Shri Ramdeobaba College of Engineering & Management Nagpur-13

Department of Computer Application

Session: 2023-2024

Submission for

Course Name: Database Management Systems Lab

Course Code: MCP545

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Class Roll No: 26

Semester: MCA II semester

Shift: 2

Batch: 2

Under the Guidance of

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List of Experiments

1. Implementation of DDL commands of SQL with suitable examples

    a) Create table   b) Alter table   c) Truncate table   d) Drop table

    Implementation of DML commands of SQL with suitable examples

    a) Select   b) Insert   c) Update   d) Delete

2. Study and implementation of different types of constraints.

3. Implementation of different types of operators in SQL

    a)Arithmetic Operators   b) Logical Operators

    c) Comparison Operators   d) Set Operators

4. Study and Implementation of
    a) Aggregate functions
    b) Group By & Having clause
    c) Order by clause

5. Study and Implementation of different types of joins like cross join, natural join, inner join, and outer joins.

6. Study and Implementation of Sub queries

7. Study and Implementation of views, and synonyms.

8. Study and Implementation of PL/SQL.

Practical 5

Aim: Study and Implementation of different types of joins like cross join, natural join, inner join, and outer joins.

Solution:

1. Find the details of customer Aditya.

Query: SELECT * FROM customers NATURAL JOIN deposit WHERE Cname='Aditya'

2. Find the names of customers who are borrowers and depositors and having living city Nagpur.

Query: SELECT * FROM customers,loan,deposit
   WHERE customers.cname=loan.cname AND customers.cname=deposit.cname
   AND customers.city='NAGPUR'

3. Find the name, department number, and department name of all employees.

Query: SELECT ename,emp.deptno,dname FROM emp,dept
   WHERE dept.deptno=emp.deptno

4. Display all jobs that are in department 30. Include the location of the department in the output.

Query: SELECT job,loc FROM emp,dept
   WHERE dept.deptno=emp.deptno AND emp.deptno=30

5. Find the employee name, department number, and department name for all employees who work in NEW YORK.

Query: SELECT ename,emp.deptno,dname FROM emp,dept
   WHERE emp.deptno = dept.deptno AND dept.loc='NEW YORK'

6. Find the name, account no, amount and city of customer ANIL.

Query: SELECT customers.cname,actno,amount,city FROM customers,deposit
   WHERE customers.cname=deposit.cname AND customers.cname='ANIL'

7. Find the names of customers who are borrowers and depositors.

Query: SELECT deposit.cname FROM deposit,loan WHERE deposit.cname=loan.cname

8. Find the names of customers who are borrowers and depositors and having living city Nagpur and branch city mumbai.

Query: SELECT * FROM customers,loan,deposit,branch
WHERE customers.cname=loan.cname AND customers.cname=deposit.cname
AND deposit.bname=branch.bname AND customers.city='NAGPUR'
AND branch.city='MUMBAI'

9. Find the name, department number, and department name of all employees having salary 5000

Query: SELECT ename,emp.deptno,dname FROM emp,dept
WHERE emp.deptno = dept.deptno AND emp.sal >5 000

10. Retrieve all employees and their department names, including those without a department.

Query: SELECT * FROM emp LEFT OUTER JOIN dept ON emp.deptno = dept.deptno

11. Retrieve all departments and their employees, including departments without employees.

Query: SELECT * FROM emp RIGHT OUTER JOIN dept ON emp.deptno = dept.deptno

12. Retrieve all employees and departments.

Query: SELECT * FROM emp FULL OUTER JOIN dept ON emp.deptno = dept.deptno

13. Retrieve employees and their department names, sorting the result by department name in ascending order.

Query: SELECT * FROM emp, dept WHERE emp.deptno = dept.deptno
ORDER BY dept.dname ASC

14. Retrieve all customers and their deposit amounts, including those without deposits.

Query: SELECT customers.cname,deposit.amount

FROM customers LEFT OUTER JOIN deposit

ON customers.cname = deposit.cname

15. Retrieve all deposits and the corresponding customer information, including deposits

without associated customers.

Query: SELECT * FROM customers RIGHT OUTER JOIN deposit

ON customers.cname = deposit.cname

16. Retrieve all customers and deposits, including those without matches on either side.

Query: SELECT * FROM customers FULL OUTER JOIN deposit

ON customers.cname = deposit.cname