

Sreenidhi Institute of Science and Technology
Department of Computer Science and Engineering
B.Tech Computer Science and Engineering

Name of the lab: Database Management Systems Lab

Lab Number: 2214

Number of systems: 65

HARDWARE DETAILS

S.NO	NAME OF THE HARDWARE	MANUFACTURER
1	Make	ACER
2	Model	ACER Vertion M200 H81
3	Memory	4GB RAM
4	Processor	Inter Core i3,3.70GHZ
5	Hard Disk(HDD)	1 TB HDD
6	SMPS	ATX MERCURY
7	Monitor	ACER 18.5
8	Keyboard	ACER QUERTY MODEL
9	Mouse	ACER QTICAL

SOFTWARE DETAILS

S.NO	NAME OF THE SOFTWARE	SOURCE
1	ORACLE Database 10g	Licensed
2	Windows Operating System	Licensed

List of Experiments in Database Management Systems Lab

1. Creation, altering and dropping of tables and inserting rows into a table (use constraints while creating tables) examples using SELECT command.
2. Queries (along with sub Queries) using ANY, ALL, IN, EXISTS, NOTEXISTS, UNION, INTERSET, Constraints.
Example: - Select the roll number and name of the student who secured fourth rank in the class.
3. Queries using Aggregate functions (COUNT, SUM, AVG, MAX and MIN), GROUP BY, HAVING and Creation and dropping of Views.
4. Queries using Conversion functions (to_char, to_number and to_date), string functions (Concatenation, lpad, rpad, ltrim, rtrim, lower, upper, initcap, length, substr and instr), date functions (Sysdate, next_day, add_months, last_day, months_between, least, greatest, trunc, round, to_char, to_date)
5. i)Creation of simple PL/SQL program which includes declaration section, executable section and exception –Handling section (Ex. Student marks can be selected from the table and printed for those who secured first class and an exception can be raised if no records were found)
ii)Insert data into student table and use COMMIT, ROLLBACK and SAVEPOINT in PL/SQL block.
6. Develop a program that includes the features NESTED IF, CASE and CASE expression. The program can be extended using the NULLIF and COALESCE functions.
7. Program development using WHILE LOOPS, numeric FOR LOOPS, nested loops using ERROR Handling, BUILT –IN Exceptions, USE defined Exceptions, RAISE-APPLICATION ERROR.
8. Programs development using creation of procedures, passing parameters IN and OUT of PROCEDURES.
9. Program development using creation of stored functions, invoke functions in SQL Statement and write complex functions.
10. Program development using creation of package specification, package bodies, private objects, package variables and cursors and calling stored packages.
11. Develop programs using features parameters in a CURSOR, FOR UPDATE CURSOR, WHERE CURRENT of clause and CURSOR variables.
12. Develop Programs using BEFORE and AFTER Triggers, Row and Statement Triggers and INSTEAD OF Triggers .

13. Queries using SQL-INJECTION : AND/OR Attack, Comments Attack, String Concatenation Attack, UNION Injection Attack

