Ejemplo de SQL Dinámico en PostgreSQL

Ejemplo genérico para recuperar una columna varchar de cualquier tabla

Definición:

```
DROP FUNCTION sql_dinamico(character varying,character varying)
CREATE OR REPLACE FUNCTION sql_dinamico(varchar,varchar) RETURNS SETOF VARCHAR
as
$BODY$
DECLARE
v_cadena VARCHAR(100);
v_nomTabla VARCHAR(30) := $1;
v_nomColumna VARCHAR(30) := $2;
BEGIN

v_cadena := 'SELECT ' || v_nomColumna;
v_cadena = v_cadena || ' FROM ' || v_nomTabla;

RAISE NOTICE 'v_cadena: %', v_cadena;
RETURN QUERY EXECUTE v_cadena;
END;
$BODY$
language plpgsql;
```

Invocación:

```
select sql_dinamico('persona','apellidonombre')
```

Resultados:

```
"Acosta Maria Florencia"
"Actis Marcelo Jesus"
"Beltritti Gaston"
"Bongioanni Pedro"
...
"Font Federico"
```

Eventos del TP2

Definición de tipo para devolver valores:

```
create type tip_evento as
(
  id_dispositivo bigint,
  id_evento bigint ,
  momento timestamp without time zone ,
  tipoevento character varying(20) ,
  apellidonombre character varying(100));
```

Definición de la función:

```
CREATE OR REPLACE FUNCTION f_eventos(v_fecha_desde timestamp, v_fecha_hasta timestamp,
v_apellidoNombre character varying) RETURNS SETOF tip_evento
as
$BODY$
DECLARE
v_cadena VARCHAR(1000);
v_condicion varchar(1000);
BEGIN

v_cadena := 'SELECT e.id_dispositivo,e.id_evento,e.momento,e.tipoevento,p.apellidonombre FROM evento
e join persona p on p.id=e.id_persona ';

v_condicion := 'WHERE e.momento >= ''' || v_fecha_desde || ''' and e.momento <= ''' || v_fecha_hasta
|| '''';

if (length(v_apellidoNombre)>0) then
   v_condicion := v_condicion || ' AND p.apellidonombre like ''' || '%' || v_apellidoNombre ||
'%''';
end if;

v_cadena := v_cadena || v_condicion;

RAISE NOTICE 'v_cadena: % - % - % - %', v_cadena,v_condicion,v_fecha_desde, v_fecha_hasta;
RETURN QUERY EXECUTE v_cadena;
END;
$BODY$
language plpgsql;
```

Invocación de la función con búsqueda en nombre:

```
select f_eventos('2016-10-31 10:00:00','2016-10-31 19:00:00','Bra')
```

Resultado:

```
"(1,189956,"2016-10-31 17:44:55",SALIDA,"Brandi  Rodolfo Juan")"
"(1,189957,"2016-10-31 18:00:08",SALIDA,"Brandolini  Marcelo Cels")"
```

Invocación de la función con búsqueda solo por fecha:

```
select f_eventos('2016-10-31 10:00:00','2016-10-31 19:00:00','')
```

Resultado:
```
"(1,189946,"2016-10-31 14:00:55",SALIDA,"Bongioanni Pedro")"
"(1,189947,"2016-10-31 18:00:59",SALIDA,"Busaniche Manuela")"
"(1,189949,"2016-10-31 16:15:03",SALIDA,"Castillo Maria Emilia")"
"(1,189950,"2016-10-31 16:20:00",SALIDA,"Chicco Ruiz Anibal Leona")"
"(1,189951,"2016-10-31 16:22:55",SALIDA,"Bonivardi  Hernan")"
"(1,189952,"2016-10-31 17:23:45",SALIDA,"Borda Juan")"
"(1,189955,"2016-10-31 16:33:45",SALIDA,"Botta  Fausto Adrian")"
"(1,189956,"2016-10-31 17:44:55",SALIDA,"Brandi  Rodolfo Juan")"
"(1,189957,"2016-10-31 18:00:08",SALIDA,"Brandolini  Marcelo Cels")"
"(1,189960,"2016-10-31 14:28:33",SALIDA,"Ricaurte Gomez  Carmen A")"
"(1,189961,"2016-10-31 16:00:22",SALIDA,"Rintoul  Gerardo")"
"(1,189939,"2016-10-31 10:00:22",ENTRADA,"Rintoul  Gerardo")"
"(1,189940,"2016-10-31 10:30:44",ENTRADA,"Rintoul  Ignacio")"
"(1,189962,"2016-10-31 17:00:31",SALIDA,"Rivadeneira Paz  Pablo S")"
"(1,189941,"2016-10-31 11:00:31",ENTRADA,"Rivadeneira Paz  Pablo S")"
"(1,189942,"2016-10-31 11:15:59",ENTRADA,"Rodrigues  Daniel Enriqu")"
"(1,189944,"2016-10-31 14:00:34",ENTRADA,"Ribone Pamela")"
"(1,189945,"2016-10-31 18:00:22",ENTRADA,"Sassoni Natalia ")"
```