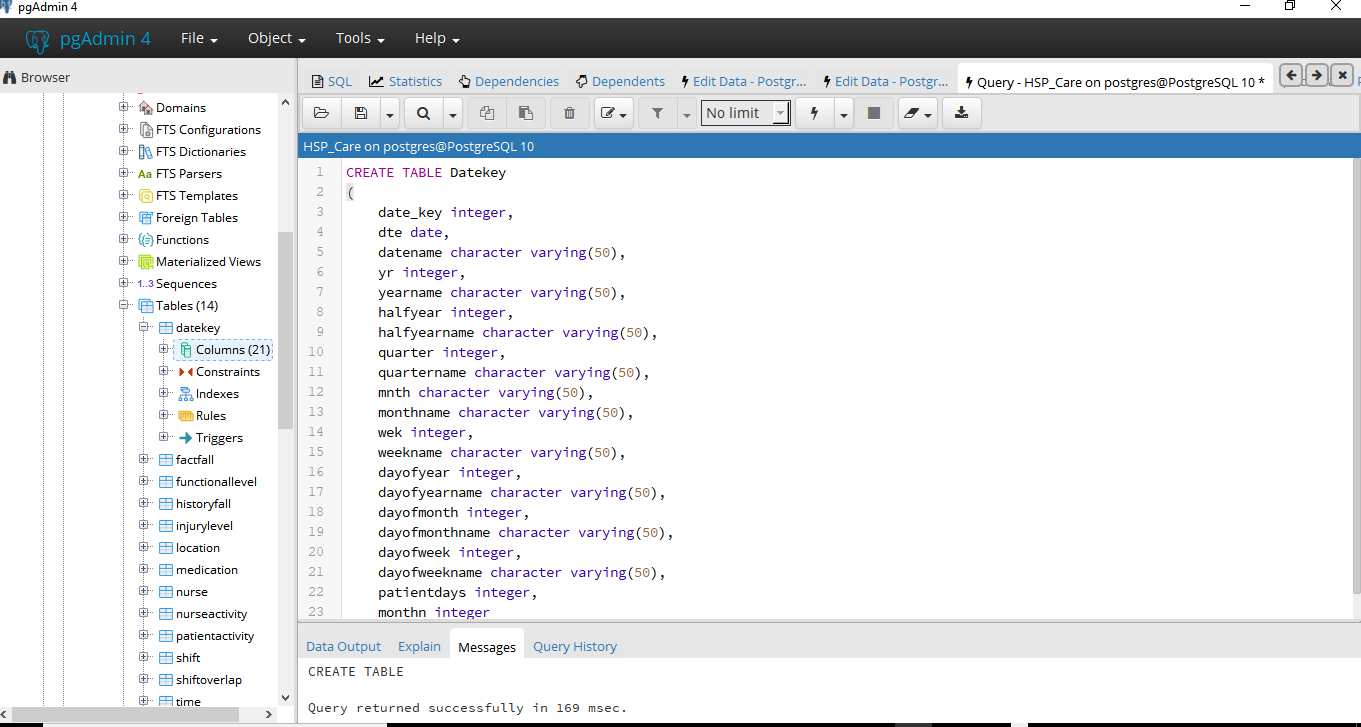
**Question 1:** There were 14 sheets on the excel given for “Hospital Care Quality Analysis Case Study”. In order to import them in PostGres SQL, there were 14 tables that were created in the edit query tool and 14 different excel were created into ‘csv’ format. Once tables were created as shown in the below screen shot for creating table corresponding to sheet “Dim\_datekey”, then excel corresponding to it was imported.

Figure 1: Query for creating table "datekey"

Here is the code that was written in PG SQL for creating the table “**datekey”** so that excel data can be imported into it:

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE datekey

(

date\_key integer,

dte date,

datename character varying(50) ,

yr integer,

yearname character varying(50) ,

halfyear integer,

halfyearname character varying(50) ,

quarter integer,

quartername character varying(50) ,

mnth character varying(50) ,

monthname character varying(50) ,

wek integer,

weekname character varying(50) ,

dayofyear integer,

dayofyearname character varying(50) ,

dayofmonth integer,

dayofmonthname character varying(50) ,

dayofweek integer,

dayofweekname character varying(50) ,

patientdays integer,

monthn integer,

CONSTRAINT "dateKey" PRIMARY KEY (date\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////

