

Creating PL/SQL Packages: Your Code Toolbox

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Lab Objectives

1 Create a Package Specification

Design the perfect toolbox label.

2 Create a Package Body

Fill our toolbox with powerful PL/SQL tools.





Package Superpowers



Modularity

Group related items together, like organizing your code wardrobe.



Encapsulation

Hide complex inner workings, showing only what's necessary.

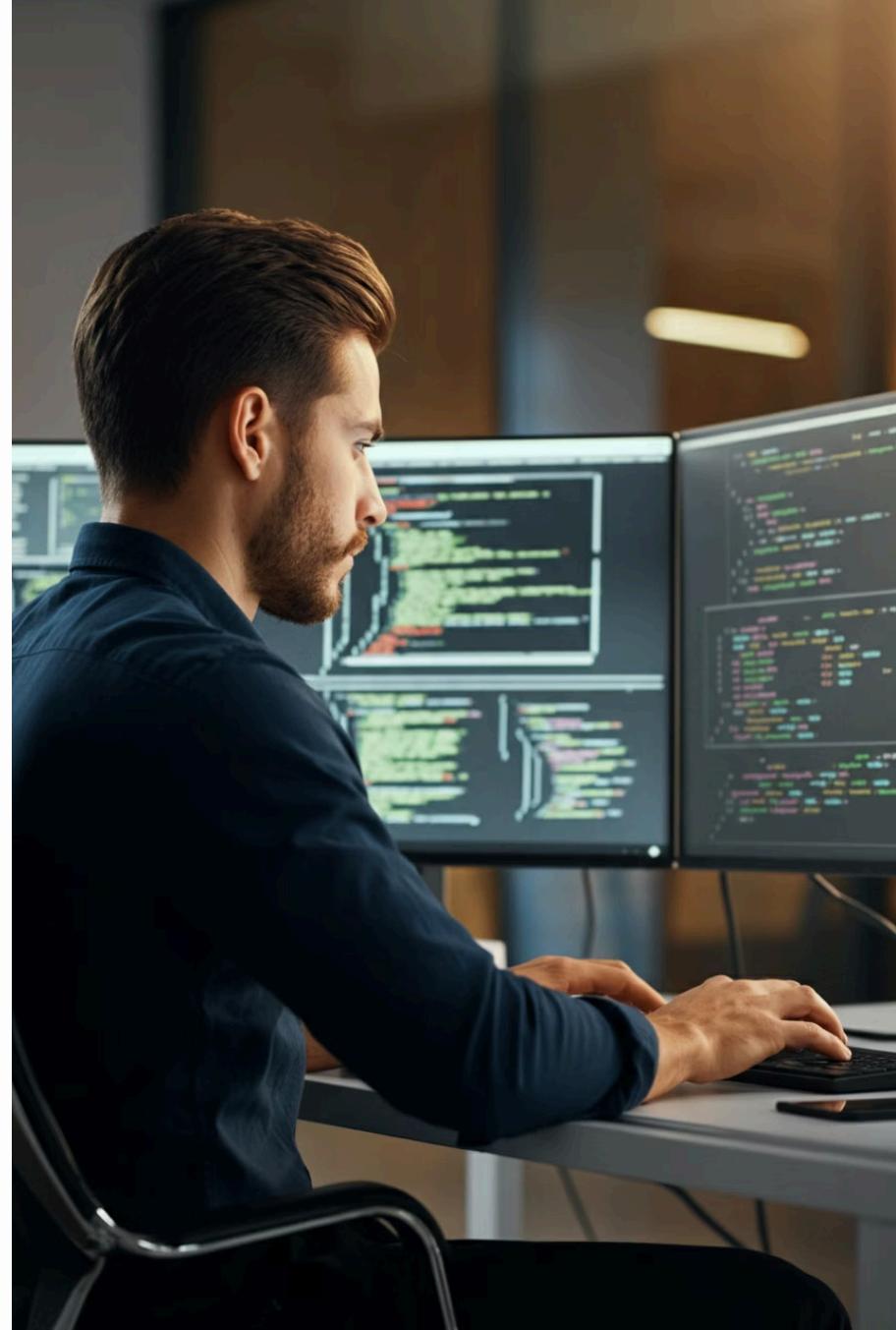


Performance

Once loaded, packages run smoothly and quickly.

