Assignment – 4 (DBMS)

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1. Create a table Books library with fields.

ISBN	Character(10) Primarykey
Book Title	Character(25)
Author	Character(25)
Publication (dd-mm-yyyy format)	Date
Language	Character(25)
Issue Date	Date
Return Date	Date
Publisher Name	Character(25) (Null values allowed)
Price	Numeric(7,2)

2. Insert 10 Rows in the above created table for the books of subjects "DBMS" and "Computer Organization" written by single author. Consider your name and your father's name in the author. Write SQL commands to display the following:

CODE :-

```
CREATE TABLE books
(
ISBN VARCHAR(10),
Book_Title VARCHAR(25),
Author VARCHAR(25),
Publication DATE,
Languaage VARCHAR(25),
Issue_Date DATE,
Return_Date DATE,
Publisher_Name VARCHAR(25) NULL,
Price DECIMAL(7,2),
PRIMARY KEY(ISBN)
);
```

```sql
DESCRIBE books;

INSERT INTO books
VALUES('ISBN000001','F1_MERCEDES','DHAIRYA
OZA','2021-01-10','ENGLISH','2021-01-20','2021-
01-27','TOTO',500);

INSERT INTO books
VALUES('ISBN000002','F1_REDBULL','DHAIRYA
OZA','2019-02-08','SPANISH','2019-02-20','2019-
02-25','HORNER',575);

INSERT INTO books
VALUES('ISBN000003','F1_FERRARI','MV
OZA','2018-03-08','SPANISH','2019-03-20','2019-
03-22','MATTIA',1000);

INSERT INTO books
VALUES('ISBN000004','F1_MCLAREN','MV
OZA','2017-04-08','SPANISH','2019-02-10','2017-
04-15','BROWN',350);

INSERT INTO books
VALUES('ISBN000005','F1_ASTONMARTIN','DHAIRYA
OZA','2021-05-10','ENGLISH','2021-05-15','2021-
05-25',NULL,450);

INSERT INTO books
VALUES('ISBN000006','F1_ALPINE','DHAIRYA
OZA','2021-06-05','ENGLISH','2021-06-15','2021-
06-20',NULL,650);

INSERT INTO books
VALUES('ISBN000007','F1_TOROROSSO','DHAIRYA
OZA','2021-07-05','ENGLISH','2021-07-13','2021-
07-17',NULL,950);

INSERT INTO books
VALUES('ISBN000008','F1_WILLIAMS','DHAIRYA
```

```
OZA','2021-08-15','ENGLISH','2021-08-17','2021-
08-19','CLAIRE',1500);

INSERT INTO books
VALUES('ISBN000009','F1_HAAS','MV
OZA','2021-09-07','ENGLISH','2021-09-10','2021-
09-14','GUNTHER',1800);

INSERT INTO books
VALUES('ISBN000010','F1_ALFAROMEO','MV
OZA','2021-10-05','ENGLISH','2021-10-15','2021-
10-19','VASSEUR',999);
```

