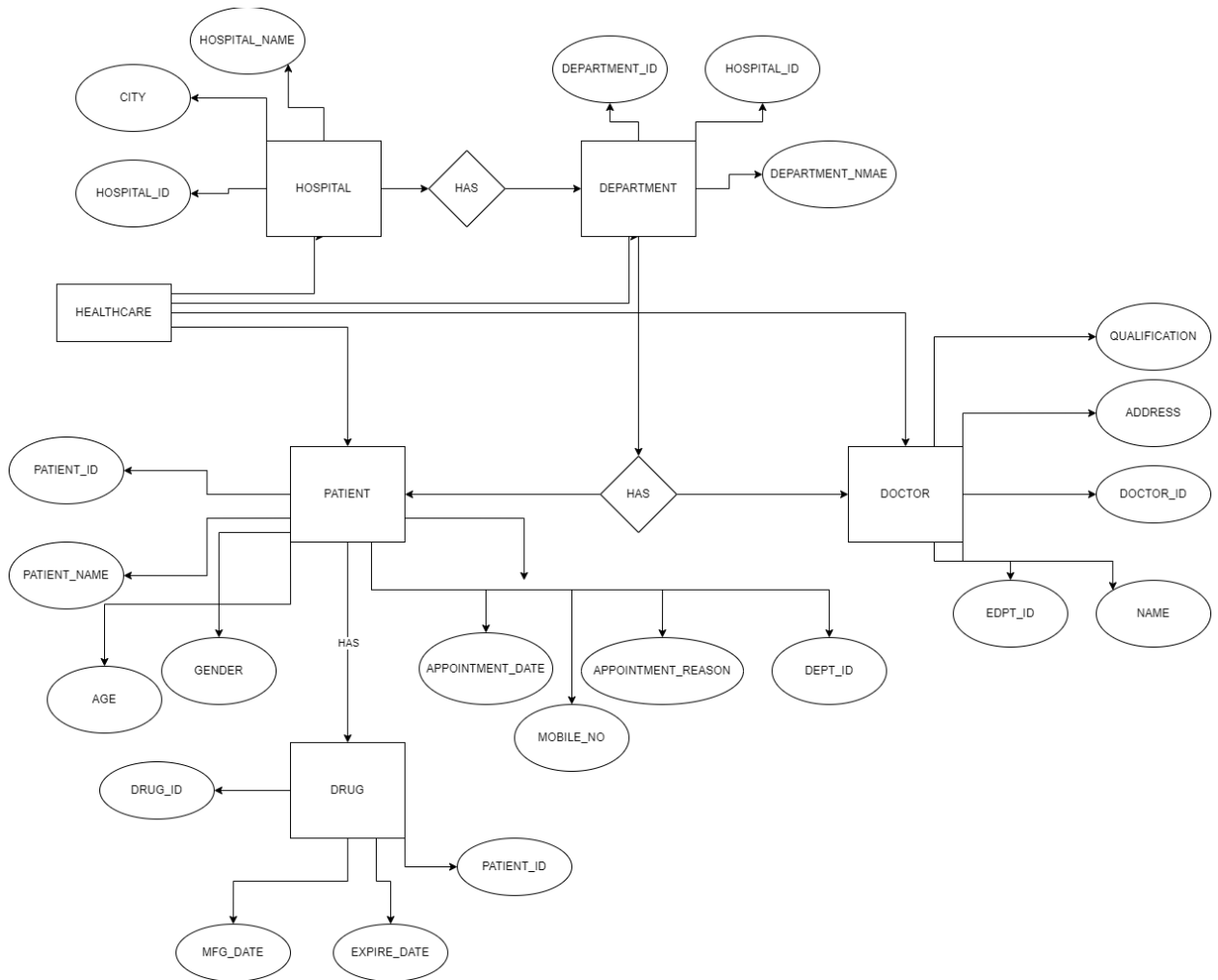


# 1. NORMALIZATION

Entity Relationship Diagram



## Creating Hospital Table

The screenshot shows the DBeaver 22.2.0 interface with a script editor containing SQL code to create a DEPARTMENT table and insert data. The table has columns: DEPARTMENT\_ID (INT PRIMARY KEY), DEPARTMENT\_NAME (VARCHAR(40) UNIQUE), DOCTOR\_NAME (VARCHAR(40) NOT NULL), and HOSPITAL\_ID (INT FOREIGN KEY REFERENCES HOSPITAL(HOSPITAL\_ID)). The script also includes an INSERT statement for the DEPARTMENT table.

```
CREATE TABLE DEPARTMENT(  
  DEPARTMENT_ID INT PRIMARY KEY,  
  DEPARTMENT_NAME VARCHAR(40) UNIQUE,  
  DOCTOR_NAME VARCHAR(40) NOT NULL,  
  HOSPITAL_ID INT FOREIGN KEY(HOSPITAL_ID) REFERENCES HOSPITAL(HOSPITAL_ID)  
);  
  
INSERT INTO DEPARTMENT VALUES(1,'Cardiology','Ramesh',100),  
(2,'Dental','Mahesh',101),  
(3,'Surgery','Diana',103),  
(4,'Neurology','Karthik',105),  
(5,'Skin','Ramesh',120),  
(6,'Eyes','Shravan',121),  
(7,'Gynaecology','Sneha',111);
```

