**Practical No. 05**

**Working with Collections**

1. **Index-by tables or Associativ array**
2. **Nested Tables**
3. **VArray or Variable Size Array**

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**Subject: PLSQL**

**Sign:**

1. **Index-by tables or Associativ array**

SET SERVEROUTPUT ON;

DECLARE

TYPE salary IS TABLE OF NUMBER INDEX BY VARCHAR2(20);

salary\_list salary;

name VARCHAR2(20);

BEGIN

-- adding elements to the table

salary\_list('Rajnish') := 62000;

salary\_list('Minakshi') := 75000;

salary\_list('Martin') := 100000;

salary\_list('James') := 78000;

-- printing the table

name := salary\_list.FIRST;

WHILE name IS NOT null LOOP

dbms\_output.put\_line

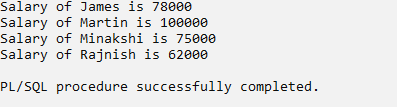
('Salary of ' || name || ' is ' || TO\_CHAR(salary\_list(name)));

name := salary\_list.NEXT(name);

END LOOP;

END;

/



1. **Nested Tables**

SET SERVEROUTPUT ON;

DECLARE

TYPE names\_table IS TABLE OF VARCHAR2(10);

TYPE grades IS TABLE OF INTEGER;

names names\_table;

marks grades;

total integer;

BEGIN

names := names\_table('Kavita', 'Pritam', 'Ayan', 'Rishav', 'Aziz');

marks:= grades(98, 97, 78, 87, 92);

total := names.count;

dbms\_output.put\_line('Total '|| total || ' Students');

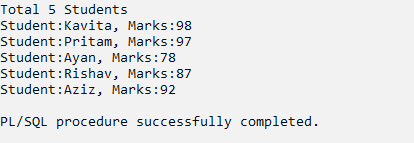
FOR i IN 1 .. total LOOP

dbms\_output.put\_line('Student:'||names(i)||', Marks:' || marks(i));

end loop;

END;

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1. **VArray or Variable Size Array**

SET SERVEROUTPUT ON;

DECLARE

TYPE GradeList IS VARRAY(5) OF NUMBER(3, 1);

student\_grades GradeList := GradeList(85.5, 90.2, 78.3, 88.0, 92.1);

BEGIN

FOR i IN 1 .. student\_grades.COUNT LOOP

DBMS\_OUTPUT.PUT\_LINE('Grade ' || i || ': ' || student\_grades(i));

END LOOP;

END;

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