELECT COUNT(*) AS total_medical_records  
FROM MEDICAL_RECORD;
```

8)Get the average age of the doctors:

```
SELECT AVG(age) AS average_age  
FROM Doctor_;
```

9)Find the doctors who have an appointment scheduled on a specific date:

```
SELECT D.doctor_name, A.date, A.time  
FROM Doctor_ D  
JOIN APPOINTMENT_ A ON D.doctor_id = A.doctor_id  
WHERE A.date = '<date>';
```

10)Retrieve the details of the admin with the highest age:

```
SELECT TOP 1 *  
FROM Admin  
ORDER BY age DESC;
```

11)Get the count of patients in each room type:

```
SELECT R.room_type, COUNT(S.patient_id) AS patient_count  
FROM ROOMS R  
LEFT JOIN STAY S ON R.room_id = S.room_id  
GROUP BY R.room_type;
```

12)Find the doctors who specialize in a specific specialty:

```
SELECT D.doctor_name, S.speciality_name  
FROM Doctor_ D  
JOIN Dfs DS ON D.doctor_id = DS.doctor_id  
JOIN SPECIALITY S ON DS.speciality_id = S.speciality_id  
WHERE S.speciality_name = '<speciality_name>';
```

13)Retrieve the details of the last medical record entered:

```
SELECT TOP 1 *  
FROM MEDICAL_RECORD  
ORDER BY medicalrecord_id DESC;
```

14)Get the count of appointments scheduled for each date:

```
SELECT A.date, COUNT(A.appointment_id) AS appointment_count
FROM APPOINTMENT_ A
GROUP BY A.date;
```

15)Find the rooms that are currently occupied:

```
SELECT R.room_no, P.patient_name, S.date, S.time
FROM ROOMS R
JOIN STAY S ON R.room_id = S.room_id
JOIN Patient_ P ON S.patient_id = P.patient_id;
```

16)Retrieve the names of doctors who have appointments scheduled on the same date and time as another doctor:

```
SELECT DISTINCT D1.doctor_name
FROM Doctor_ D1
JOIN APPOINTMENT_ A1 ON D1.doctor_id = A1.doctor_id
JOIN APPOINTMENT_ A2 ON A1.date = A2.date AND A1.time = A2.time AND
A1.doctor_id <> A2.doctor_id
JOIN Doctor_ D2 ON A2.doctor_id = D2.doctor_id;
```

17)Find the total number of patients treated by each doctor:

```
SELECT D.doctor_name, COUNT(M.patient_id) AS patient_count
FROM Doctor_ D
JOIN MEDICAL_RECORD M ON D.doctor_id = M.doctor_id
GROUP BY D.doctor_name;
```

18)Retrieve the details of patients who have appointments scheduled with doctors of a specific specialty:

```
SELECT P.patient_name, D.doctor_name, S.speciality_name
FROM Patient_ P
JOIN APPOINTMENT_ A ON P.patient_id = A.patient_id
JOIN Doctor_ D ON A.doctor_id = D.doctor_id
JOIN Dfs DS ON D.doctor_id = DS.doctor_id
JOIN SPECIALITY S ON DS.speciality_id = S.speciality_id
WHERE S.speciality_name = '<speciality_name>';
```

18)Get the list of doctors who have not scheduled any appointments:

```
SELECT D.doctor_name
FROM Doctor_ D
LEFT JOIN APPOINTMENT_ A ON D.doctor_id = A.doctor_id
WHERE A.appointment_id IS NULL;
```

19)Find the average age of patients who have stayed in a specific room type:

```

SELECT AVG(P.age) AS average_age
FROM Patient_ P
JOIN STAY S ON P.patient_id = S.patient_id
JOIN ROOMS R ON S.room_id = R.room_id
WHERE R.room_type = '<room_type>';

```

20)Retrieve the names of doctors who have treated patients of all available specialties:

```

SELECT D.doctor_name
FROM Doctor_ D
JOIN Dfs DS ON D.doctor_id = DS.doctor_id
GROUP BY D.doctor_name
HAVING COUNT(DISTINCT DS.speciality_id) = (SELECT COUNT(*) FROM
SPECIALITY);

```

21)Retrieve the details of the doctors who have treated patients in multiple rooms:

```

SELECT D.doctor_name, COUNT(DISTINCT S.room_id) AS room_count
FROM Doctor_ D
JOIN MEDICAL_RECORD M ON D.doctor_id = M.doctor_id
JOIN STAY S ON M.patient_id = S.patient_id
GROUP BY D.doctor_name
HAVING COUNT(DISTINCT S.room_id) > 1;

```

22)Retrieve the names of doctors who have treated the same patient in different rooms on different dates:

```

SELECT D.doctor_name, P.patient_name, COUNT(DISTINCT S.room_id) AS
room_count, COUNT(DISTINCT M.date) AS date_count
FROM Doctor_ D
JOIN MEDICAL_RECORD M ON D.doctor_id = M.doctor_id
JOIN Patient_ P ON M.patient_id = P.patient_id
JOIN STAY S ON M.patient_id = S.patient_id AND M.date <> S.date
GROUP BY D.doctor_name, P.patient_name
HAVING COUNT(DISTINCT S.room_id) > 1 AND COUNT(DISTINCT M.date) > 1;

```