DATABASE MANAGEMENT SYSTEM (CS-502)

PRACTICAL LAB FILE

Submitted in partial fulfillment of the requirements

for the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE & ENGINEERING

By

Deepak Kumar
0187CS201048

Under the guidance of

Dr. Ghanshyam Prasad Dubey

(Associate Professor)

Dec-2022

Department of COMPUTER SCIENCE & ENGINEERING

SagarInstitute of Science & Technology (SISTec)
Bhopal (M.P.)

Approved by AICTE, New Delhi & Govt. of M.P.

Affiliated to Rajiv Gandhi ProudyogikiVishwavidyalaya, Bhopal (M.P.)

Table of Contents

S.No.	Problem Statement	Assigned On	SubmittedOn	Remarks/Sign
1.	Hands on session: User Management [• Create user • Privileges to user • DCL(Grant and revoke) • Connect • Normal user Interaction • Multitasking over local and remote system]			
2.	Title: User Management Problem statement: Suppose you are working as DBA in a company and company given the requirement for creating two users U1 and U2, both working under DBA but U1 and U2 can give privileges to other normal user or each other on his schema regarding insert and view but not deletion of data. Implement this scenario in Oracle. Also create a table employee (id, name, address) in U1 and give permission to U2 for the insert and select over this table so whenever U2 perform some update U1 and U2 can see it.			
3.	Title: DDL(Create table, Alter table, Drop Table, Rename)Problem Statements: 1. Create a table STUDENT with the following schema, (student_id, first_name, last_name, email_id, dob) 2. Add a new column, brant to the existing relation. 3. Change the datatype of the student_id from char to varchar2 4. Change the name of the column/field first_name to stu_name. 5. Modify the column width of the job last_name. 6. Rename the table from STUDENT to STU_DATA			

	7. Drop the column email_id from the table.			
4.	Problem Statements: 1. Insert at least 5 rows in the table. 2. Display all the information of EMP table. 3. Display the record of each employee who works in department D10 4. Update the city of Emp_no-12 with the current city as Nagpur. 5. Display the details of the employee who works in department MECH 6. Delete the email_id of employee Deno bro 7. Display the complete record of employees working in SALES department			
5.	Problem Statements: 1. Create a table called EMP with the given structure. 2. Create a primary key constraint for the table (EMPNO) 3. Define the field DEPTNO as unique. 4. Add constraints to check, minimum salary should be 10000 5. No field should be null 6. Write queries to implement and practice constraints.			
6.	Problem Statements: 1. Perform arithmetic operation using Dual • Find 22 to the power 4 • Find greatest value from 45, 92 and 34 • Find least value from 45, 92 and 34 • Find the square root of 81 • Round off 46.2745 up to 2 decimal places			

	• Truncate 46.2745 up to 2 decimal places • Find remainder/modulus of 536 by 10 2. Display employee salaries, 2% as TA, 5% as DA, 10% as HRA, 4% as COMM and final salary 3. Display salaries between 2000 and 3000 in ascending order 4. Display employee names and salaries who is getting any one of the following salaries 12500, 3000, 5000 5. Display names of the employees begin with s			
7.	Problem Statements: 1. Create table ORDERS with the following attributes (ord_no, purch_amt, ord_date, customer_id, salesman_id) 2. Write a SQL statement to find the total purchase amount of all orders 3. Write a SQL statement to find the number of salesmen currently listing for all of their customers 4. Write a SQL statement to get the minimum purchase amount of all the orders 5. Write a SQL statement to find the highest purchase amount ordered by each customer on a particular date with their ID, order date and highest purchase amount 6. Write a SQL statement that counts all orders for a date August 17, 2012			
8.	Hands on Session: • Cross Join • Equi Join or Inner Join • Theta Join • Self-Join • Outer Joins			

9.	Problem Statements: 1. Create following table: • Sailors (sid, name, rating, age) • Boats (bid, bname, color) • Reserves (sid, bid, day(date)) 2. Find all the information of sailors who have reserved boat number 101 3. Find the name of the boat reserved by Bob 4. Find the names of the sailors who have reserved at least one boat 5. Find the names of the sailors who have reserved a red boat, and list in the order of age 6. Find the ids and names of the sailors who have reserved two different boats on the same day 7. Find the ids of sailors who have reserved a red boat or a green boat	Dec 01, 2020	Dec 02, 2020	
11.	Problem Statements: 1. Create following table: • Sailors (sid, name, rating, age) • Boats (bid, bname, color) • Reserves (sid, bid, day(date)) 2. Find all the information of sailors who have reserved boat number 101 3. Find the name of the boat reserved by Bob 4. Find the names of the sailors who have reserved at least one boat 5. Find the names of the sailors who have reserved a red boat, and list in the order of age 6. Find the ids and names of the sailors who have reserved two different boats on the same day			

	7. Find the ids of sailors who have reserved a red boat or a green boat 8. Find the name and age of the youngest sailor 9. Count the number of different sailors' name 10. Find the average age of sailors for each rating level			
12.	Hands on session on PL/SQL • Structure of Program • How to run program using SQL plus editor using SQL file • Data Types • Flow control -> Conditional Statement and Looping Structure			
13.	Problem Statements: 1. Write a PL/SQL program to print hello world on console 2. Write a PL/SQL program to find the avg, max, min and sum of given one default number and one entered by user also print outputs			
14.	Write a PL/SQL program to check whether the given number is positive or negative			
15.	1. Write a program to display the number of employees in the given department number 2. Write a PL/SQL program to display the information of employee for the given employee id			