Record Type In PL/SQL

Records are called composite data types, as record is a combination of multiple scalar datatypes like char, varchar2, number etc.Each field in the PL/SQL record has its own name and data type.  Records are always created in the declaration section.

A record can be created in two ways:

**USING GENERAL SYNTAX:**

A record can be visualized as a row of data.

   
**Example:**

[sql]TYPE  Emp\_type IS RECORD  
( empno     NUMBER(5),  
ename     VARCHAR2(25),  
job       VARCHAR2 (25),  
  sal       NUMBER(10)  
  hire\_date DATE );

 Emp\_rec    Emp\_type;[/sql]

From the above statement, Emp\_rec is created with type Emp\_type;  
   
**USING %ROWTYPE:**

**%ROWTYPE** is used to refer to table structure. When we use %ROWTYPE system will internally create a record with the structure same as table record.

   
**Example:-**

[sql]Emp\_rec    EMP%rowtype;[/sql]

From the above statement ‘Emp\_rec’ record will automatically inherit the record structure of emp table. For every column in the table, there’s will be a field in the record with the same name and data type as the column i.e. used to define the variable according to complete table structure.

Referencing Fields of Records

Individual record fields are referenced via dot notation:

<record\_name>.<field\_name>

**Record Assignment**

Values can be assigned to records or to the fields within a record in four different ways:

* The assignment operator can be used to assign a value to a field:

[sql]Emp\_rec.hire\_date := SYSDATE;[/sql]

* We can SELECT INTO a whole record or the individual fields:

[sql]SELECT empno,ename,job,sal,hire\_date  
INTO Emp\_rec  
FROM emp  
 WHERE ename = ‘FORD’;[/sql]

* We can FETCH INTO a whole record or the individual fields:

[sql]FETCH emp\_cur INTO Emp\_rec;

FETCH emp\_cur INTO Emp\_rec.emp\_id;[/sql]

* We can assign all of the fields of one record variable to another record variable of the same type:

[sql]Emp\_rec := Emp\_new\_rec[/sql]