

PSG COLLEGE OF TECHNOLOGY, COIMBATORE -641004

DEPARTMENT OF COMPUTER APPLICATIONS

I SEMESTER MCA

23MX16 C PROGRAMMING LABORATORY

PROBLEM SHEET 11 - WEEK 10 – FILES & STRUCTURES

Structures

1. Create a structure for a customer of a bank. The structure should include Account number, name, Address, Date of Birth, and Balance. Perform the following operations.
 - a. Account creation
 - b. Balance enquiry (Input Acc No, and display all details of the particular customer)
 - c. Amount Deposit
 - d. Amount withdrawal (Minimum Balance of Rs.500 should be maintained)
2. Write a program that uses a structure to emulate a simple library card catalog. Entries are stored by title (80 characters), Author's first name (20 characters), Author's last name (20 characters) and Publisher's name (80 characters). Populate 10 instances of the structure by prompting for the information. Also search it by using title, author's first name, and publisher.
3. Create a structure for a customer of supermarket products. The structure should include Product number, Cost per product, Number of items, expiry date (dd-mm-yy). Populate 10 instances of a structure. Perform the following operations.
 - a. Display the details of a product with the given product number
 - b. Display the products whose cost is above the given cost.
 - c. Display the products with the given expiry date.

Files

1. Write a C Program to perform the following
To delete a specific Line from a Text File
To replace a specified Line in a Text File
To find the Number of Lines in a Text File
2. Write a program to copy one file to another, replacing all lowercase characters with their uppercase equivalents.
3. Two files file1 and file2 contain sorted lists of integers. Write a program to produce a third file DATA which holds the single sorted, merged list of these two lists. Use command line arguments to specify the file names.
4. Write a program that searches for every occurrence of a string in a text file and displays every line in which it finds the string.
5. Write a program that displays the contents of a file at the terminal 5 lines at a time. At the end of each 5 lines, have the program wait for a character to be entered from the terminal. If the character is a letter q, then the program should stop the display of a file; any other character should cause the next 5 lines from the file to be displayed.
6. Write statements that accomplishes the following. Assume that the structure

```
struct product {      int id;  
                    char name[20];  
                    int quantity;  
                    int cost;    };
```

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Assume that the file “productinfo” already has 5 records.

- a. Write a program that opens the file and appends the given new records to the file.
- b. Display the content of the file.