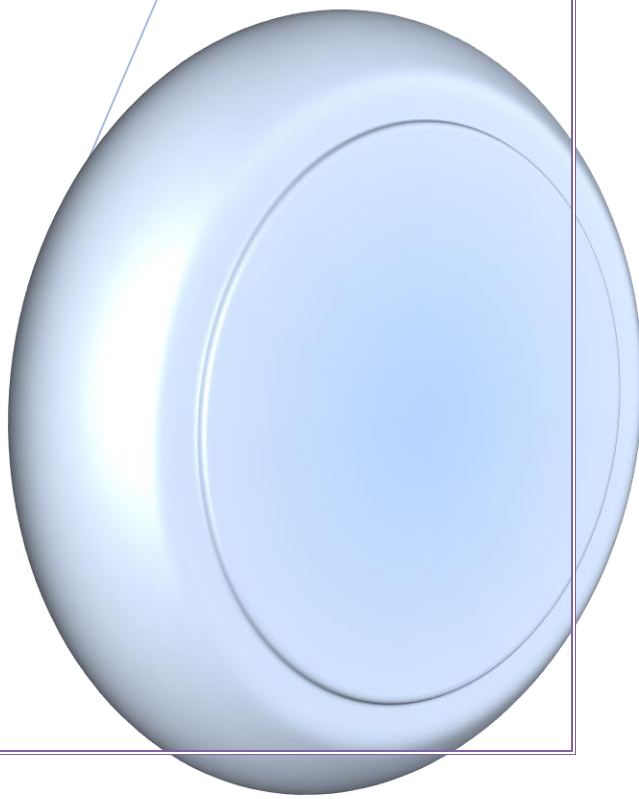


Patient Diagnosis Report

SQL Queries

Kaushik Dey

Patient Diagnosis Report

Description

The data analyst of a hospital wants to store the patient diagnosis reports with the details of the doctors and the patients for good medical practice and continuity of care.

Objective:

The database design helps to retrieve, update, and modify the patient's details to keep track of the patient's health care routine.

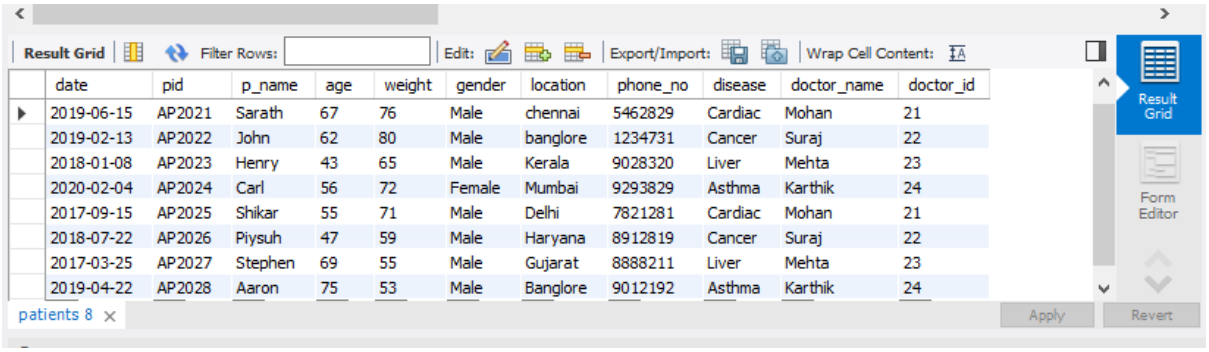
Task to be performed:

- Write a query to create a **patients table** with the fields such as date, patient id, patient name, age, weight, gender, location, phone number, disease, doctor name, and doctor id.

```
CREATE TABLE Patient_Diagnosis_Report.patients (
 date DATE NOT NULL,
 pid varchar(45) NOT NULL,
 p_name varchar(45) NOT NULL,
 age INT NOT NULL,
 weight INT NOT NULL,
 gender varchar(45) NOT NULL,
 location varchar(45) NOT NULL,
 phone_no INT NOT NULL,
 disease varchar(45) NOT NULL,
 doctor_name varchar(45) NOT NULL,
 doctor_id INT NOT NULL,
 PRIMARY KEY(pid));
```