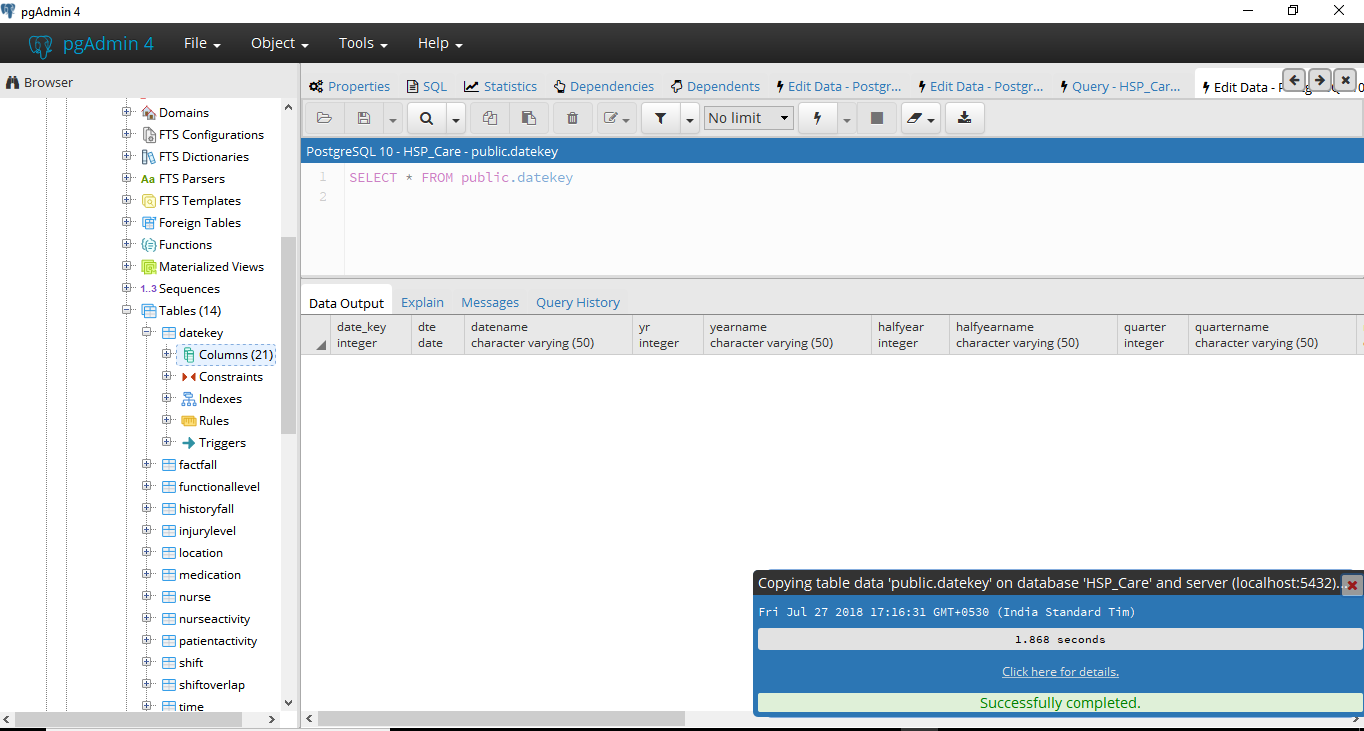


Figure 2: Showing successful creation of table

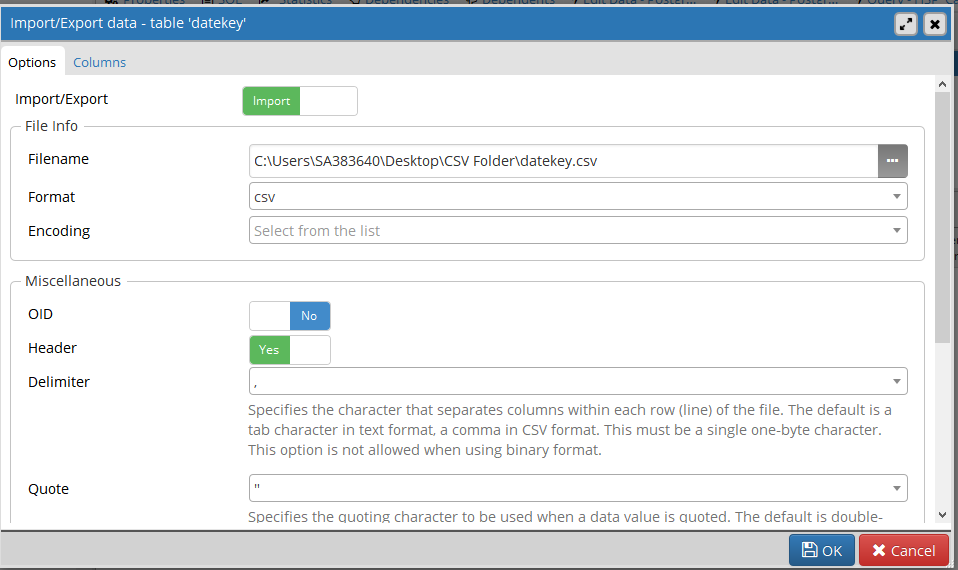


Figure 3: Importing data from excel csv into Postgres excel

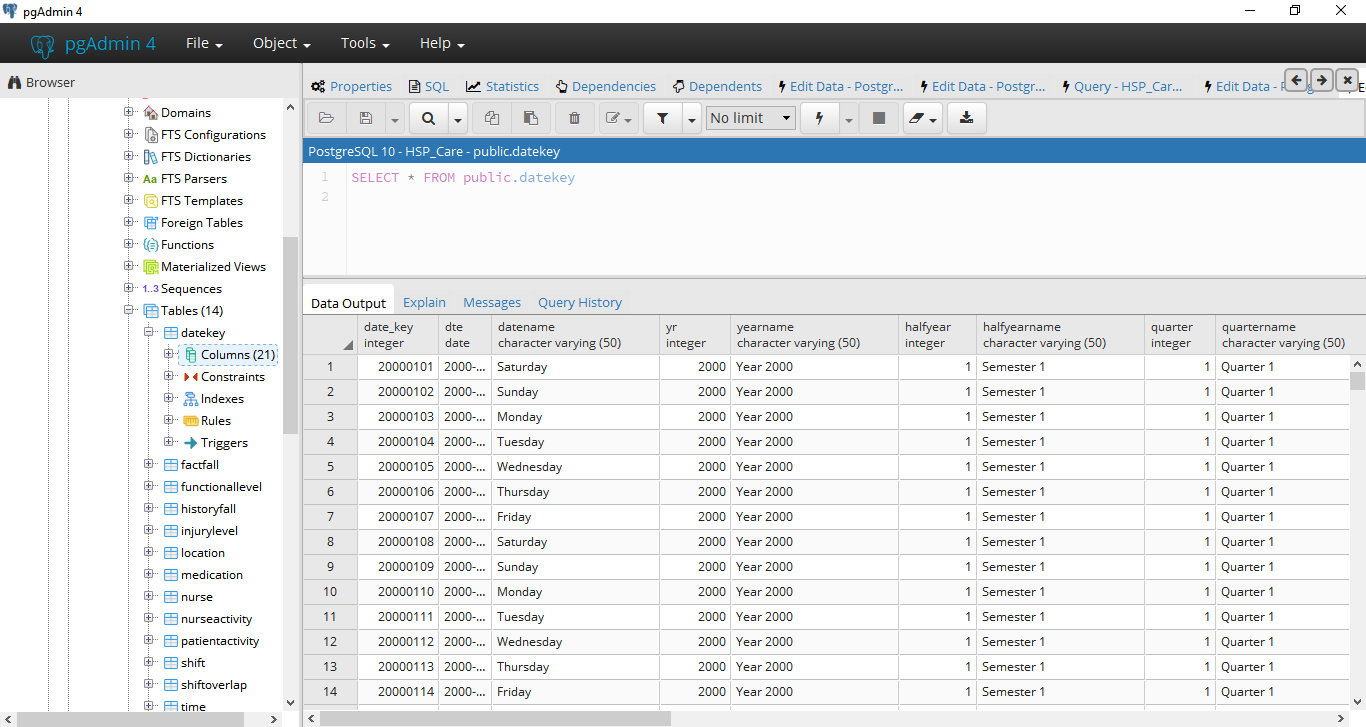


Figure4: Successful import of excel data into SQL

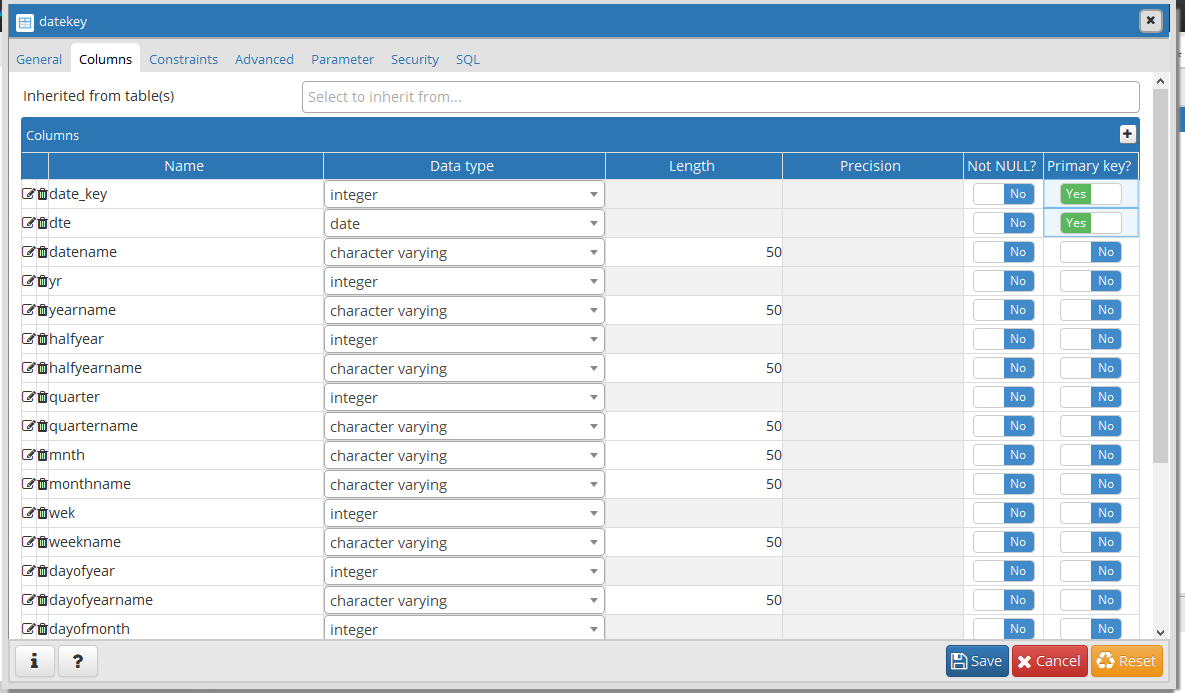


Figure 5: Declaring Primary Key

Similarly other tables were created and data for them was imported into pgSQL.

**Factfall data creation code:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE factfall

(

fall\_skey integer,

witness\_flag\_key integer,

cohorent\_flag\_key integer,

injurylevel\_key integer,

location\_key integer,

patientactivity\_key integer,

latest\_whefra\_score integer,

functional\_key integer,

medication\_key1 integer,

medication\_key2 integer,

medication\_key3 integer,

medication\_key4 integer,

medication\_key5 integer,

history\_fall integer,

nurseactivity\_key integer,

patientunitcase\_key integer,

nurse\_key integer,

date\_key integer,

time\_key integer,

fall integer,

shift\_key integer,

overlap integer,

whefrascore\_key integer,

medicationnos integer,

nursehourseonshift integer,

timeoffall character varying(50),

CONSTRAINT "Date\_Key" FOREIGN KEY (date\_key)

REFERENCES datekey (date\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "HistoryOfFall" FOREIGN KEY (history\_fall)

REFERENCES historyfall (history\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "Location" FOREIGN KEY (location\_key)

REFERENCES location (location\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "Medication" FOREIGN KEY (medication\_key1)

REFERENCES medication (medication\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "NurseActivity" FOREIGN KEY (nurseactivity\_key)

REFERENCES nurseactivity (nurseactivity\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "PatientActivity" FOREIGN KEY (patientactivity\_key)

REFERENCES patientactivity (patientactivity\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "Shift" FOREIGN KEY (shift\_key)

REFERENCES shift (shift\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "Time" FOREIGN KEY (time\_key)

REFERENCES "time" (time\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT "WitnessFlag" FOREIGN KEY (witness\_flag\_key)

REFERENCES witnessfall (flag\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT medication FOREIGN KEY (medication\_key2)

REFERENCES medication (medication\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION,

CONSTRAINT nurse FOREIGN KEY (nurse\_key)

REFERENCES nurse (nurse\_key) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE NO ACTION

