
POSTGRES BASICS oficial documentation

DEFINITIONS

Tipus de dades

tipus	descripció
boolean	<i>y/n, yes/no, 1/0, t/f, true/false</i>
integer, int, int4	<i>enter</i>
smallint, int2	<i>enter de fins a 5 digits (-32000/32000)</i>
bigint, int8	<i>desde (-910¹⁷/910¹⁷)</i>
serial/bigserial	<i>enter autoincremental int/bigint</i>
decimal/numeric(t,d)	<i>t=total digits /d=total decimalsprecisión</i>
float	<i>decimal fins a 6 decimals</i>
double precision	<i>decimal fins a 15 xifres</i>
character varyng(n), varchar(n)	<i>longitud de 'n' caràcters</i>
character(n), char(n)	<i>char de longitud 'n' obligatòria</i>
text, varchar	<i>longitud variable il.limitada</i>
date 'YYYY-MM-DD'	<i>desde 4317A.C. fins 32767D.C.</i>

date 'YYYY-MM-DD'	SET DATETYPE 'European'
time 'hh:mm:ss'	<i>guarda la hora</i>
timestamp 'YYYY-MM-DD hh:mm:ss'	<i>data i hora</i>
timestamptz 'YYYY-MM-DD hh:mm:ss±tz'	<i>data i hora guarda el TIME ZONE'</i>

Modifiers

PRIMARY KEY *Clau Primaria* NOT NULL *No es pot deixar buit* DEFAULT
[value] *Valor per defecte*

Comparadors

operador	descripció
= / <>	<i>equal/not equal</i>
< / >	<i>less/more than</i>
<= / >=	<i>less or equal/more or equal than</i>
IS/IS NOT	<i>per a NULL !!!no usar lògics!!!</i>

Operadors relacionals

operador	exemple
AND	WHERE [atr]=[value] AND [atr]=[value];
OR	WHERE [atr]=[value] AND IS NOT NULL;

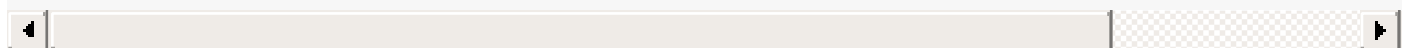
IN	WHERE [atr] IN ([value], [value], ...);
IN	WHERE [atr] IN (SELECT [atr] FROM [table] WHERE [condición]);
BETWEEN	WHERE [atr] BETWEEN [x] AND [y];

Operadors aritmetics

simbol	operacio	simbol	operació
*	multiplicació	/	divisió
%	modul		
+	suma	-	resta

Formatat de cadenes

```
SELECT ( [atr] || 'string' || [atr] || ...) AS [header_name]
            ----      ----
            concatena  concat
```



DB COMMANDS

```
CREATE DATABASE [name]; crear DB
```

```
DROP DATABASE [name]; eliminar DB
```

`\c [name]` connectar a [name]

`\d` Mostrar taules

`\i [path]` importar script

TABLE COMMANDS

`\d [table]` mostra atributs de la taula

Crear taula

```
CREATE TABLE [nom] ([atribut] [type] [*modifiers*],  
    ...,  
    primary key([atr], [atr2]));--defineix atributs i clau primària
```

```
CREATE TABLE [nom] (id serial,                    /* exemple amb modificadors */  
    titol varchar(30),  
    autor NOT NULL DEFAULT 'desconocido',  
    editoraial varchar(20),  
    PRIMARY KEY(id);
```

buidar taula

```
TRUNCATE TABLE taula;
```

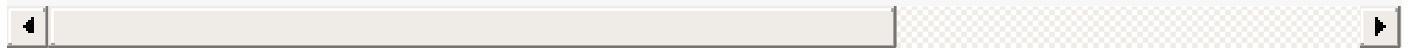
insertar tupla

```
INSERT INTO [taula] (atr1, atr2, ...) VALUES ([atr1], [atr2], ...);  
INSERT INTO [taula] VALUES ([atr1],[atr2],...);  
INSERT INTO [taula] ([atr], [atr_amb_default],...) VALUES ([value], [value_amb_default],...);
```



borrar registres

```
DELETE FROM [table] WHERE [atr][=|>|<|<=|>=|<>][value];
```



editar registres

```
UPDATE [table] SET [atr]=[value] WHERE [atr]=[value];
```

afegir comentaris

```
SELECT * FROM [table]; --Comentari a mostrar  
SELECT * FROM /*Comentari del codi*/ [table];
```

Seleccionar

```
SELECT * FROM [table]; -- mostra *totes* les entrades  
SELECT [atr1], [atr2], ... FROM [table]; -- *mostra només* les entrades  
SELECT * FROM [taula] WHERE [atr][comparador][value] -- mostra les entrades  
SELECT [atr] AS [nou nom] FROM [taula]; --AS canvia el nom d'atribut
```



Ordenar

```
SELECT * FROM [taula] ORDER BY [atr] ASC, [atr] DESC;
```

ALTER documentation

agregar/borrar columna, cambiar nom, ...

```
ALTER TABLE [taula] **action**
####actions
* **canvi de nom d'atribut**
```sql
... RENAME COLUMN [nom_from] TO [nom_to]; --modifica el nom d
```

## elimina atribut

```
... DROP COLUMN [atr]; --borra un atribut
```

## agrega un atribut

```
... ADD COLUMN [nom] [type] ~ [modifier]; -- agregar columna
```

## valor per defecte

```
... ALTER COLUMN [atribut] SET DEFAULT [false];
```

## definir primary key

```
... ADD PRIMARY KEY ([atr]);
```

## eliminar primary key modifier

```
... DROP CONSTRAINT nomTaula_pkey;
```

## definir/eliminar NOT NULL

```
... [SET | DROP] NOT NULL;
```

---

# Relacions

## definir primary key

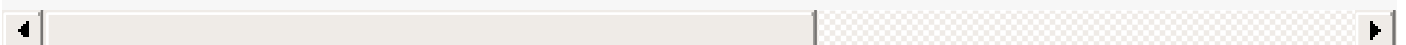
```
ALTER TABLE [taula] ADD PRIMARY KEY ([atr]);
```

## eliminar primary key modifier

```
ALTER TABLE [taula] DROP CONSTRAINT nomTaula_pkey;
```

## Crear una tabla con una foreign key

```
CREATE TABLE [name](OrderID serial primary key, PersonID int,
/* assignem pkey */ PRIMARY KEY(OrderID),
/* definim fkey */ CONSTRAINT FK_PersonOrder FOREIGN KEY (Pe
```



## Eliminar una foreign key

```
ALTER TABLE [taula] DROP CONSTRAINT [nom_de_la_foreing_key];
```

## Agregar una foreign key a una taula

```
ALTER TABLE [taula] ADD CONSTRAINT [name] FOREIGN KEY ([atr_t
```

```
SELECT pais, to_char(fecha, 'month') AS month, date_part('day
FROM visitas
ORDER BY 2, 3, 4;
```