SMART CLINIC

Taking care of your health and that of your family

Prepare by - Luhar Divya

Introduction

The Smart Clinic Management System is a mini project developed using SQL to demonstrate efficient healthcare data management. It is designed to store and manage records of patients, doctors, and appointments in a structured way.

The project aims to reduce manual record-keeping by using SQL queries for quick retrieval and analysis of healthcare data. It supports operations such as listing patients and doctors, viewing appointment schedules, checking appointment status (Scheduled, Completed, Cancelled), and generating patient-specific reports.

This project highlights the application of SQL concepts such as Joins, Aggregations, and Subqueries in solving real-world problems.

LIST OF ALL DOCTOR’S

```
SELECT * FROM Doctors;
```

Result Grid | Filter Rows:

doctor_id	name	specialization
1	Dr. Mehta	Cardiologist
2	Dr. Sharma	Dentist
3	Dr. Rani	General Physician
4	Dr. Sinha	Neurologist
5	Dr. Kapoor	Orthopedic
NULL	NULL	NULL

LIST ALL PATIENT'S NAME, GENDER, PHONE NUMBER

```
SELECT name, gender, phone
FROM patients;
```

Result Grid | Filter Rows:

name	gender	phone
Divya Malvi	Female	9876543210
Amit Verma	Male	9123456789
Ravi Kumar	Male	9988776655
Sneha Roy	Female	9090909090
Neha Joshi	Female	9871234567
Karan Singh	Male	876543190
Anita Desai	Female	9090989898
Mohit Tiwari	Male	9123981234

Show all scheduled appointments

```sql
SELECT name, specialization
FROM Doctors
WHERE specialization = 'Dentist';
```

Result Grid | Filter Rows:

	name	specialization
▶	Dr. Sharma	Dentist

Show all scheduled appointments

```sql
SELECT *
FROM appointments
WHERE status = 'Scheduled';
```

Result Grid | Filter Rows: | Edit: | Export/Import:

appointment_id	patient_id	doctor_id	appointment_date	appointment_time	status
1	1	1	2025-06-26	10:30:00	Scheduled
3	3	3	2025-06-27	09:30:00	Scheduled
5	5	2	2025-06-29	14:30:00	Scheduled
6	6	4	2025-06-29	15:00:00	Scheduled
8	8	3	2025-07-01	11:45:00	Scheduled
9	1	4	2025-07-02	10:00:00	Scheduled
NULL	NULL	NULL	NULL	NULL	NULL

Display each appointment with patient name, doctor name, appointment date, and status

```sql
SELECT a.appointment_id,
p.name AS Patient,
d.name AS Doctor,
a.appointment_date,
a.status
FROM appointments a
JOIN patients p ON a.patient_id = p.patient_id
JOIN doctors d ON a.doctor_id = d.doctor_id;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

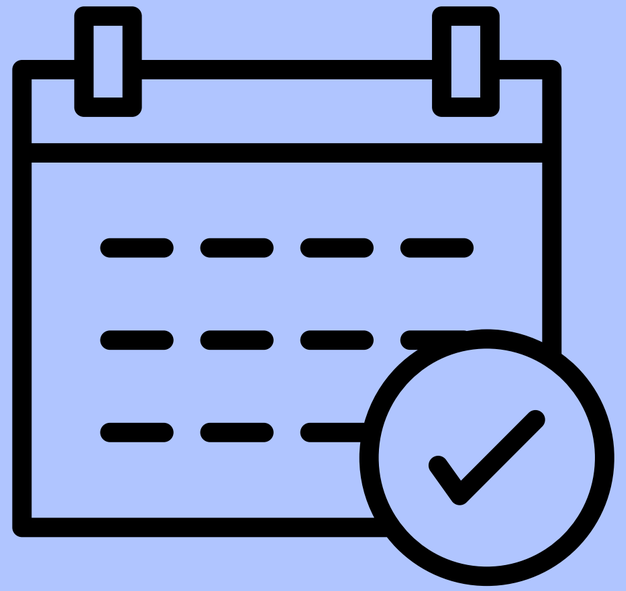
appointment_id	Patient	Doctor	appointment_date	status
1	Divya Malvi	Dr. Mehta	2025-06-26	Scheduled
2	Amit Verma	Dr. Sharma	2025-06-26	Completed
3	Ravi Kumar	Dr. Rani	2025-06-27	Scheduled
4	Sneha Roy	Dr. Mehta	2025-06-28	Cancelled
5	Neha Joshi	Dr. Sharma	2025-06-29	Scheduled
6	Karan Singh	Dr. Sinha	2025-06-29	Scheduled
7	Anita Desai	Dr. Kapoor	2025-07-01	Completed
8	Mohit Tiwari	Dr. Rani	2025-07-01	Scheduled
9	Divya Malvi	Dr. Sinha	2025-07-02	Scheduled
10	Ravi Kumar	Dr. Mehta	2025-07-02	Cancelled

Count how many appointments are in each status (Scheduled, Completed, Cancelled)

```sql
SELECT status, COUNT(*) AS total
FROM appointments
GROUP BY status;
```

Result Grid | Filter Rc

status	total
Scheduled	6
Completed	2
Cancelled	2



Show all appointments for patient ID = 1 with doctor name and status

```sql
SELECT
d.name AS Doctor,
a.appointment_date,
a.status
FROM appointments a
JOIN Doctors d ON a.doctor_id = d.doctor_id
WHERE patient_id = 1;
```

Result Grid | Filter Rows:

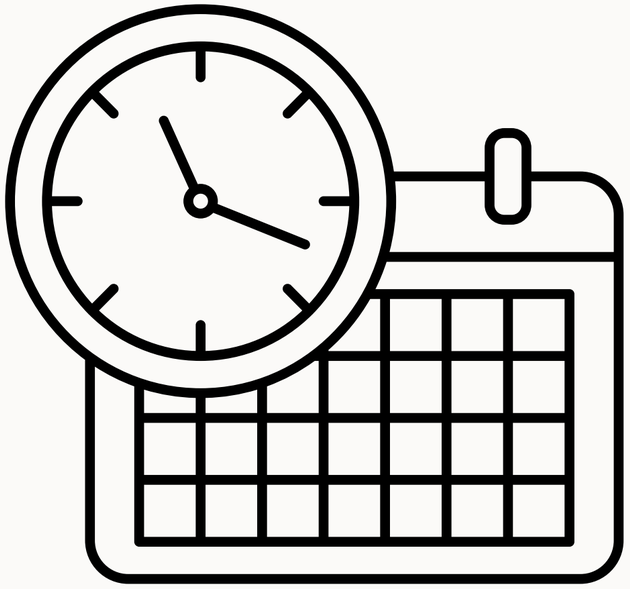
Doctor	appointment_date	status
Dr. Mehta	2025-06-26	Scheduled
Dr. Sinha	2025-07-02	Scheduled

Show each patient’s latest appointment date

```sql
SELECT
p.name AS patient,
MAX(a.appointment_date) AS latest_appointment
FROM appointments a
JOIN Patients p ON a.patient_id = p.patient_id
GROUP BY p.name;
```

Result Grid | Filter Rows:

patient	latest_appointment
Divya Malvi	2025-07-02
Amit Verma	2025-06-26
Ravi Kumar	2025-07-02
Sneha Roy	2025-06-28
Neha Joshi	2025-06-29
Karan Singh	2025-06-29
Anita Desai	2025-07-01
Mohit Tiwari	2025-07-01



ER Diagram of Smart Clinic Management System

Entity-Relationship Diagram showing the database schema with Patients, Doctors, and Appointments tables.