Patient Diagnosis Report

Problem statement:

You are a data analyst working in a hospital and you have been asked to store the patients' diagnosis reports as a best practice.

Objective:

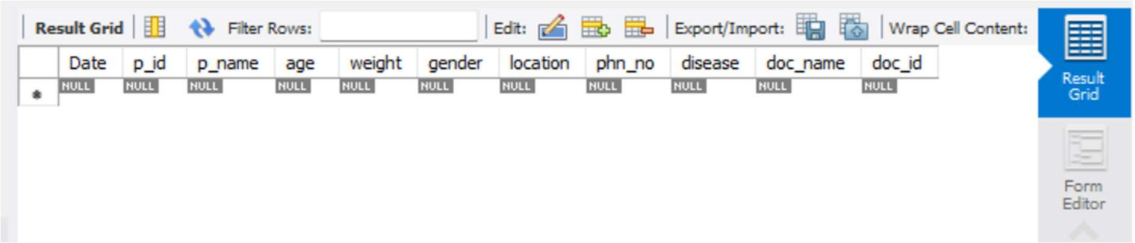
The objective is to design a database to retrieve, update, and modify the patients' details to keep track of the patients' health.

1. **-- create a database named Hospital:**
   create database hospital;

2. **-- select database:**
   use hospital;

3. **-- create a patients table with the date, patient ID, patient name, age, weight, gender, location, phone number, disease, doctor name, and doctor ID fields:**
   create table patients_data (
   Date date not null,
   p_id varchar(20) not null primary key,
   p_name varchar(20),
   age int,
   weight int,
   gender varchar(1),
   location varchar(25),
   phn_no int (10),
   disease varchar(20),
   doc_name varchar(20),
   doc_id varchar(10));

   select*from patient_data;



4. **-- insert values into the patients table:**
   insert into patients_data (date, p_id, p_name, age, weight, gender, location, phn_no, disease, doc_name, doc_id)

values ('2019-06-15', 'AP2021', 'sarath',67, 76, 'M', 'Chennai', 876543, 'Cardiac', 'mohan', 21),
('2019-02-13', 'Ap2022', 'John', 62,80, 'M', 'Banglore', 78363554, 'Cancer', 'Suraj', 22),
('2018-01-08','AP2023', 'Henry', 43,65,'M', 'Kerala', 8757489, 'Liver', 'Mehta', 23),
('2020-02-04','AP2024','Carl',56,72,'M', 'Mumbai', 74647484, 'Asthama', 'Kartik', 24),
('2017-09-15','AP2025','Shikar',55,71,'M', 'delhi', 46743839, 'Cardiac', 'mohan', 21),
('2018-07-22','AP2026','Piyush',47,59, 'M', 'Haryana', 76457383, 'Cancer', 'suraj',22),
('2017-03-25','AP2027','Stephen', 69,55,'M','Gujrat', 73636830, 'Liver', 'Mehta', 23),
('2019-04-22','AP2028','Aaron',73,53,'M','Banglore',76543589, 'Asthama', 'Kartik',24);

select*from patients_data;

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

Date	p_id	p_name	age	weight	gender	location	phn_no	disease	doc_name	doc_id
2019-06-15	AP2021	sarath	67	76	M	Chennai	876543	Cardiac	mohan	21
2019-02-13	Ap2022	John	62	80	M	Banglore	78363554	Cancer	Suraj	22
2018-01-08	AP2023	Henry	43	65	M	Kerala	8757489	Liver	Mehta	23
2020-02-04	AP2024	Carl	56	72	M	Mumbai	74647484	Asthama	Kartik	24
2017-09-15	AP2025	Shikar	55	71	M	delhi	46743839	Cardiac	mohan	21
2018-07-22	AP2026	Piyush	47	59	M	Haryana	76457383	Cancer	suraj	22
2017-03-25	AP2027	Stephen	69	55	M	Gujrat	73636830	Liver	Mehta	23

