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Pointer Topics

1. Write a sample program to demonstrate pointer to constant and constant pointers
2. Implement above insert and removal of elements in array using function pointers. Provide options of insert, delete, display and end of input operations. Repeat until user wants to end the process.
3. Write a function to accept argument as function pointer. Include main program to test it. Test with prime number function implemented above.
4. Take an array of few elements. Display addresses and values using pointer notation.
5. Take an array of few elements. Point first pointer to first element and last pointer to last element. Subtract last and first pointers from each other and test the results.
6. Write program of arithmetic operations (add, sub, mul, div) using function pointers
7. Write program of arithmetic operations (add, sub, mul, div) using array of function pointers
8. Write program to accept command line arguments and sum the numbers and display. If command line arguments not passed need to print error message.
9. Write program to accept command line arguments and store it in array. Write a function to sum the numbers and return result, pass arguments as appropriate. If command line arguments not passed need to print error message. NOTE: Don't use global variables
10. Write a function to perform basic arithmetic operations (add, sub, mul, div) and return the result through call by reference method
11. Write a program to demonstrate array of pointers. Take three char arrays say, char arr1[10], arr2[10], arr3[10], fill the arrays with strings and access these through array of pointers.
12. Write a program to demonstrate pointer to an array. Initialize values with 3 X 3 matrix, access row 1-col 1, row2-col1, row3-col1 using pointer to an array
13. Write a program to accept an integer from user and print the value using pointer variable
14. Write a program to demonstrate malloc() and free() functionality. Use allocated memory to store multiple of number, say, num. (Accept num and number of elements from user, repeat the process until user enters 0 or -1 value for num)
15. What is the difference between char *p1="abc" and char p2[]="abc"? Can we change string by p1[0]='x' and p2[0]='x'? Can we do p1++ and p2++?