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////

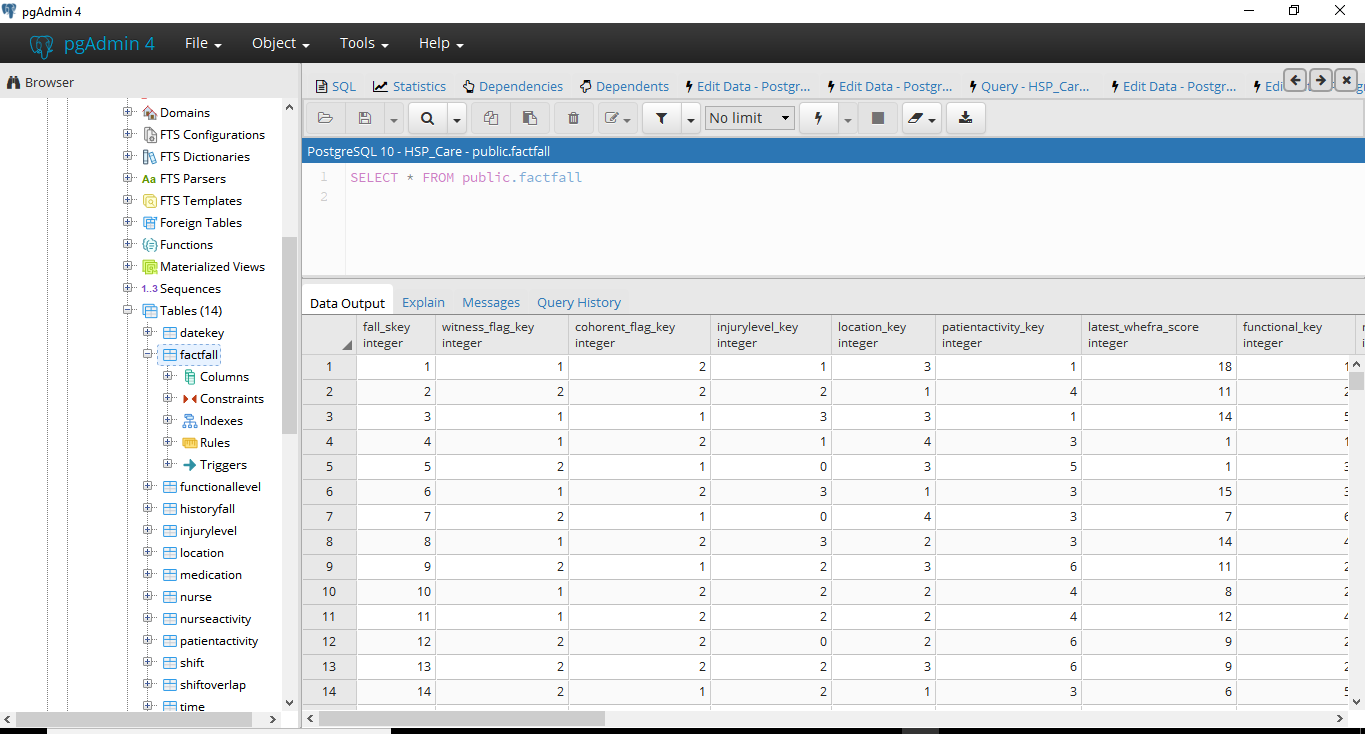


Figure 6: Fact fall data imported

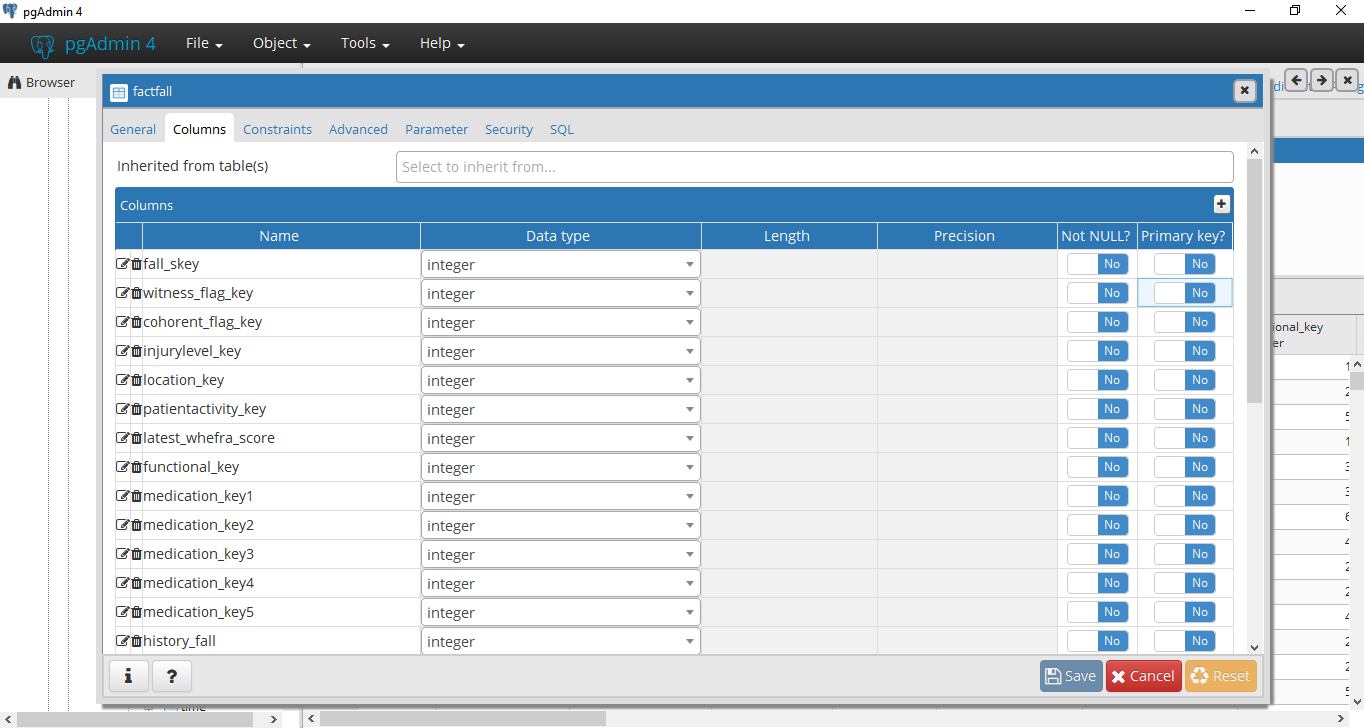


Figure 7: There is no primary key in this Fact fall table as most of them are foreign keys

**Creation of table functionallevel code:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE functionallevel

(

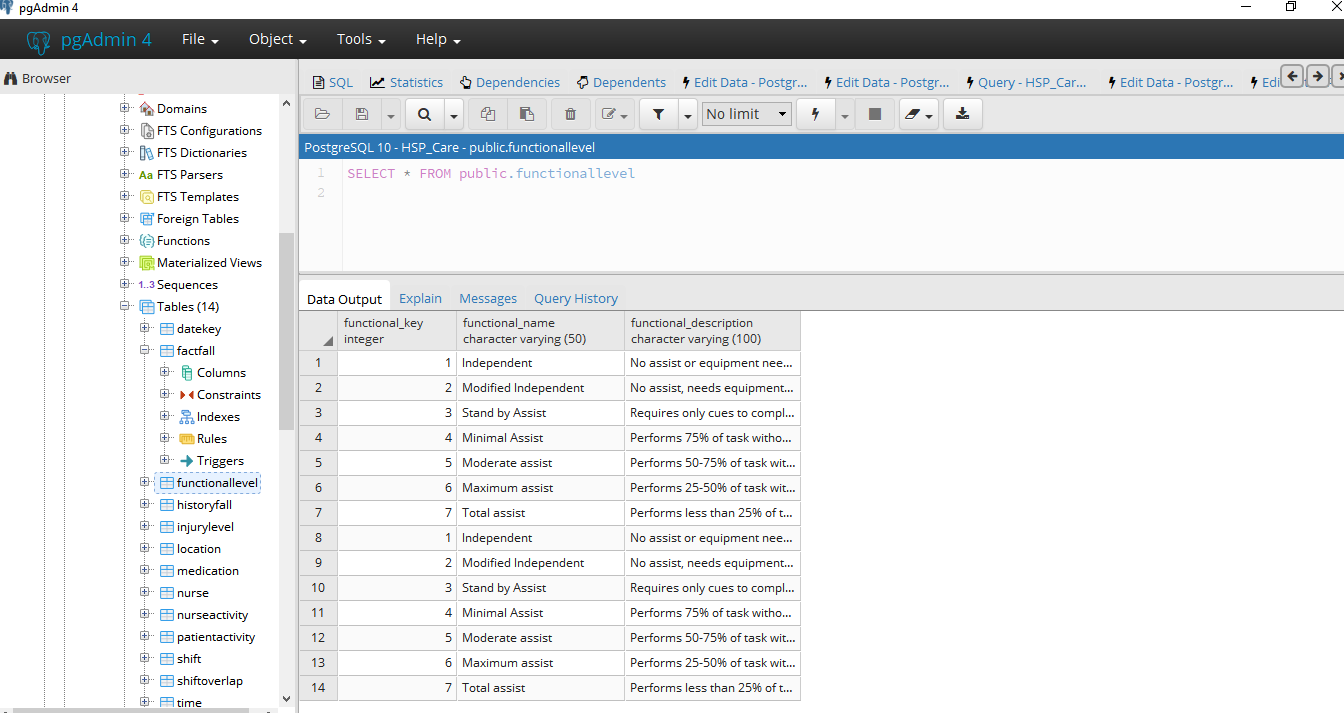
functional\_key integer,

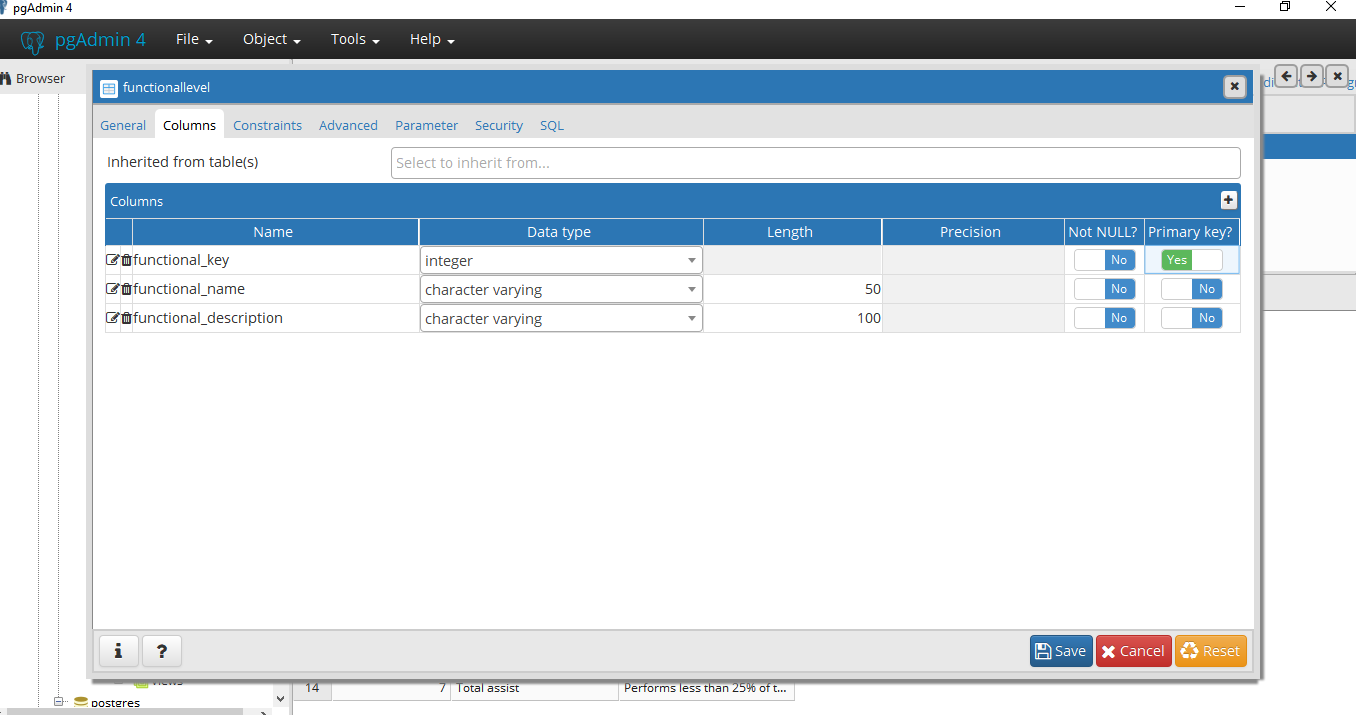
functional\_name character varying(50) ,

functional\_description character varying(100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table historyfall:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE historyfall

(

history\_key integer,

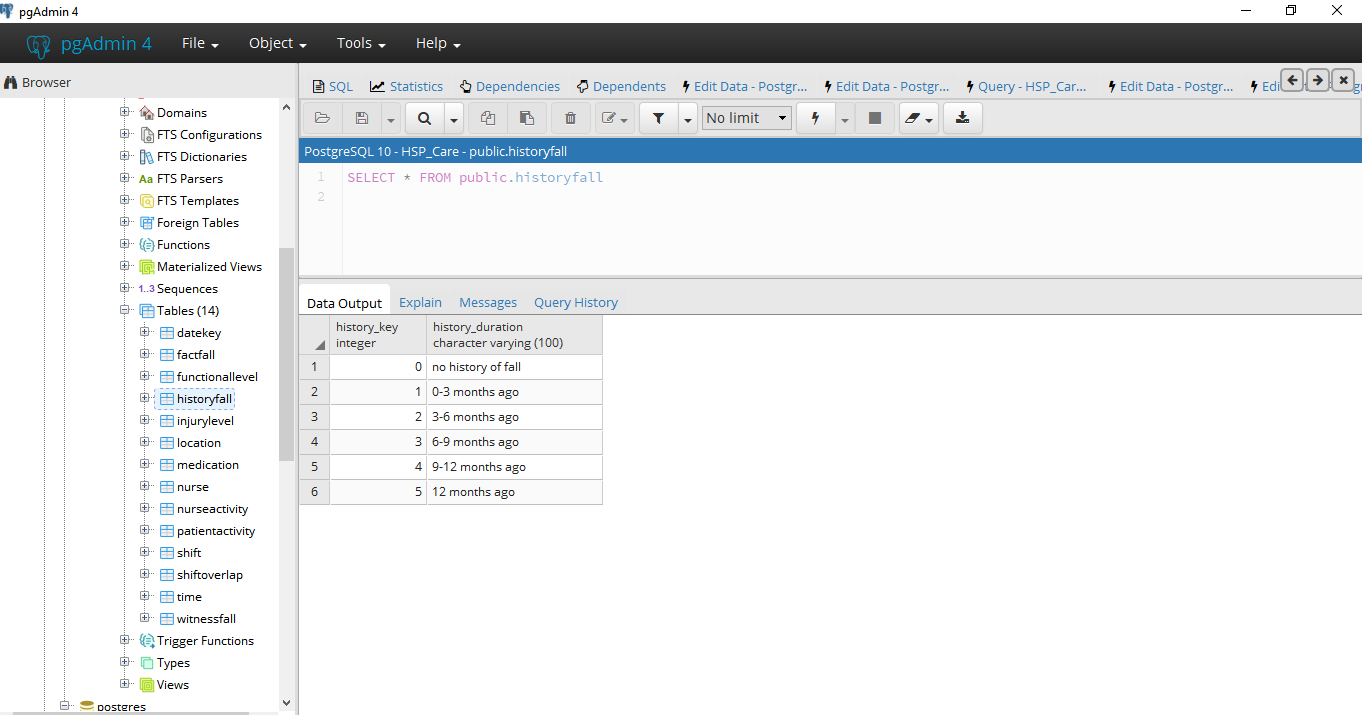
history\_duration character varying(100),