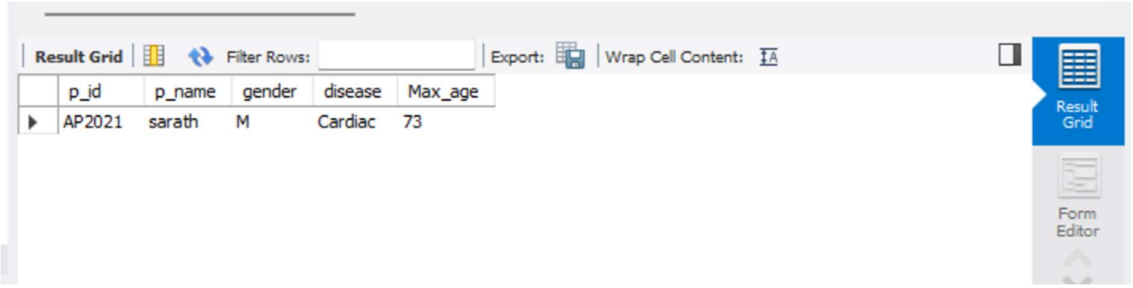
Result Grid | Form Editor

5. **-- Write a query to display the total number of patients in the table:**
   select count(*) as Total_no_of_pateints from patients_data;

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

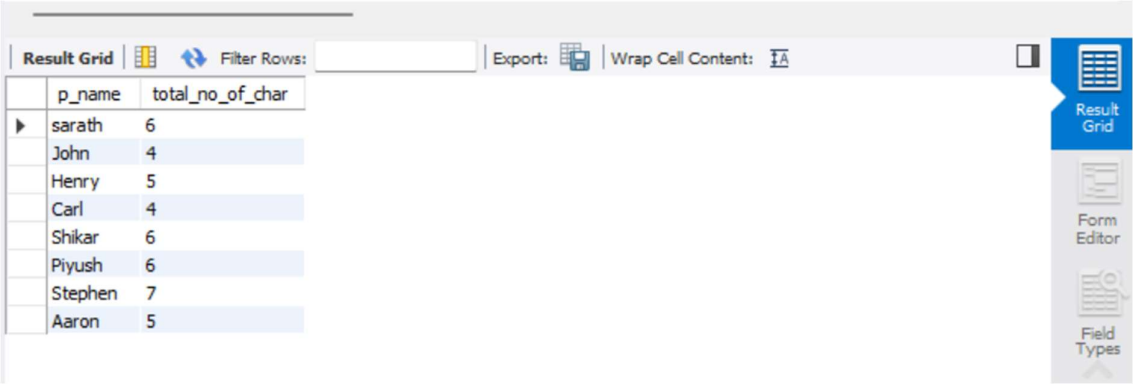
Total_no_of_pateints
8

6. **-- Write a query to display the patient ID, patient name, gender, and disease of the oldest (age) patient:**
   select p_id, p_name, gender, disease, max(age) as Max_age from patients_data;



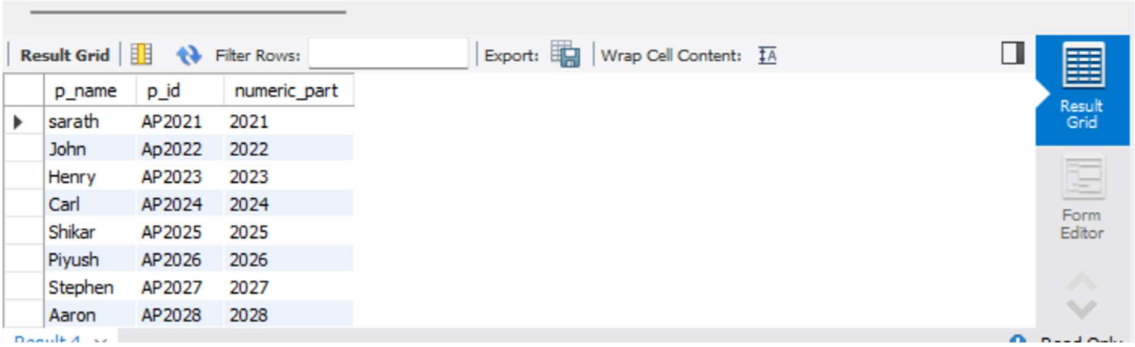
p_id	p_name	gender	disease	Max_age
AP2021	sarath	M	Cardiac	73

7. **-- Write a query to display the patients' names along with the total number of characters in their name:**
   select p_name, length(p_name) as total_no_of_char from patients_data;



