1. Write a procedure to calculate factorial of a number and return the value to parameter of procedure:

   - Factorial (in val, out result)
   - Factorial (inout val)

2. Write a procedure to find name, address of a student and output these values to the parameters of the procedure. Write a pl/sql block to call this procedure with parameter is 114 and print out these values on the screen.

3. Write a procedure to print out name, address of a student and how many courses this student is enrolled. Use procedure above (question 2) to get information about name and address of this student.

   Write a pl/sql block to call this procedure with parameter is 106.

4. Write a procedure to update salary of an employee. The procedure have 3 parameter: emp_id, amount (default value is 100), extra (default value is 50).

   Write a PL/SQL block to call this procedure to increase salary of employee id =2.

   Write a PL/SQL block to call this procedure to increase salary of employee id =3, amount is 250.

Packages

5. Create a package that contains functions for
   a. Adding three integers
   b. Subtracting two integers
   c. Multiplying three integers

6. Create a package that contains the following:

   a. Function to enroll for section.

      Arguments (student_id, section_id)

Check if the student has already enrolled in section or not.

b. Procedure to assign an instructor to a section.
   Arguments (section_id, instructor_id)

   Check if the instructor is associated with the department that offers the section.

c. Function to calculate the average grade point for the given student.

   Arguments (student_id)

Cursor

7. Write a pl/sql block to prints out instructor_id, salutation, first_name, last_name of all the instructors. (using cursor)
8. Write a procedure to display all the information of the employees whose salary is greater than the value provided by the user.

   Write a pl/sql block to call this procedure with parameter is 900.
9. Write a PL/SQL block that will reduce the cost of all courses by 5% for courses having an enrollment of eight students or more. Use a cursor FOR loop that will update the course table.
10. Write a PL/SQL block with two cursor for loops. The parent cursor will call the student_id, first_name, and last_name from the student table for students with a student_id less than 110 and output one line with this information. For each student, the child cursor will loop through all the courses that the student is enrolled in, outputting the course_no and the description.

11. Write a function to check a course, if the course exists then return 1 (yes) else return 0 (no). (compare the description of this course)

    Write a procedure to insert data into course table. Before inserting data, check this course whether exists or not.

12. Write a function that returns all instructors (return a ref cursor)

    Write a PL/SQL block that prints out these instructors (instructor_id, first_name, last_name, street_address).

Trigger

13. Write a trigger:

    When inserting data into employee table, created_date is the sysdate.

    When updating data of employee table, modified_date is the sysdate.

14. Write a trigger: when updating name, salary, title of an employee in employee table, old data of this employee will be inserted into employee_change table.

15. Write a trigger to guarantee that: Salary of a new employee cannot below 100.

16. Write a trigger: when inserting data into employee table, the first letter of name of employee will be capitalized (initcap)