The Results pane shows the output of the script, displaying the DEPARTMENT table data:

DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID
1	Cardiology	Ramesh	100
2	Dental	Mahesh	101
3	Surgery	Diana	103
4	Neurology	Karthik	105
5	Skin	Ramesh	120
6	Eyes	Shravan	121
7	Gynaecology	Sneha	111

## Inserting Values to Hospital Table

The screenshot shows the DBeaver 22.2.0 interface with a script editor containing SQL code to insert data into the HOSPITAL table. The script includes an INSERT statement for the HOSPITAL table.

```
INSERT INTO HOSPITAL VALUES(100,'Aastha Superspecialty Eye Hospital','Banashankari'),  
(101,'Axis Hospitals','Kadugodi'),  
(102,'Aayug Multi Specialty Hospital','Aecs Layout'),  
(103,'Abhaya Eye Hospital','Bangalore'),  
(104,'Bangalore Orthopaedic And Surgical','Kalyan Nagar'),  
(105,'Columbia Asia Hospital','Hebbal'),  
(106,'Chaya Hospital','Delhi'),  
(107,'Digvijaya Hospital','Mumbai'),  
(108,'Divine Speciality Hospital','Bangalore'),  
(109,'Excel Care Hospital','Bangalore'),  
(110,'Gangothri Hospital','Mangalore'),  
(111,'B S Hospital','Udupi'),  
(112,'Janapriya Hospitals & Healthcare','Yelahanka'),  
(113,'Lakshmi Nursing Home','Ganganagar'),  
(114,'Medcare Hospital','R R Nagar'),  
(115,'Narayana Hrudayalaya Limited','HSR Layout'),  
(116,'Nellivigi Eye Hospital & Surgical Centre','Bangalore'),  
(117,'Pavan Hospital','Delhi'),  
(118,'Poornima Hospital','Mumbai'),  
(119,'Rainbow Childrens Hospital','Udupi'),  
(120,'Kasturba Hospital','Manipal'),  
(121,'Sparsh Hospital','Mangalore');
```

The Results pane shows the output of the script, displaying the HOSPITAL table data:

HOSPITAL_ID	HOSPITAL_NAME	LOCATION
100	Aastha Superspecialty Eye Hospital	Banashankari
101	Axis Hospitals	Kadugodi
102	Aayug Multi Specialty Hospital	Aecs Layout
103	Abhaya Eye Hospital	Bangalore
104	Bangalore Orthopaedic And Surgical	Kalyan Nagar
105	Columbia Asia Hospital	Hebbal
106	Chaya Hospital	Delhi
107	Digvijaya Hospital	Mumbai

## Creating Department Table

The screenshot shows the DBeaver 22.2.0 interface. The SQL Editor contains the following script:

```
--Returns Hospital Table
SELECT * FROM HOSPITAL;

--Creating Department Table

CREATE TABLE DEPARTMENT(
DEPARTMENT_ID INT PRIMARY KEY,
DEPARTMENT_NAME VARCHAR(40) UNIQUE,
DOCTOR_NAME VARCHAR(40) NOT NULL,
HOSPITAL_ID INT FOREIGN KEY(HOSPITAL_ID) REFERENCES HOSPITAL(HOSPITAL_ID)
);

--Inserting Records into Department Table

INSERT INTO DEPARTMENT VALUES(1,'Cardiology','Ramesh',100),
(2,'Dental','Mahesh',101),
(3,'Surgery','Diana',103),
(4,'Neurology','Karthik',105),
(5,'Skin','Ramesh',120),
(6,'Eyes','Shravan',121),
(7,'Gynaecology','Sneha',111),
(8,'Padiatrics','Ganesh',110),
(9,'Oncology','Sooraj',106),
(10,'Ortopaedic','Shridhar',115),
(11,'Psychiatry','Manjunath',114),
(12,'ENT','Swathi',114),
(13,'Haematology','Rajesh',113),
(14,'Urology','Sushmitha',118),
(15,'Aneasthetics','Sachin',102),
(16,'Pharmacy','Abhishek',114),
(17,'Microbiology','Shailaja',113),
(18,'Ophthalmology','Arun',117);
```

The Results panel shows the output of the first query:

HOSPITAL_ID	HOSPITAL_NAME
1	Cardiology
2	Dental
3	Surgery
4	Neurology
5	Skin
6	Eyes
7	Gynaecology
8	Padiatrics
9	Oncology
10	Ortopaedic
11	Psychiatry
12	ENT
13	Haematology
14	Urology
15	Aneasthetics
16	Pharmacy
17	Microbiology
18	Ophthalmology

## Inserting Values into Department Table

The screenshot shows the DBeaver 22.2.0 interface. The SQL Editor contains the following script:

```
(3,'Surgery','Diana',103),
(4,'Neurology','Karthik',105),
(5,'Skin','Ramesh',120),
(6,'Eyes','Shravan',121),
(7,'Gynaecology','Sneha',111),
(8,'Padiatrics','Ganesh',110),
(9,'Oncology','Sooraj',106),
(10,'Ortopaedic','Shridhar',115),
(11,'Psychiatry','Manjunath',114),
(12,'ENT','Swathi',114),
(13,'Haematology','Rajesh',113),
(14,'Urology','Sushmitha',118),
(15,'Aneasthetics','Sachin',102),
(16,'Pharmacy','Abhishek',114),
(17,'Microbiology','Shailaja',113),
(18,'Ophthalmology','Arun',117);

SELECT * FROM DEPARTMENT;
```

The Results panel shows the output of the second query:

DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID
1	Cardiology	Ramesh	100
2	Dental	Mahesh	101
3	Surgery	Diana	103
4	Neurology	Karthik	105
5	Skin	Ramesh	120
6	Eyes	Shravan	121
7	Gynaecology	Sneha	111
8	Padiatrics	Ganesh	110

## Creating Doctor Table

DBeaver 22.2.0 - <sravan> Script-22

File Edit Navigate Search SQL Editor Database Window Help

Auto | sravan | dbo@sravan

Database Navigator | Projects

Enter a part of object name here

- > dlithe - rewansolution.database.windows.net:1433
- > Dlithe - postgresql-89441-0.cloudclusters.net:19958
- > oracle-88094-0.cloudclusters.net - oracle-88094-0.clo...
- > sravan - rewansolution.database.windows.net:1433

```
(11,'Psychiatry','Manjunath',114),
(12,'ENT','Swathi',114),
(13,'Haematology','Rajesh',113),
(14,'Urology','Sushmitha',118),
(15,'Aneasthetics','Sachin',102),
(16,'Pharmacy','Abhishek',114),
(17,'Microbiology','Shailaja',113),
(18,'Ophthalmology','Arun',117);

SELECT * FROM DEPARTMENT;

--CREATE TABLE DOCTOR(
DOCTOR_ID INT PRIMARY KEY,
DOCTOR_NAME VARCHAR(40) NOT NULL,
QUALIFICATION VARCHAR(50),
ADDRESS VARCHAR(50),
DEPARTMENT_ID INT FOREIGN KEY(DEPARTMENT_ID) REFERENCES DEPARTMENT(DEPARTMENT_ID)
);
```

Statistics 1 | Output

Name	Value
Updated Rows	0
Query	CREATE TABLE DOCTOR( DOCTOR_ID INT PRIMARY KEY, DOCTOR_NAME VARCHAR(40) NOT NULL, QUALIFICATION VARCHAR(50), ADDRESS VARCHAR(50), DEPARTMENT_ID INT FOREIGN KEY(DEPARTMENT_ID) REFERENCES DEPARTMENT(DEPARTMENT_ID) )

Save Cancel Script | IST | en | Writable | Smart Insert | 66 : 3 : 2207 | Rows: 1 | 0 row(s) updated - 130ms, on 2022-10-04 at 16:21:3

80°F Partly sunny 4:21 PM 10/4/2022

## Inserting Values into Doctor Table

DBeaver 22.2.0 - <sravan> Script-22

File Edit Navigate Search SQL Editor Database Window Help

Auto | sravan | dbo@sravan

Database Navigator | Projects

Enter a part of object name here

- > dlithe - rewansolution.database.windows.net:1433
- > Dlithe - postgresql-89441-0.cloudclusters.net:19958
- > oracle-88094-0.cloudclusters.net - oracle-88094-0.clo...
- > sravan - rewansolution.database.windows.net:1433

```
(1006,'Shailaja','MBBS','Jharkhand',11),
(1007,'Ramesh','MBBS','Punjab',13),
(1008,'Manjunath','MBBS','Bangalore',15),
(1009,'Shridhar','MBBS','Hyderabad',7),
(1010,'Abhishek','MBBS','Bangalore',5),
(1011,'Sooraj','MBBS','Mumbai',12),
(1012,'Diana','MBBS','Pune',13),
(1013,'Karthik','MBBS','Kochi',9),
(1014,'Sanath','MBBS','Udupi',4),
(1015,'Ganesh','MBBS','Manipal',18),
(1016,'Sushmitha','MBBS','Belgam',17),
(1017,'Mahesh','MBBS','Chennai',6),
(1018,'Arun','MBBS','Mumbai',7),
(1019,'Surendra','MBBS','Delhi',10),
(1020,'Kumar','MBBS','Manipal',14),
(1021,'Soorya','MBBS','Jharkhand',16),
(1022,'Shrikanth','MBBS','Udupi',17),
(1023,'Shon','MBBS','Delhi',5);

SELECT * FROM DOCTOR;
```