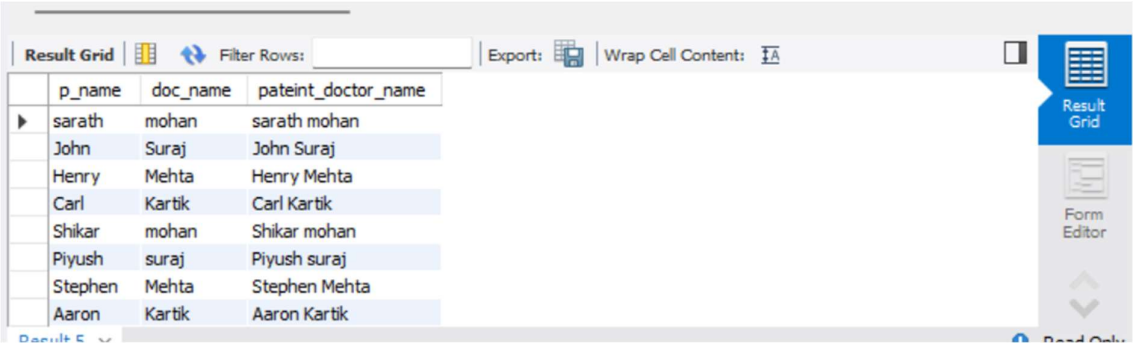
p_name	total_no_of_char
sarath	6
John	4
Henry	5
Carl	4
Shikar	6
Piyush	6
Stephen	7
Aaron	5

8. **-- write a query to display the patients name, id along with numeric part separated from p_id:**
   select p_name, p_id, mid(p_id,3,6) as numeric_part from patients_data;



p_name	p_id	numeric_part
sarath	AP2021	2021
John	Ap2022	2022
Henry	AP2023	2023
Carl	AP2024	2024
Shikar	AP2025	2025
Piyush	AP2026	2026
Stephen	AP2027	2027
Aaron	AP2028	2028

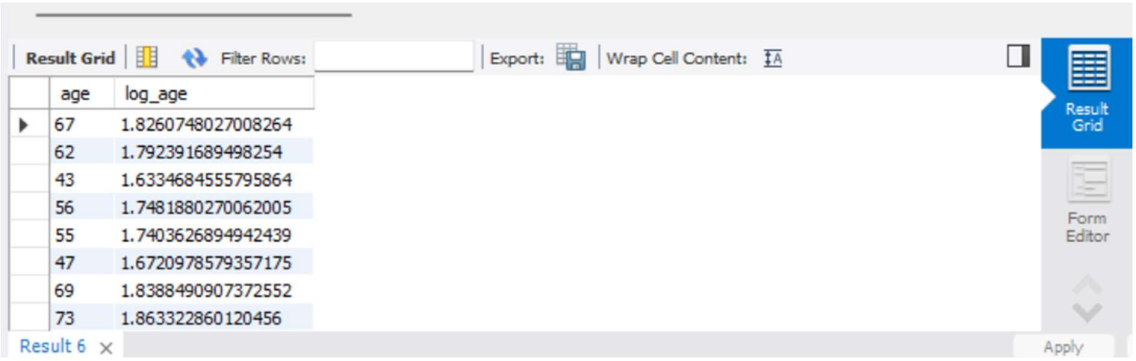
9. **-- Write a query to combine the patient's name and doctor's name in a new column:**
   select p_name, doc_name, concat(p_name,' ',doc_name) as pateint_doctor_name from patients_data;



p_name	doc_name	pateint_doctor_name
sarath	mohan	sarath mohan
John	Suraj	John Suraj
Henry	Mehta	Henry Mehta
Carl	Kartik	Carl Kartik
Shikar	mohan	Shikar mohan
Piyush	suraj	Piyush suraj
Stephen	Mehta	Stephen Mehta
Aaron	Kartik	Aaron Kartik

10. **-- Write a query to display the patients' age along with the logarithmic value (base 10) of their age:**

```
select age, log10(age) as log_age from patients_data;
```



age	log_age
67	1.8260748027008264
62	1.792391689498254
43	1.6334684555795864
56	1.7481880270062005
55	1.7403626894942439
47	1.6720978579357175
69	1.8388490907372552
73	1.863322860120456

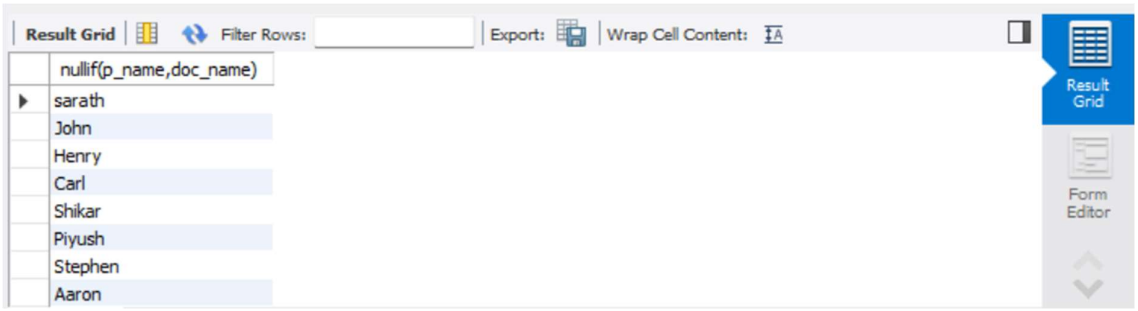
11. **-- Write a query to extract the year for a given date and place it in a separate column:**

```
select*, year(date) as year from patients_data;
```

