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Cursor within a cursor

Question: In PSQL, I want to declare a cursor within cursor. The second cursor should use a value from the first cursor in the "where clause". How can I do this?

Answer: Below is an example of how to declare a cursor within a cursor.

In this example, we have a cursor called *get_tables* that retrieves the owner and table_name values. These values are then used in a second cursor called *get_columns*.

create or replace procedure MULTIPLE_CURSORS_PROC is

```
v_owner varchar2(40);
v_table_name varchar2(40);
v_column_name varchar2(100);

/* First cursor */
cursor get_tables is
select distinct tbl.owner, tbl.table_name
from all_tables tbl
where tbl.owner = 'SYSTEM';

/* Second cursor */
cursor get_columns is
select distinct col.column_name
from all_tab_columns col
where col.owner = v_owner
and col.table_name = v_table_name;

begin

-- Open first cursor
open get_tables;
loop
    fetch get_tables into v_owner, v_table_name;

    open get_columns;
    loop
        fetch get_columns into v_column_name;

    end loop;
close get_columns;
```

```
end loop;  
close get_tables;
```

```
EXCEPTION  
WHEN OTHERS THEN  
    raise_application_error(-20001,'An error was encountered - '||SQLCODE||' -ERROR-  
    '||SQLERRM);  
end MULTIPLE_CURSORS_PROC;
```

The trick to declaring a cursor within a cursor is that you need to continue to *open* and *close* the second cursor each time a new record is retrieved from the first cursor. That way, the second cursor will use the new variable values from the first cursor.