(1).All columns and rows.

```
SELECT * FROM books;
```
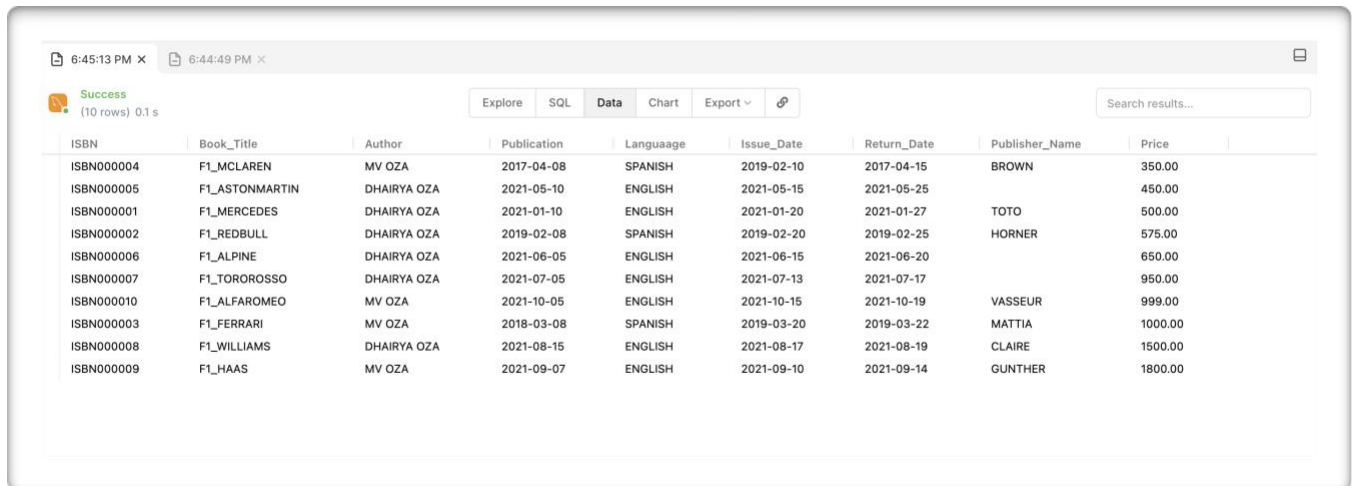
ISBN	Book_Title	Author	Publication	Languaage	Issue_Date	Return_Date	Publisher_Name	Price
ISBN000001	F1_MERCEDES	DHAIRYA OZA	2021-01-10	ENGLISH	2021-01-20	2021-01-27	TOTO	500.00
ISBN000002	F1_REDBULL	DHAIRYA OZA	2019-02-08	SPANISH	2019-02-20	2019-02-25	HORNER	575.00
ISBN000003	F1_FERRARI	MV OZA	2018-03-08	SPANISH	2019-03-20	2019-03-22	MATTIA	1000.00
ISBN000004	F1_MCLAREN	MV OZA	2017-04-08	SPANISH	2019-02-10	2017-04-15	BROWN	350.00
ISBN000005	F1_ASTONMARTIN	DHAIRYA OZA	2021-05-10	ENGLISH	2021-05-15	2021-05-25		450.00
ISBN000006	F1_ALPINE	DHAIRYA OZA	2021-06-05	ENGLISH	2021-06-15	2021-06-20		650.00
ISBN000007	F1_TOROROSSO	DHAIRYA OZA	2021-07-05	ENGLISH	2021-07-13	2021-07-17		950.00
ISBN000008	F1_WILLIAMS	DHAIRYA OZA	2021-08-15	ENGLISH	2021-08-17	2021-08-19	CLAIRE	1500.00
ISBN000009	F1_HAAS	MV OZA	2021-09-07	ENGLISH	2021-09-10	2021-09-14	GUNTHER	1800.00
ISBN000010	F1_ALFAROMEO	MV OZA	2021-10-05	ENGLISH	2021-10-15	2021-10-19	VASSEUR	999.00

(2).List of all rows in ascending order of price.
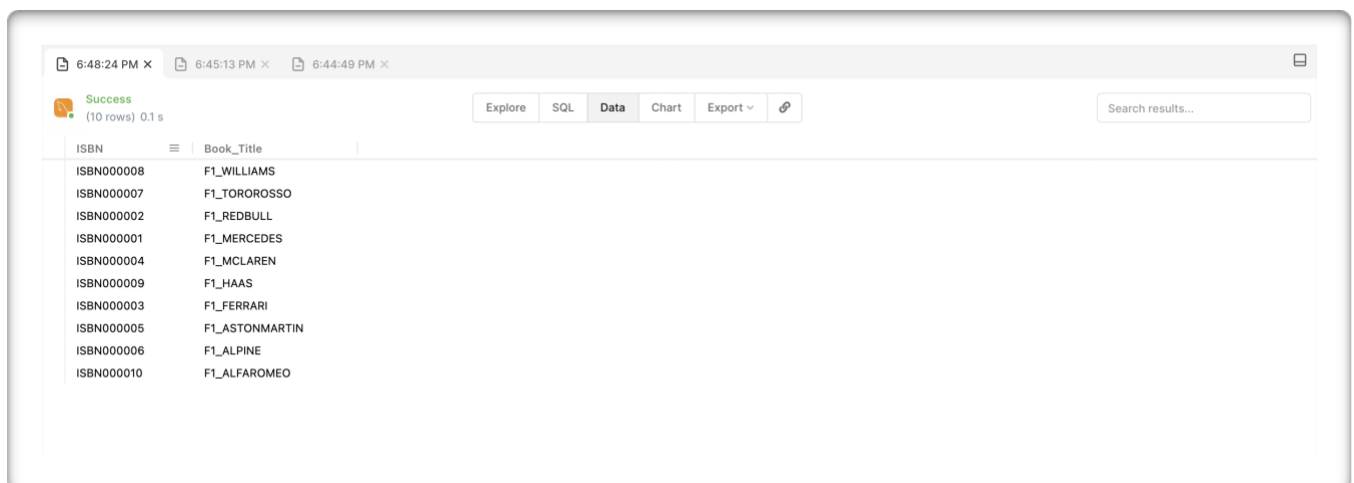
```
SELECT * FROM books
ORDER BY Price;
```


(3).Books details with columns ISBN and Book title only in descending order of Book title.

```
SELECT ISBN,Book_Title FROM books ORDER
BY Book_Title DESC;
```

(4).Display the maximum and minimum prices of books.

```
SELECT MAX(Price) as "Max Price",MIN(Price) as "Min Price" FROM books;
```

Max Price	Min Price
1800.00	350.00

Success (1 rows) 0.1 s — Explore | SQL | Data | Chart | Export

(5).Books details of all the books whose price is between 250 to700.

```
SELECT * FROM books WHERE Price BETWEEN 250 AND 700;
```