- Write a query to **insert** values into the **patients table**.

```
INSERT INTO Patient_Diagnosis_Report.patients
(date,pid,p_name,age,weight,gender,location,phone_no,disease,doctor_name,doctor_id)
VALUES
('2019-06-15','AP2021','Sarath','67','76','Male','chennai','5462829','Cardiac','Mohan','21'),
('2019-02-13','AP2022','John','62','80','Male','banglore','1234731','Cancer','Suraj','22'),
('2018-01-08','AP2023','Henry','43','65','Male','Kerala','9028320','Liver','Mehta','23'),
('2020-02-04','AP2024','Carl','56','72','Female','Mumbai','9293829','Asthma','Karthik','24'),
('2017-09-15','AP2025','Shikar','55','71','Male','Delhi','7821281','Cardiac','Mohan','21'),
('2018-07-22','AP2026','Piysuh','47','59','Male','Haryana','8912819','Cancer','Suraj','22'),
('2017-03-25','AP2027','Stephen','69','55','Male','Gujarat','8888211','Liver','Mehta','23'),
('2019-04-22','AP2028','Aaron','75','53','Male','Banglore','9012192','Asthma','Karthik','24');
```

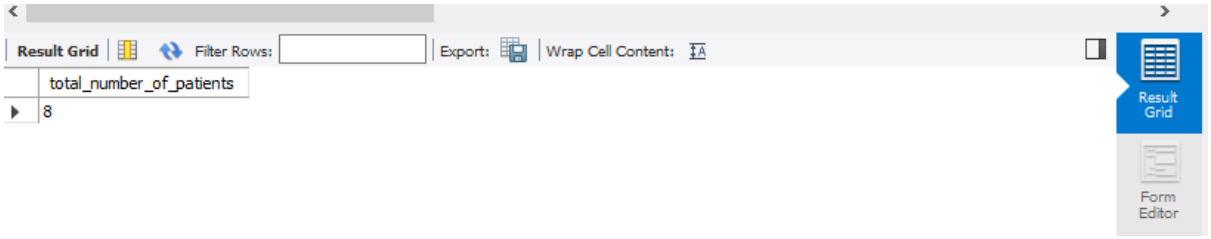


date	pid	p_name	age	weight	gender	location	phone_no	disease	doctor_name	doctor_id
2019-06-15	AP2021	Sarath	67	76	Male	chennai	5462829	Cardiac	Mohan	21
2019-02-13	AP2022	John	62	80	Male	banglore	1234731	Cancer	Suraj	22
2018-01-08	AP2023	Henry	43	65	Male	Kerala	9028320	Liver	Mehta	23
2020-02-04	AP2024	Carl	56	72	Female	Mumbai	9293829	Asthma	Karthik	24
2017-09-15	AP2025	Shikar	55	71	Male	Delhi	7821281	Cardiac	Mohan	21
2018-07-22	AP2026	Piysuh	47	59	Male	Haryana	8912819	Cancer	Suraj	22
2017-03-25	AP2027	Stephen	69	55	Male	Gujarat	8888211	Liver	Mehta	23
2019-04-22	AP2028	Aaron	75	53	Male	Banglore	9012192	Asthma	Karthik	24

Patient Diagnosis Report

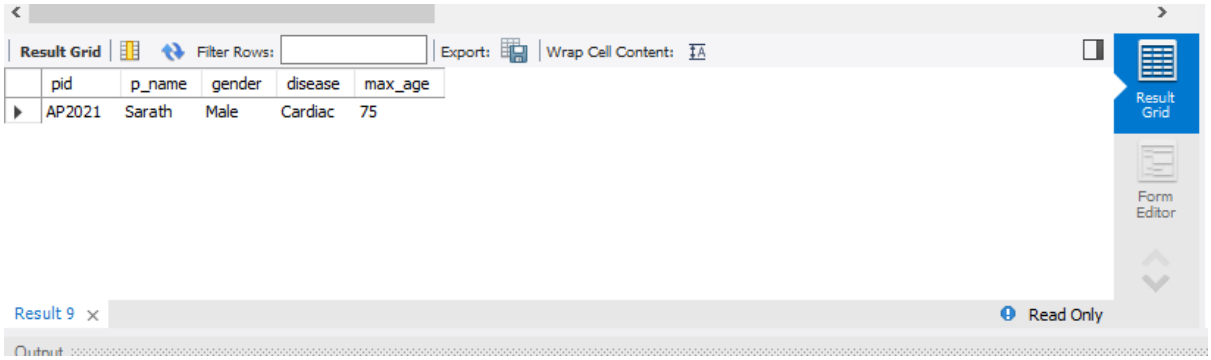
- Write a query to display the **total number of patients** in the table.

```
select count(*) as total_number_of_patients from Patient_Diagnosis_Report.patients;
```



