# Data definition language with examples

**New database**

**CREATE DATABASE mydb;**

**New table**

**CREATE** **TABLE** car

(idcar **int**)

**Add new column to a table**

**ALTER** **TABLE** car

**add** **column** color **varchar**(30),

**add** **column** mark **varchar**(30)

**Remove a column:**

**ALTER** **TABLE** car

**drop** **column** color

**Remove a table:**

**drop** **table** car;

**Set primary key (1)**

**create** **table** car (

idcar **int**,

color **varchar**(30),

mark **varchar**(30),

**CONSTRAINT** pk\_id **PRIMARY** **KEY** (idcar)

)

**Set primary key (2)**

**create** **TABLE** car (

idcar **int** **primary** **key**,

color **varchar**(30),

mark **varchar**(30)

)

**Set primary key (3). Compound PK**

**create** **TABLE** carfeatures(

carid **int**,

featureid **int**,

**CONSTRAINT** pk\_cf **PRIMARY** **KEY** (carid, featureid)

)

**Foreign key constraint. FK can reference PK or column with unique constraint of some table**

**CREATE** **TABLE** **res**(

resid **int**,

carid **int**,

**drivername** **varchar**(100) not null,

**CONSTRAINT** pk\_resid **PRIMARY** **KEY** (resid),

**CONSTRAINT** fk\_carid **FOREIGN** **KEY** (carid) **REFERENCES** car (carid))

)

**Unique constraint:**

**CREATE** **table** product (

id **int** **primary** **key**,

regnumber **varchar**(18) **not** **null**,

revisionnumber **int** **not** **null**,

**name** **varchar**(50),

timecreated **timestamp** **not** **null**,

**CONSTRAINT** pr\_unique **UNIQUE** (regnumber, revisionnumber)

);

**Check constraints:**

**create** **table** driver (

iddriver **int** **primary** **key**,

firstname **varchar**(50) **not** **null**,

lastname **varchar**(50) **not** **null**,

dateofbirth **date** **not** **null**,

gender **varchar**(1) **check** (gender **in** ('M', 'F')), -- gender belongs to {M,F}

**constraint** cn\_birth **check** (dateofbirth >= '01-01-1900'::**date**) -- birth date should be at least 1 Jan 1900

);

**Adding default values of columns:**

**alter** **table** driver

**alter** **name** **set** **default** '',

**alter** secondname **set** **default** '',

**alter** lastname **set** **default** '';

**Identity column – auto incremented field:**

**alter** **table** driver

**alter** iddriver

**ADD** **GENERATED** **always** **AS** **IDENTITY**

**Identity column – with specification**

**alter** **table** driver

**alter** iddriver

**ADD** **GENERATED** **by** **default** **AS** **IDENTITY** (**START** **WITH** 1 **INCREMENT** **BY** 1)

**create** **table** driver

(iddriver **int** **GENERATED** **always** **AS** **IDENTITY**,

drivername **varchar(50)**)

**Change identity** on existing column (add new or cancel):

**alter** **table** driver

**alter** iddriver **ADD** **GENERATED** **always** **AS** **IDENTITY**

**Turn off identity**

**alter** **table** driver

**alter** iddriver **drop** **IDENTITY**