ISBN	Book_Title	Author	Publication	Languaage	Issue_Date	Return_Date	Publisher_Name	Price
ISBN000001	F1_MERCEDES	DHAIRYA OZA	2021-01-10	ENGLISH	2021-01-20	2021-01-27	TOTO	500.00
ISBN000002	F1_REDBULL	DHAIRYA OZA	2019-02-08	SPANISH	2019-02-20	2019-02-25	HORNER	575.00
ISBN000004	F1_MCLAREN	MV OZA	2017-04-08	SPANISH	2019-02-10	2017-04-15	BROWN	350.00
ISBN000005	F1_ASTONMARTIN	DHAIRYA OZA	2021-05-10	ENGLISH	2021-05-15	2021-05-25		450.00
ISBN000006	F1_ALPINE	DHAIRYA OZA	2021-06-05	ENGLISH	2021-06-15	2021-06-20		650.00

(6).Books details of all the books whose price is greater than 500.

```
SELECT * FROM books WHERE Price > 500;
```

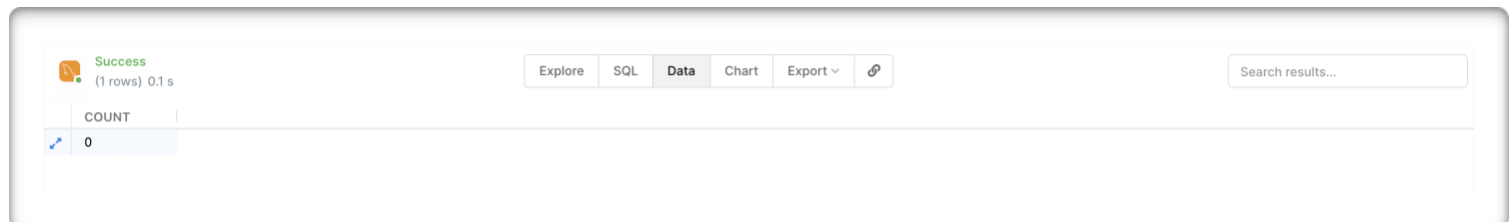|	Book_Title	Author	Publication	Languaage	Issue_Date	Return_Date	Publisher_Name	Price
00002	F1_REDBULL	DHAIRYA OZA	2019-02-08	SPANISH	2019-02-20	2019-02-25	HORNER	575.00
00003	F1_FERRARI	MV OZA	2018-03-08	SPANISH	2019-03-20	2019-03-22	MATTIA	1000.00
00006	F1_ALPINE	DHAIRYA OZA	2021-06-05	ENGLISH	2021-06-15	2021-06-20		650.00
00007	F1_TOROROSSO	DHAIRYA OZA	2021-07-05	ENGLISH	2021-07-13	2021-07-17		950.00
ISBN000008	F1_WILLIAMS	DHAIRYA OZA	2021-08-15	ENGLISH	2021-08-17	2021-08-19	CLAIRE	1500.00
ISBN000009	F1_HAAS	MV OZA	2021-09-07	ENGLISH	2021-09-10	2021-09-14	GUNTHER	1800.00
ISBN000010	F1_ALFAROMEO	MV OZA	2021-10-05	ENGLISH	2021-10-15	2021-10-19	VASSEUR	999.00

Success (7 rows) 0.1 s — Explore | SQL | Data | Chart | Export

(7).Count of books for the book title with "Computer" substring.

```sql
SELECT COUNT(*) AS "COUNT" FROM books WHERE
Book_Title LIKE '%Computer%';
```
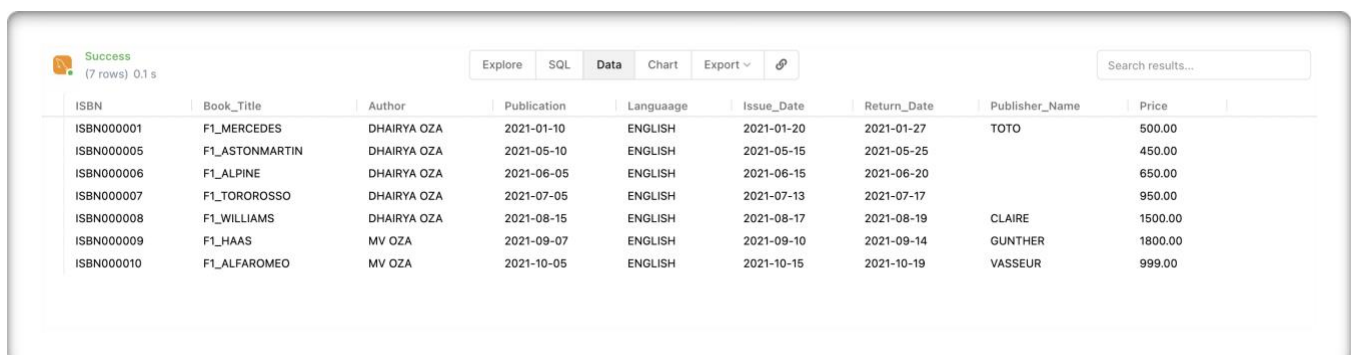

