

Creatie en Ontwerp

wim.bertels@ucll.be

Naamsvermelding-NietCommercieel-GelijkDelen 4.0 Unported
Licentie

INSERT

```
insert into recreanten (spelersnr, naam, plaats)
select  spelersnr, naam, plaats
from    spelers
where   bondsnr is null;
```

UPDATE

```
update wedstrijden  
set      gewonnen = 0  
where    spelersnr in  
         (select  spelersnr  
          from    spelers  
          where   plaats = 'Den Haag');
```

DELETE

```
delete  
from    spelers  
where   jaartoe >  
        (select  avg(jaartoe)  
        from     spelers);
```

Tijdelijke tabellen

```
create temporary table SOMBOETES  
  (totaal decimal(10,2));
```

```
insert into somboetes  
  select  sum(bedrag)  
  from    boetes;
```

Kopie tabel

```
create table teams_kopie as  
  (select  *  
   from    teams);
```

Default waarden

```
create table boetes (  
    bnr      integer not null    primary key,  
    snr      integer not null,  
    datum   date      not null   default '1990-01-01',  
    bedrag  int        not null   default 50);
```

Tabel beperkingen

```
[ CONSTRAINT constraint_name ]  
{ CHECK ( expression ) [ NO INHERIT ] |  
  UNIQUE [ NULLS [ NOT ] DISTINCT ] ( column_name [, ... ] ) index_parameters |  
  PRIMARY KEY ( column_name [, ... ] ) index_parameters |  
  EXCLUDE [ USING index_method ] ( exclude_element WITH operator [, ... ] ) index_parameters  
[ WHERE ( predicate ) ] |  
  FOREIGN KEY ( column_name [, ... ] ) REFERENCES reftable [ ( refcolumn [, ... ] ) ]  
    [ MATCH FULL | MATCH PARTIAL | MATCH SIMPLE ] [ ON DELETE referential_action ] [ ON  
UPDATE referential_action ] }  
[ DEFERRABLE | NOT DEFERRABLE ] [ INITIALLY DEFERRED | INITIALLY IMMEDIATE ]
```


Kolom beperkingen

[CONSTRAINT constraint_name]
{ NOT NULL |
NULL |
CHECK (expression) [NO INHERIT] |
DEFAULT default_expr |
GENERATED ALWAYS AS (generation_expr) STORED |
GENERATED { ALWAYS | BY DEFAULT } AS IDENTITY [(sequence_options)] |
UNIQUE [NULLS [NOT] DISTINCT] index_parameters |
PRIMARY KEY index_parameters |
REFERENCES reftable [(refcolumn)] [MATCH FULL | MATCH PARTIAL | MATCH SIMPLE]
[ON DELETE referential_action] [ON UPDATE referential_action] }
[DEFERRABLE | NOT DEFERRABLE] [INITIALLY DEFERRED | INITIALLY IMMEDIATE]

Deferrable

r ..fk1 references t(pk1) deferrable..

```
start transaction;  
set constraints all deferred;  
insert into r(fk1) values (1);  
insert into t(pk1) values (1);  
commit;
```

<https://www.postgresql.org/docs/current/sql-set-constraints.html>

Referende actie

..fk1 references t(pk1) on delete set null..

Referentiële integriteit?:

- NO ACTION: default
- RESTRICT: =no action, niet uitstelbaar (deferrable)
- CASCADE: Waterval effect!
- SET NULL(fk1): optie om zinvolle selectie van verwijzende kolommen op te geven
- SET DEFAULT: als er een zinvolle default is (optie cf set null)

<https://www.postgresql.org/docs/current/sql-createtable.html>

Catalogus

Meta en organisatie data over de databank in de databank zelf

- information_schema
- pg_catalog

Eg. `select * from information_schema.tables;`