Building Our First Package

Let's create a package called emp_mgmt to manage employee-related operations. We'll start with the package specification.



Package Specification

Custom Types

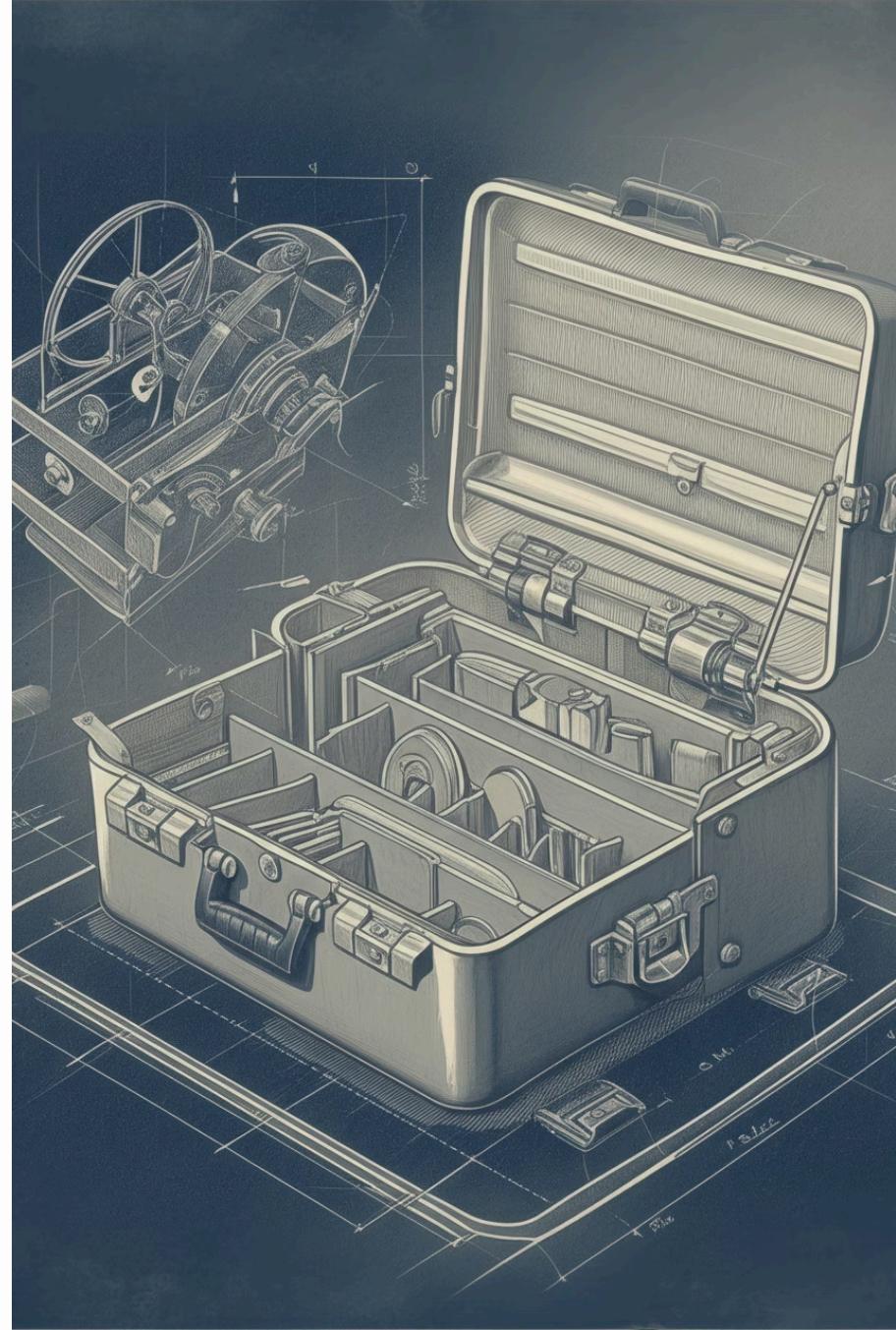
Define emp_info_type and emp_table_type for employee data.

Public Procedures

Declare get_employee and get_department_employees.

Public Functions

Declare is_manager function.



Creating the Package Body

Now, let's implement the procedures and functions we promised in our specification.





Package Body Implementation

1

Private Cursor

Define emp_cur for efficient data retrieval.

2

get_employee Procedure

Implement employee lookup functionality.