(8).Publication details of all the books whose Publication is after 1st jan2021.

```sql
SELECT * FROM books WHERE Publication
> '2021-01-01';
```
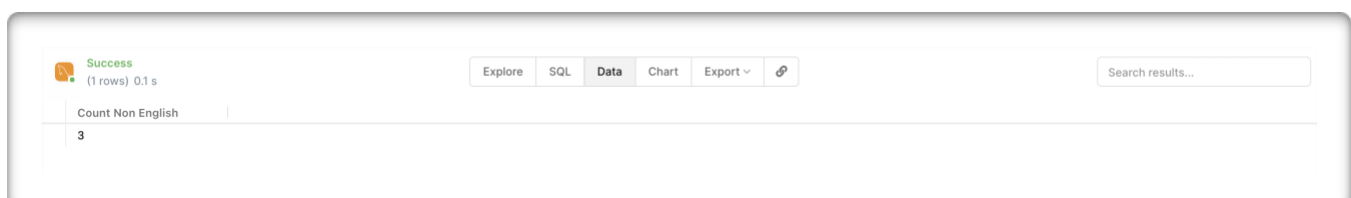

(9).Count of authors who have written books in other than the English language.

```sql
SELECT COUNT(*) AS "Count Non English" FROM
books WHERE Languaage!='ENGLISH';
```
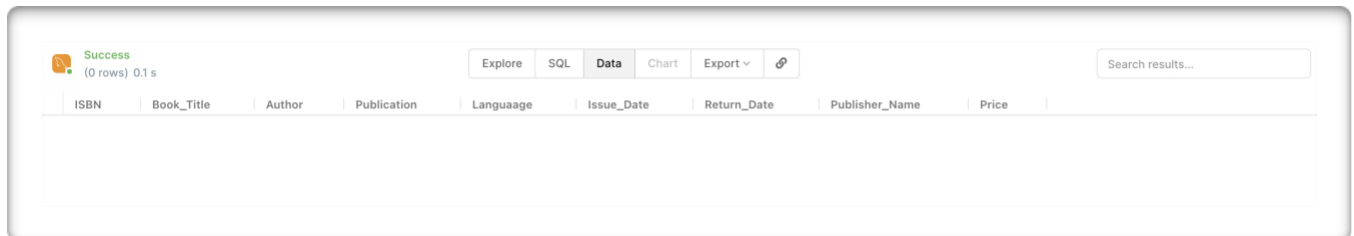
(10).Details of books where publisher name is null.

SELECT * FROM books WHERE Publisher_Name IS NULL;
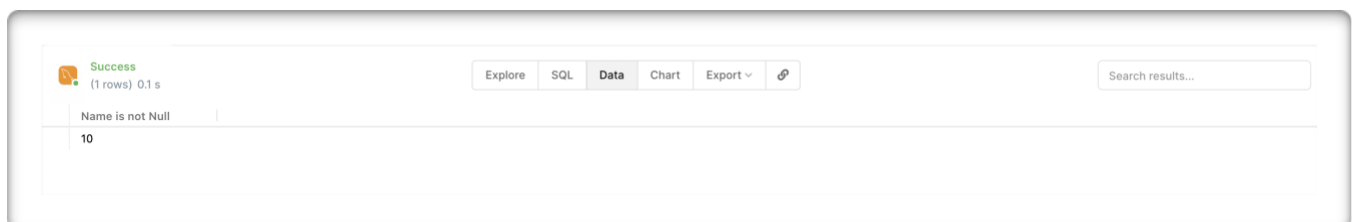
Success (0 rows) 0.1 s		Explore	SQL	Data	Chart	Export ⌄	🔗		Search results...
ISBN	Book_Title	Author	Publication	Languaage	Issue_Date	Return_Date	Publisher_Name	Price	

(11).Count of books whose publisher name is not null.

SELECT COUNT(*) AS "Name is not Null" FROM books WHERE Publisher_Name IS NOT NULL;
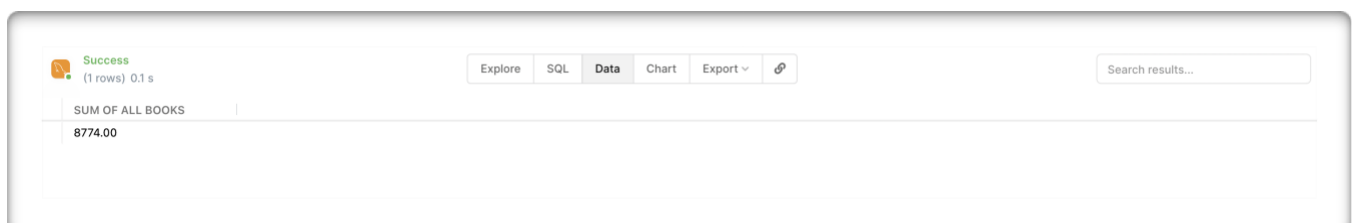
Success (1 rows) 0.1 s	Explore	SQL	Data	Chart	Export ⌄	🔗	Search results...
Name is not Null							
10							

(12),Display the sum of price of all the books.

