

ASSIGNMENT

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→ Comprehensive hospital management system database
develop a hospital database to manage patient
record etc.

Building a hospital management system (HMS)
data base involves

(i) ER Diagram design:-

- Patient = stores patient information.
- Doctor = stores doctor details, including schedules.
- Appointment = Connect patient and doctor
- Treatment = list treatment provided to patient
- Billing = Records all billing information
- Lab test = store lab test result connected to
Patient

(ii) Table definition:-

Patients Table

create table patient (

Patient_id int primary key,

first_name Rahul (50),

last_name Reddy (50),

dob Date,

contact_number VARCHAR(15),

);

Doctor Table

```
create table Doctors (  
  doctor id int primary key,  
  first - name VAR (50),  
  last - name VAR (50),  
  specilization VAR (50),  
  schedule JSON  
);
```

Lab test table

```
create table (  
  test - id int primary key,  
  Patient - id int,  
  test - name key (50),  
  test - date date,  
  result text  
);
```

(iii) SQL queries

→ Billing reports

```
select P. first - name, P. last - name, b. amount,  
  b. bill - date b. Payment - status  
From Billing b  
Join Patients P on b. Patient - id = P. Patient - id  
ORDER BY b. bill - date DESC;
```

"This structure should require all core requirements"

→ Retrieve patient medical histories

```
SELECT P.Patient_id, P.first_name, T.treatment_date, T.diagnosis, T.procedure
FROM Patient P
JOIN Treatment T ON P.Patient_id = T.patient_id
WHERE P.Patient_id = ?;
```

→ Find doctor availability

```
SELECT doctor_id, first_name, last_name, schedule
FROM Doctors
WHERE specialization = ?;
```

(iv) Role-based access control:-

```
GRANT SELECT ON Patient TO ('doctor-role');
GRANT SELECT, UPDATE ON Appointment TO ('doctor-role');
```

```
GRANT SELECT ON Patient TO ('nurse-role');
GRANT SELECT ON Treatment TO ('nurse-role');
```

```
GRANT ALL PRIVILEGES ON '.,' TO ('admin-role');
```

(v) Billing

DELIMITER //

CREATE PROCEDURE Discharge patient
(IN patient_id INT)

Begin

UPDATE Billing set bill_date = CURDATE()

UPDATE Appointment set status = 'Discharged'

Where Patient_id = Patient_id;

END //

DELIMITER //