

ANURAG ENGINEERING COLLEGE

(An Autonomous Institution)

II Year B. Tech. CSE - II Sem

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(CS408PC) DATABASE MANAGEMENT SYSTEMS LAB

Prerequisites: A parallel course on data base management systems.

1. Data Definition Language Commands, Data Manipulation Language Commands and Transaction Control Statements

2. **Database Schema for a customer- sale scenario** Customer(Cust id : integer, cust_name: string) Item(item_id:integer, item_name: string, price: integer) Sale(bill_no: integer, bill_data: date, cust_id: integer, item_id: integer, qty_sold: integer)
 For the above schema, perform the following:
 - a) Create the tables with the appropriate integrity constraints
 - b) Insert around 10 records in each of the tables
 - c) List all the bills for the current date with the customer names And item numbers
 - d) List the total Bill details with the quantity sold, price of the item and the final amount
 - e) List the details of the customer who have bought a product which has a price>200
 - f) Give a count of how many products have been bought by each customer
 - g) Give a list of products bought by a customer having cust_id as 5
 - h) List the item details which are sold as of today
 - i) Create a view which lists out the bill_no, bill_date, cust_id, item_id, price, qty_sold, amount
 - j) Create a view which lists the daily sales date wise for the last one week

3. **Database Schema for a Student Library scenario** Student (Stud no : integer, Stud_name: string) Membership(Mem no: integer, Stud_no: integer) Book(book no: integer, book_name:string, author: string) Iss_rec(iss no:integer, iss_date: date, Mem_no: integer, book_no: integer)
 For the above schema, perform the following:
 - a) Create the tables with the appropriate integrity constraints
 - b) Insert around 10 records in each of the tables
 - c) List all the student names with their membership numbers
 - d) List all the issues for the current date with student and Book names
 - e) List the details of students who borrowed book whose author is CJDAT
 - f) Give a count of how many books have been bought by each student
 - g) Give a list of books taken by student with stud_no as 5
 - h) List the book details which are issued as of today
 - i) Create a view which lists out the iss_no, iss_date, stud_name, book name
 - j) Create a view which lists the daily issues- date wise for the last one week

4. **Database Schema for a Employee- pay scenario** employee(emp id : integer, emp_name: string) department(dept id: integer, dept_name:string) paydetails(emp_id : integer, dept_id: integer, basic: integer, deductions:

integer, additions: integer, DOJ: date) payroll(emp_id : integer, pay_date: date)

For the above schema, perform the following:

- a) Create the tables with the appropriate integrity constraints
- b) Insert around 10 records in each of the tables
- c) List the employee details department wise
- d) List all the employee names who joined after particular date
- e) List the details of employees whose basic salary is between 10,000 and 20,000
- f) Give a count of how many employees are working in each department
- g) Give a names of the employees whose netsalary>10,000
- h) List the details for an employee_id=5
- i) Create a view which lists out emp_name, department, basic, deductions, net salary
- j) Create a view which lists the emp_name and his net salary.

5. Database Schema for a student- Lab scenario Student(stud_no: integer, stud_name: string, class: string) Class(class: string,descrip: string) Lab(mach_no: integer, Lab_no: integer, description: String) Allotment(Stud_no: Integer, mach_no: integer, dayof week: string)

For the above schema, perform the following:

- a) Create the tables with the appropriate integrity constraints
 - b) Insert around 10 records in each of the tables
 - c) List all the machine allotments with the student names, lab and machine numbers
 - d) List the total number of lab allotments day wise
 - e) Give a count of how many machines have been allocated to the 'CSIT' class
 - f) Give a machine allotment etails of the stud_no 5 with his personal and Class details
 - g) Count for how many machines have been allocated in **Lab_no 1** for The day of the week as "Monday".
 - h) How many students class wise have allocated machines in the labs
 - i) Create a view which lists out the stud_no, stud_name, mach_no, lab_no, dayofweek
 - j) Create a view which lists the machine allotment details for "Thursday".
6. Write a simple PL\SQL programs using loop, while and for iterative control statement.
 7. Write a PL\SQL program to check whether the given number is Armstrong or not
 8. Write a PL\SQL program to generate all prime numbers below 100.
 9. Write a PL\SQL program to demonstrate %type and %rowtype attributes
 10. Write a PL\SQL program to demonstrate predefined exceptions
 11. Write a PL\SQL program to demonstrate user defined exceptions
 12. Write a PL\SQL program to create a cursor, which displays all employee numbers and names from the EMP table.
 13. Write a PL\SQL program to create a cursor, which update the salaries of all employees as per the given data.
 14. Write a PL\SQL program to create a procedure to update the salaries of all employees as per the given data
 15. Write a PL\SQL program to create a procedure to demonstrate IN, OUT and INOUT parameters
 16. Write a PL\SQL program to create a function to check whether given string is palindrome or not.
 17. Write a PL\SQL program to create a function to find sum of salaries of all employees working in department number 10.
 18. Write a PL\SQL program to trigger before/after update on employee table for each

row/statement.

19. Write a PL\SQL program to trigger before/after delete on employee table for each row/statement.

20. Database design using ER Modeling, Normalization and Implementation for any application.

CO-PO Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO 1	✓	✓	✓	✓	✓				✓			✓
CO 2	✓	✓		✓	✓		✓		✓			
CO 3	✓	✓	✓	✓	✓				✓			✓