SELECT SUM(Price) AS "SUM OF ALL BOOKS" FROM books;
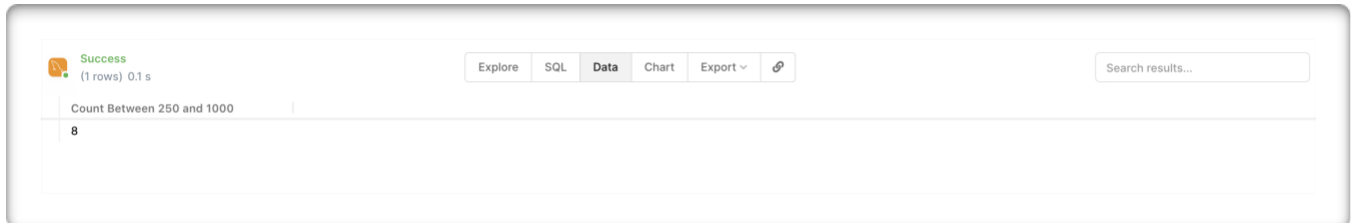
Success (1 rows) 0.1 s	Explore	SQL	Data	Chart	Export ⌄	🔗	Search results...
SUM OF ALL BOOKS							
8774.00							

(13).Count of books having price >250 and <1000.

```sql
SELECT COUNT(*) AS "Count Between 250 and 1000"
FROM books WHERE Price BETWEEN 250 AND 1000;
```

Count Between 250 and 1000
8

Success (1 rows) 0.1 s — Explore | SQL | Data | Chart | Export | Search results...

(14).Details of all the books whose author name is "Your name".

```sql
SELECT * FROM books WHERE Author = "Dhairya Oza";
```

Success (6 rows) 0.1 s — Explore | SQL | Data | Chart | Export | Search results...

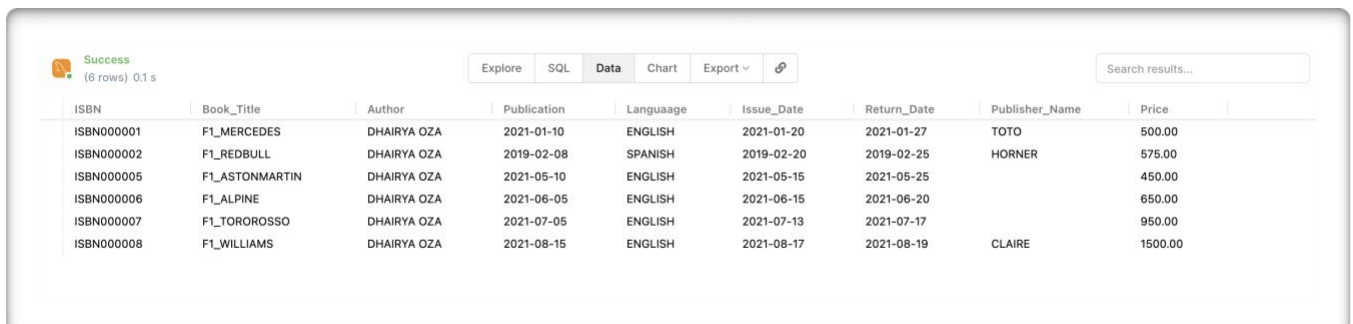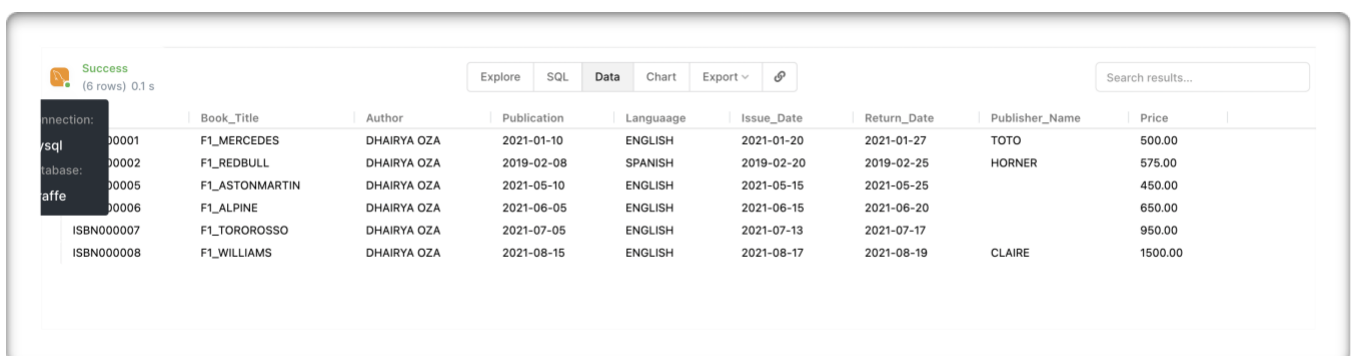| ISBN	Book_Title	Author	Publication	Languaage	Issue_Date	Return_Date	Publisher_Name	Price
ISBN000001	F1_MERCEDES	DHAIRYA OZA	2021-01-10	ENGLISH	2021-01-20	2021-01-27	TOTO	500.00
ISBN000002	F1_REDBULL	DHAIRYA OZA	2019-02-08	SPANISH	2019-02-20	2019-02-25	HORNER	575.00
ISBN000005	F1_ASTONMARTIN	DHAIRYA OZA	2021-05-10	ENGLISH	2021-05-15	2021-05-25		450.00
ISBN000006	F1_ALPINE	DHAIRYA OZA	2021-06-05	ENGLISH	2021-06-15	2021-06-20		650.00
ISBN000007	F1_TOROROSSO	DHAIRYA OZA	2021-07-05	ENGLISH	2021-07-13	2021-07-17		950.00
ISBN000008	F1_WILLIAMS	DHAIRYA OZA	2021-08-15	ENGLISH	2021-08-17	2021-08-19	CLAIRE	1500.00