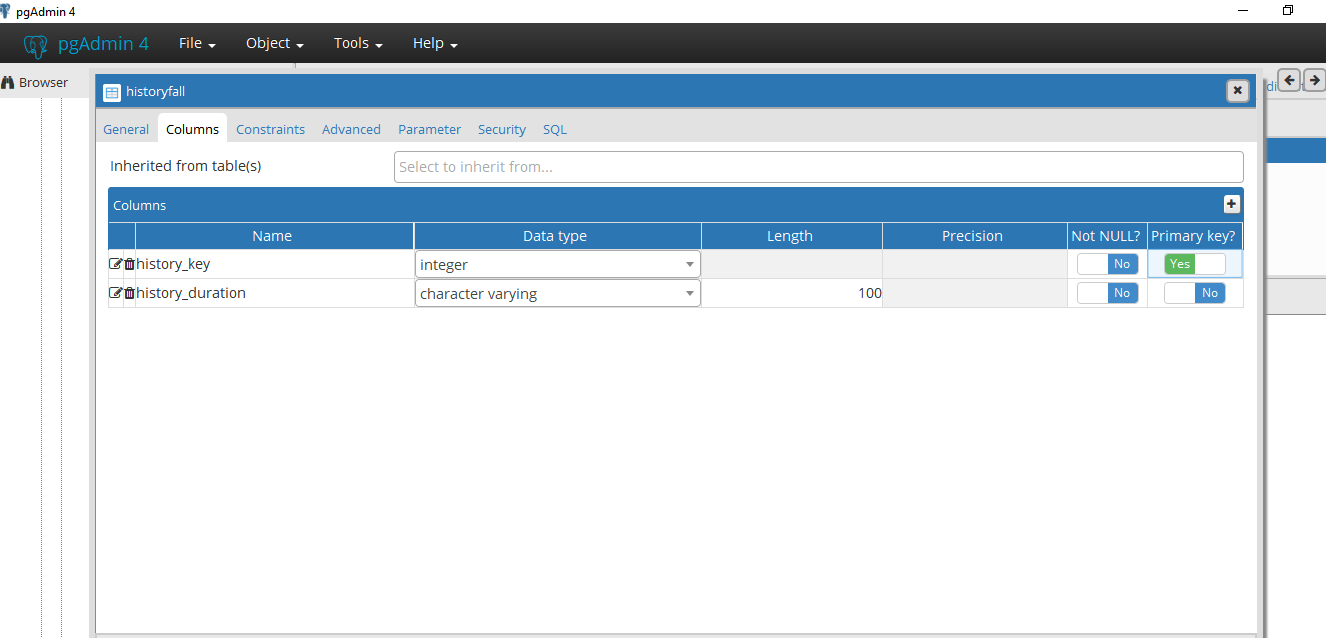
CONSTRAINT "HistoryOfFall" PRIMARY KEY (history\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table injurylevel:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE injurylevel

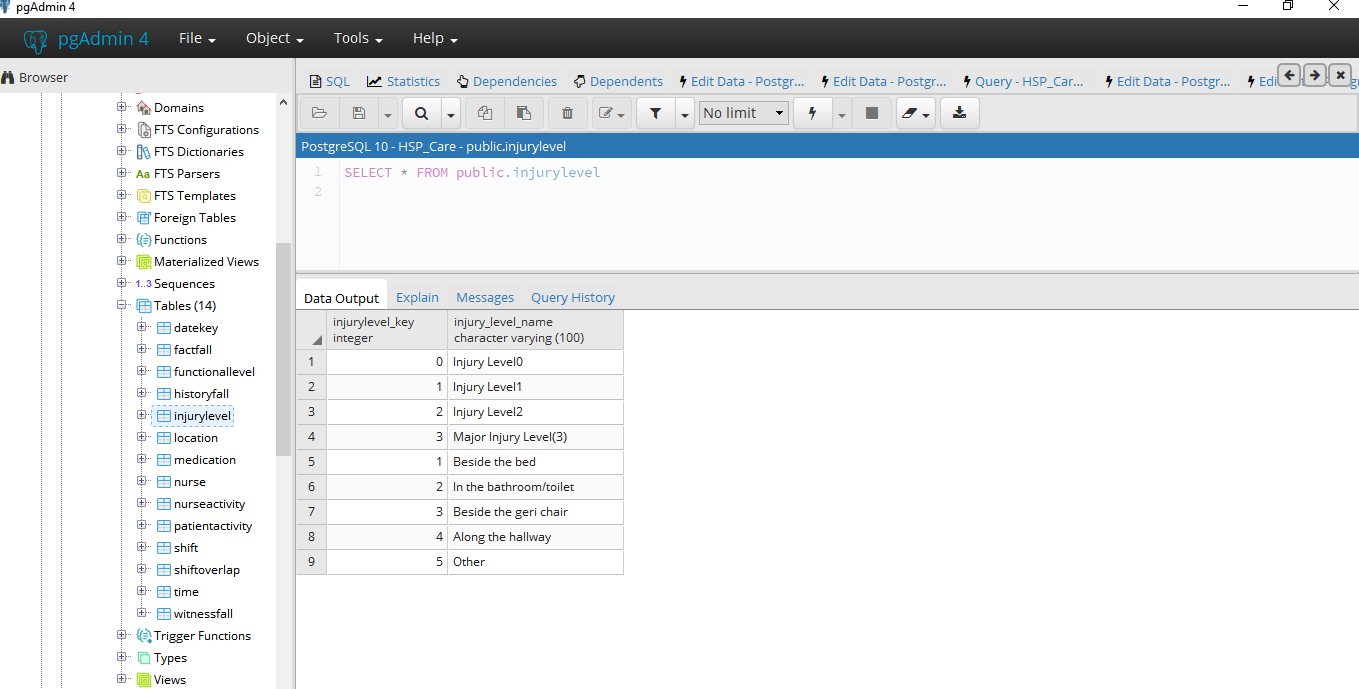
(

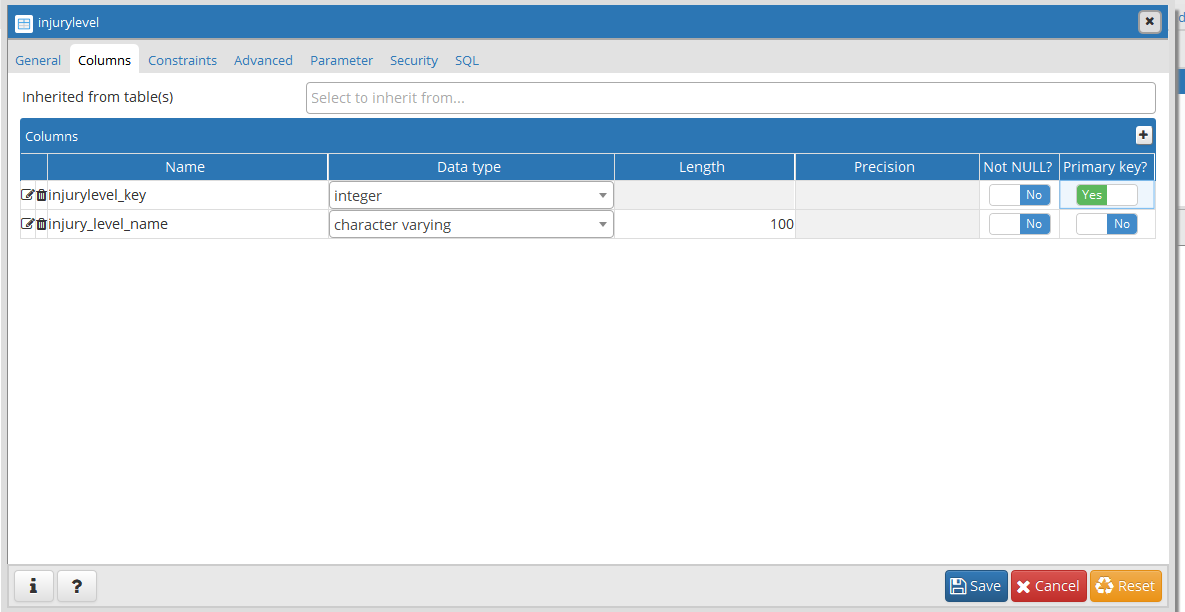
injurylevel\_key integer,

injury\_level\_name character varying(100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table location**:

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE location

(

location\_key integer,

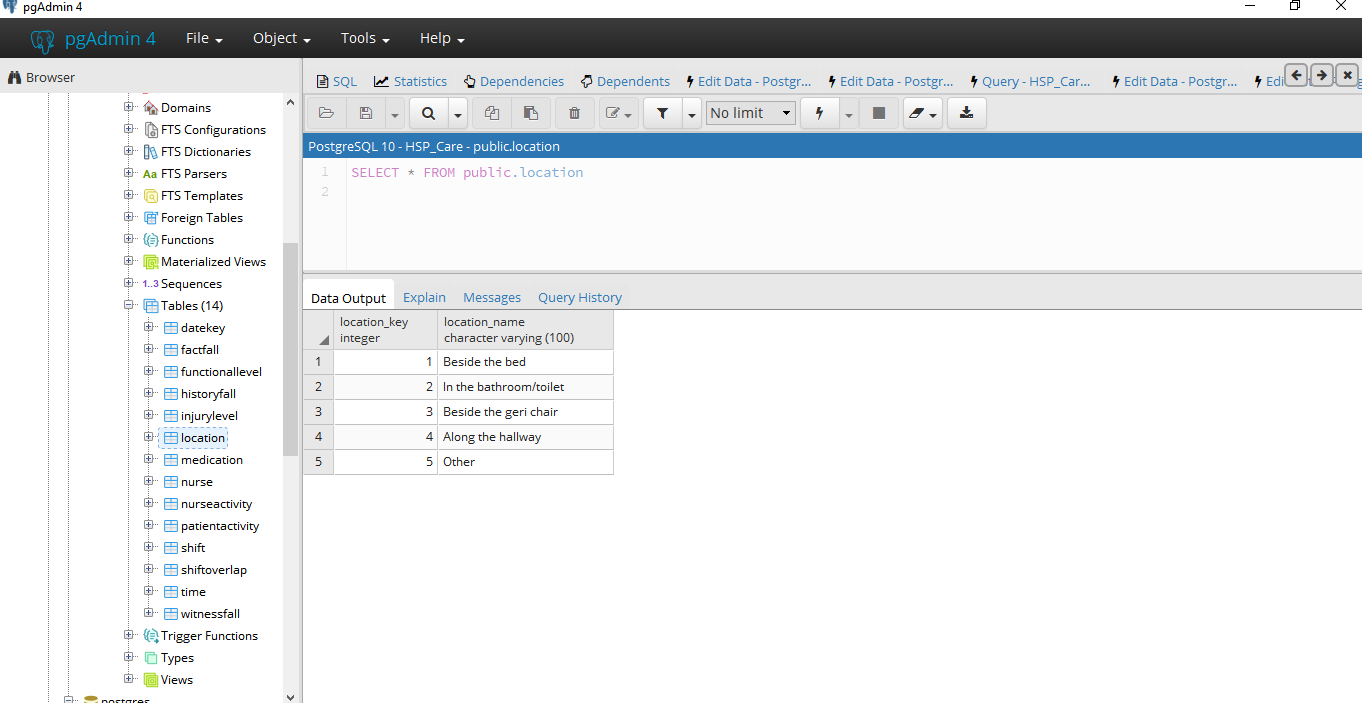
location\_name character varying(100),

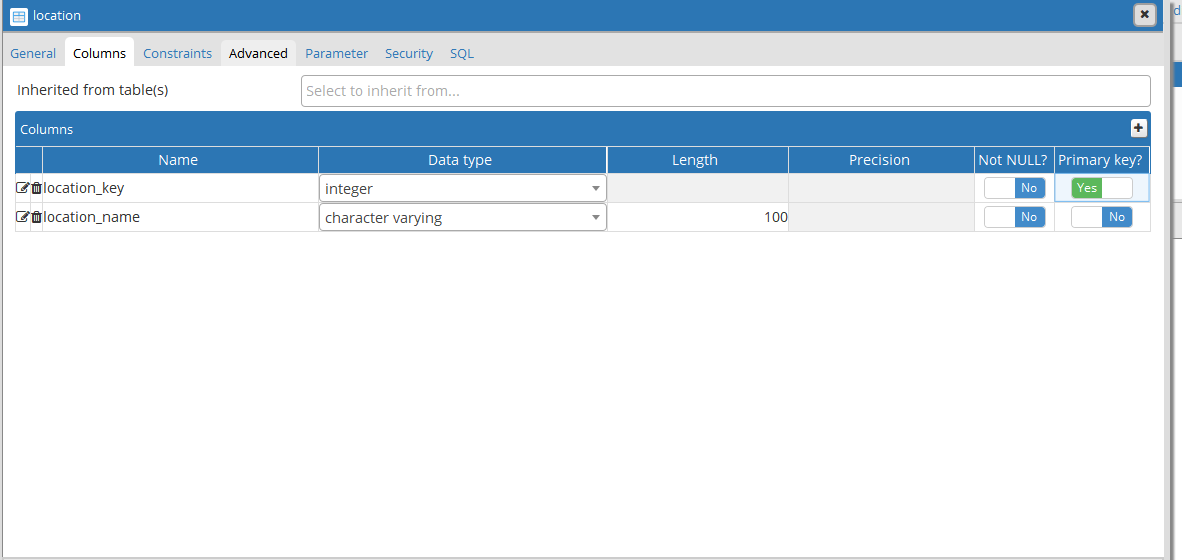
CONSTRAINT "Location" PRIMARY KEY (location\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table medication:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE medication

(

medication\_key integer,

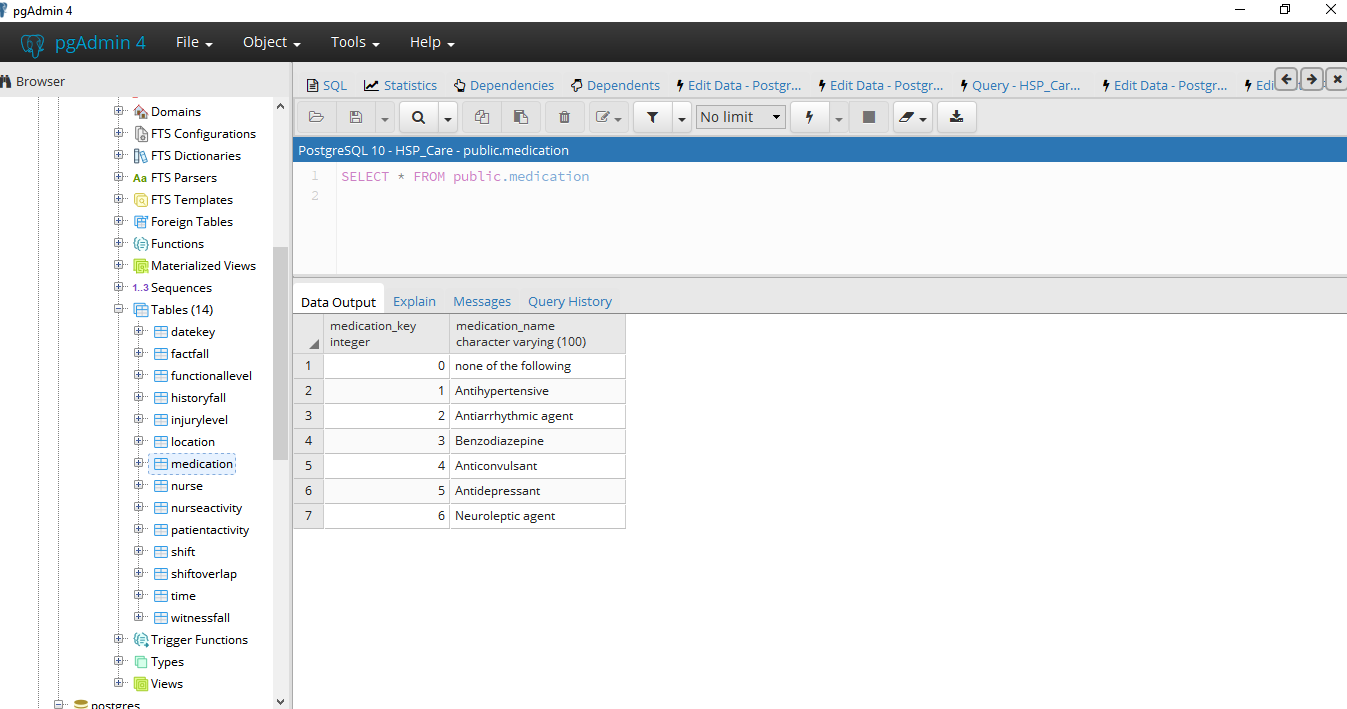
medication\_name character varying(100),

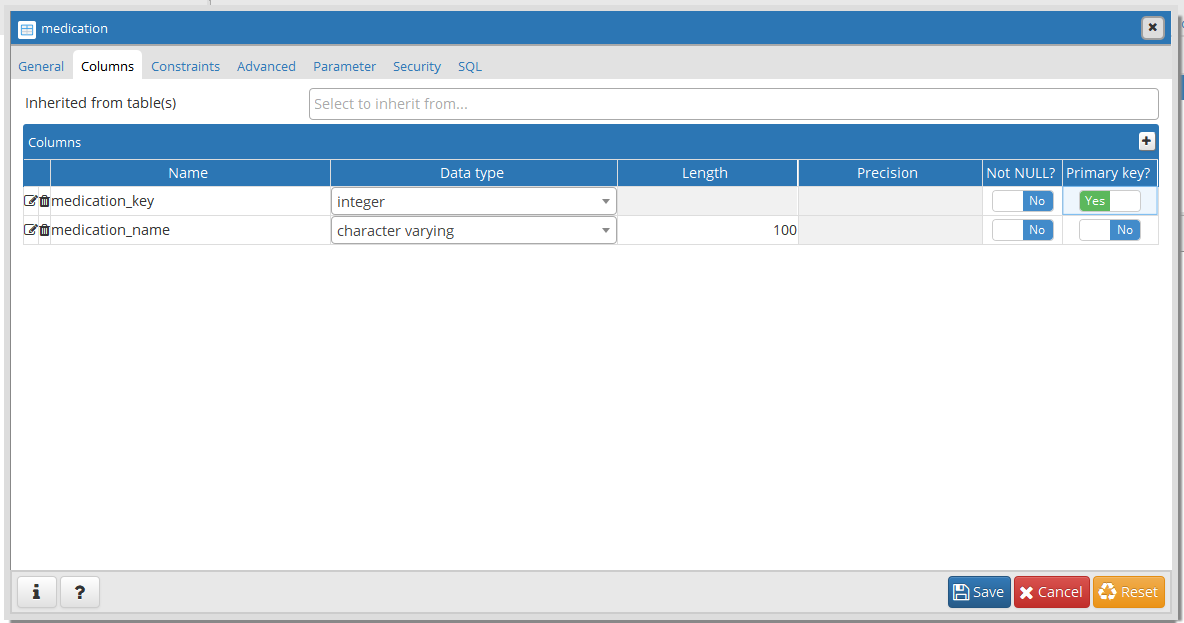
CONSTRAINT "Medication" PRIMARY KEY (medication\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table nurse:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE nurse

