SQL Training

Lesson-End Project Solution

Patient Diagnosis Report

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

   SQL code:

```
CREATE TABLE lep_6.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));
```

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

   SQL code:

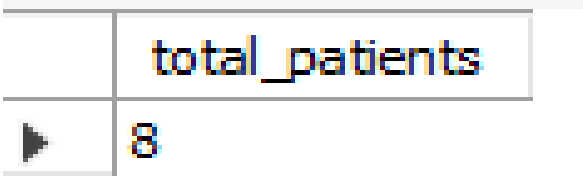
```
INSERT INTO lep_6. patients
(date,pid,p_name,age,weight,gender,location,phone_no,disease,doctor_name,docto
r_id) VALUES ('2019-06-
15','AP2021','Sarath','67','76','Male','chennai','5462829','Cardiac','Mohan','21');
```

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

SQL code:

SELECT COUNT(*) AS total_patients FROM lep_6.patients;

Output:



total_patients
8

4. Write a query to display the patient ID, patient name, gender, and disease of the oldest (age) patient

SQL code:

SELECT pid,p_name,gender,disease, MAX(AGE) AS MAX_AGE FROM lep_6.patients;

Output:

pid	p_name	gender	disease	MAX_AGE
AP2021	Sarath	Male	Cardiac	75

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

SQL code:

SELECT pid,p_name ,NOW() as CurrentDate FROM lep_6.patients;

Output:

pid	p_name	CurrentDate
AP2021	Sarath	2021-09-08 14:05:33
AP2022	John	2021-09-08 14:05:33
AP2023	Henry	2021-09-08 14:05:33
AP2024	Carl	2021-09-08 14:05:33
AP2025	Shikar	2021-09-08 14:05:33
AP2026	Piysuh	2021-09-08 14:05:33
AP2027	Stephen	2021-09-08 14:05:33
AP2028	Aaron	2021-09-08 14:05:33

6. Write a query to display the old patient name and new patient name in uppercase

SQL code:

SELECT doctor_name,UCASE(doctor_name) AS UpperCase_D_name FROM lep_6.patients;

Output:

doctor_name	UpperCase_D_name
Mohan	MOHAN
Suraj	SURAJ
Mehta	MEHTA
Karthik	KARTHIK
Mohan	MOHAN
Suraj	SURAJ
Mehta	MEHTA
Karthik	KARTHIK

7. Write a query to display the patients' names along with the total number of characters in their name

SQL code:

SELECT p_name,length(p_name) AS lengthofp_name FROM lep_6.patients;

Output:

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

8. Write a query to display the gender of the patient as M or F along with the patient's name

SQL code:

SELECT p_name,MID(gender,1,1) AS GENDER FROM lep_6.patients;

Output:

	p_name	GENDER
▶	Sarath	M
	John	M
	Henry	M
	Carl	F
	Shikar	M
	Piysuh	M
	Stephen	M
	Aaron	M

9.Write a query to combine the patient's name and doctor's name in a new column

SQL code:

```
SELECT p_name,doctor_name,CONCAT(p_name,doctor_name) AS
patient_doctor_name FROM lep_6.patients;
```

Output:

	p_name	doctor_name	patient_doctor_name
▶	Sarath	Mohan	SarathMohan
	John	Suraj	JohnSuraj
	Henry	Mehta	HenryMehta
	Carl	Karthik	CarlKarthik
	Shikar	Mohan	ShikarMohan
	Piysuh	Suraj	PiysuhSuraj
	Stephen	Mehta	StephenMehta
	Aaron	Karthik	AaronKarthik

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

SQL code:

```
SELECT age,LOG10(age) as LOG_AGE FROM lep_6.patients;
```

Output:

	age	LOG_AGE
▶	67	1.8260748027008264
	62	1.792391689498254
	43	1.6334684555795864
	56	1.7481880270062005
	55	1.7403626894942439
	47	1.6720978579357175
	69	1.8388490907372552
	75	1.8750612633917

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

SQL code:

```
SELECT *,YEAR(date) AS Year FROM lep_6.patients;
```

Output:

	date	pid	p_name	age	weight	gender	location	phone_no	disease	doctor_name	doctor_id	Year
▶	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
	2019-04-22	AP2028	Aaron	75	53	Male	Banglore	9012192	Asthma	Karthik	24	2019

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

SQL code:

```
SELECT NULLIF(p_name,doctor_name) FROM lep_6.patients;
```

Output:

	NULLIF(p_name,doctor_name)
▶	Sarath
	John
	Henry
	Carl
	Shikar
	Piysuh
	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

SQL code:

```
SELECT age,IF(age>40,'Yes','No') AS Agegreater40 FROM lep_6.patients;
```

Output:

	age	Agegreater40
▶	67	Yes
	62	Yes
	43	Yes
	56	Yes
	55	Yes
	47	Yes
	69	Yes
	75	Yes

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

SQL code:

```
SELECT doctor_name,COUNT(*) occurences FROM lep_6.patients GROUP BY
doctor_name HAVING COUNT(*)>1;
```

Output:

	doctor_name	occurences
▶	Mohan	2
	Suraj	2
	Mehta	2
	Karthik	2