Results 1 | Output

Enter a SQL expression to filter results (use Ctrl+Space)

DOCTOR_ID	DOCTOR_NAME	QUALIFICATION	ADDRESS	DEPARTMENT_ID	
1	1,000	Shravan	MBBS	Bangalore	11
2	1,001	Kumar	MBBS	Udupi	1
3	1,002	Sneha	MBBS	Hyderabad	2
4	1,003	Arun	MBBS	Mangalore	3
5	1,004	Swathi	MBBS	Mumbai	8
6	1,005	Sachin	MBBS	Delhi	10
7	1,006	Shailaja	MBBS	Jharkhand	11

Save Cancel Script | IST | en | Writable | Smart Insert | 93 : 22 : 3164 | Rows: 1 | 24 row(s) fetched - 203ms (1ms fetch), on 2022-10-04 at 16:21:3

82°F Partly sunny 5:15 PM 10/4/2022

## Creating Patient Table

The screenshot shows the DBeaver 22.2.0 interface with the SQL Editor open. The script contains the following SQL statements:

```
(1018,'Arun','MBBS','Mumbai',7),
(1019,'Suresh','MBBS','Delhi',10),
(1020,'Kumar','MBBS','Manipal',14),
(1021,'Soorya','MBBS','Jharkhand',16),
(1022,'Shrikant','MBBS','Udupi',17),
(1023,'Shon','MBBS','Delhi',5);

SELECT * FROM DOCTOR;--Returns whole Doctor Table

--Creating Patient Table

CREATE TABLE PATIENT(
PATIENT_ID INT PRIMARY KEY,
PATIENT_NAME VARCHAR(50) NOT NULL,
AGE INT,
GENDER VARCHAR(10),
MOBILE_NO INT,
APPOINTMENT_DATE DATE,
DEPT_ID INT FOREIGN KEY(DEPT_ID) REFERENCES DEPARTMENT(DEPARTMENT_ID)
);
```

The Statistics tab shows the following information:

Name	Value
Updated Rows	0
Query	CREATE TABLE PATIENT( PATIENT_ID INT PRIMARY KEY, PATIENT_NAME VARCHAR(50) NOT NULL, AGE INT, GENDER VARCHAR(10), MOBILE_NO INT, APPOINTMENT_DATE DATE, DEPT_ID INT FOREIGN KEY(DEPT_ID) REFERENCES DEPARTMENT(DEPARTMENT_ID) );

The status bar indicates: 0 row(s) updated - 237ms, on 2022-10-05 at 12:19:1.

## Inserting Values into Patient Table

The screenshot shows the DBeaver 22.2.0 interface with the SQL Editor open. The script contains the following SQL statements:

```
(10,'Shreya',13,'Female','2020-02-09','2020-02-09',1,'Heart Checkup'),
(71,'Royson',31,'Male','7363363636','2021-01-13',3,'Skin Cancer'),
(72,'Adi',47,'Male','8363363636','2020-09-14',4,'Heart Checkup'),
(73,'Chandra',28,'Male','9312343636','2021-11-15',5,'Blood Pressure'),
(74,'Shailu',52,'Female','9363363000','2022-10-17',6,'Heart Checkup'),
(75,'Shekhar',69,'Male','7363361234','2022-08-18',11,'Heart Checkup'),
(76,'Nikhil',36,'Male','7863363698','2021-07-10',13,'Skin Disease'),
(77,'Amrutha',57,'Female','9363363632','2022-06-30',15,'Surgery'),
(78,'Aman',44,'Male','8368363634','2021-04-25',17,'Medicine'),
(79,'Sundar',25,'Male','9364463645','2020-01-22',8,'Heart Checkup'),
(80,'Dhanya',14,'Female','9363344636','2021-10-26',1,'Cancer Treatment');

--Selecting the whole Patient Table

SELECT * FROM PATIENT;
```

The Results tab displays the following data:

PATIENT_ID	PATIENT_NAME	AGE	GENDER	MOBILE_NO	APPOINTMENT_DATE	DEPT_ID	APPOINTMENT_REASON
69	Ankitha	11	Female	7823363636	2022-04-08	1	Heart Checkup
70	Shreya	13	Female	7363363031	2020-02-09	1	Heart Checkup
71	Royson	31	Male	7363363636	2021-01-13	3	Skin Cancer
72	Adi	47	Male	8363363636	2020-09-14	4	Heart Checkup
73	Chandra	28	Male	9312343636	2021-11-15	5	Blood Pressure
74	Shailu	52	Female	9363363000	2022-10-17	6	Heart Checkup
75	Shekhar	69	Male	7363361234	2022-08-18	11	Heart Checkup
76	Nikhil	36	Male	7863363698	2021-07-10	13	Skin Disease
77	Amrutha	57	Female	9363363632	2022-06-30	15	Surgery
78	Aman	44	Male	8368363634	2021-04-25	17	Medicine
79	Sundar	25	Male	9364463645	2020-01-22	8	Heart Checkup
80	Dhanya	14	Female	9363344636	2021-10-26	1	Cancer Treatment

The status bar indicates: 30 row(s) fetched - 511ms (4ms fetch), on 2022-10-05 at 2:35 PM.

## Creating Drug Table

```
--Selecting the whole Patient Table
--Creating Drug Table

CREATE TABLE DRUG(
  DRUG_ID INT PRIMARY KEY,
  MFG_DATE VARCHAR(20),
  EXPIRE_DATE VARCHAR(20),
  PATIENT_ID INT FOREIGN KEY(PATIENT_ID) REFERENCES PATIENT(PATIENT_ID)
);

SELECT * FROM PATIENT;

--INNER JOIN--
```

Statistics 1 x

Name	Value
Updated Rows	0
Query	CREATE TABLE DRUG( DRUG_ID INT PRIMARY KEY, MFG_DATE VARCHAR(20), EXPIRE_DATE VARCHAR(20), PATIENT_ID INT FOREIGN KEY(PATIENT_ID) REFERENCES PATIENT(PATIENT_ID) )
Finish time	Fri Oct 14 15:24:58 IST 2022

## Inserting Values into Drug Table

```
DRUG_ID INT PRIMARY KEY,
MFG_DATE VARCHAR(20),
EXPIRE_DATE VARCHAR(20),
PATIENT_ID INT FOREIGN KEY(PATIENT_ID) REFERENCES PATIENT(PATIENT_ID)
);

INSERT INTO DRUG VALUES(1,'12-10-2022','12-10-2025',53),
(2,'10-10-2022','10-10-2025',53),
(3,'12-01-2021','12-01-2024',55),
(4,'01-07-2022','01-07-2025',58),
(5,'17-12-2021','17-12-2024',63),
(6,'23-02-2022','23-02-2025',73),
(7,'30-12-2023','30-12-2026',75),
(8,'09-07-2021','09-07-2024',67),
(9,'20-08-2021','20-08-2024',70),
(10,'13-11-2022','13-11-2025',80),
(11,'05-05-2022','05-05-2025',77);

--Selecting Drug Table

SELECT * FROM DRUG;
```

Results 1 x

SELECT \* FROM DRUG

DRUG_ID	MFG_DATE	EXPIRE_DATE	PATIENT_ID
1	12-10-2022	12-10-2025	53
2	10-10-2022	10-10-2025	53
3	12-01-2021	12-01-2024	55
4	01-07-2022	01-07-2025	58
5	17-12-2021	17-12-2024	63
6	23-02-2022	23-02-2025	73

## 2. JOINS

### Inner Join

DBeaver 22.2.0 - <sravan> Script-22

File Edit Navigate Search SQL Editor Database Window Help

SQL Commit Rollback Auto sravan dbo@sravan

Database ... x Projects

Enter a part of object name |

> dlithe - rewansolution.databases  
> Dlithe - postgresql-89441-0.ch...  
> oracle-88094-0.cloudclusters.n...  
> sravan - rewansolution.databases

<dlithe> Dlithe.sql <sravan> Shravan.sql <sravan> Script-22 x

```
(72,'Adi',47,'Male','8363363636','2020-09-14',4,'Heart Checkup'),  
(73,'Chandra',28,'Male','9312343636','2021-11-15',5,'Blood Pressure'),  
(74,'Shailu',52,'Female','9363363000','2022-10-17',6,'Heart Checkup'),  
(75,'Shekhar',69,'Male','7363361234','2022-08-18',11,'Heart Checkup'),  
(76,'Nikhil',36,'Male','7863363698','2021-07-10',13,'Skin Disease'),  
(77,'Amrutha',57,'Female','9363363632','2022-06-30',15,'Surgery'),  
(78,'Aman',44,'Male','8368363634','2021-04-25',17,'Medicine'),  
(79,'Sundar',25,'Male','9364463645','2020-01-22',8,'Heart Checkup'),  
(80,'Dhanya',14,'Female','9363344636','2021-10-26',1,'Cancer Treatment');  
  
--Selecting the whole Patient Table  
  
SELECT * FROM PATIENT;  
  
--INNER JOIN--  
  
SELECT * FROM HOSPITAL h  
INNER JOIN DEPARTMENT d  
ON H.HOSPITAL_ID =D.HOSPITAL_ID;
```