(

nurse\_key integer,

nurse\_name character varying(50) ,

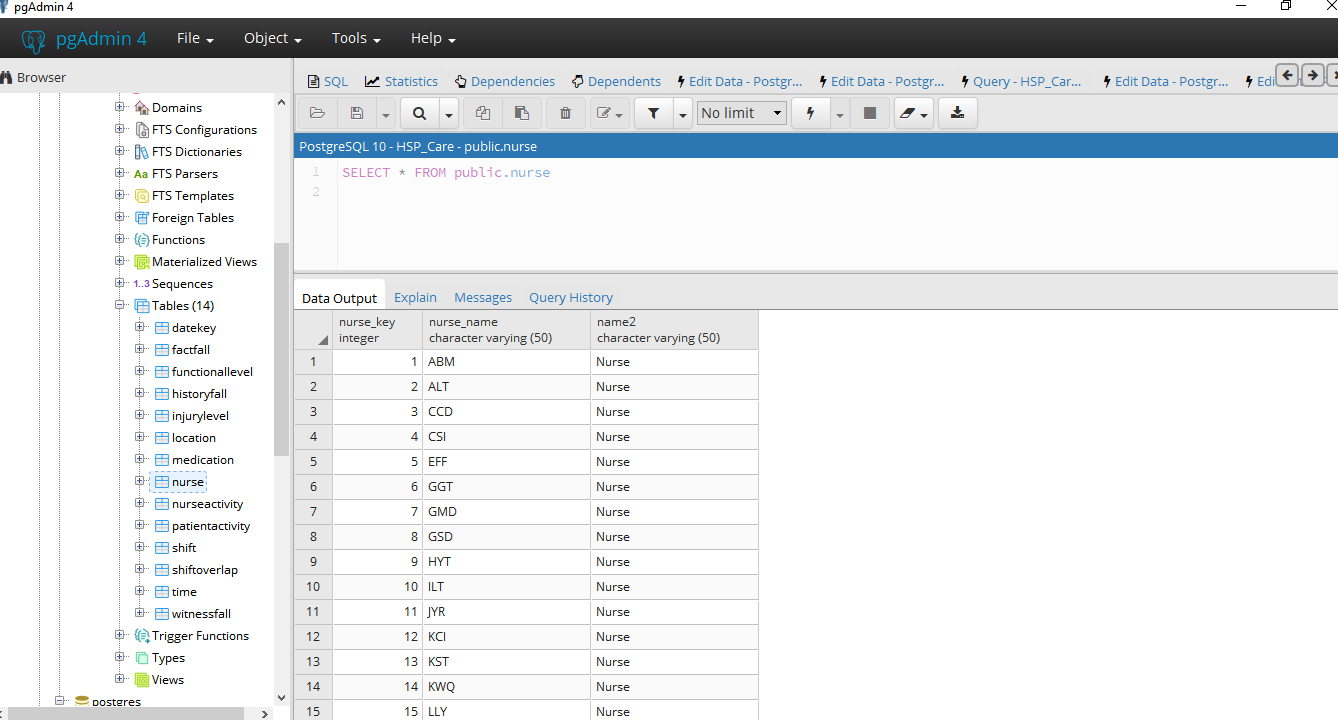
name2 character varying(50),

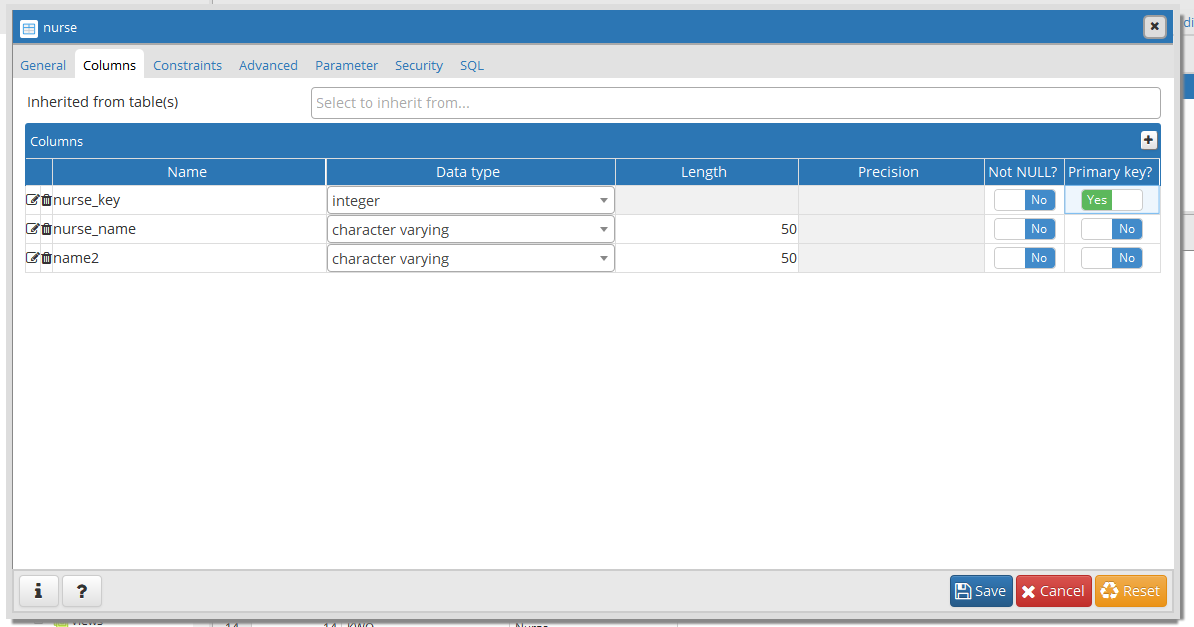
CONSTRAINT "Nurse" PRIMARY KEY (nurse\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table nurseactivity:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE nurseactivity

(

nurseactivity\_key integer,

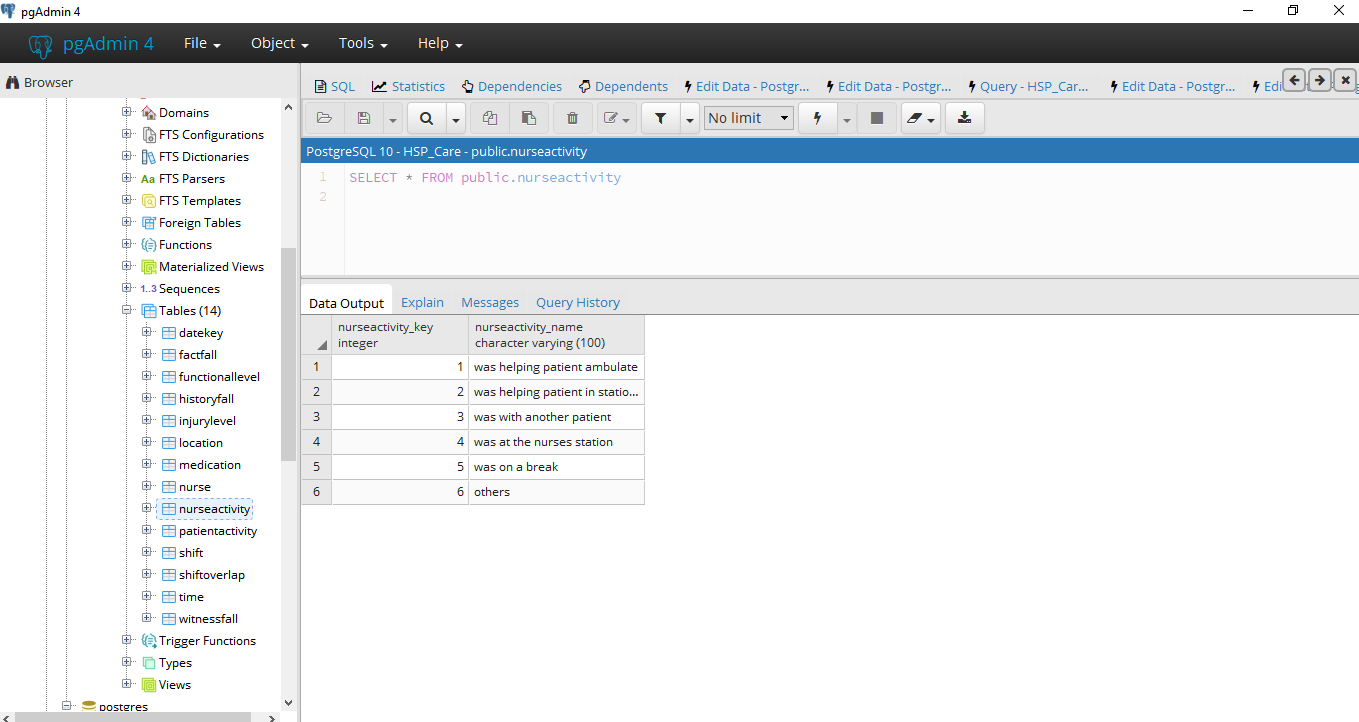
nurseactivity\_name character varying(100),

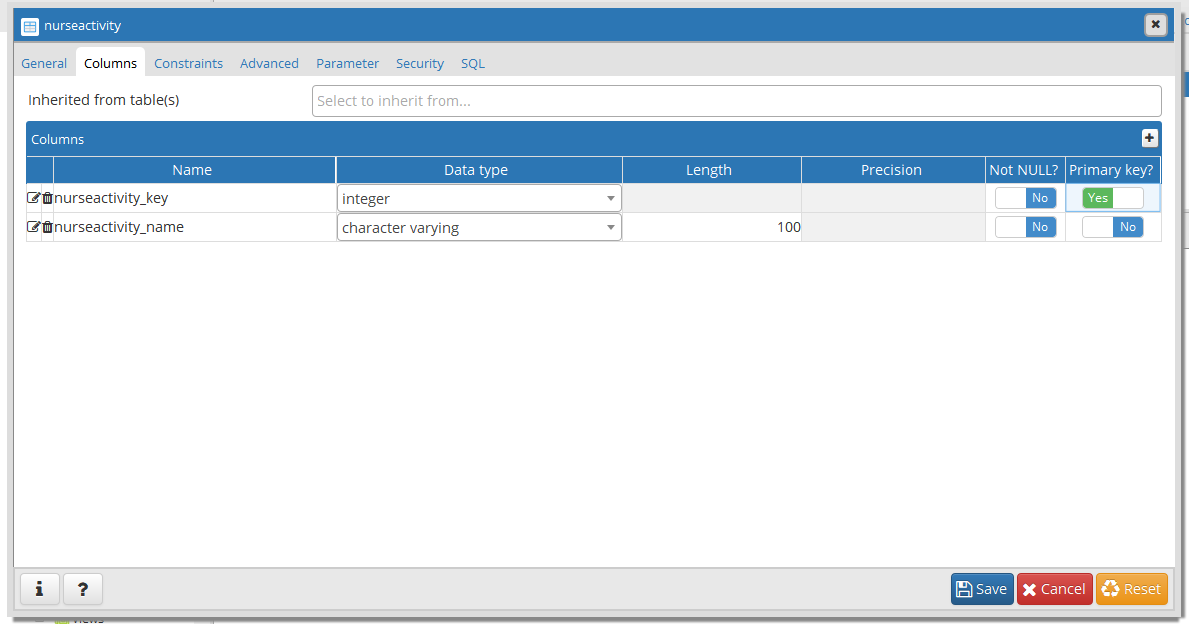
CONSTRAINT "NurseActivity" PRIMARY KEY (nurseactivity\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table patientactivity:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE patientactivity

