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Grupa 233

Tema Curs SGDB
(1 decembrie2022)

1. Folosind pachete, stocati recorduri, tabele indexate si functii sau proceduri care sa lucreze cu ele.
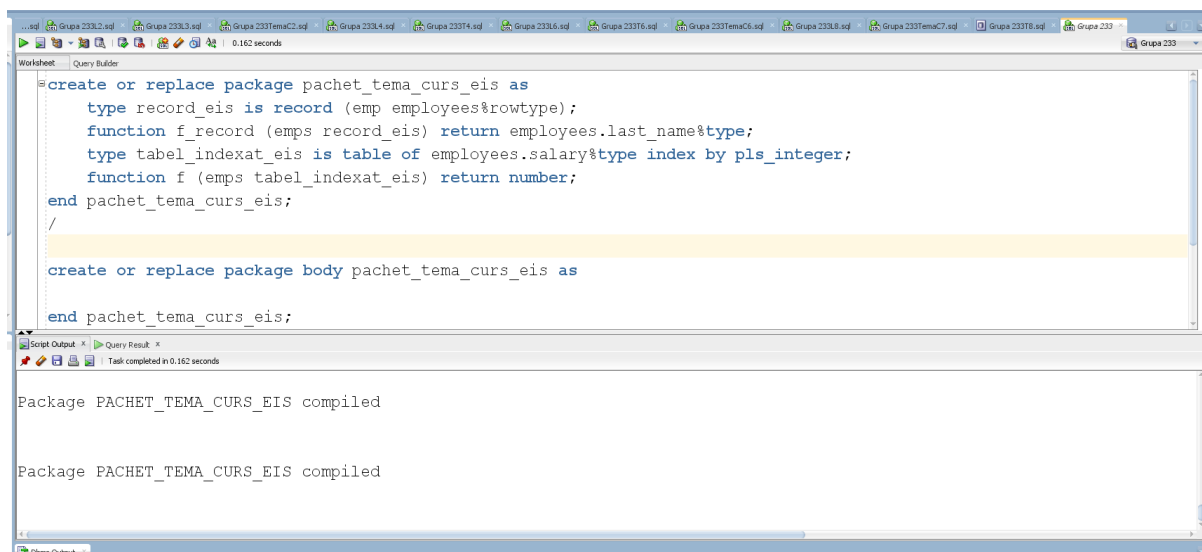
Ne facem un tabel auxiliar pe care sa modificam valori. Am folosit employees.***%rowtype in definitii din obisnuinta, nu afecteaza cu nimic tipul de date deoarece emp_eis este o copie a employees.

drop table emp_eis;
create table emp_eis as select * from employees;

Facem pachetul ce contine:
-   Un tip de date record
-   O functie cu parametru tip de date record
-   Un tip de date tabel indexat
-   O functie cu parametru tip de date tablou indexat

```
create or replace package pachet_tema_curs_eis as
    type record_eis is record (emp employees%rowtype);
    function f_record (emps record_eis) return employees.last_name%type;
    type tabel_indexat_eis is table of employees.salary%type index by pls_integer;
    function f (emps tabel_indexat_eis) return number;
end pachet_tema_curs_eis;
/
```