Results 1 x Output

SELECT \* FROM HOSPITAL h INNER JOIN DEPART

HOSPITAL_ID	HOSPITAL_NAME	LOCATION	DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID
11	114 Medcare Hospital	R R Nagar	11	Psychiatry	Manjunath	114
12	114 Medcare Hospital	R R Nagar	12	ENT	Swathi	114
13	113 Lakshmi Nursing Home	Ganganagar	13	Haematology	Rajesh	113
14	118 Poornima Hospital	Mumbai	14	Urology	Sushmitha	118
15	102 Aayug Multi Specialty Hospital	Aecs Layout	15	Anaesthetics	Sachin	102
16	114 Medcare Hospital	R R Nagar	16	Pharmacy	Abhishek	114
17	113 Lakshmi Nursing Home	Ganganagar	17	Microbiology	Shailaja	113

Save Cancel Script 18 Rows: 1 18 row(s) fetched - 293ms (1ms fetch), on 2022-10-05

IST en Writable Smart Insert 162 : 7 : 6146 Sel: 0 | 0

82°F Cloudy 3:26 PM 10/5/2022

### Left Join

DBeaver 22.2.0 - <sravan> Script-22

File Edit Navigate Search SQL Editor Database Window Help

SQL Commit Rollback Auto sravan dbo@sravan

Database ... x Projects

Enter a part of object name |

> dlithe - rewansolution.databases  
> Dlithe - postgresql-89441-0.ch...  
> oracle-88094-0.cloudclusters.n...  
> sravan - rewansolution.databases

<dlithe> Dlithe.sql <sravan> Shravan.sql <sravan> Script-22 x

```
(79,'Sundar',25,'Male','9364463645','2020-01-22',8,'Heart Checkup'),  
(80,'Dhanya',14,'Female','9363344636','2021-10-26',1,'Cancer Treatment');  
  
--Selecting the whole Patient Table  
  
SELECT * FROM PATIENT;  
  
--INNER JOIN--  
  
SELECT * FROM HOSPITAL h  
INNER JOIN DEPARTMENT d  
ON H.HOSPITAL_ID =D.HOSPITAL_ID;  
  
--LEFT JOIN--  
  
SELECT * FROM HOSPITAL h  
LEFT JOIN DEPARTMENT d  
ON H.HOSPITAL_ID =D.HOSPITAL_ID;
```

Results 1 x Output

SELECT \* FROM HOSPITAL h LEFT JOIN DEPART

HOSPITAL_ID	HOSPITAL_NAME	LOCATION	DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID
1	100 Aastha Superspecialty Eye Hospital	Banashankari	1	Cardiology	Ramesh	100
2	101 Axis Hospitals	Kadugodi	2	Dental	Mahesh	101
3	102 Aayug Multi Specialty Hospital	Aecs Layout	15	Anaesthetics	Sachin	102
4	103 Abhaya Eye Hospital	Bangalore	3	Surgery	Diana	103
5	104 Bangalore Orthopaedic And Surgical	Kalyan Nagar	[NULL]	[NULL]	[NULL]	[NULL]
6	105 Columbia Asia Hospital	Hebbal	4	Neurology	Karthik	105
7	106 Chaya Hospital	Delhi	9	Oncology	Sooraj	106

Save Cancel Script 25 Rows: 1 25 row(s) fetched - 282ms, on 2022-10-05 at 15:33:00

IST en Writable Smart Insert 169 : 33 : 6303 Sel: 0 | 0

82°F Cloudy 3:33 PM 10/5/2022



## Outer Join

The screenshot shows the DBeaver 22.2.0 interface with a script editor containing three SQL queries for different join types. The third query, labeled "--OUTER JOIN--", is selected and highlighted in blue. Below the script editor, the "Results 1" tab displays the output of the selected query. The results table has 7 columns: MOBILE\_NO, APPOINTMENT\_DATE, DEPT\_ID, APPOINTMENT\_REASON, DEPARTMENT\_ID, DEPARTMENT\_NAME, and DOCTOR\_NAME. It contains 7 rows of data.

```
--LEFT JOIN--  
  
SELECT * FROM HOSPITAL h  
LEFT JOIN DEPARTMENT d  
ON H.HOSPITAL_ID =D.HOSPITAL_ID;  
  
--RIGHT JOIN--  
  
SELECT * FROM HOSPITAL d2  
RIGHT JOIN DEPARTMENT d  
ON D2.HOSPITAL_ID =D.HOSPITAL_ID;  
  
--OUTER JOIN--  
  
SELECT * FROM PATIENT P  
FULL JOIN DEPARTMENT d  
ON P.DEPT_ID=D.DEPARTMENT_ID;
```