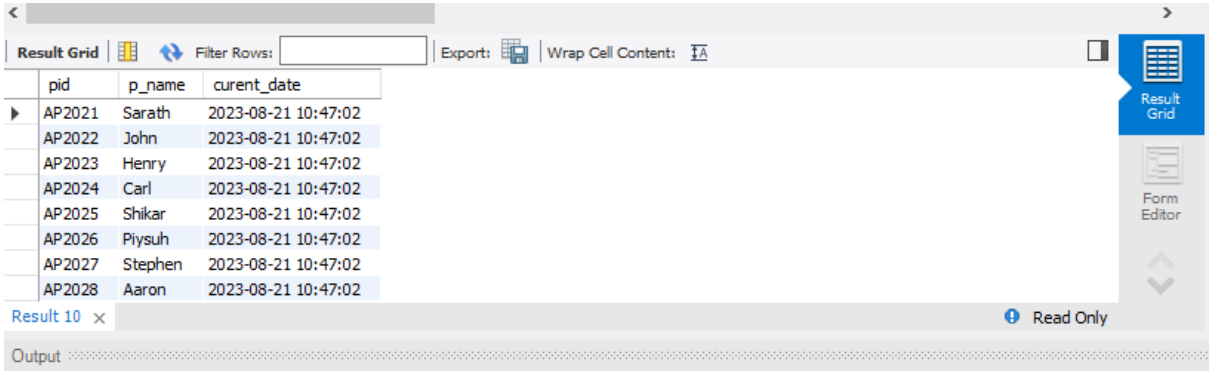
- Write a query to display the patient id, patient name, gender, and disease of the patient whose **age is maximum**.

```
select pid, p_name, gender, disease, max(age) as max_age from
Patient_Diagnosis_Report.patients;
```



- Write a query to display patient id and patient name with the **current date**.

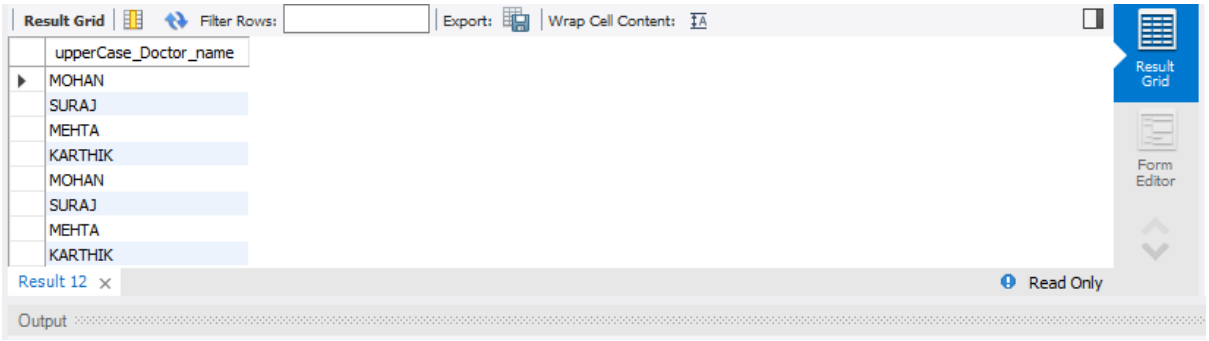
```
select pid, p_name, now() as curent_date from Patient_Diagnosis_Report.patients;
```



Patient Diagnosis Report

- Write a query to display the **doctor's name** in **uppercase**.