(15).Details of all the books whose author name is not "Your Father's Name".

```sql
SELECT * FROM books WHERE Author != "MV Oza";
```

Success (6 rows) 0.1 s — Explore | SQL | Data | Chart | Export | Search results...

ISBN	Book_Title	Author	Publication	Languaage	Issue_Date	Return_Date	Publisher_Name	Price
00001	F1_MERCEDES	DHAIRYA OZA	2021-01-10	ENGLISH	2021-01-20	2021-01-27	TOTO	500.00
00002	F1_REDBULL	DHAIRYA OZA	2019-02-08	SPANISH	2019-02-20	2019-02-25	HORNER	575.00
00005	F1_ASTONMARTIN	DHAIRYA OZA	2021-05-10	ENGLISH	2021-05-15	2021-05-25		450.00
00006	F1_ALPINE	DHAIRYA OZA	2021-06-05	ENGLISH	2021-06-15	2021-06-20		650.00
ISBN000007	F1_TOROROSSO	DHAIRYA OZA	2021-07-05	ENGLISH	2021-07-13	2021-07-17		950.00
ISBN000008	F1_WILLIAMS	DHAIRYA OZA	2021-08-15	ENGLISH	2021-08-17	2021-08-19	CLAIRE	1500.00

2.Create a table Hospital Management with fields:

2. Create a table Hospital Management with fields:

Doctor ID	Number (6) Primary key
Doctor Name	Character (25)
Specialization	Character (25)
Salary	Number (6)
Patient No.	Number (6)
Patient Name	Character (25)
Date admitted	Date
Discharge Date	Date

Insert 10 Rows in the above created table. Write SQL commands to display the following:

CODE :-

```sql
CREATE TABLE hospital
(
Doctor_Id NUMERIC(6) PRIMARY KEY NOT NULL,
Doctor_Name VARCHAR(25), Specialization
VARCHAR(25), Salary NUMERIC(6),

Patient_No NUMERIC(6),
Patient_Name VARCHAR(25),
Date_Admitted DATE,
Discharge_Date DATE
);
```

```sql
DESCRIBE hospital;

INSERT INTO hospital VALUES
(1,'Dhairya','Covid-19',65000,1,'Krishna','2021-01
-06','2021-01-11');

INSERT INTO hospital VALUES
(2,'Payal','Covid-19',85000,2,'Aditya','2021-01-08
','2021-01-13');

INSERT INTO hospital VALUES
(3,'Haimi','Omicron',200000,2,'Dairya','2020-11-11
','2020-11-13');

INSERT INTO hospital VALUES
(4,'Jayshree','Delta',30000,2,'Harshvardhan','2021
-01-08','2021-01-14');

INSERT INTO hospital VALUES
(5,'Hiren','Gamma',50000,2,'Tanisha','2021-01-10',
'2021-01-15');

INSERT INTO hospital VALUES
(6,'Gunjan','Omicron',100000,2,'Aarti','2021-01-11
','2021-01-12');

INSERT INTO hospital VALUES (7,'Trisha','Blood
Pressure',5000,2,'Suyog','2021-02-01','2021-02-11'
);

INSERT INTO hospital VALUES
(8,'Delisha','Diabetes',45000,2,'Shivarth','2021-0
2-03','2021-02-12');
```
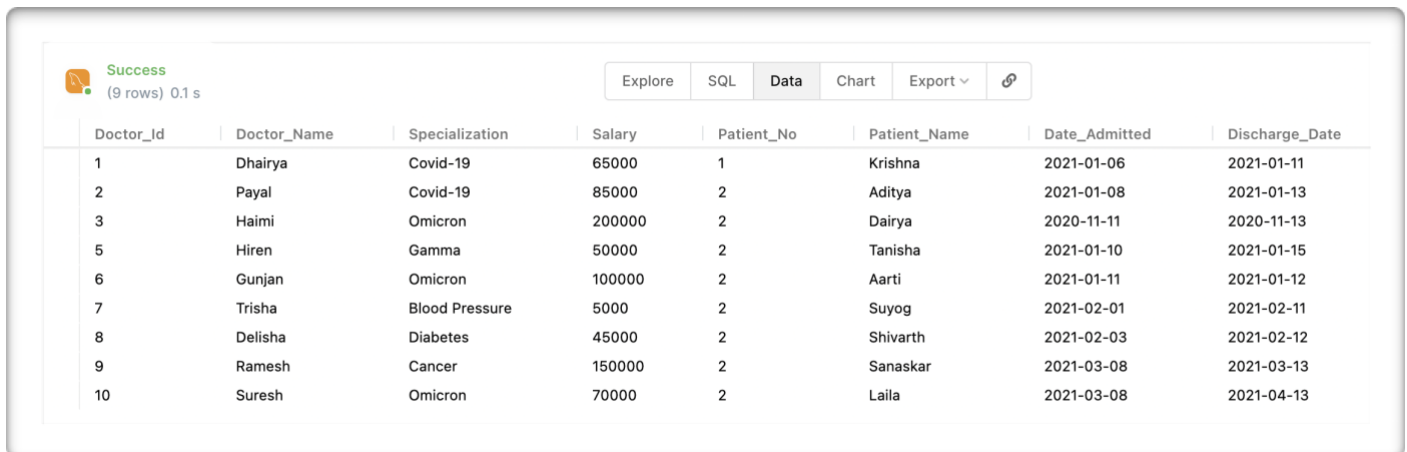
```
INSERT INTO hospital VALUES
(9,'Ramesh','Cancer',150000,2,'Sanaskar','2021-03-
08','2021-03-13');

INSERT INTO hospital VALUES
(10,'Suresh','Omicron',70000,2,'Laila','2021-03-08
','2021-04-13');
```

(1).Hospital management table with all columns and rows.

```
SELECT * FROM hospital;
```

Doctor_Id	Doctor_Name	Specialization	Salary	Patient_No	Patient_Name	Date_Admitted	Discharge_Date
1	Dhairya	Covid-19	65000	1	Krishna	2021-01-06	2021-01-11
2	Payal	Covid-19	85000	2	Aditya	2021-01-08	2021-01-13
3	Haimi	Omicron	200000	2	Dairya	2020-11-11	2020-11-13
5	Hiren	Gamma	50000	2	Tanisha	2021-01-10	2021-01-15
6	Gunjan	Omicron	100000	2	Aarti	2021-01-11	2021-01-12
7	Trisha	Blood Pressure	5000	2	Suyog	2021-02-01	2021-02-11
8	Delisha	Diabetes	45000	2	Shivarth	2021-02-03	2021-02-12
9	Ramesh	Cancer	150000	2	Sanaskar	2021-03-08	2021-03-13
10	Suresh	Omicron	70000	2	Laila	2021-03-08	2021-04-13

Success
(9 rows) 0.1 s

Explore | SQL | Data | Chart | Export

(2).Doctor details with columns ID and Name only.

```
SELECT Doctor_Id,Doctor_Name FROM hospital;
```

Success
(9 rows) 0.1 s

Doctor_Id ≡	Doctor_Name
1	Dhairya
2	Payal
3	Haimi
5	Hiren
6	Gunjan
7	Trisha
8	Delisha
9	Ramesh
10	Suresh

(3).Details of all the doctors who are specialized in cancer.

```
SELECT * FROM hospital WHERE Specialization = 'Cancer';
```

Success
(1 rows) 0.1 s   Explore   SQL   **Data**   Chart   Export ˅   🔗   Search results...

Doctor_Id	Doctor_Name	Specialization	Salary	Patient_No	Patient_Name	Date_Admitted	Discharge_Date
9	Ramesh	Cancer	150000	2	Sanaskar	2021-03-08	2021-03-13

(4).Count of the doctors' specialization wise.

SELECT COUNT(*) as "Count",Specialization FROM hospital GROUP BY Specialization;

(5).Details of all the Doctors whose salary is between 50000 to 100000.

SELECT * FROM hospital WHERE Salary BETWEEN 50000 AND 100000;

(6).Display unique name of doctors.