3

is_manager Function

Check if an employee has direct reports.

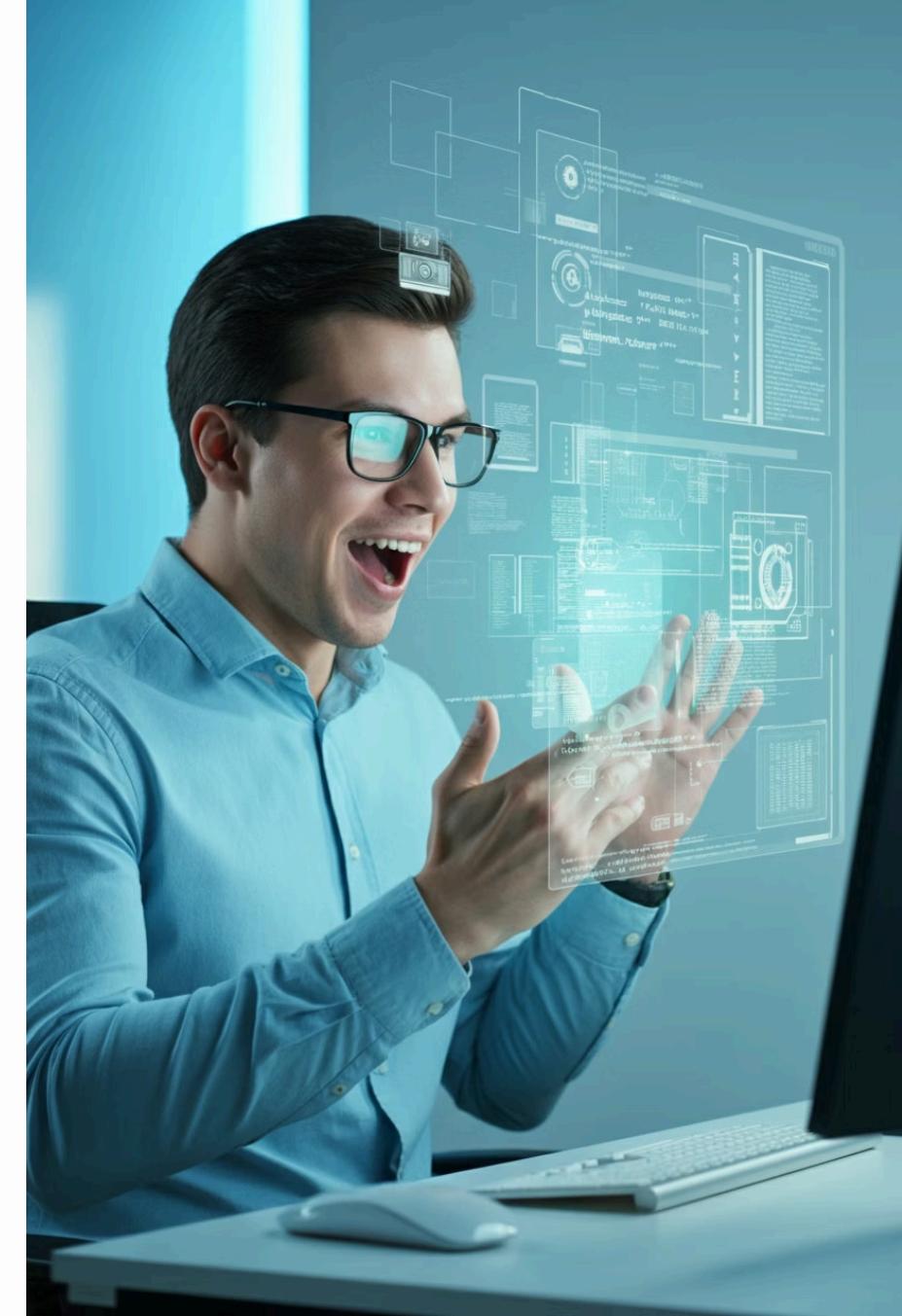
4

get_department_employees Procedure

Collect info on all employees in a department.

Using Our New Package

Let's see our package in action with a quick example.