MOBILE_NO	APPOINTMENT_DATE	DEPT_ID	APPOINTMENT_REASON	DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME
197823363636	2022-04-08	1	Heart Checkup	1	Cardiology	Ramesh
207363363031	2020-02-09	1	Heart Checkup	1	Cardiology	Ramesh
217363363636	2021-01-13	3	Skin Cancer	3	Surgery	Diana
227363363636	2020-09-14	4	Heart Checkup	4	Neurology	Karthik
237312343636	2021-11-15	5	Blood Pressure	5	Skin	Ramesh
247363363000	2022-10-17	6	Heart Checkup	6	Eyes	Shravan
257363361234	2022-08-18	11	Heart Checkup	11	Psychiatry	Manjunath

## Right Join

The screenshot shows the DBeaver 22.2.0 interface with a script editor containing three SQL queries for different join types. The third query, labeled "--RIGHT JOIN--", is selected and highlighted in blue. Below the script editor, the "Results 1" tab displays the output of the selected query. The results table has 7 columns: HOSPITAL\_ID, HOSPITAL\_NAME, LOCATION, DEPARTMENT\_ID, DEPARTMENT\_NAME, DOCTOR\_NAME, and HOSPITAL\_ID. It contains 8 rows of data.

```
--INNER JOIN--  
  
SELECT * FROM HOSPITAL h  
INNER JOIN DEPARTMENT d  
ON H.HOSPITAL_ID =D.HOSPITAL_ID;  
  
--LEFT JOIN--  
  
SELECT * FROM HOSPITAL h  
LEFT JOIN DEPARTMENT d  
ON H.HOSPITAL_ID =D.HOSPITAL_ID;  
  
--RIGHT JOIN--  
  
SELECT * FROM HOSPITAL d2  
RIGHT JOIN DEPARTMENT d  
ON D2.HOSPITAL_ID =D.HOSPITAL_ID;
```

HOSPITAL_ID	HOSPITAL_NAME	LOCATION	DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID
100	Aastha Superspecialty Eye Hospital	Banashankari	1	Cardiology	Ramesh	100
101	Aaxis Hospitals	Kadugodi	2	Dental	Mahesh	101
103	Abhaya Eye Hospital	Bangalore	3	Surgery	Diana	103
105	Columbia Asia Hospital	Hebbal	4	Neurology	Karthik	105
120	Kasturba Hospital	Manipal	5	Skin	Ramesh	120
121	Spash Hospital	Mangalore	6	Eyes	Shravan	121
111	B S Hospital	Udupi	7	Gynaecology	Sneha	111
110	Gangothri Hospital	Mangalore	8	Padiatrics	Ganesh	110



## Cross Join

The screenshot shows the DBeaver 22.2.0 interface with a SQL script editor. The script contains several SQL queries demonstrating different join types:

```
--SELECT * FROM HOSPITAL d2
RIGHT JOIN DEPARTMENT d
ON D2.HOSPITAL_ID =D.HOSPITAL_ID;

--OUTER JOIN--

--SELECT * FROM PATIENT P
FULL JOIN DEPARTMENT d
ON P.DEPT_ID=D.DEPARTMENT_ID;

--SELECT * FROM HOSPITAL H
INNER JOIN DEPARTMENT D1
ON H.HOSPITAL_ID=D1.DEPARTMENT_ID
RIGHT JOIN DOCTOR D2
ON D1.DEPARTMENT_ID = D2.DEPARTMENT_ID ;

--CROSS JOIN--

SELECT * FROM HOSPITAL, DEPARTMENT;
```

The results pane shows the output of the last query, which is a cross join between the HOSPITAL and DEPARTMENT tables. The results are displayed in a grid with columns: HOSPITAL\_ID, HOSPITAL\_NAME, LOCATION, DEPARTMENT\_ID, DEPARTMENT\_NAME, DOCTOR\_NAME, and HOSPITAL\_ID. The data shows 7 rows of results, all with a HOSPITAL\_ID of 100.

HOSPITAL_ID	HOSPITAL_NAME	LOCATION	DEPARTMENT_ID	DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID
100	Aastha Superspecialty Eye Hospital	Banashankari	1	Cardiology	Ramesh	100
101	Aaxis Hospitals	Kadugodi	1	Cardiology	Ramesh	100
102	Aayug Multi Specialty Hospital	Aecs Layout	1	Cardiology	Ramesh	100
103	Abhaya Eye Hospital	Bangalore	1	Cardiology	Ramesh	100
104	Bangalore Orthopaedic And Surgical	Kalyan Nagar	1	Cardiology	Ramesh	100
105	Columbia Asia Hospital	Hebbal	1	Cardiology	Ramesh	100
106	Chaya Hospital	Delhi	1	Cardiology	Ramesh	100