(

patientactivity\_key integer,

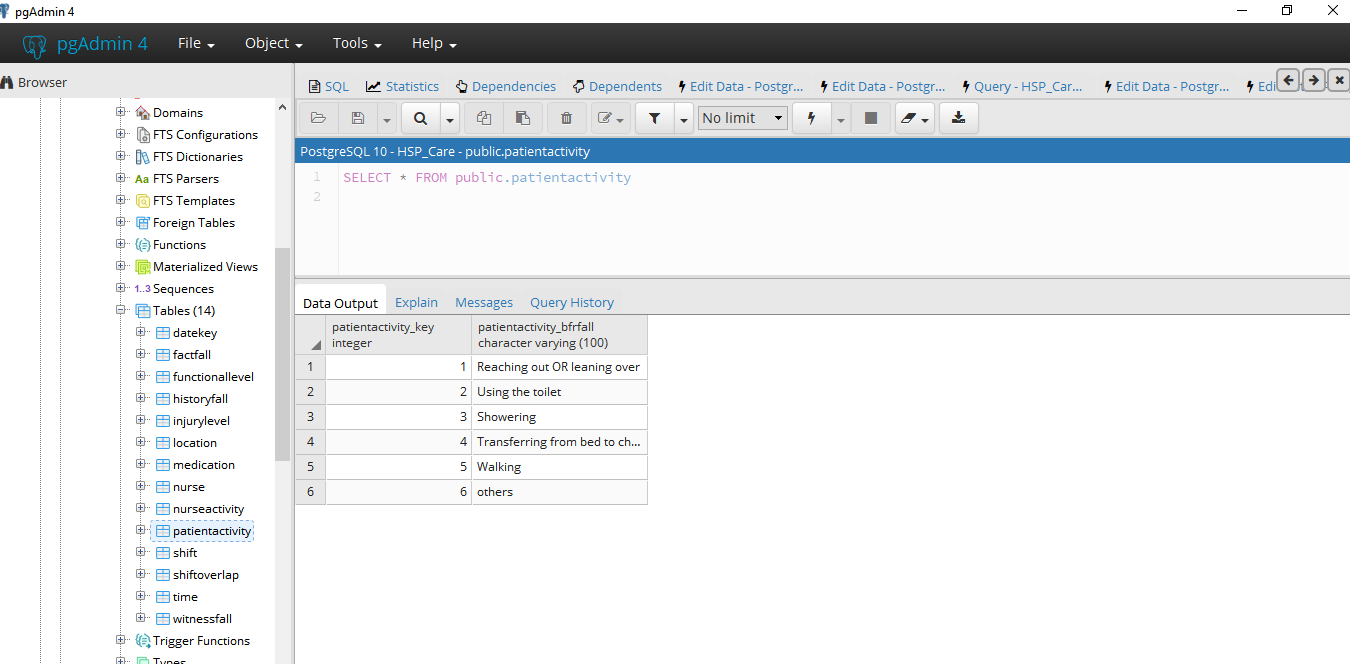
patientactivity\_bfrfall character varying(100),

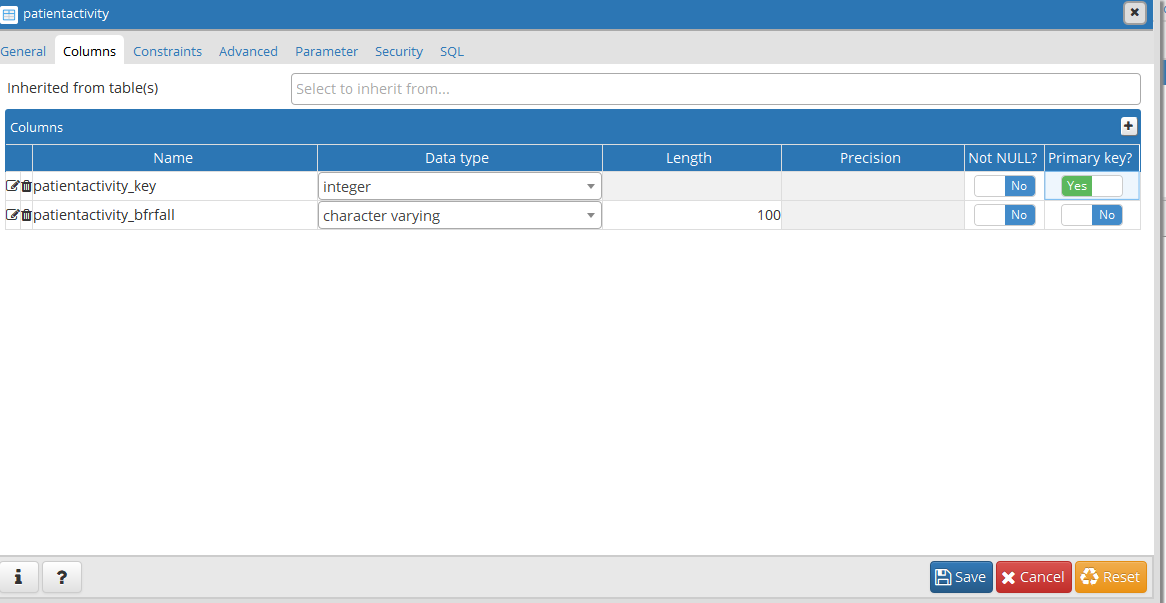
CONSTRAINT "PatientActivity" PRIMARY KEY (patientactivity\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table shift:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE shift

(

shift\_key integer,

starttime integer,

endtime integer,

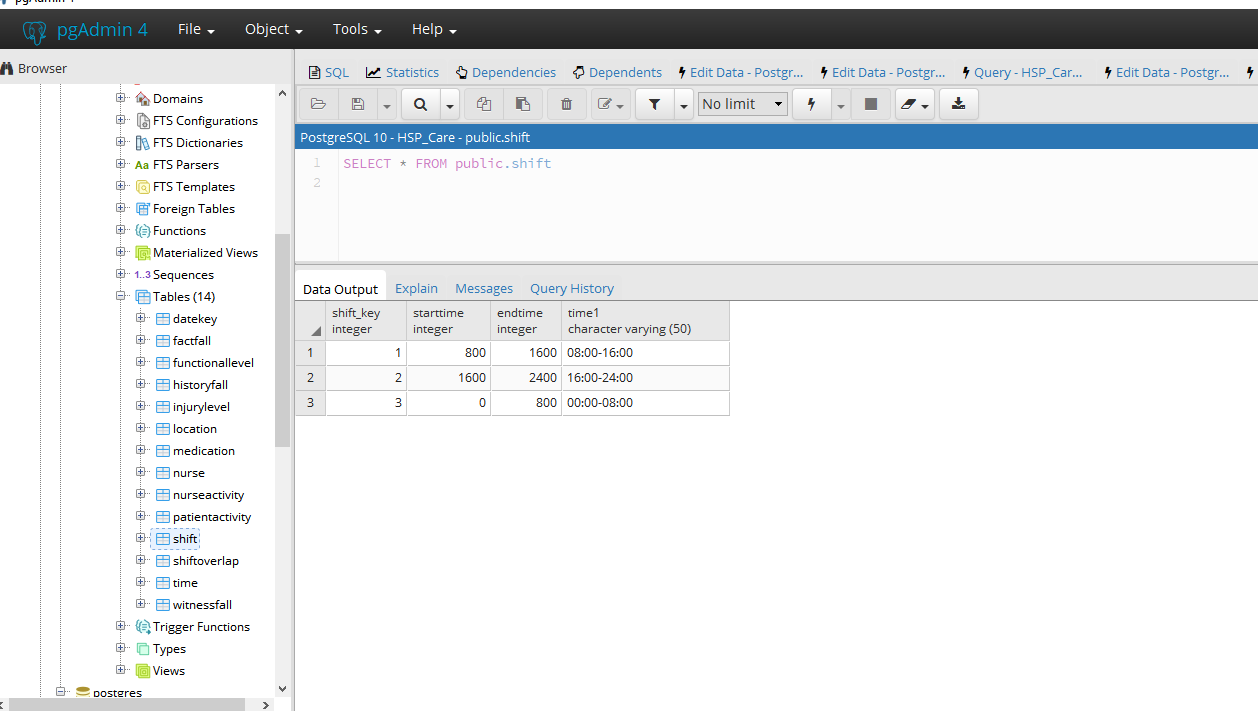
time1 character varying(50),

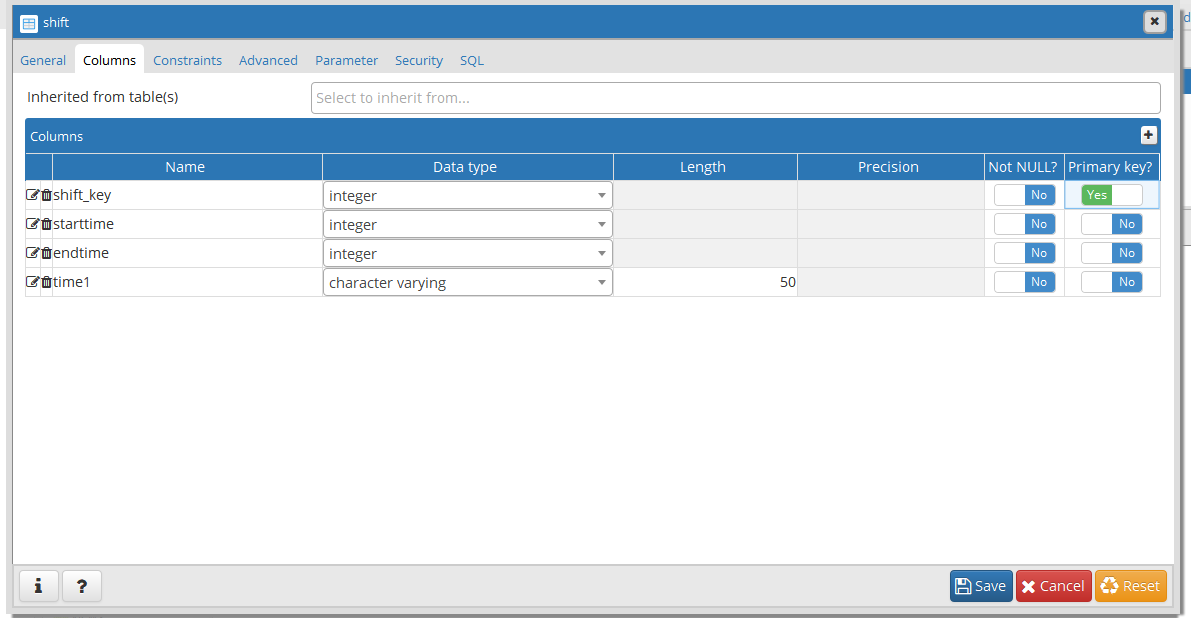
CONSTRAINT "Shift" PRIMARY KEY (shift\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table shiftoverlap:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE shiftoverlap