p_id	p_name	age	weight	gender	location	phn_no	disease	doc_name	doc_id	year
AP2021	sarath	67	76	M	Chennai	876543	Cardiac	mohan	21	2019
Ap2022	John	62	80	M	Banglore	78363554	Cancer	Suraj	22	2019
AP2023	Henry	43	65	M	Kerala	8757489	Liver	Mehta	23	2018
AP2024	Carl	56	72	M	Mumbai	74647484	Asthama	Kartik	24	2020
AP2025	Shikar	55	71	M	delhi	46743839	Cardiac	mohan	21	2017
AP2026	Piyush	47	59	M	Haryana	76457383	Cancer	suraj	22	2018
AP2027	Stephen	69	55	M	Gujrat	73636830	Liver	Mehta	23	2017

12. **-- Write a query to check the patient's name and doctor's name are similar and display NULL, else return the patient's name:**

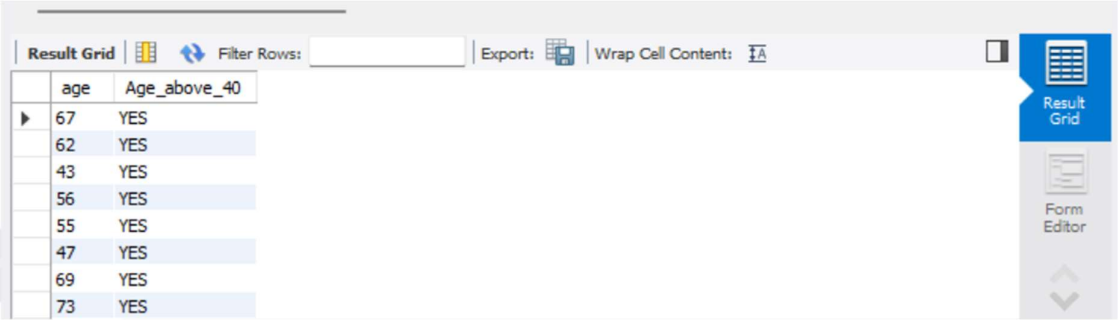
```
select nullif(p_name,doc_name) from patients_data;
```



nullif(p_name,doc_name)
sarath
John
Henry
Carl
Shikar
Piyush
Stephen
Aaron

13. -- Write a query to check if a patient's age is greater than 40 and display Yes if it is and No if it isn't:

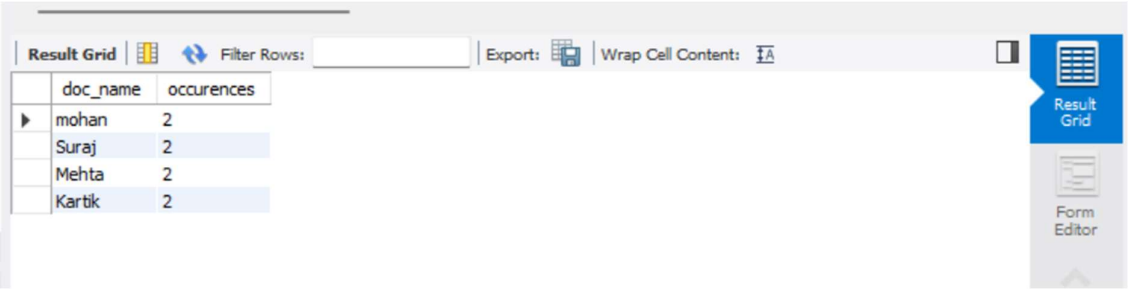
```
select age, if(age>40,'YES','NO') as Age_above_40 from patients_data;
```



age	Age_above_40
67	YES
62	YES
43	YES
56	YES
55	YES
47	YES
69	YES
73	YES

14. -- Write a query to display duplicate entries in the doctor name column:

```
select doc_name, count(*) occurences from patients_data group by doc_name
having count(*)>1;
```



doc_name	occurences
mohan	2
Suraj	2
Mehta	2
Kartik	2