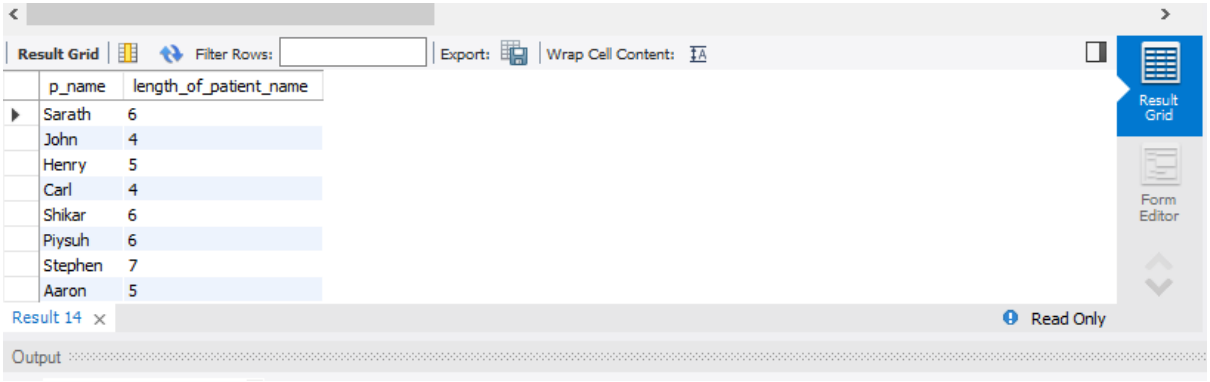
```
select UCASE(doctor_name) as upperCase_Doctor_name from
Patient_Diagnosis_Report.patients;
```



upperCase_Doctor_name
MOHAN
SURAJ
MEHTA
KARTHIK
MOHAN
SURAJ
MEHTA
KARTHIK

- Write a query to display the patient's name along with the **length of their name.**

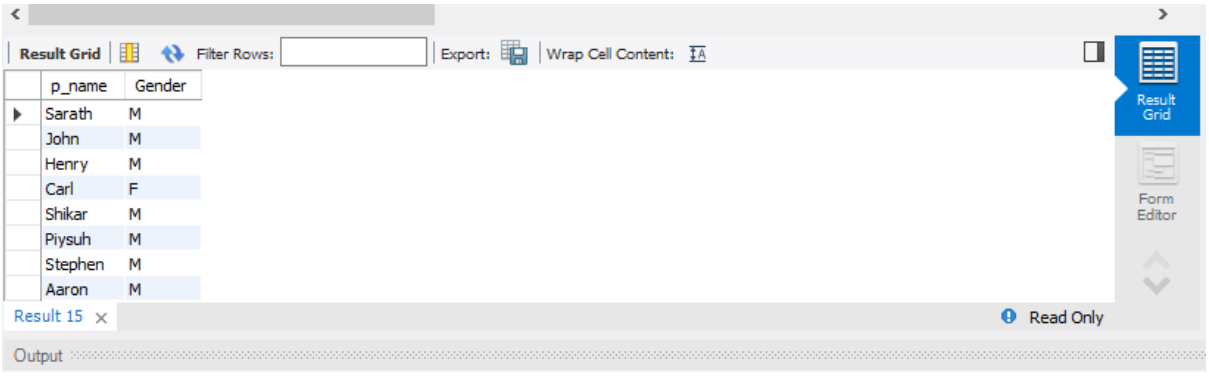
```
select p_name, length(p_name) as length_of_patient_name from
Patient_Diagnosis_Report.patients;
```



p_name	length_of_patient_name
Sarath	6
John	4
Henry	5
Carl	4
Shikar	6
Piysuh	6
Stephen	7
Aaron	5

- Write a query to display the patient's name, and the **gender** of the patient must be mentioned as **M or F**.

```
select p_name, mid(gender,1,1) as Gender from Patient_Diagnosis_Report.patients;
```

