Paper Cade: BCADSC 4.6	**Paper Title:** Database Management Systems Lab
Teaching Hours: 3 Hrs / Week	**Marks:** Th-40+IA-10 **Credits:** 1

Q1. Consider the following schema for a Insurance database given below. The primary keys are underlined and the data types are specified.

PERSON (Driver_id:String, name:String, address:String)
CAR (Regno:String, model:String, year:int)
ACCIDENT(report-number:int, accd-date:date, location:String)
OWNS(driver-id:String, Regno:String)
PARTICIPATED (driver_id: String, Regno : String, report_number : int, damageamount : int)

> Create the above relations by specifying appropriate constraints.
> Insert at least five tuples in each relation.

Demonstrate how you
1. Update the damage amount for the car with a specific Regno in the accident with report number 12 to 25000.
2. Add a new accident to the database.
3. Find the total number of people who owned cars that were involved in accidents in 2008.
4. Find the number of accidents in which cars belonging to a specific model were involved.
5. Find the details of the cars owned by a specific person.
6. Display the name of the person and model of the car that are met with an accident along with the report-number and damage amount.

Q2. Consider the following schema for a Library Database:

BOOK (Book_id:number, Title:String, Publisher_Name:String, Pub_Year:String)
BOOK_AUTHORS (*Book_id:number*, *Author_Name*:String)
PUBLISHER (Name: String, Address:String, Phone:number)
BOOK_COPIES (Book_id:number, Branch_id:number, No-of_Copies:number)
CARD(Card_No:number)
BOOK_LENDING   (Book_id:number,Branch_id:number,Card_No:number, Issue_Date:date)
LIBRARY_BRANCH (Branch_id:number, Branch_Name:String, Address:String)

> Create the above relations by specifying appropriate constraints.
> Insert at least five tuples in each relation.

1. Retrieve details of all books in the library–id, title, name of publisher, authors, branch_name and number of copies in each branch.
2. Create a view of all books that include book_title and its total number of copies that are currently available in the Library.
3. Delete a book in BOOK table. Update the contents of other tables to reflect this data manipulation operation.
4. Get the particulars of borrowers who have borrowed more than 3 books, but from Jan 2017 to Jun 2017.
5. Modify Book_Lending table to add the field : Due_Date : Date
6. Update Book_Lending table to calculate Due_Date (15 days after Issue_Date)

Q3. Consider the following schema for a Movie Database:

ACTOR (Act_id:String, Act_Name:String, Act_Gender:String)
DIRECTOR (Dir_id:String, Dir_Name:String, Dir_Phone:String)
MOVIES (Mov_id:String, Mov_Title:String,, Mov_Year:number, Mov_Lang:String, Dir_id:String)
MOVIE_CAST (Act_id:String,Mov_id: String, Role:String
RATING (Mov_id:String, Rev_Stars:number)

> Create the above relations by specifying appropriate constraints
> Insert at least five tuples in each relation.

1. List the titles of all movies directed by 'Hitchcock'.
2. Find the movie names and the number of actors
3. Create a view to display movie details of a particular actor.

4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title.
5. List the movie details released in the year 2018.
6. Update rating of all movies directed by 'Steven Spielberg' to 5.

Q4. Consider the following schema for Order Processing Database:

CUSTOMER (cust_id: int ,cname: String, city: String)
ORDER (order_id: int, odate: date, cust_id: int, ord-Amt: int)
ORDER – ITEM (order_id: int, item_id: int, qty: int)
ITEM (item_id: int, item_name : String ,unit price: int)
SHIPMENT (order_id: int, warehouse_id: int, ship-date: date)
WAREHOUSE (warehouse_id: int, city: String)

➢ Create the above tables by properly specifying the primary keys and the foreign keys.
➢ Enter at least five tuples for each relation.

1. Produce a listing: CUSTNAME, Number of orders, AVG_ORDER_AMT, where the middle column is the total numbers of orders by the customer and the last column is the average order amount for that customer.
2. create a view to display customer name, items ordered by him with item number,item name, order number, order amount, warehouse city.
3. Demonstrate the deletion of an item from the ITEM table and demonstrate a method of handling the rows in the ORDER_ITEM table that contain this particular item.
4. List the order numbers for orders that were shipped from all the warehouses that the company has in a specific city.
5. Raise the price of all the items by 15%.
6. Display details of the orders placed by a specific customer, include item number, item name,order number, order amount and warehouse city.