**Exercise – 10-03-22**

1. The textile showroom manager has prepared the half yearly sales budget with the following details. Each row corresponds to a particular item like Men’s Wear, Silk Sarees, Kids Wear etc. There are at most 5 items to be budgeted. Each column of the array corresponds to a month, January, February, etc. All the sale records are stored in the array.

Write a Program to

a. Find the sales of each month and the deviation from the average sales of six months.

b. Find out which month had the maximum sales in the half yearly budget.

2. Develop a C program that will determine whether a department-store customer has exceeded the credit limit on a charge account. Input the following customer details.

a) Account number

b) Balance at the beginning of the month

c) Total of all items charged by this customer this month

d) Total of all credits applied to this customer's account this month

e) Allowed credit limit

Pass the beginning balance, charges and credits to the function, the function should calculate the new balance (*= beginning balance + charges – credits*), return the new balance to the main program.

Determine whether the new balance exceeds the customer credit limit. If it exceeded print the message “Credit limit exceeded.”

1. Given an identity **a2-b2= (a+b) \* (a-b),** write a ‘C’ program for computing a2-b2 (given ‘a’ & ‘b’) using call by value. Further your code should also check whether the computed value of **a2-b2** using the function is same as the one computed directly using the values of ‘a’ & ‘b’.
2. Given an identity **a2-b2= (a+b) \* (a-b),** write a ‘C’ program for computing a2-b2 (given ‘a’ & ‘b’) using call by reference. Further your code should also check whether the computed value of **a2-b2** using the function is same as the one computed directly using the values of ‘a’ & ‘b’.
3. ’wc’ is a unix utility that display the count of characters, words and lines present in the given sentence. The sentence should reads from the standard input. Write a program to simulate the ‘wc’ command.
4. Given three words, write a C program to identify the following letters:
5. Letters common to all the three words
6. Letters in first two words but not in third word
7. Letters in first word but not in second and third word
8. Letters in all the three words

For example, if the words are apple, camel, element then letters in common to all the three words - i, e

Letters in first two words but not in third word – a

Letters in first word but not in second and third word - p

Letters in all the three words – a, p, p, l, e, c, m, n, t