Scriem corpul functiilor:
-   Functia f_record intoarce numele din record scris cu majuscule
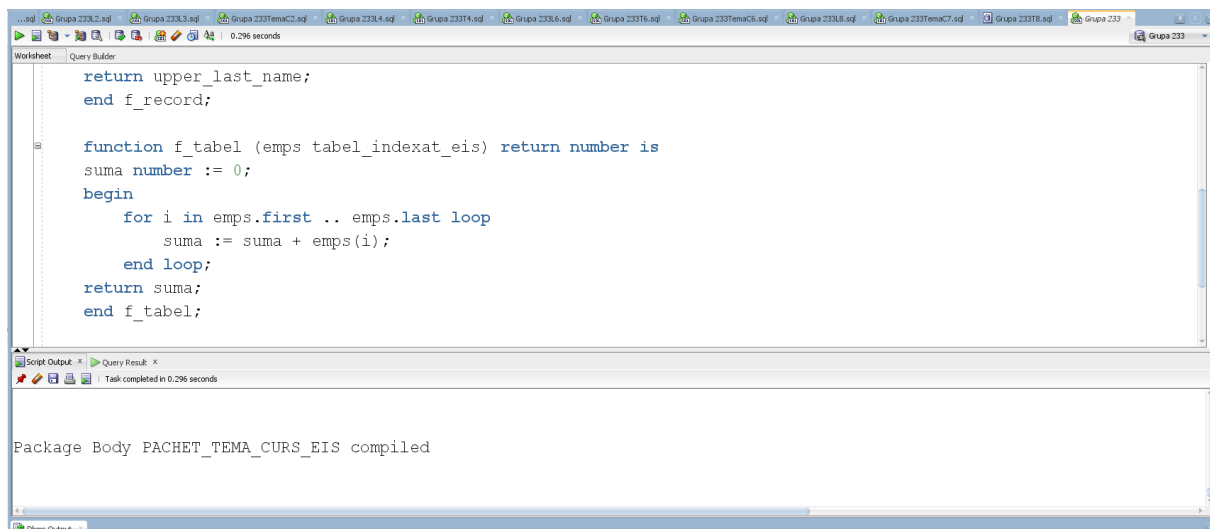-   Functia f_tabel calculeaza suma salariilor salvate in tabelul indexat cu salarii

```
create or replace package body pachet_tema_curs_eis as

    function f_record (emps record_eis) return employees.last_name%type is
    upper_last_name employees.last_name%type;
    begin
        upper_last_name := upper(emps.last_name);
    return upper_last_name;
    end f_record;

    function f_tabel (emps tabel_indexat_eis) return number is
    suma number := 0;
    begin
        for i in emps.first .. emps.last loop
            suma := suma + emps(i);
        end loop;
    return suma;
    end f_tabel;

end pachet_tema_curs_eis;
/
```


