

In Oracle SQL, a package is a schema object that groups related PL/SQL types, objects, and subprograms (procedures and functions) together. Packages provide a way to encapsulate business logic, making it easier to manage and use. They consist of two parts:

1. **Specification (spec):** This is the interface of the package. It declares the public procedures, functions, variables, constants, exceptions, and cursors that can be accessed by other programs.
2. **Body:** This contains the implementation of the procedures and functions declared in the specification. It can also include private procedures and functions that are not accessible outside the package.

Creating a Package

Here's a simple example of creating a package in Oracle SQL.

1. Package Specification

```
CREATE OR REPLACE PACKAGE employee_pkg AS  
  
  g_department_name VARCHAR2(100);  
  
  PROCEDURE add_employee(emp_id NUMBER, emp_name VARCHAR2);  
  
  FUNCTION get_employee(emp_id NUMBER) RETURN VARCHAR2;  
  
END employee_pkg;  
  
/
```

2. Package Body

```
CREATE OR REPLACE PACKAGE BODY employee_pkg AS  
  
  PROCEDURE add_employee(emp_id NUMBER, emp_name VARCHAR2) IS  
  
  BEGIN  
  
    INSERT INTO employees (id, name) VALUES (emp_id, emp_name);  
  END add_employee;  
  
  FUNCTION get_employee(emp_id NUMBER) RETURN VARCHAR2 IS
```

```
emp_name VARCHAR2(100);  
  
BEGIN  
  
SELECT name INTO emp_name FROM employees WHERE id = emp_id;  
  
RETURN emp_name;  
  
EXCEPTION WHEN NO_DATA_FOUND THEN RETURN NULL;  
  
END get_employee;  
  
END employee_pkg;  
  
/
```

Using a Package

```
BEGIN employee_pkg.add_employee(1,'Arun Kumar');  
DBMS_OUTPUT.PUT_LINE(employee_pkg.get_employee(1));  
  
END;  
  
/
```