Package Usage Example

- 1 Declare Variables
- 2 Get Employee Info
- 3 Check Manager Status
- 4 Retrieve Department Employees

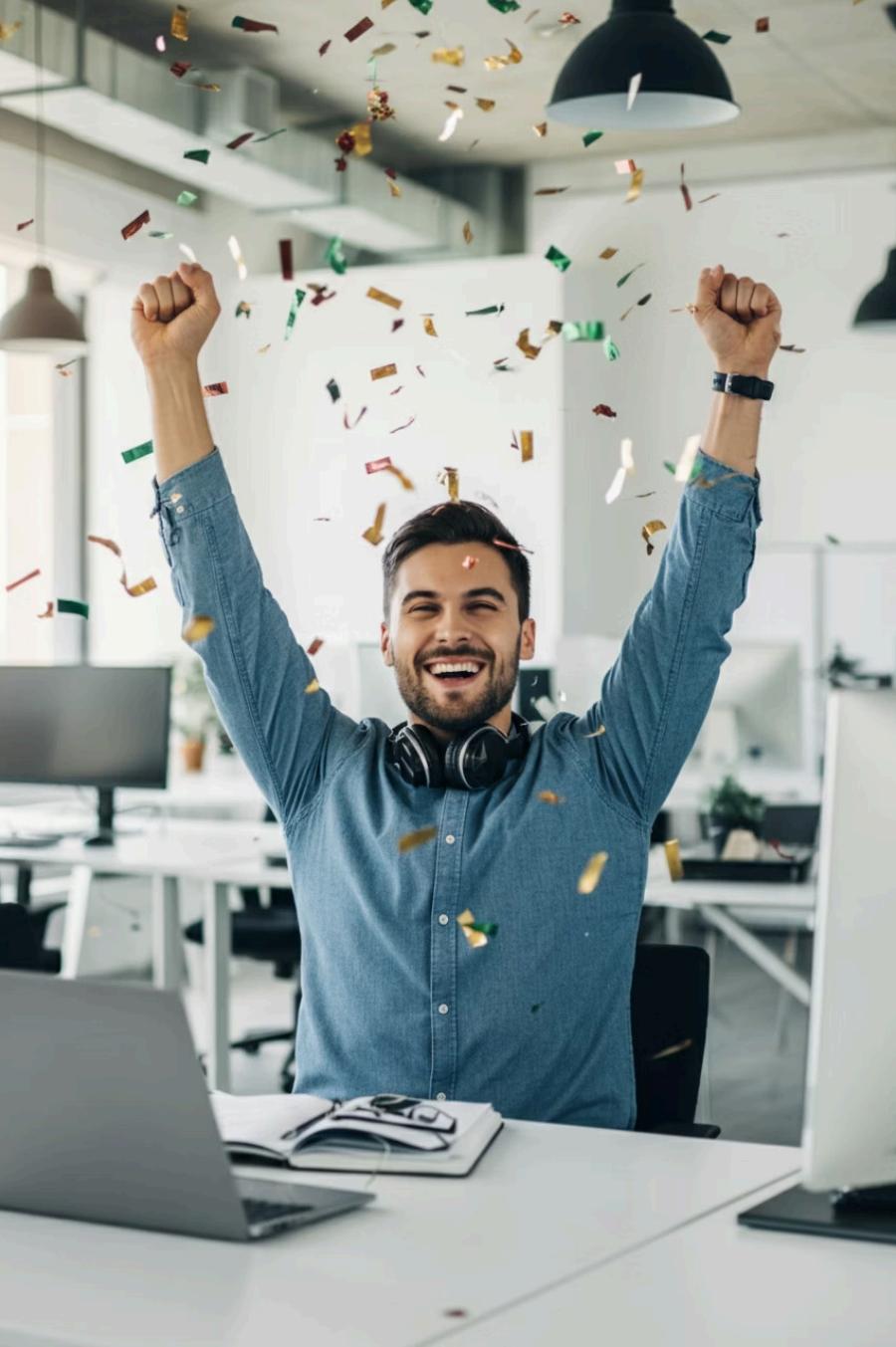
Set up v_emp_info and v_emp_table.

Use emp_mgmt.get_employee for employee 103.

Use emp_mgmt.is_manager to verify role.

Use emp_mgmt.get_department_employees for department 60.





Congratulations!

You've created and used your own PL/SQL package. You've organized code, encapsulated logic, and improved performance. You're now package pros!

Coming Up Next

Next session: Explore how packages come to life in your database. Discover a special type of package that starts fresh every time. Don't miss it!

