

Create a database in PostgreSQL

To create a database in PostgreSQL **create database** statement is used

syntax :

```
postgresql=# create database databasename ;
```

e.g `Postgresql> create database college ;`

```
postgres=# CREATE DATABASE college;
CREATE DATABASE
postgres=# █
```

To view databases :

To view database **\l** command is used.

```
Postgresql=# \l databases;
```

```
postgres=# \l
```

List of databases					
Name	Owner	Encoding	Collate	Ctype	Access privileges
balbharti	postgres	UTF8	en_IN	en_IN	
college	postgres	UTF8	en_IN	en_IN	
postgres	postgres	UTF8	en_IN	en_IN	
template0	postgres	UTF8	en_IN	en_IN	=c/postgres + postgres=CTc/postgres
template1	postgres	UTF8	en_IN	en_IN	=c/postgres + postgres=CTc/postgres

(5 rows)

To connect database :

To connect database **\c** command is used.

```
postgresql=# \c;
```

e.g `\c college;`

```
postgres=# \c college;
You are now connected to database "college" as user "postgres".
college=# █
```

To create table :

To create table in database **Create table** command is used

```
databasename=# create table tablename (fieldname Datatype, fieldname Datatype);
```

```
college=# CREATE TABLE XI (Roll_no integer, Student_name text);  
CREATE TABLE  
college=# █
```

To insert data in table :

To insert data in a table insert into command is used.

```
databasename=# insert into tablename (field name)values(data1,'data1')
```

```
college=# INSERT INTO XI (Roll_no,Student_name) VALUES(101,'Sachin');  
INSERT 0 1  
college=# █
```

To view inserted data :

To view inserted data select * from command is used.

```
database name=#select * from table name.
```

```
college=# SELECT * FROM XI;  
 roll_no | student_name  
-----+-----  
      101 | Sachin  
(1 row)
```

To update table:

To update table **UPDATE** command is used.

```
databasename=# update table_name SET column_name=Value WHERE Ref-  
erence_Column_name=Value
```

```
college=# UPDATE XI SET Roll_no = '1001' WHERE Student_name = 'Sachin';  
UPDATE 1  
college=# █
```

To add Primary Key:

To add primary key to already created table, we can use following command.
or we can create primary key during table creation.

```
ALTER TABLE tablename ADD PRIMARY KEY (column_name);
```

```
college=# ALTER TABLE XI ADD PRIMARY KEY (Roll_no);  
ALTER TABLE  
college=# █
```

To add Foreign Key:

To add foreign key to while creating table, we can use the following command or we can create foreign key during table creation.

```
ALTER TABLE table_name ADD FOREIGN KEY (current_column_name)  
REFERENCES refered_table_name (referedtable_primarycolumn_name);
```

One to One relationship

```
college=# CREATE TABLE Marks (record_no integer PRIMARY KEY, total_marks integer, result  
text, roll_no integer, FOREIGN KEY (roll_no) REFERENCES XI(Roll_no));  
CREATE TABLE  
college=# █
```

Lets see the result of both table 'XI' and 'Marks' with one-to-one relationship.

```
college=# SELECT XI.Roll_no,XI.student_name,Marks.total_marks,Marks.result FROM XI,Marks where  
XI.Roll_no=Marks.roll_no;  
 roll_no | student_name | total_marks | result  
-----+-----+-----+-----  
    1001 | Sachin      |          230 | PASS  
(1 row)
```

Do you know ?

\c Connect to database

\l List all the databases

\dt List all the tables from database

\d To view structure of table.

To delete table :

To delete table, DROP command is used.

```
datasname=# DROP tablename;
```

```
postgres=# DROP TABLE Marks;  
DROP TABLE
```

To delete database :

Drop command is used to delete database also.

```
postgres=# drop database database name;
```

```
postgres=# DROP DATABASE college;  
DROP DATABASE
```

Note : Before deleting the current database you have to come out from that database



Skill Set 6 - PostgreSQL

SOP 1 : Create a database, using postgresQL named hospital.

- In this database, create a table of patients with the following fields Patient_ID, Patients_Name, Address, Room_number and Doctor's_name.
- Give appropriate data type for each field.

Patient_ID	Patient_name	Address	Room_number	Doctor's_name

SOP 2 : Create a database using postgresQL named School-master.

- In this database create a table of students with the following fields student_ID, student_name, Address, Phone_number, Date_of_Birth.
- Give appropriate data type for each field. Enter at least 5 records.

SOP 3 : Given the list of fields : EmpId, EmpName, EmpDepartment, SalaryId, SalaryAmount, Bonus in the tables Employee and Salary respectively. Define primary key, foreign key and segregate for above fields into employee and salary table. Also create one-to-one relationship between Employee and Salary Table.