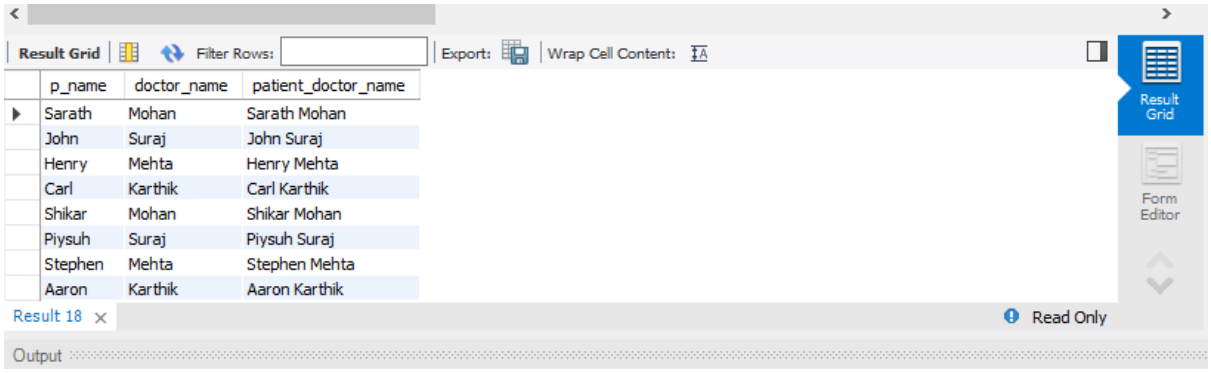


p_name	Gender
Sarath	M
John	M
Henry	M
Carl	F
Shikar	M
Piysuh	M
Stephen	M
Aaron	M

Patient Diagnosis Report

- Write a query to **combine the names of the patient** and the doctor in a new column.

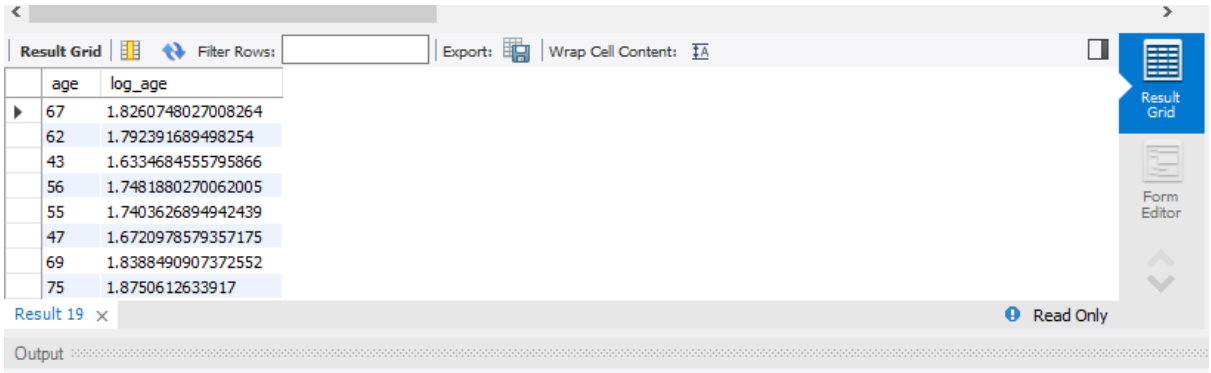
```
select p_name, doctor_name, concat(p_name, '  ', doctor_name) as patient_doctor_name from Patient_Diagnosis_Report.patients;
```



p_name	doctor_name	patient_doctor_name
Sarath	Mohan	Sarath Mohan
John	Suraj	John Suraj
Henry	Mehta	Henry Mehta
Carl	Karthik	Carl Karthik
Shikar	Mohan	Shikar Mohan
Piysuh	Suraj	Piysuh Suraj
Stephen	Mehta	Stephen Mehta
Aaron	Karthik	Aaron Karthik

