

**ASSIGNMENT 5: 1-D Arrays**

**NOTE: Implement the following programs using data types double and char.**

1. Write a program to accept marks of five subjects, calculate its total and average.
2. Write a function to accept array elements from the user. Write another function to print array elements. Re-use these functions in rest of the assignments wherever required.
3. Write a function to reverse the array elements.
4. Write a function to calculate maximum of the array elements. Write another function to calculate minimum of the array elements.
5. Write a function to calculate maximum and minimum of the array elements.
6. Write a function to calculate index of maximum and minimum elements of the array.
7. Write a function to sort the array using selection/ bubble sort.
8. Write a function to search the given number into the array using linear search and return the index of the element. If element is not found it should return -1.
9. Write a function to search the given number into the array using binary search and return the index of the element. If element is not found it should return -1.
10. Write a function to search the given number into the array using linear search and return the address of the element. If element is not found it should return NULL.
11. Write a function to remove elements having a particular value from the array.
12. Write a function to remove duplicate elements from the array. After processing the array should store only the unique elements. The function should return the number of unique elements into the array.
13. Initialize an array of unsigned characters with stepper motor sequence. Write a function to display the sequence continuously.
14. Write a function to Calculate day of week for given date. Implement the function *month\_days* using array of integers.
15. Read Statistical functions from EXCEL help document. Try to implement the functions in C language. At least implement FORECAST function.
16. Write a menu driven code to implement stack using array. Use predefined constants in switch case.
17. Write a menu driven code to implement queue using array. Use predefined constants in switch case.

**ASSIGNMENT 5 1D Array ☺**

- Display 25 lines of following pattern

```

1
1 1
2 1
1 2 1 1
3 1 1 2
1 3 2 1 1 2
3 1 1 3 2 2

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