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-- -----  
-- MY SQL Project: Appointments Analysis  
-- -----
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```
-- Step 1: Create and use the database
```

```
CREATE DATABASE Appointments;
```

```
USE Appointments;
```

```
-- -----  
-- Basic SQL & Data Retrieval  
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```

```
-- 1. Retrieve all columns from the Appointments table
```

```
SELECT * FROM Appointments_tbl;
```

```
-- 2. List the first 10 appointments where the patient is older than 60
```

```
SELECT * FROM Appointments_tbl WHERE age > 60 LIMIT 10;
```

```
-- 3. Show the unique neighborhoods from which patients came
```

```
SELECT DISTINCT neighbourhood FROM Appointments_tbl;
```

```
-- 4. Find all female patients who received an SMS reminder
```

```
SELECT COUNT(*) FROM Appointments_tbl WHERE gender = 'female' AND SMS_received = 1;
```

```
-- 5. Display all appointments scheduled on or after '2023-05-01' and before  
'2023-06-01'
```

```
SELECT * FROM Appointments_tbl
```

```
WHERE STR_TO_DATE(ScheduledDay, '%m/%d/%Y') >= '2023-05-01'
```

```
AND STR_TO_DATE(ScheduledDay, '%m/%d/%Y') < '2023-06-01';
```

```
-- -----  
-- Data Modification & Filtering  
-- -----
```

```
-- 6. Update the 'Showed_up' status to 'Yes' where it is null or empty
```

```
UPDATE Appointments_tbl
```

```
SET Showed_up = 'Yes'
```

```
WHERE Showed_up IS NULL OR Showed_up = '';
```

```
-- 7. Add a new column AppointmentStatus using a CASE statement
```

```
ALTER TABLE Appointments_tbl ADD COLUMN AppointmentStatus VARCHAR(20);
```

```
UPDATE Appointments_tbl
```

```
SET AppointmentStatus = CASE
```

```
    WHEN Showed_up = 'No' THEN 'No Show'
```

```
    ELSE 'Attended'
```

```
END;
```

```
-- 8. Filter appointments for diabetic patients with hypertension
```

```
SELECT * FROM Appointments_tbl WHERE Diabetes = 1 AND Hypertension = 1;
```

```
-- 9. Order the records by Age in descending order and show top 5 oldest patients
```

```
SELECT * FROM Appointments_tbl ORDER BY Age DESC LIMIT 5;
```

```
-- 10. Limit results to first 5 appointments for patients under age 18
```

```
SELECT * FROM Appointments_tbl WHERE Age < 18 LIMIT 5;
```