(

overlap integer,

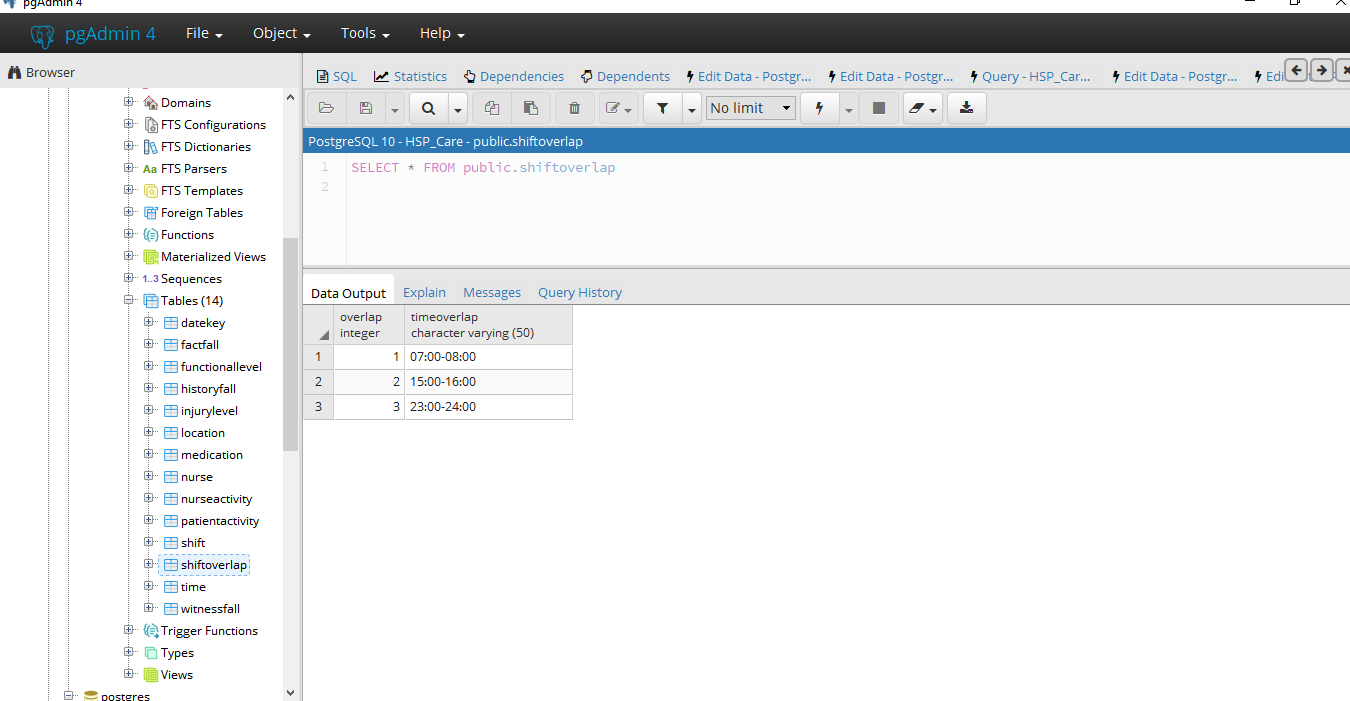
timeoverlap character varying(50),

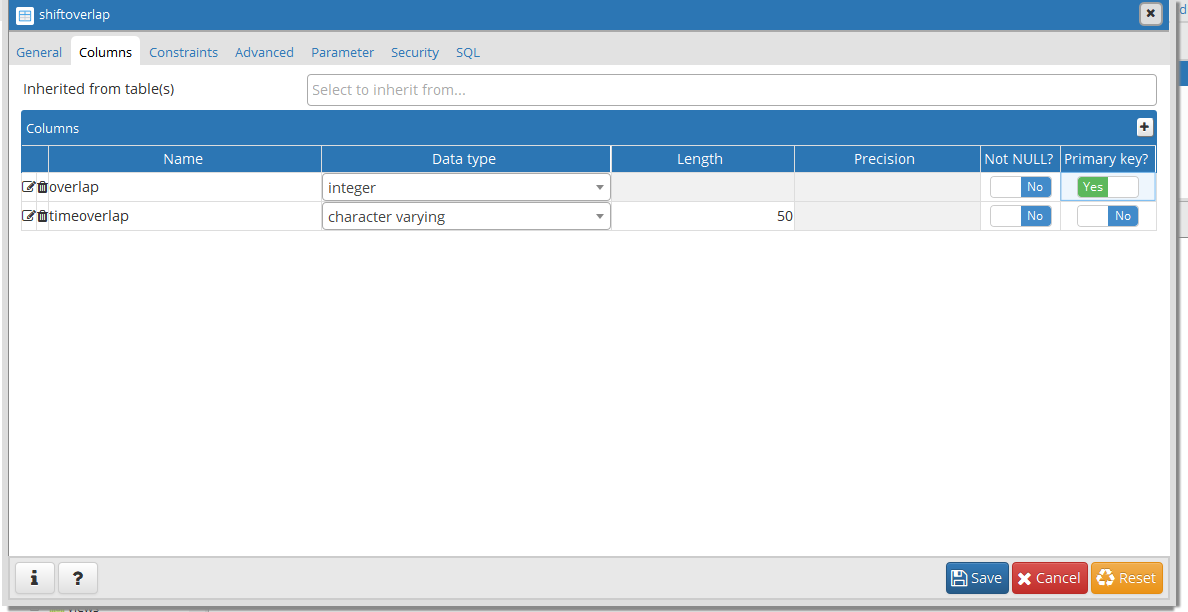
CONSTRAINT "ShiftOverlap" PRIMARY KEY (overlap)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table time:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE "time"

(

time\_key integer,

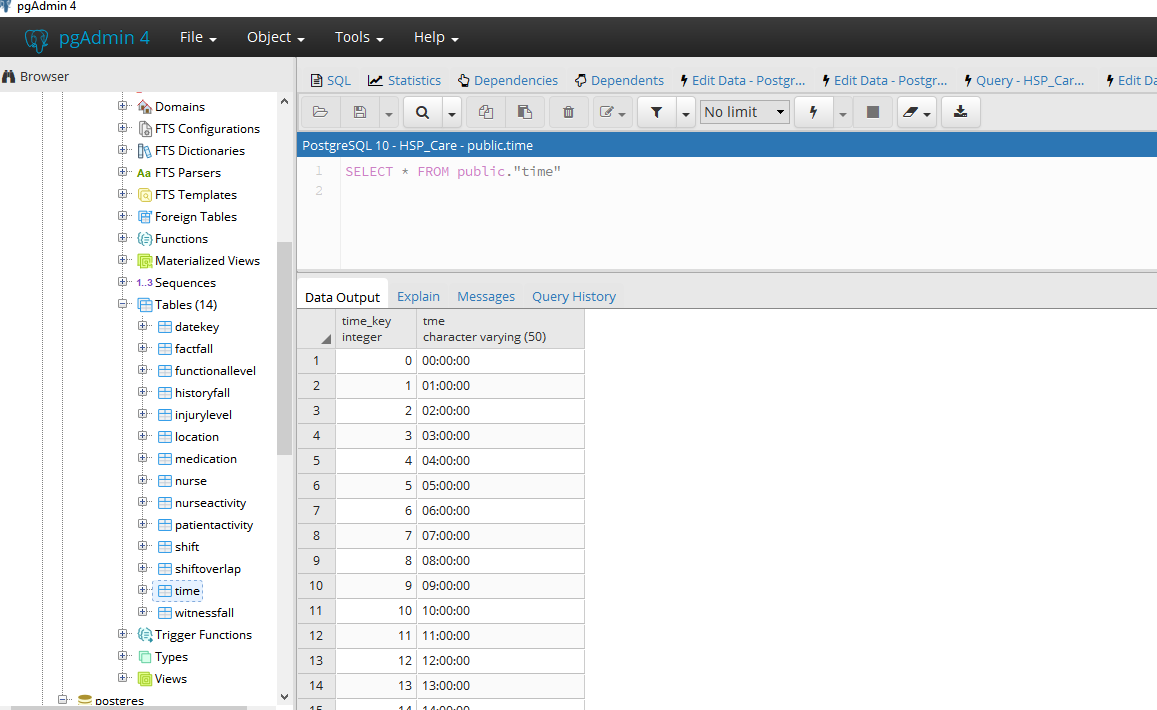
tme character varying(50),

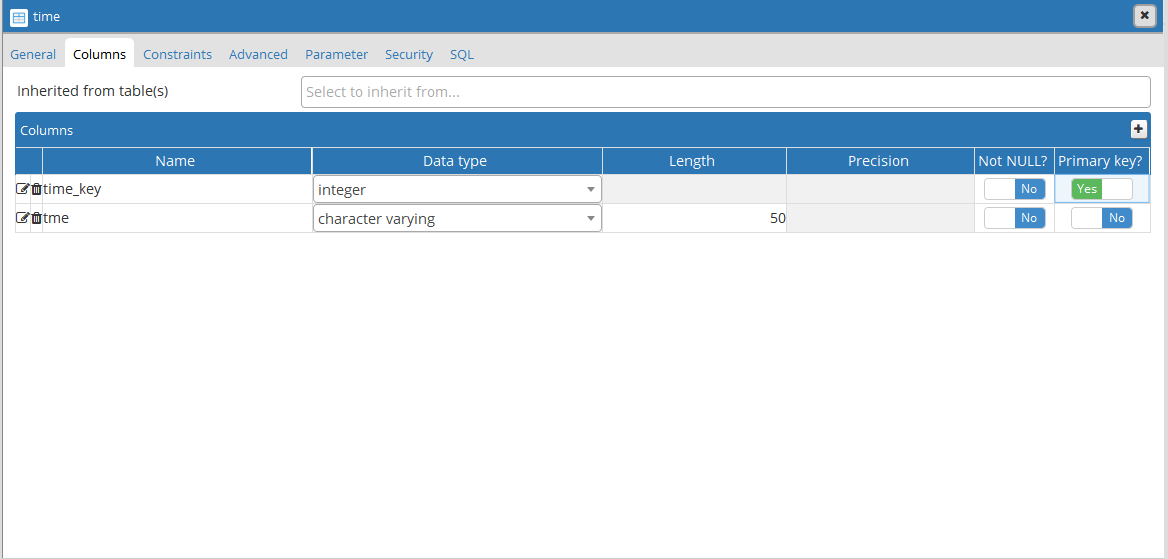
CONSTRAINT time\_pkey PRIMARY KEY (time\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////





**Creation of table witness fall:**

////////////////////////////////////////////////////////////////////////////////////////////////////////////

CREATE TABLE witnessfall

(

flag\_key integer,

flag\_name character varying(50),

CONSTRAINT "WitnessFlag" PRIMARY KEY (flag\_key)

WITH (FILLFACTOR=100)

)

////////////////////////////////////////////////////////////////////////////////////////////////////////////