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

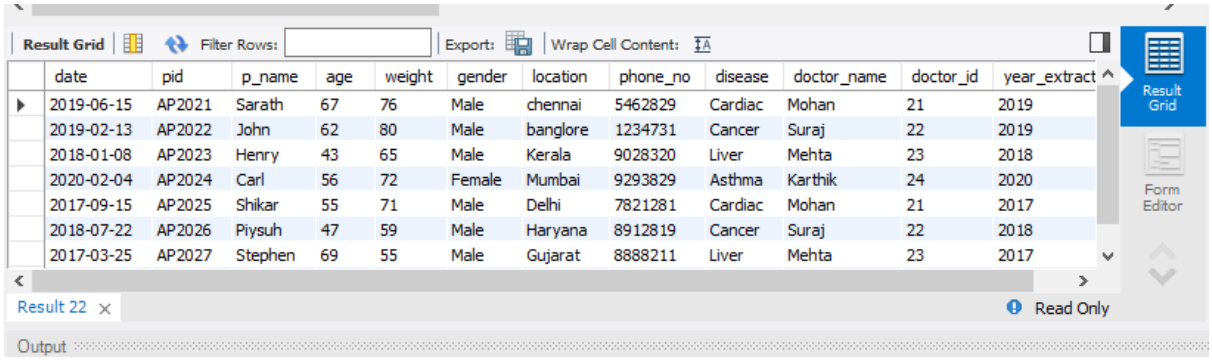
```
select age, log10(age) as log_age from Patient_Diagnosis_Report.patients;
```



age	log_age
67	1.8260748027008264
62	1.792391689498254
43	1.6334684555795866
56	1.7481880270062005
55	1.7403626894942439
47	1.6720978579357175
69	1.8388490907372552
75	1.8750612633917

- Write a query to **extract the year** from the given date in a separate column.

```
select *, year(date) as year_extraction from Patient_Diagnosis_Report.patients;
```

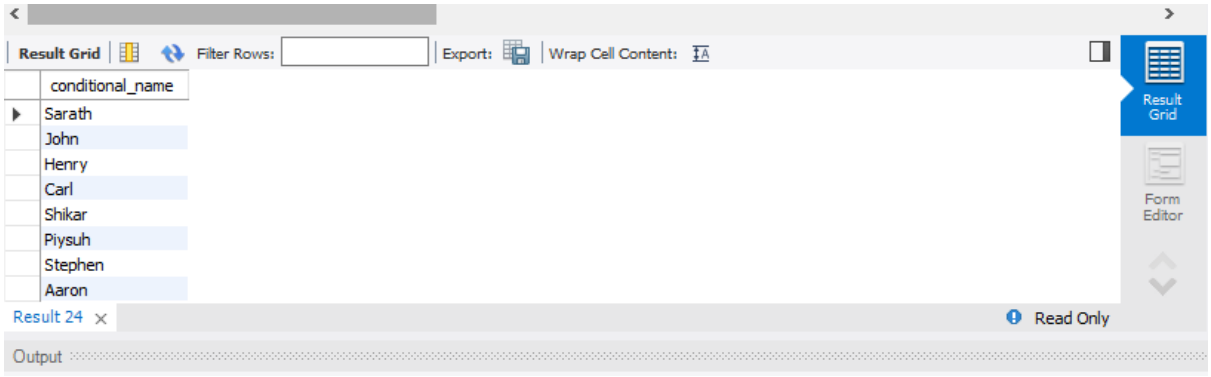


date	pid	p_name	age	weight	gender	location	phone_no	disease	doctor_name	doctor_id	year_extract
2019-06-15	AP2021	Sarath	67	76	Male	chennai	5462829	Cardiac	Mohan	21	2019
2019-02-13	AP2022	John	62	80	Male	banglore	1234731	Cancer	Suraj	22	2019
2018-01-08	AP2023	Henry	43	65	Male	Kerala	9028320	Liver	Mehta	23	2018
2020-02-04	AP2024	Carl	56	72	Female	Mumbai	9293829	Asthma	Karthik	24	2020
2017-09-15	AP2025	Shikar	55	71	Male	Delhi	7821281	Cardiac	Mohan	21	2017
2018-07-22	AP2026	Piysuh	47	59	Male	Haryana	8912819	Cancer	Suraj	22	2018
2017-03-25	AP2027	Stephen	69	55	Male	Gujarat	8888211	Liver	Mehta	23	2017

Patient Diagnosis Report

- Write a query to return **NULL** if the **patient's name and doctor's name are similar** else returns the **patient's name**.

