# CHAPTER 8

1. **Introduction Stored Procedure**

A **stored procedure** or in simple a **proc** is a named PL/SQL block which performs one or more specific task. This is similar to a procedure in other programming languages.

1. **Create Stored Procedures**

* Syntax:

**CREATE [OR REPLACE] PROCEDURE *procedure\_name***

**[(*argument1* [*mode1*] *datatype1,***

***argument2* [*mode2*] *datatype2,***

***. . .*)]**

**IS|AS**

**procedure\_body;**

In the syntax:

*procedure\_name* Is the name of the procedure to be created

*argument* Is the name given to the procedure parameter. Every argument is associated with a mode and data type. You can have any number of arguments separated by commas.

*mode* Mode of argument:

IN (default)

OUT

IN OUT

*datatype* Is the data type of the associated parameter. The data type of parameters cannot have explicit size; instead, use %TYPE.

*Procedure\_body* Is the PL/SQL block that makes up the code

* Example:

**CREATE** **TABLE** dept **AS** **SELECT** \* **FROM** departments;

**CREATE** **PROCEDURE** dept\_add **IS**

v\_dept\_id dept.department\_id%**TYPE**;

v\_dept\_name dept.department\_name%**TYPE**;

**BEGIN**

v\_dept\_id:=280;

v\_dept\_name:='ST-Curriculum';

**INSERT** **INTO** dept(department\_id,department\_name)

**VALUES**(v\_dept\_id,v\_dept\_name);

DBMS\_OUTPUT.PUT\_LINE(' Inserted '|| **SQL**%ROWCOUNT

||' row ');

**END**;

**CREATE** **PROCEDURE** employees\_get(

c\_Emp **OUT** SYS\_REFCURSOR

) **IS**

**BEGIN**

**OPEN** c\_Emp **FOR**

**SELECT** \*

**FROM** employees a

**ORDER** **BY** a.first\_name ;

**END**;

1. **Invoking**

* Syntax:

***BEGIN***

***…***

***procedure\_name (***

***argument1 [mode1] datatype1,***

***argument2 [mode2] datatype2,***

***. . .***

***)***

***…***

***END;***

* Example

1. **Practices**
   1. Create stored procedure to insert data into Employees table with input parameters is all columns
   2. Create stored procedure to update Phone\_Number of any Employee with input parameter is Employee\_ID column
   3. Create stored procedure to insert data into Departments table with input parameters is all columns
   4. Create store procedure to update data Departments table with input parameters is columns
   5. Create stored procedure to insert data into Job\_Grades table with input parameters is all columns
   6. Create stored procedure to delete data into Job\_Grades table with input parameters is Grade column
   7. The HR department needs a report of all employees. Write a stored procedure to get the last name, department number, and department name for all employees.
   8. The HR department needs a report that displays the last name and hire date for all employees who were hired in 1994. Write a stored procedure to get data with input parameter is year.