SQL Practice Project -3 submitted by Sujit Sonar:

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.

```
80 • create table patients(
81   date date,
82   p_id int not null primary key,
83   p_name varchar(225) not null,
84   age int,
85   weight double,
86   gender varchar(1),
87   location varchar(225),
88   phone_no varchar(100),
89   disease varchar(225),
90   doctor_name varchar(225) not null,
91   doctor_id int not null) engine = InnoDB;
92
```

Result Grid | Filter Rows: | Export:

#	Field	Type	Null	Key	Default	Extra
1	date	date	YES		NULL	
2	p_id	varchar(100)	NO	PRI	NULL	
3	p_name	varchar(225)	NO		NULL	
4	age	int	YES		NULL	
5	weight	double	YES		NULL	
6	gender	varchar(10)	YES		NULL	
7	location	varchar(225)	YES		NULL	
8	phone_...	varchar(100)	YES		NULL	
9	disease	varchar(225)	YES		NULL	
10	doctor...	varchar(225)	NO		NULL	
11	doctor_id	int	NO		NULL	

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

```
insert into patients
(date, p_id,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','bangalore','1234731','Cancer','Suraj',22),
('2018-01-08','AP2023','Henry',43,65,'Male','Kerala','9028320','Liver','Metha',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','Piyush',47,59,'Male','Haryana','8912819','Cancer','Suraj',22),
('2017-03-25','AP2027','Stephen',69,55,'Male','Gujarat','8888211','Liver','Metha',23),
('2019-04-22','AP2028','Aaron',75,53,'Male','Bangalore','9012192','Asthma','Karthik',24);
```

```
109 •  select * from patients;
```

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

#	date	p_id	p_name	age	weight	gender	location	phone_no	disease	doctor_name	docto
1	2019-06-15	AP2021	Sarath	67	76	Male	chennai	5462829	Cardiac	Mohan	21
2	2019-02-13	AP2022	John	62	80	Male	bangalore	1234731	Cancer	Suraj	22
3	2018-01-08	AP2023	Henry	43	65	Male	Kerala	9028320	Liver	Metha	23
4	2020-02-04	AP2024	Carl	56	72	Female	Mumbai	9293829	Asthma	Karthik	24
5	2017-09-15	AP2025	Shikar	55	71	Male	Delhi	7821281	Cardiac	Mohan	21
6	2018-07-22	AP2026	Piyush	47	59	Male	Haryana	8912819	Cancer	Suraj	22
7	2017-03-25	AP2027	Stephen	69	55	Male	Gujarat	8888211	Liver	Metha	23
8	2019-04-22	AP2028	Aaron	75	53	Male	Bangalore	9012192	Asthma	Karthik	24
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```
111 •  select count(*) as Total_no_patients from SQL_basics.patients;
```

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

#	Total_no_patient
1	8

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

```
13 •  select p_id, p_name, gender, disease, age from SQL_basics.patients
14    where age in
15    (select max(age) from SQL_basics.patients);
16
```

ult Grid | Filter Rows: | Edit: | Export/Import: | Wra

p_id	p_name	gender	disease	age
AP2028	Aaron	Male	Asthma	75
NULL	NULL	NULL	NULL	NULL

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

```
119 •  select p_id, p_name, curdate() from SQL_basics.patients;
120
```

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

#	p_id	p_name	curdate()
1	AP2021	Sarath	2022-04-14
2	AP2022	John	2022-04-14
3	AP2023	Henry	2022-04-14
4	AP2024	Carl	2022-04-14
5	AP2025	Shikar	2022-04-14
6	AP2026	Piyush	2022-04-14
7	AP2027	Stephen	2022-04-14
8	AP2028	Aaron	2022-04-14

- Write a query to display the **old patient's name** and **new patient's name** in **uppercase**.

Assuming patients registered date > 2019-12-31 as new patients and rest as old patients

```
136 •  select date, upper(p_name) as new_patients_name from patients
137    where date > '2019-12-31';
```

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

#	date	new_patients_nam
1	2020-02-04	CARL

```
139 •  select date ,upper(p_name) as old_patients_name from patients
140    where date <= '2019-12-31';
```

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

#	date	old_patients_nam
1	2019-06-15	SARATH
2	2019-02-13	JOHN
3	2018-01-08	HENRY
4	2017-09-15	SHIKAR
5	2018-07-22	PIYUSH
6	2017-03-25	STEPHEN
7	2019-04-22	AARON

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

```
143 • select p_name , length(p_name) as name_lenght from SQL_basics.patients;
```

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

#	p_name	name_lengh
1	Sarath	6
2	John	4
3	Henry	5
4	Carl	4
5	Shikar	6
6	Piyush	6
7	Stephen	7
8	Aaron	5

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

```
146 • select p_name, if(gender='Male','M','F') as gender from SQL_basics.patients;
```

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

#	p_name	gender
1	Sarath	M
2	John	M
3	Henry	M
4	Carl	F
5	Shikar	M
6	Piyush	M
7	Stephen	M
8	Aaron	M

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

```
149 • select p_name, doctor_name, concat(p_name," ",doctor_name) as p_d_name
150   from SQL_basics.patients;
```

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

#	p_name	doctor_name	p_d_name
1	Sarath	Mohan	Sarath Mohan
2	John	Suraj	John Suraj
3	Henry	Metha	Henry Metha
4	Carl	Karthik	Carl Karthik
5	Shikar	Mohan	Shikar Mohan
6	Piyush	Suraj	Piyush Suraj
7	Stephen	Metha	Stephen Metha
8	Aaron	Karthik	Aaron Karthik

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

```
166 • select age, log10(age) as log_b10_age from SQL_basics.patients;
```

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

#	age	log_b10_age
1	67	1.8260748027008264
2	62	1.792391689498254
3	43	1.6334684555795866
4	56	1.7481880270062005
5	55	1.7403626894942439
6	47	1.6720978579357175
7	69	1.8388490907372552
8	75	1.8750612633917

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

```
152 • select date, extract(year from date) as year from SQL_basics.patients;
```

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

#	date	year
1	2019-06-15	2019
2	2019-02-13	2019
3	2018-01-08	2018
4	2020-02-04	2020
5	2017-09-15	2017
6	2018-07-22	2018
7	2017-03-25	2017

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

```
155 • select p_name, doctor_name, if(p_name=doctor_name, null, p_name) as checking
156   from SQL_basics.patients;
```

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

#	p_name	doctor_name	checking
1	Sarath	Mohan	Sarath
2	John	Suraj	John
3	Henry	Metha	Henry
4	Carl	Karthik	Carl
5	Shikar	Mohan	Shikar
6	Piyush	Suraj	Piyush
7	Stephen	Metha	Stephen
8	Aaron	Karthik	Aaron

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

```
158 • select p_name, age, if(age > 40,'Yes', 'No') as age_greater_than_40
159   from SQL_basics.patients;
```

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

#	p_name	age	age_greater_than_40
1	Sarath	67	Yes
2	John	62	Yes
3	Henry	43	Yes
4	Carl	56	Yes
5	Shikar	55	Yes
6	Piyush	47	Yes
7	Stephen	69	Yes

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

```
162 •  select if(count(doctor_name) >1,doctor_name,"") as duplicate_names from SQL_basics.patients
163    group by doctor_name;
```

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

#	duplicate_name
1	Mohan
2	Suraj
3	Metha
4	Karthik

########## END##########