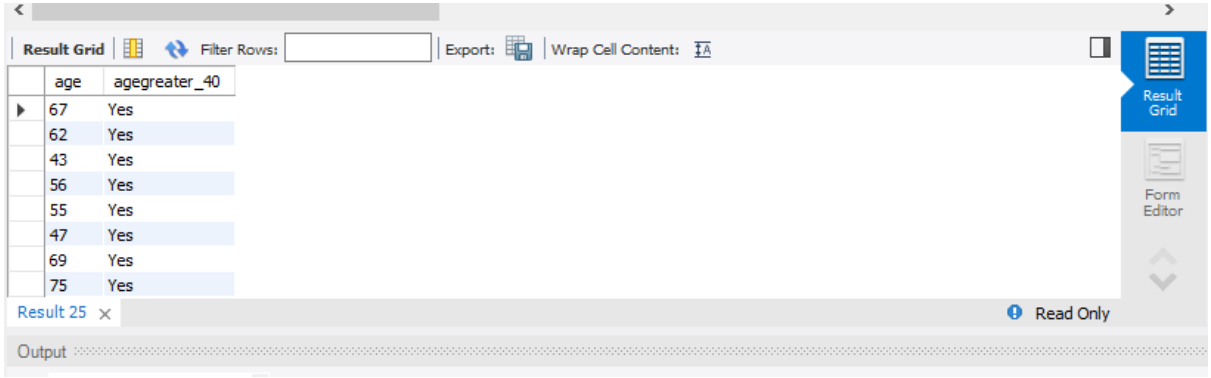
```
select nullif(p_name,doctor_name) as conditional_name from
Patient_Diagnosis_Report.patients;
```



conditional_name
Sarath
John
Henry
Carl
Shikar
Piysuh
Stephen
Aaron

- Write a query to return **Yes** if the **patient's age is greater than 40** else return **No**.

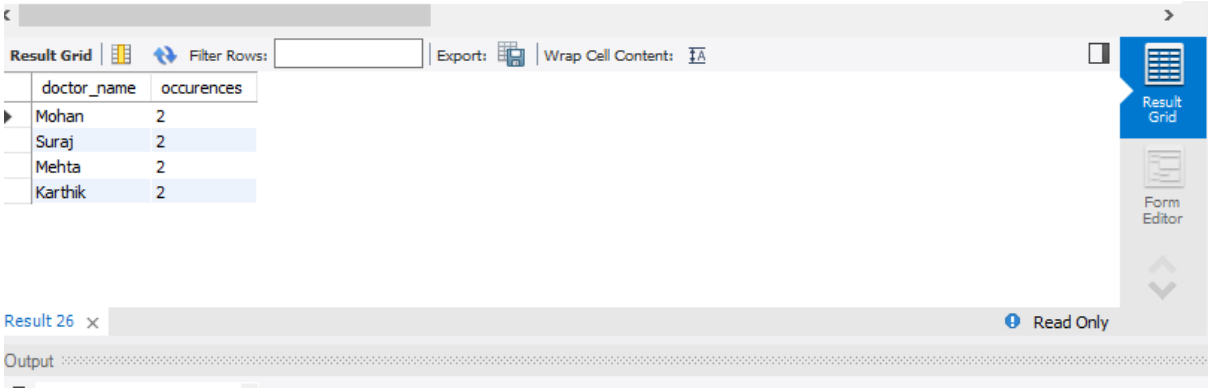
```
select age,if(age>40,'Yes','No') as agegreater_40 from
Patient_Diagnosis_Report.patients;
```



age	agegreater_40
67	Yes
62	Yes
43	Yes
56	Yes
55	Yes
47	Yes
69	Yes
75	Yes

- Write a query to display the **doctor's duplicate name** from the table.

```
select  doctor_name, count(*)  occurences from  Patient_Diagnosis_Report.patients  GROUP BY
doctor_name HAVING COUNT(*)>1;
```



doctor_name	occurences
Mohan	2
Suraj	2
Mehta	2
Karthik	2