PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY
(Autonomous)
KANURU, VIJAYAWADA-520007
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (Data Science)
II B. Tech – II Sem CSE (Data Science)
DATABASE MANAGEMENT SYSTEMS LAB

Course Code	23DS3452	Year	II	Semester	II
Course Category	PCC Lab	Branch	CSE (Data Science)	Course Type	Practical
Credits	1.5	L – T – P	0-0-3	Prerequisites	Programming for Problem Solving Lab
Continuous Internal Evaluation	30	Semester End Examination	70	Total Marks	100

Course Outcomes		
Upon successful completion of the course, the student will be able to:		
CO1	Demonstrate experimental procedures through oral communication and submit comprehensive documentation reports.	L2
CO2	Apply SQL commands for creating tables, inserting data, retrieving information, and manipulating data using tools.	L3
CO3	Analyze the given problems to identify suitable entities, relationships, and schemas, and design efficient and effective database solutions.	L4
CO4	Analyze the query outputs using the given constraints/test cases.	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3: Substantial, 2: Moderate, 1: Slight)													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2									2				
CO2	3				3							3		
CO3		3										3		
CO4		3										3		

	Syllabus	
EXP. NO	**CONTENTS**	**Mapped CO**
1	Queries using i)DDL commands: CREATE, ALTER, DROP, TRUNCATE. ii)DML Commands: INSERT, UPDATE and DELETE. iii)TCL Commands: COMMIT , ROLLBACK and SAVEPOINT.	CO1, CO2, CO3, CO4
2	Implementation of Constraints NOT NULL, UNIQUE, PRIMARY KEY, CHECK, FOREIGN KEY.	CO1, CO2, CO3, CO4
3	Queries using i)SELECT statement ii) SELECT statement with where clause (Comparison Operators, AND, OR, NOT, IN, BETWEEN, LIKE) iii) ORDER BY clause (sort by column name) iv) LIMIT clause	CO1, CO2, CO3, CO4
4	Queries using Aggregate functions (COUNT, SUM, AVG, MAX and MIN), GROUP BY, HAVING and Creation and dropping of Views.	CO1, CO2, CO3, CO4
5	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)	CO1, CO2, CO3, CO4
6	Queries (along with sub Queries) using ANY, ALL, IN, EXISTS, NOTEXISTS, UNION, INTERSECT.	CO1, CO2, CO3, CO4
7	Queries using Inner join, outer join using USING and NATURAL Keywords.	CO1, CO2, CO3, CO4
8	Programs development using creation of procedures, passing parameters IN and OUT of PROCEDURES.	CO1, CO2, CO3, CO4
9	Program development using creation of stored functions, invoke functions in SQL Statements.	CO1, CO2, CO3, CO4
10	Develop programs using features parameters in a CURSOR, FOR UPDATE CURSOR, WHERE CURRENT of clause and CURSOR variables.	CO1, CO2, CO3, CO4
11	Develop Programs using BEFORE and AFTER Triggers, Row and Statement Triggers and INSTEAD OF Triggers.	CO1, CO2, CO3, CO4
12	i)Write a Java program that connects to a database using JDBC. ii)Write a Java program to connect to a database using JDBC and insert values into it. iii)Write a Java program to connect to a database using JDBC and delete values from it.	CO1, CO2, CO3, CO4
13	Case Study Using Real World Database Applications.	CO1, CO2, CO3, CO4

Learning Resources
Text Books
1. Murach‟s MySQL by JOEL MURACH, Shroff Publishers & Distributors Pvt.Ltd, June 2012.
References
1. The Complete Reference MYSQL, VikramVaswani, 2017, McGrawHill Education.
2. Oracle: The Complete Reference by Oracle Press .
3. "Database Systems Using Oracle", Nilesh Shah, 2007 , PHI.
4. "Introduction to SQL", Rick F Vander Lans , Fourth Edition, 2007, Pearson Education.