SELECT DISTINCT(Doctor_Name) FROM hospital;

Success
(9 rows) 0.1 s

Do 0.086 seconds

Dhairya

Payal

Haimi

Hiren

Gunjan

Trisha

Delisha

Ramesh

Suresh

(7).Display the list of patients who are treated by doctor "XYZ".

```sql
SELECT Doctor_Name,Patient_Name FROM hospital
WHERE Doctor_Name = 'Dhairya';
```

Success
(1 rows) 0.1 s

Doctor_Name	Patient_Name
Dhairya	Krishna

(8).Count of the Patient admitted for the Covid.

```
SELECT COUNT(*) AS "Count for Covid" FROM hospital
WHERE Specialization = 'Covid-19';
```


(9).Details of all the Patients who are admitted after 1st jan 2021.

```
SELECT * FROM hospital WHERE Date_Admitted >
'2021-01-01';
```

_Id	Doctor_Name	Specialization	Salary	Patient_No	Patient_Name	Date_Admitted	Discharge_Date
	Dhairya	Covid-19	65000	1	Krishna	2021-01-06	2021-01-11
	Payal	Covid-19	85000	2	Aditya	2021-01-08	2021-01-13
	Hiren	Gamma	50000	2	Tanisha	2021-01-10	2021-01-15
	Gunjan	Omicron	100000	2	Aarti	2021-01-11	2021-01-12
7	Trisha	Blood Pressure	5000	2	Suyog	2021-02-01	2021-02-11
8	Delisha	Diabetes	45000	2	Shivarth	2021-02-03	2021-02-12
9	Ramesh	Cancer	150000	2	Sanaskar	2021-03-08	2021-03-13
10	Suresh	Omicron	70000	2	Laila	2021-03-08	2021-04-13

(10).Details of all the patient who are admitted after 1st Jan 2021 and before 31st Jan 2021.

```sql
SELECT * FROM hospital WHERE Date_Admitted BETWEEN '2021-01-01' AND '2021-01-31';
```

Doctor_Id	Doctor_Name	Specialization	Salary	Patient_No	Patient_Name	Date_Admitted	Discharge_Date
1	Dhairya	Covid-19	65000	1	Krishna	2021-01-06	2021-01-11
4	pAAYAL	Delta	30000	2	Harshvardhan	2021-01-08	2021-01-14
5	Hiren	Gamma	50000	2	Tanisha	2021-01-10	2021-01-15
6	Gunjan	Omicron	100000	2	Aarti	2021-01-11	2021-01-12

(11).Delete the patients who are under the doctor "ABC".

```sql
DELETE FROM hospital WHERE Doctor_Name = 'Payal';
SELECT * FROM hospital;
```

Doctor_Id	Doctor_Name	Specialization	Salary	Patient_No	Patient_Name	Date_Admitted	Discharge_Date
1	Dhairya	Covid-19	65000	1	Krishna	2021-01-06	2021-01-11
3	Haimi	Omicron	200000	2	Dairya	2020-11-11	2020-11-13
5	Hiren	Gamma	50000	2	Tanisha	2021-01-10	2021-01-15
6	Gunjan	Omicron	100000	2	Aarti	2021-01-11	2021-01-12
7	Trisha	Blood Pressure	5000	2	Suyog	2021-02-01	2021-02-11
8	Delisha	Diabetes	45000	2	Shivarth	2021-02-03	2021-02-12
9	Ramesh	Cancer	150000	2	Sanaskar	2021-03-08	2021-03-13
10	Suresh	Omicron	70000	2	Laila	2021-03-08	2021-04-13

(12).Update the doctor's name from "XYZ" to "ABC".

```
UPDATE hospital SET Doctor_Name = 'pAAYAL' WHERE
Doctor_Name = 'Jayshree';
SELECT * FROM hospital
```

Doctor_Id	Doctor_Name	Specialization	Salary	Patient_No	Patient_Name	Date_Admitted	Discharge_Date
1	Dhairya	Covid-19	65000	1	Krishna	2021-01-06	2021-01-11
3	Haimi	Omicron	200000	2	Dairya	2020-11-11	2020-11-13
4	pAAYAL	Delta	30000	2	Harshvardhan	2021-01-08	2021-01-14
5	Hiren	Gamma	50000	2	Tanisha	2021-01-10	2021-01-15
6	Gunjan	Omicron	100000	2	Aarti	2021-01-11	2021-01-12
7	Trisha	Blood Pressure	5000	2	Suyog	2021-02-01	2021-02-11
8	Delisha	Diabetes	45000	2	Shivarth	2021-02-03	2021-02-12
9	Ramesh	Cancer	150000	2	Sanaskar	2021-03-08	2021-03-13
10	Suresh	Omicron	70000	2	Laila	2021-03-08	2021-04-13

Success
(9 rows) 0.1 s

Explore | SQL | Data | Chart | Export | Search results...