Utilizare tip record + functie record:

```
declare
    last_name_record pachet_tema_curs_eis.record_eis;

begin
    update emp_eis
    set salary = 9999
    where employee_id = 156
    returning last_name into last_name_record;
    dbms_output.put_line('Nume cu majuscule: ' || pachet_tema_curs_eis.f_record(last_name_record));
```
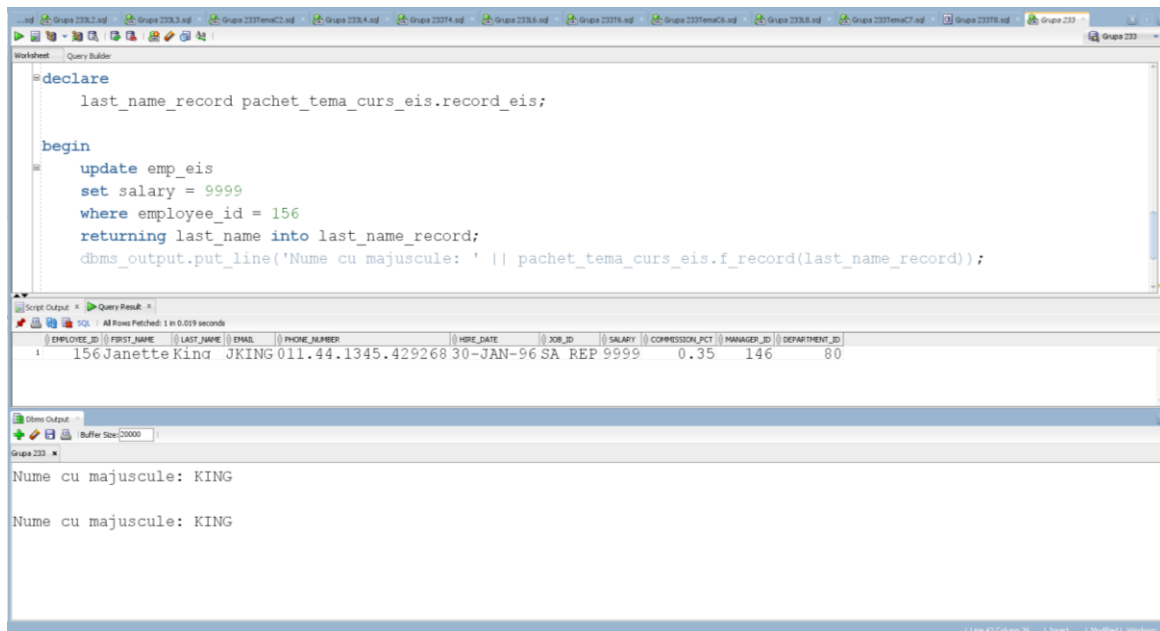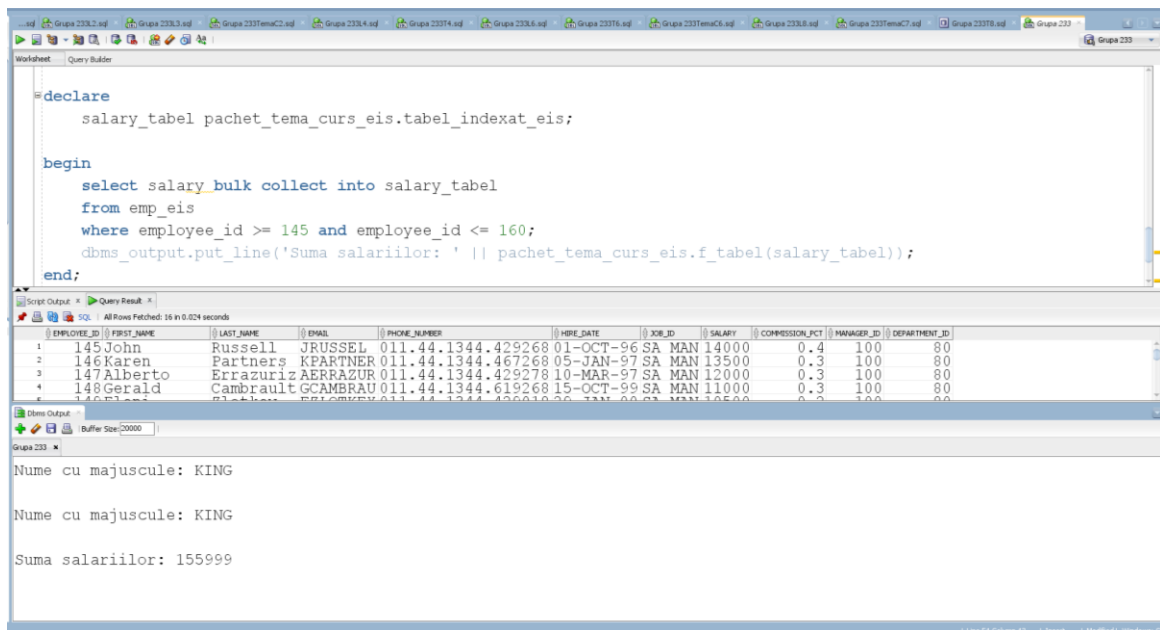
```
end;
/
```


Utilizare tip tabel indexat + functie tabel indexat:


```
declare
    salary_tabel pachet_tema_curs_eis.tabel_indexat_eis;

begin
    select salary bulk collect into salary_tabel
```

```
    from emp_eis
    where employee_id >= 145 and employee_id <= 160;
    dbms_output.put_line('Suma salariilor: ' || pachet_tema_curs_eis.f_tabel(salary_tabel));
end;
/
```