

```
CREATE TABLE doctors (  
    doctor_id INT UNSIGNED NOT NULL AUTO_INCREMENT,  
    doctor_name VARCHAR(100),  
    department VARCHAR(50),  
    PRIMARY KEY (doctor_id)  
);
```

```
CREATE TABLE patients (  
    patient_id INT UNSIGNED NOT NULL AUTO_INCREMENT,  
    patient_name VARCHAR(100),  
    age INT,  
    department VARCHAR(50),  
    doctor_id INT UNSIGNED,  
    admission_date DATE,  
    PRIMARY KEY (patient_id),  
    FOREIGN KEY (doctor_id) REFERENCES doctors(doctor_id)  
);
```

```
CREATE TABLE donations (  
    donation_id INT UNSIGNED NOT NULL AUTO_INCREMENT,  
    patient_id INT UNSIGNED,  
    donation_date DATE,  
    amount DECIMAL(10,2),  
    PRIMARY KEY (donation_id),  
    FOREIGN KEY (patient_id) REFERENCES patients(patient_id)  
);
```

```
INSERT INTO doctors (doctor_name, department) VALUES  
('Dr. Sharma', 'Cardiology'),
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('Dr. Mehta', 'Neurology'),
('Dr. Patel', 'Orthopedics'),
('Dr. Khan', 'Oncology'),
('Dr. Iyer', 'Pediatrics');

INSERT INTO patients (patient_name, age, department, doctor_id, admission_date) VALUES

('Amit Verma', 45, 'Cardiology', 1, '2025-01-15'),
('Riya Sharma', 30, 'Neurology', 2, '2025-02-10'),
('Kunal Patel', 55, 'Orthopedics', 3, '2025-03-05'),
('Sana Khan', 40, 'Oncology', 4, '2025-03-12'),
('Arjun Vankani', 28, 'Cardiology', 1, '2025-04-01'),
('Meera Joshi', 35, 'Pediatrics', 5, '2025-04-15'),
('Vikram Singh', 60, 'Cardiology', 1, '2025-05-10'),
('Priya Desai', 25, 'Neurology', 2, '2025-05-20'),
('Rohan Gupta', 50, 'Oncology', 4, '2025-06-01'),
('Sneha Nair', 33, 'Orthopedics', 3, '2025-06-10'),
('Aditya Shah', 29, 'Cardiology', 1, '2025-06-18'),
('Neha Kapoor', 42, 'Pediatrics', 5, '2025-07-02'),
('Manish Yadav', 36, 'Neurology', 2, '2025-07-15'),
('Alok Tiwari', 48, 'Oncology', 4, '2025-08-01'),
('Pooja Chauhan', 39, 'Cardiology', 1, '2025-08-12');

INSERT INTO donations (patient_id, donation_date, amount) VALUES

(1, '2025-01-20', 5000),
(2, '2025-02-15', 2000),
(3, '2025-03-07', 8000),
(4, '2025-03-20', 12000),
(5, '2025-04-05', 3000),

(6, '2025-04-18', 2500),
(7, '2025-05-15', 7000),
(8, '2025-05-22', 1500),
(9, '2025-06-03', 4000),
(10, '2025-06-12', 6000),
(11, '2025-06-20', 2000),
(12, '2025-07-05', 3500),
(13, '2025-07-18', 4500),
(15, '2025-08-15', 10000),
(1, '2025-02-25', 3000),
(3, '2025-04-01', 5000),
(7, '2025-06-25', 6000),
(9, '2025-07-01', 4000),
(15, '2025-08-25', 8000);

select 'TASK 1' as '';

select '1. All patient names query' as '';

select * FROM patients;

select '2. Donations > 5000' as '';

select * FROM donations where amount > 5000;

select '3. Admission date query' as '';

select * FROM patients order by admission_date desc;

select '4. Patients per department query' as '';

select department, count(*) as num_patients

from patients

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group by department;
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select '5. Departments with >3 patients' as "";  
select department, count(*) as num_patients  
from patients  
group by department  
having count(*) > 3;
```

```
select 'TASK 2' as "";  
select  
    patients.patient_name,  
    doctors.doctor_name,  
    donations.amount  
from  
    patients  
inner join  
    doctors  
on  
    patients.doctor_id = doctors.doctor_id  
inner join  
    donations  
on  
    patients.patient_id = donations.patient_id;
```

```
select '1. Average donation by month' as 'TASK 3';  
select  
    DATE_FORMAT(donation_date, '%Y-%m') as donation_month,  
    avg(amount) as avg_donation  
FROM
```

donations

group by

DATE_FORMAT(donation_date, '%Y-%m');

select '3. Total donations for each doctors patients' as '';

select

doctors.doctor_name,

sum(donations.amount) as total_donations

FROM

doctors

inner join

patients

on

doctors.doctor_id = patients.doctor_id

inner join

donations

on

patients.patient_id = donations.patient_id

group by

doctors.doctor_name;

select '4. Top 5 highest donating patients' as '';

select

patients.patient_name,

sum(donations.amount) as total_donations

FROM

patients

inner join

donations

```
on
patients.patient_id = donations.patient_id
group by
patients.patient_name
order by
total_donations desc limit 5;
```

```
select '5. Doctors with more than 2 patients' as "";
select
doctors.doctor_name,
count(distinct patients.patient_id) as num_patients
FROM
doctors
inner join
patients
on
doctors.doctor_id = patients.doctor_id
group by
doctors.doctor_name
having
count(distinct patients.patient_id) > 2
order by
num_patients desc;
```

```
select '6. Average age by department' as "";
select
department,
avg(age) as avg_age
FROM
```

```
patients
group by
department;
```

```
select '7. Department with highest number of patients' as '';
select
department,
count(distinct patient_id) as pat_number
FROM
patients
group by
department
order by
pat_number desc limit 1;
```

```
select '8. Monthly donations' as '';
select
month(donation_date) as donation_month,
sum(amount) as total_donations
FROM
donations
group by
donation_month
order by
donation_month;
```

```
select '9. Patients who never made a donation' as '';
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```
select
patients.patient_id,
patients.patient_name
FROM
patients
left join
donations
on
patients.patient_id = donations.patient_id
where
donations.patient_id is NULL;
```

```
select '10. Doctors whose patients donated more than 10,000' as ";
```

```
select
doctors.doctor_name,
doctors.doctor_id,
sum(donations.amount) as total_donations
FROM
doctors
inner join
patients
on
doctors.doctor_id = patients.doctor_id
inner join
donations
on
patients.patient_id = donations.patient_id
group by
```



```
doctors.doctor_id, doctors.doctor_name
```

```
having
```

```
sum(donations.amount)>10000;
```