

## Part 2: CSL 333 DBMS Laboratory Experiments-PL/SQL

December 25, 2022

*Instructor: ANIL-GEC-KOTTAYAM*

*Scribe: ANIL*

1. Write a PL/SQL code to check whether a number is even or odd.
2. Write a PL/SQL code to check whether a number is prime or not.
3. Write a PL/SQL code to find the factorial of a number.
4. Write a PL/SQL code to check whether a number is perfect or not.
5. Write a PL/SQL code to create a calculator.
6. Given the scheme **Person (pid, pname, DOB)** . Find the age of each person using cursor.
7. Given the schema **Employee (empid, empname, joining date, relieving date, salary)**
  - (a) Find the service (in years) for each relieved employee.
  - (b) Find the Pension amount to be paid to each relieved employee. (Pension is equal to the years of service \*salary divided by 100.)

Use cursors.

8. Write a pl/sql code to insert several names, roll nos and marks of three subjects for the students of a class into a table named student and compute their rank list and insert the rank information into the same table.
9. The following table shows the salary information of employees in a company. **EMPLOYEE (empid, empname, designation, dept, salary)** Write a trigger that displays the total number of tuples in the relation on each insertion, deletion and updation.
10. The following table shows the salary information of employees in a company. **EMPLOYEE (empid, empname, salary)** Write a trigger that causes insertion of a new entry into the table **INCREMENT(empid, incr)**, if the difference arising due to an updation of the salary of an existing employee is greater than Rs. 1000/-.
11. A department in an institution maintains the following tables, for storing the sessional marks of the students in the department. sessionalmark (admnyear, regno, semester, sub1, sub2, sub3, total). The system is to be operated so as to satisfy the following constraints.

- (a) The total mark must be found on every insertion of a new entry or updation of an existing entry. The department maintains a separate table for the storage of marks allotted as per moderation scheme using the following table.

**moderation (admnyear, semester, sub1mod, sub2mod, sub3mod)**

- (b) When an entry is made to the moderation table, the corresponding change must be reflected in the sessional mark table, assuming that moderation must be given to those subjects whose sessional mark is less than 35 and moderation does not make the sessional mark greater than 35.

Also write SQL queries for the following.

- (a) Find the regno of the students who have sessional mark  $< 35$  for a given year of admission and given semester.
- (b) Find the average, maximum, minimum sessional mark for each subject taken semester wise for a given year of admission.
- (c) Find the total no.of students who have secured sessional marks greater than 35 for all the three subjects, taken for each semester, and for each year of admission in a tabular form.