DBMS I LAB ASSIGNMENT(PL/SQL) (MCAP2111)
MCA 2ⁿᵈyr Year 3ʳᵈ Semester
Session: 2023

PART–I (PL/SQL)

SET-I(Basic PL/SQL Programming)

1. Write a PL/SQL to test whether a number is even or odd.

2. Write a PL/SQL block to calculate maximum of three numbers.

3. Write a PL/SQL block to find the factorial of a given number.

4. Write a PL/SQL program to print first N Fibonacci number.

5. Write a PL/SQL code to check whether a number is prime or not.

6. Write a PL/SQL block of code for inverting a given number.

7. Write a PL/SQL block to calculate the age of a person.

8. i)Write a PL/SQL code block to calculate the area of a circle of a value of radius varying from 3 to 7. display the radius and the corresponding values of areas

    ii)Also calculate the diameter of the Circle and display. Diameter=2*radius.

SET-II(SQLinPL/SQL)

1. Create an employee database with the following relations

    EMP(*emp_no* ,emp_name, birth_date, street,city)

    Works (*emp_no, company_id,* joining_date, designation, salary)Company(*company_id*,company_name,city)

    Manages(*mang_no*,manager_name,emp_no)

2. Write a PL/SQL to insert a record in the data above relations.

3. Write a PL/SQL code to retrieve the employee name, joining_date, and designation of an employee from employee database whose emp_no is initialized by the user.

4. Write a PL/SQL code to calculate tax for an employee of XYZ Company and to display his/her name & tax, by adding a column *income_tax* in Works table.
    Note: Tax=[30% of salary if salary≥200000,20% of salary if salary≥100000 & <200000, 10%of salary if salary≥50000 & <100000, No tax otherwise]

5. Write a PL/SQL code to display employee number, name and salary of 5 highest paid employees.

6. Write a PL/SQL code to calculate the total salary of first n records of EMP table. The value of n is initialized by the user.

7. Write a PL/SQL code to update the salary of employees who earn less than the average salary.

SET-III (Cursors)

1. Create a cursor for the EMP table, that produce the output in following format:
   Employee {emp_name} working in company {company_name} and earns Rs.{salary}.

2. Create a cursor for updating the salary of employee working in company with company_id
   10 by 20%. If any rows are affected than display the no of rows affected.

3. Create a cursor that will display the employee name, company name and salary of the
   first10 employees getting the highest salary. Use *forcursor.*

4. Write a PL/SQL program using *parameterized cursor* to display all the information of
   employee living in specified address. Address(street and city)initialized by user.

5. Create a cursor which display the sum of salary, company wise.

6. Create a cursor to accept a range of salary(that is lower boundary and higher boundary)and
   display the details of employees along with designation and experience.