

1. Consider the database for a Company. Write queries to implement the following.

- i. Create the database.
- ii. Select the current database.
- iii. Create the following tables.
- iv. Employee(emp_no,emp_name,dob,address,mobile_no,dept_no, salary) v. Department(dept_no,dept_name,location)
- vi. List all the tables in the current database.
- vii. Display the structure of the 'employee' table.
- viii. Drop the column location from 'department' table.
- ix. Add a new column designation to the employee table. x. Display the structure of the employee table.

2. Consider a database for an institution, write queries to implement the following.

- i. Create a database
- ii. Select the current database
- iii. Create the following tables.
 - a. Course [course_id, course_name,course_duration]
 - b. Student[rollno,name,date,address,phone_no,mark]
- iv. List all the tables in the current database.
- v. Display the structure of the student table.
- vi. Drop the column "mark" from the student table.
- vii. Add a new column Aadhar_no to the student table.
- viii. Change the datatype of phone_no from varchar to int. ix. Drop all tables.
- x. Delete the database.

3. Write queries to following questions

- i. Create a table Instructor with attribute instructor_id(PRIMARY KEY), Name(NOTNULL),department_name(Foreign key), salary.
- ii. Create a table Department with attribute department_name(PRIMARY KEY) building(NOT NULL), budget(NOT NULL).
- iii. Display the structure of the Instructor table.
- iv. Display the structure of the Department table.

4. Consider the database for an organization. Write queries to implement the following.

- i. Add 5 rows into table Employee and Department
- ii. Display all records from the above table.
- iii. Display emp_no & emp_name from employee table
- iv. Display emp_no, designation, dept_no and salary in ascending order of salary.
- v. Display all the employees whose emp_name starts with "K".
- vi. Display emp_no & emp_name where salary range from 50000 to 70000
- vii. Display the designation without duplicate values.
- viii. Change the salary of employee to 40000 whose designation is managers.
- ix. Change the mobile_no of employee whose named John
- x. Delete all employee whose salary=80000
- xi. Display name, Mob_no of all the employees whose name starts with n.
- xii. Receive emp_no,name and salaries of all employees working as peon and clerk.
- xiii. Find out total number employees under each designation category.
- xiv. Display the designation category with highest number of employees.

5. Write queries to implement the following operations:

Schema is given as:

Book (isbn, title,author,category,price,year)

- I. Display the average price of the books
- II. Display the average price of only text books.
- III. Display the maximum price of the book belonging to the novel category.
- IV. Display the total no of tuples in the relation Books.
- V. List the total number of categories in Books
- VI. Display the total price of books
- VII. Find the average price of all the books in novel & poem category.

6. Write queries to implement the following operations:

Schema is given as:

Book(isbn,title,author,category,price,year)

- I. Calculate the average price for each category of books in the relation.
 - II. Calculate the maximum, minimum & average price of the books written by eachauthor.
 - III. Release the minimum and maximum price for each category of books whoseaverage price is between 100 and 500.
 - IV. Receive average & minimum price for each category of book with average pricegreater than 30.
7. Write queries to implement the following operations.
- category(ISBN,booktitle,author_name,category,price,pid)
publisher(pid,pname,country)

- a. Retrieve the title and publisher name of all the books in table catalog.
- b. Display author, country and price of all books with India based authors and price less than 500
- c. Retrieve the title, category, price, pname of all books even if they have no publisher.
- d. Display the list of all publisher even if they are not in category table.

8. Write queries to implement the following operations.

- a. Create a view BOOK1 containing details of book which belong to textbooks and novel category.
- b. Retrieve the details in Book1.
- c. Create a view Book2 with selected attributes isbn, title, category and price from table books.
- d. Retrieve all books with price greater than 100 from book2.

9. Write queries to implement the following operations:

Book(isbn, title, author, category, price, year)
 publisher(pid, pname, country)

- a. Get the details of all books whose price is greater than average price of books.
- b. Retrieve the isbn, title and category of books published by the publisher in India.
- c. Retrieve the details of books with price equal to any of the books belonging to novel category.
- d. Retrieve the details of books until price > price of all books belong to novel category.
- e. Retrieve the book details of publisher having at least one book published.
- f. Retrieve the details of publisher having not publishing any books.

10. Write queries to implement the following.

- a. Display the emp_no, name and salaries of employees whose salary is greater than the average salary of the organization.
- b. Display the details of employees whose salary is equal to the minimum salary of the organization.
- c. Display all the employees whose designation is same as that of Manu.
- d. Display the emp_no, name of employees who earns more than any employee in the dept no 1
- e. Display the emp_no, ename, department that the department are same in both the employee and department.
- f. Display the employee by implementing the right join.

11. Employee(emp-id, f-name, l-name, email, phone-no, hire-date, job_id, salary, dept id)
 Department(Dept-id, dept-name, Manager-id, Location-id);
 Write queries to implement the following.

- a. Find those employees who don't work in those departments where manager id are in the range 100-200 (begin and end values included). (return all the fields of the employee table).

- b. From the following, find those employees who earn more than the averagesalary and work in the department with any employee whose f-name ontains a character y. Return emp-id, f-name and salary.