Collection 4 :

create or replace type vehicle\_type as object(vehicle\_no number(10),vehicle\_type char(1),monthly\_expense number(7));  
  
  
create type vehicle\_arr as varray(4) of vehicle\_type;  
  
create table emp\_varray(emp\_no number(4) primary key,emp\_name varchar2(30),vehiclelist vehicle\_arr);  
  
  
insert into emp\_varray values(101,'simran',vehicle\_arr(vehicle\_type(9895,'T',3462)));  
  
------------------  
create or replace procedure add\_details(empno number,v\_arr vehicle\_arr) as  
begin  
insert into emp\_varray values(102,'rehman',v\_arr);  
exception  
when DUP\_VAL\_ON\_INDEX then  
dbms\_output.put\_line('Invalid Employee ID !!!!');  
end;  
/  
  
declare  
t\_var vehicle\_arr;  
begin  
t\_var:=vehicle\_arr(vehicle\_type(5657,'T',56478),vehicle\_type(67386,'F',75789));  
add\_details(102,t\_var);  
end;  
/

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Collection 6 :

create or replace type skills\_type as object (skill\_id number(2), skill\_name varchar2(20), skill\_rating number(2));  
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create or replace type increment\_type as object(incr\_id number(3),incr\_date date,incr\_amnt number(7));  
---------------------------  
create table emp\_detail(emp\_no number(4), emp\_name varchar2(20),emp\_skills skills\_type, emp\_incr increment\_type);  
-------------------------  
insert into emp\_detail values(101,'simran', skills\_type(1,'SQL',4), increment\_type(10,'01-mar-2017',500));  
  
insert into emp\_detail values(102,'rehman', skills\_type(2,'OSA',5), increment\_type(11,'21-mar-2017',550));  
  
-------------------------  
  
create or replace procedure display\_details as  
v\_empno emp\_detail.emp\_no%type;  
v\_empname emp\_detail.emp\_name%type;  
v\_skill\_id emp\_detail.emp\_skills.skill\_id%type;  
v\_skill\_name emp\_detail.emp\_skills.skill\_name%type;  
v\_inc\_id emp\_detail.emp\_incr.incr\_id%type;  
v\_inc\_date emp\_detail.emp\_incr.incr\_date%type;  
v\_inc\_amnt emp\_detail.emp\_incr.incr\_amnt%type;  
  
begin  
select emp\_no,emp\_name into v\_empno,v\_empname from emp\_detail where emp\_no=101;  
dbms\_output.put\_line('Employee Number :'||v\_empno||' '||'Employee Name :'||v\_empname);  
dbms\_output.put\_line('\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_');  
dbms\_output.put\_line('Skill Set');  
select p.emp\_skills.skill\_id,p.emp\_skills.skill\_name into v\_skill\_id,v\_skill\_name from emp\_detail p where emp\_no=101;  
dbms\_output.put\_line('Skill ID :'||v\_skill\_id||' '||' Skill Name :'||v\_skill\_name);  
dbms\_output.put\_line('\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_');  
dbms\_output.put\_line('Increment');  
select p.emp\_incr.incr\_id, p.emp\_incr.incr\_date,p.emp\_incr.incr\_amnt into v\_inc\_id,v\_inc\_date,v\_inc\_amnt from emp\_detail p where emp\_no=101;  
dbms\_output.put\_line('Increment Id :'||v\_inc\_id||' '||'Increment Date :'||v\_inc\_date||' '||' Amount :'||v\_inc\_amnt);  
exception  
when no\_data\_found then  
dbms\_output.put\_line('empno is invalid !!!!');  
end;  
/