## Some more Joins

The screenshot shows the DBeaver 22.2.0 interface with a SQL script editor. The script contains several SQL queries demonstrating different join types:

```
--SELECT * FROM HOSPITAL H INNER JOIN DEPARTMENT D
ON H.HOSPITAL_ID =D.HOSPITAL_ID;

--RIGHT JOIN--

--SELECT * FROM PATIENT P
FULL JOIN DEPARTMENT d
ON P.DEPT_ID=D.DEPARTMENT_ID;

--SELECT * FROM HOSPITAL H
INNER JOIN DEPARTMENT D1
ON H.HOSPITAL_ID=D1.DEPARTMENT_ID
RIGHT JOIN DOCTOR D2
ON D1.DEPARTMENT_ID = D2.DEPARTMENT_ID ;
```

The results pane shows the output of the last query, which is a right join between the HOSPITAL and DEPARTMENT tables. The results are displayed in a grid with columns: DEPARTMENT\_NAME, DOCTOR\_NAME, HOSPITAL\_ID, DOCTOR\_ID, DOCTOR\_NAME, QUALIFICATION, ADDRESS, and DEPARTMENT. The data shows 7 rows of results, all with a HOSPITAL\_ID of 100.

DEPARTMENT_NAME	DOCTOR_NAME	HOSPITAL_ID	DOCTOR_ID	DOCTOR_NAME	QUALIFICATION	ADDRESS	DEPARTMENT
[NULL]	[NULL]	[NULL]	1,000	Shravan	MBBS	Bangalore	
[NULL]	[NULL]	[NULL]	1,001	Kumar	MBBS	Udupi	
[NULL]	[NULL]	[NULL]	1,002	Sneha	MBBS	Hyderabad	
[NULL]	[NULL]	[NULL]	1,003	Arun	MBBS	Mangalore	
[NULL]	[NULL]	[NULL]	1,004	Swathi	MBBS	Mumbai	
[NULL]	[NULL]	[NULL]	1,005	Sachin	MBBS	Delhi	
[NULL]	[NULL]	[NULL]	1,006	Shailaja	MBBS	Jharkhand	

### 3. VIEWS

#### Creating a View

The screenshot shows the DBeaver 22.2.0 interface with a SQL script in the editor. The script defines a view named 'VIEWS' based on a complex join of hospital and department data. Below the script, the 'Results' pane displays the data fetched from the view.

```
ON P.DEPT_ID=D.DEPARTMENT_ID;

=SELECT * FROM HOSPITAL H
INNER JOIN DEPARTMENT D1
ON H.HOSPITAL_ID=D1.DEPARTMENT_ID
RIGHT JOIN DOCTOR D2
ON D1.DEPARTMENT_ID = D2.DEPARTMENT_ID ;

--CROSS JOIN--

SELECT * FROM HOSPITAL, DEPARTMENT;

--VIEWS--

CREATE VIEW VIEWS
AS
SELECT * FROM HOSPITAL;

SELECT * FROM VIEWS;
```

HOSPITAL_ID	HOSPITAL_NAME	LOCATION
100	Aastha Superspecialty Eye Hospital	Banashankari
101	Aaxis Hospitals	Kadugodi
102	Aayug Multi Specialty Hospital	Aecs Layout
103	Abhaya Eye Hospital	Bangalore
104	Bangalore Orthopaedic And Surgical	Kalyan Nagar
105	Columbia Asia Hospital	Hebbal
106	Chaya Hospital	Delhi
107	Digvijaya Hospital	Mumbai

#### Joins in View

The screenshot shows the DBeaver 22.2.0 interface with a SQL script that alters the 'VIEWS' view to include a join between the 'PATIENT' and 'DEPARTMENT' tables. The 'Results' pane shows the data after the alteration.

```
SELECT * FROM HOSPITAL, DEPARTMENT;

--VIEWS--

CREATE VIEW VIEWS
AS
SELECT * FROM HOSPITAL;

SELECT * FROM VIEWS;

--JOINS IN VIEWS

ALTER VIEW VIEWS
AS
SELECT * FROM PATIENT AS P
INNER JOIN DEPARTMENT AS D
ON P.DEPT_ID = D.DEPARTMENT_ID;

SELECT * FROM VIEWS;
```

AGE	GENDER	MOBILE_NO	APPOINTMENT_DATE	DEPT_ID	APPOINTMENT_REASON	DEPARTMENT_ID	DEPARTMENT_NAME
24	52	Female	9363363000	2022-10-17	6	Heart Checkup	6 Eyes
25	69	Male	7363361234	2022-08-18	11	Heart Checkup	11 Psychiatry
26	36	Male	7863363698	2021-07-10	13	Skin Disease	13 Haematology
27	57	Female	9363363632	2022-06-30	15	Surgery	15 Anaesthetics
28	44	Male	8368363634	2021-04-25	17	Medicine	17 Microbiology
29	25	Male	9364463645	2020-01-22	8	Heart Checkup	8 Padiatrics
30	14	Female	9363344636	2021-10-26	1	Cancer Treatment	1 Cardiology